<table>
<thead>
<tr>
<th>Title</th>
<th>Defining Video Space Art within Video Installations in the Context of Spaces and Spectators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Thesis</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://ualresearchonline.arts.ac.uk/2312/">http://ualresearchonline.arts.ac.uk/2312/</a></td>
</tr>
<tr>
<td>Date</td>
<td>2005</td>
</tr>
<tr>
<td>Creators</td>
<td>Park, Young Sun</td>
</tr>
</tbody>
</table>

**Usage Guidelines**

Please refer to usage guidelines at [http://ualresearchonline.arts.ac.uk/policies.html](http://ualresearchonline.arts.ac.uk/policies.html) or alternatively contact ualresearchonline@arts.ac.uk.

License: Creative Commons Attribution Non-commercial No Derivatives

Unless otherwise stated, copyright owned by the author
DEFINING VIDEO SPACE ART
WITHIN VIDEO INSTALLATIONS
IN THE CONTEXT OF
SPACES AND SPECTATORS

YOUNG SUN PARK

A thesis submitted in partial fulfilment of the requirements of
the Central Saint Martins College of Art and Design
University of the Arts London
for the degree of Doctor of Philosophy

JUNE 2005
ABSTRACT

This thesis is to introduce and examine Video Space Art as a form of Video Art. Being primarily practice-based research, it offers a theoretical and conceptual framework to find a better understanding for my artistic practices.

The thesis studies the classification of Video Art. It contains an extended discussion of the place of Video Space Art in the context of Video Installation. Furthermore, the distinctions are made from Video Sculpture by theorizing space and spectator.

The thesis develops the language of Video Installation. It proposes that the two main elements of Video Space Art are space and spectator. It provides a conceptual discussion of real and virtual space and the role of the spectator in Video Art are established. It then explores the languages in developed media of pictorial art, sculpture, architecture and landscape architecture. Because Video Installation is a hybrid medium, the languages found in these media are applied to deepen its meanings. Video Space Art is defined as a space-time experience that includes people as participants.

The thesis applies these theories to artworks to distinguish Video Space Art from Video Sculpture. Nam Jun Paik’s Magnet TV (1965), Eagle Eye (1996) and TV Clock (1963-81), Shigeko Kubota’s Three Mountains (1976-79), and Bill Viola’s Heaven and Earth (1992), The Crossing (1996) and Passage (1987), Dan Graham’s Present Continuous Past(s) (1974), Bruce Nauman’s Live-Taped Video Corridor (1969-70), David Hall’s Progressive Recession (1975), and Peter Campus’ Negative Crossing (1974) are among the artworks explored. The extended discussion of the concepts and concerns behind these artworks are followed by the classification of these artworks into Video Space Art and Video Sculpture. In addition to these artworks, the analyses of the elements of Video Space Art are applied to my own practical works: Two (1999), It Takes me 15 Minutes to go to School (2000), and Love Potion in my Heart (2004). (The appendix to this thesis contains the documentation of my works in DVD ROM format.)

The theoretical analysis presented in this thesis sheds light on the classification of Video Installation. A survey conducted identifies the works of Video Space Art. By defining Video Space Art, as distinct from Video Sculpture I have refined aspects of the theoretical base and extended the understanding of my own practical work.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lists of Illustrations</td>
<td>5</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>8</td>
</tr>
<tr>
<td><strong>INTRODUCTION</strong></td>
<td>9</td>
</tr>
<tr>
<td>1. Background</td>
<td>10</td>
</tr>
<tr>
<td>2. Research Design</td>
<td>11</td>
</tr>
<tr>
<td><strong>CHAPTER</strong></td>
<td></td>
</tr>
<tr>
<td>I. At the Limits of Video Installation</td>
<td>13</td>
</tr>
<tr>
<td>1. Classification of Video Art</td>
<td>14</td>
</tr>
<tr>
<td>2. Findings from Interviews</td>
<td>25</td>
</tr>
<tr>
<td>3. Single-screen Videotape vs. Video Installation</td>
<td>33</td>
</tr>
<tr>
<td>4. Video Sculpture</td>
<td>39</td>
</tr>
<tr>
<td>5. Video Space Art – A Provisional Understanding</td>
<td>44</td>
</tr>
<tr>
<td>II. Developing Languages of Video Installation</td>
<td>45</td>
</tr>
<tr>
<td>1. Space</td>
<td>47</td>
</tr>
<tr>
<td>2. Viewer, Observer, Audience, Perceiver or Spectator</td>
<td>57</td>
</tr>
<tr>
<td>3. Applying Concepts from other Media to Video Installation</td>
<td>65</td>
</tr>
<tr>
<td>i. Pictorial Art</td>
<td></td>
</tr>
<tr>
<td>ii. Video and Sculpture</td>
<td></td>
</tr>
<tr>
<td>iii. Architecture and Environment</td>
<td></td>
</tr>
<tr>
<td>iv. Landscape Architecture and the Urban Landscape</td>
<td></td>
</tr>
<tr>
<td>III. Video Space Art Defined</td>
<td>93</td>
</tr>
<tr>
<td>IV. Practical Analysis</td>
<td>101</td>
</tr>
<tr>
<td>1. Magnet TV (1965) – Nam June Paik</td>
<td>104</td>
</tr>
<tr>
<td>2. Eagle Eye (1996) – Nam June Paik</td>
<td>109</td>
</tr>
<tr>
<td>3. TV Clock (1963-81) – Nam June Paik</td>
<td>113</td>
</tr>
<tr>
<td>5. Heaven and Earth (1992) – Bill Viola</td>
<td>119</td>
</tr>
<tr>
<td>7. Passage (1987) – Bill Viola</td>
<td>125</td>
</tr>
<tr>
<td>9. Live-Taped Video Corridor (1969-70) – Bruce Nauman</td>
<td>133</td>
</tr>
<tr>
<td>10. Progressive Recession (1975) – David Hall</td>
<td>139</td>
</tr>
<tr>
<td>11. Negative Crossing (1974) – Peter Campus</td>
<td>143</td>
</tr>
</tbody>
</table>
V. My Own Video Space Art Practice ............................................... 147
   1. Two (1999) .................................................................. 149
   2. It Takes me 15 Minutes to go to School (2000) .................. 159

VI. Exhibition Experiment ............................................................... 181
   1. Cluster Analysis .................................................................. 183
   2. Survey Setting and Procedures ........................................... 185
   3. Data Analysis .................................................................... 188
   4. Tree Diagrams .................................................................... 192

VII. CONCLUSION ........................................................................ 195

Appendix 1: Survey Questionnaire ......................................................... 204
Appendix 2: Survey Pictures ................................................................. 207
Appendix 3: Cluster Analysis results for “Non-expert” group ............... 213
Bibliography ..................................................................................... 217
List of Illustrations

8. Incomplete Family Tree of Video Art
11. *The Rock Garden* of Ryoanji, Kyoto, Japan
12. Lawson’s Distance of Space
13. Lawson’s Human Distances
14. Alberto Giacometti
20. Barbara Hepworth, *Two Figures (Menhirs)* (1964)
25. Dan Flavin, *Untitled (To Donna)* (1971)
32. Ten Longevity Symbols, Anonymous, Choson dynasty, 19th century
33. Nam June Paik, *Magnet TV* (1965)
37. Nam June Paik, *TV Clock* (1963-81)
38. Nam June Paik, *TV Clock* (1963-81)
46. David Hall, *Progressive Recession*, Artist's installation plan drawing
47. Peter Campus, *Negative Crossing* (1974)
52. *Two* (1999)
55. *It Takes me 15 Minutes to go to School* (2000)
56. *It Takes me 15 Minutes to go to School* (2000)
57. *It Takes me 15 Minutes to go to School* (2000)
58. *It Takes me 15 Minutes to go to School* (2000)
59. *It Takes me 15 Minutes to go to School* (2000)

60. Developing Structures (Progress)


66. Distance Matrix ("Expert")

67. Tree Diagram ("Expert")

68. Distance Matrix ("Non-Expert")

69. Tree Diagram ("Non-Expert")
Acknowledgements

First and the most, I owe greatly to my supervisor, Professor Malcolm Le Grice, who has challenged and encouraged me to finish this thesis. I am very grateful for his enduring patience, critical commentaries and enthusiasm for my work. His timely and effective advice throughout the entire period of research has been my inspiration.

Also I would like to express my gratitude to Graham Ellard, my second supervisor. He offered scrupulous advice, practical wisdom, and encouragement. Especially he has helped me unfailingly when I was faced with a seemingly chaotic environment in preparing for my PhD Exhibition.

I am thankful to the distinguished artists / teachers who gave so generously of their time for the interviews. Many thanks to Adam Chodzko, Susan Collins, Sung Min Hong, Tae Hee Kim and Hwa Young Park. Also I would like to thank the people who came to my exhibition and participated in my survey questionnaire. I am also indebted to many friends and especially to two Jesuit brothers, Gregory Park and Simon Yi for their hard labour in installing my PhD Exhibition.

I am grateful to Dr. Jouni Kuha of the Methodology Institute at the London School of Economics for allowing me to attend his lectures. Special acknowledgement is to Dominic Chai who advised me in the conduct of the survey experiment. I would not have been able to finish this survey had it not been for his thoughtful care and consideration.

I would like to thank my friends and family members especially Sung Hoon Park, Bok Soon Yun, and my aunts for believing in me. Also without Sister Susana Cho, Sister Lucia Lee, and many other people who have prayed for me, I would not have the strength and endurance for the research.

Finally, in immeasurable ways, my mother and father have sustained me with spirited support throughout the duration of the study. Even during the most intense periods of self-doubt, I felt the grounding power of their good will and love.

Last but not least, I want to thank everyone I met. My creativity would be impossible to express without them.
INTRODUCTION

1. Background

2. Research Design
1. Background

In this thesis, I introduce the term Video Space Art. It is a form of Video Art which reflects my artistic practices. This research began as an attempt to find a better theoretical and conceptual understanding of my practice.

I studied Moving Image Design at the Kaywon School of Art and Design in Korea and Time Based Art at the Duncan of Jordanstone College of Art and Design, University of Dundee. Then I took a Masters degree in Fine Art Media at the Slade School of Fine Art, University College London. During my studies, I have produced Single-screen Videotape\(^1\) and Video Installation artworks. My first exhibition at the Slade was seen as a Video Installation, but I was not satisfied with this categorization. I saw my work as very different from artists like Nam June Paik. In my second exhibition at the Slade, I began to use the term 'Video Space Art'. I came up with this idea because of the importance of space as an element in my practice.

I was aware of other artists who had produced work with a similar attitude to space. Dan Graham, Bruce Nauman, David Hall and Peter Campus were among those with whom I could associate my works. However, I felt the concepts and definitions in the critical literature were not adequate for understanding my own work and aspects of Video Art in general. In

---

\(^1\) I have Speech Defect at the Moment (1997), Don't (1998), Attract (1998), I Am Hot Chocolate (1999) are a few of my single-screen works.
undertaking a PhD research I aimed to develop my artistic ideas in practice and at the same time develop a better framework for understanding.

2. Research Design

The aim of my thesis is to define Video Space Art and find its relationship to the more general concept of Video Installation.

In Chapter I, I explore the classification of Video Art. The division between Single-screen Videotape and Video Installation is made and I recognize Video Sculpture and Video Space Art as sub-categories of Video Installation.

In Chapter II, I develop the language of Video Installation. I introduce two main elements of Video Space Art: space and the spectator. I divide space into real and virtual space and apply them to distinguish virtual arts and spatial arts. The role of the spectator in Video Space Art is introduced. Then I explore the languages and concepts of pictorial art, sculpture, architecture and landscape architecture. Because a Video Installation is a hybrid medium, I explore how the languages found in other media can be applied to deepen its meanings.

Using the theoretical ‘variables’ introduced and discussed in Chapter II, I attempt to define Video Space Art in Chapter III. The characteristics and the relationship between space and the spectator are presented.
In Chapter IV, I analyze eleven Video Installation works using the theoretical variables I have explored in Chapter II and III. The artworks include Nam Jun Paik's Magnet TV (1965), Eagle Eye (1996) and TV Clock (1963-81), Shigeko Kubota's Three Mountains (1976-79), Bill Viola's Heaven and Earth (1992), The Crossing (1996) and Passage (1987), Dan Graham's Present Continuous Past(s) (1974), Bruce Nauman's Live-Taped Video Corridor (1969-70), David Hall's Progressive Recession (1975), and Peter Campus' Negative Crossing (1974). I present a description and interpretation for each of the works introduced.

In Chapter V, I introduce my own Video Space Artworks. Two (1999), It Takes me 15 Minutes to go to School (2000) and Love Potion in my Heart (2004) are my key experiments in Video Space Art. I reflect on making of these works and attempt to evaluate how space and spectators play mutually important roles in both expressing and understanding my works.

In Chapter VI, I conduct a survey experiment to test my theory establishing Video Space Art as a category within the parameters of Video Installation. The experiment is developed as a test of the applicability of the theoretical variables I developed during my research. This survey is based on the eleven works I present in Chapter IV and my own installation, Love Potion in my Heart, shown during my PhD Exhibition. Applying Cluster Analysis, I group the twelve artworks into clusters such that the artworks from the same clusters are similar and the artworks from different clusters are dissimilar.
CHAPTER I

At the Limits of Video Installation

1. Classification of Video Art
2. Findings from Interviews
4. Video Sculpture
5. Video Space Art – A Provisional Understanding
1. **Classification of Video Art**

Video Art, once considered as an alternative art medium, has become a dominant art form. Yongwoo Lee, who wrote a doctoral thesis on the history of Video Art, claims "Nam June Paik's first exhibition *Exposition of Music – Electronic Television* (ILL.1) was a manifestation of the philosophy of Video Art." It was the first exhibition where television was used as an artistic medium turned against television itself. Edith Decker, who wrote a doctoral thesis on Nam June Paik in 1985, explained the significance of television emerging as an experimental art medium in the 1960s. In spite of Paik's historic exhibition, Sean Cubitt expressed a more negative view of the origins of Video Art, where he said, "It's impossible to see Video Art history, both because the evidence is fading, and because it was never a single history in any case." These conflicting views indicate that Video Art history tends to mythologize individual artists or to record individual events separately. According to Lee, "...many view video art as a series of fragmented, unconnected phenomena..."

Today, the term Video Art has a variety of meanings and comprises a wide range of artworks. I begin with three basic and simple definitions.

---


5 Lee, op. cit. p.65.

6 Lee, p.66.
(ILL.1) Leaflet for Exposition of Music – Electronic Television, 1963
(image from http://www.medienkunstnetz.de/assets/img/data/261/bild.jpg)
They provide a convenient starting point for a working classification and finding a place for my artworks within Video Art in general.

*A Dictionary of Twentieth-Century Art* defines Video Art as follows.

**Video Art:** a broad term applied to works created by visual artists in which video and television equipment and technology is used in any of various ways.⁷

This definition reflects a vagueness and broadness in understanding Video Artworks.

A more concrete and narrower definition of Video Art is given in the *Dictionary of the Avant-Gardes.*

**Video Art:** The pioneer here is Nam June Paik, who realized early in the 1960s that magnets applied to points outside a live TV screen could distort its kinetic image. Paik later placed an electrified wire across a reel of recorded videotapes, thereby causing erasure every few seconds; he was among the first to assemble several monitors into unified objects called Video Sculptures.

Once the cost of portable cameras decreased, video became a popular art medium, much like photography before it, so that one measure of artistry became the creation of work different from the very common run. Some used video to document live performances; others, such as Amy Greenfield, exploited its different scale to ‘film’ performances that were never meant to be seen live. Stephen Beck eschewed the camera completely for synthesizers that could create images never seen before; Bill Viola and Bucky Schwartz, among others, realized perceptual incongruities unique to the new medium, while David Gigliotti and Mary Lucier used several monitors to portray a continuous image that ran from screen to screen.⁸

---


It defines the term by outlining the development of Video Art works from Nam June Paik's experiments of kinetic energy within a television set to Amy Greenfield's single-screen work, and to Mary Lucier's multi-screen art work. This reflects the variety of expressions exhibited within the realm of Video Art.

The Dictionary of Art provides other categories of Video Art recognizing many forms and diversities.

**Video Art**: term used to describe art that uses both the apparatus and processes of television and video. It can take many forms: recordings that are broadcast, viewed in galleries or other venues, or distributed as tape or discs; sculptural installations, which may incorporate one or more television receivers or monitors, displaying 'live' or recorded images and sound; and performances in which video representations are included.

These three simple definitions, demonstrate how the genre of Video Art covers a wide range with various languages and meanings. It also demonstrates how the term Video Art is over-simplified and there remains a need to offer categories or define forms. Dorine Mignot calls for re-evaluation of the term Video Art: "Ten years ago Video Art was a video tape made by an artist in the visual arts, for the visual artists, after all, the first to experiment with the new medium. Now the term video is ripe for a new definition." Although Mignot

---


does not identify the alternate forms of Video Art, she recognizes that Video Art is no longer just an art of the visual.

There is a general need for more precise categories distinguishing practices from one another and to establish criteria. Whatever the general critical or theoretical objectives, as a practitioner, I needed to have a better and 'useable' critical understanding of my own work.

There have been three recent doctoral research projects that have responded also to this need and have provided some basis for my own research. Yongwoo Lee from Oxford University who completed his thesis in 1998, Chris Meigh-Andrews from The Royal College of Art who completed in 2001, and Jackie Hatfield from the University of Westminster who completed in 2003 have each attempted more thorough definitions of the field.

Yongwoo Lee in his Ph.D. thesis, *The Origin of Video Art*, identifies five forms of Video Art: 1. Documentary Video and Alternative Television; 2. Performance Video; 3. Image Processing; 4. Video Installations and Video Sculpture; 5. Feminist Video. His justification for these five sub-categories originates from an historical perspective. Lee states, "In the early to mid-1970s, a split emerged between aesthetic formalism – with its emphasis on video as an art form – and instrumentalism, which considered video a medium for socio-political issues. Between these two-poles arose many sub-categories."11 Lee recognizes the inadequacy of this classification that this "...classification of

11 Lee, p.5.
genres originates partly from arbitrary distinctions made by museums for the sake of exhibition design" but "...accepts the convention of such classification"\textsuperscript{12} for the sake of developing historical analysis of Video Art. Thus Lee's classification is not based on artistic expressions or the practical interpretation of works that I, as a practitioner, am seeking.

Contrary to Yongwoo Lee's historical approach, Chris Meigh-Andrews uses a technological perspective to help understand his own artistic practices. Meigh-Andrews argues his approach as "...a tracking of the changing forms of Video Art in relation to the revolution in electronic and digital imaging that has taken place during the last 35 years of the twentieth century."\textsuperscript{13} He argues that rapid technological changes have direct aesthetic consequences and traces the history of the development of "accessible" video.

This classification method based on a technological perspective is shared by Frank Popper. Edward Lucie-Smith writes that Frank Popper, in his \textit{Art of the Electronic Age}, "...distinguishes at least six types of Video Art: the use of technological means to generate new visual imagery; the use of video to give performances a more permanent form; what he calls 'guerrilla video' – that is the use of video to distribute images and information likely to be suppressed by the ruling establishment; the use of video-cameras and monitors in sculptural installations; live performances which involve the incidental use of video; and

\textsuperscript{12} Lee, p.5.

finally, advanced technological manifestations, often involving the use of video with computers."

Like Meigh-Andrews, Jackie Hatfield’s research stems from an individual artistic practice. Hatfield’s objective is to "...authenticate the physicality of the real body in relation to the representation (through [her] as the artist or through the audience) using film and video as tactile expressionistic tools." Hatfield highlights the ‘performance’ and ‘narrative’ elements of her work to be the key distinctions from the other art practices. In exploring the "...conceptual differences and overlaps between the notion of cinematic spectacle," Hatfield juxtaposes her work with the performative single take Video Art of William Wegman, video feedback experiments of David Hall, and Nina Sobel.

Sharing a similar approach to Meigh-Andrews, Hatfield focuses on the development of her work that is limited by the technological aspect of video through the camera. Hatfield argues that "the technological advances of convergent media [offers] the possibility to amalgamate the ideas around performance." Thus she finds her work to be part of the expanded cinema. In her research she finds a way to have greater audience response by ‘improvements’ in the technological setting. She concludes by formulating her


16 Ibid., p.2.

17 Ibid., p.4.
emphasis on performance in her work to be part of an extended cinema rather than Video Installation.

Yongwoo Lee argues that in 1963, Nam June Paik and Wolf Vostell attempted to deconstruct the hegemony of television though art. Paik displayed 13 television sets where in some of them he totally transformed the images with a magnet, while in others he enabled the audience to manipulate the images with a foot-pedal. Still other sets were placed face down on the floor. The purpose was to materialize and depersonalize television, formerly "...an object of idolatry." 18 This display was part of his *Exposition of Music – Electronic Television* (ILL.2) exhibition held at the Parnass Galerie in Wuppertal, Germany in March 1963.

(image from http://www.medienkunstnetz.de/assets/img/data/258/bild.jpg)

---

In May of the same year, Vostell staged *Television Dé-collage* (ILL.3), an installation work at the Smolin Gallery in New York. In this installation he distorted the images of six television sets and “...challenged the special status that TV enjoyed in the home.”

Yongwoo Lee states that these gestures not only downgraded television, but also redesigned and reconstructed the media environment. It was significant in that it challenged the established ‘one-way’ process of broadcast television via a series of individual technical manipulations. Paik made video accessible to the general public. Like Paik’s encouragement of viewers to participate in Video Art, Vostell took an activist approach, incorporating the

---

19 Lee, p.19.
Fluxus philosophy and anti-aesthetic "happenings." Vostell shared some characteristics with Paik in which he tried to deconstruct television literally and figuratively. Lee documents Vostell's purpose as to "...attack viewer passivity, in the wake of the proliferation and dominance of the media in the 1960s."20

Also exploring image manipulation were Woody and Steina Vasulka, working together they provide a significant reference point in the early history of Video Art. Chris Meigh-Andrews documents their contributions for providing the foundation for a new electronic language and for exploring and later defining the frontiers of digital and television space. Meigh-Andrews states, "The Vasulkas characterize their early approach to video as primarily 'didactic', for many years working with the materiality of the video image towards the development of a 'vocabulary' of electronic procedures unique to the construction of a 'time/energy object.'"21

For the Vasulkas, exploring a potential for video was entirely different from either film or broadcast television. In an interview with Meigh-Andrews, Woody Vasulka says:

How do you interact with the television screen? It's a 'time construct'. Normally it constructs a frame - the illusion or representation of a frame, and it's normally organized so precisely that you are not supposed to see that it's actually organized line by line using some kind of oscillators inside and if you turn the television on when there is no broadcast signal, there are free-running oscillators - two horizontal and vertical oscillators. As

---

20 Lee, p.3.

21 Meigh-Andrews, p.53.
soon as there is a broadcast signal it locks onto it, it becomes a slave to a master which is the broadcast signal. The signal itself governs. So we would put into the input a sound oscillator – or oscillators, and we saw for the first time that we could get an image from a source other than the camera. So our discussion was about departing from the camera, which television insisted upon having, and still does. The second principle was to get the tools to organize time and energy in order to produce visual or other artefacts. So we started with interference patterns. Inferring with that time structure, anytime you interfered with that it would organize itself and that was our entrance into synthetic world from the audio tools. (SIC)²²

For Chris Meigh-Andrews, the merits in the Vasulkas' technological experiments are that they have worked with electronic imaging technology to produce video works in this period.

Whether the classification is based on an historical or technological model, the validity of these specific categories remains debatable and unresolved. From the point of view of a practitioner they show how categories may differ depending on perspective and purpose.

²² Meigh-Andrews, p.54.
2. *Findings from Interviews*

Having begun this research by seeking general categories and concepts, I also decided to conduct a series of interviews or e-mail dialogues. This begins from concepts derived from particular artistic experience rather than general ideas. Many of the interviewees are those who have practiced and are practicing Video Arts who also teach Video Arts in the universities in the United Kingdom or in Korea\(^23\); they include Adam Chodzko, Susan Collins, Graham Ellard, Sung Min Hong, Tae Hee Kim and Hwa Young Park. In the interviews I focused on how they explain or teach Video Art to their students.

However, the purpose of conducting the interviews was neither to document their teaching criteria nor to record their interpretation of Video Art. I wanted to see if others have also encountered a need to re-evaluate how we categorize Video Art. Though the interviews began with a series of prepared questions, these often led to more informal and extended conversations or e-mail exchanges.

Thus, many of these interviews gave me insights for understanding of the current status of Video Art including the artists' view of public understanding of video 'genre.' Consequently, these extended discussions often took my research beyond the initial assumptions.

\(^{23}\) Interviews with Sung Min Hong, Tae Hee Kim and Hwa Young Park were conducted in Korean and later translated to English by me.
For each interview I had the following five different types of leading questions:

1. **Inviting descriptions:**
   - When and how did you start to make Video Art?
   - What aspects of the video medium were most important to you in relation to your work?

2. **Taking things further:**
   - What is the relationship between the moving image and space in your Video Installation? How important is "space" in your work?
   - How did the technical limitation affect the way you worked, and the kind of work that you made?

3. **Eliciting contextual information:**
   - How do you describe Video Installation to other people who are not familiar with Video Art?
   - How do you teach or present Video Installation to your students?
   - How important is the form of interactivity of the audience in your work and can you explain the relationship between audience and your work?

4. **Testing my hypotheses:**
   - There are a lot of installation works these days. These are very different from Nam Jun Paik's work, which is representative of Video Installation in the late 1960s. What do you think about Nam Jun Paik's installation and contemporary works?
   - Is it time to define another type of Video Installation, distinct from the classic Video Installation such as Nam Jun Paik's?

5. **Final Thoughts:**
   - How do you perceive the future of Video Art?
   - Is there anything else you would like to tell me?

---

The following are a selection of responses that have had an influence in forming or refining my research direction.

As I was confused about the term of Video Art, I was very interested in finding out how Video Artists and teachers describe Video Art to the people who are not familiar with it. Based on the responses from the interviewees they found it difficult to give a simple definition and all acknowledged that Video Art is continuing to change. For example Adam Chodzko says:

This definition is tricky because the definition changes over time and space depending on its cultural context. It is as difficult as trying to describe 'painting'. Having said that Video Installation can be any combination of time-based image - on a monitor (small or large), projected (small or large), with or without sound, but it must acknowledge its physical existence within a gallery: its physical space (the proportions of screen to projector to viewer etc), the architecture of the gallery, that people will drift in and out of it, whether they sit, stand, etc, etc. Otherwise it is 'cinema' or 'television' and there is a large amount of "Video Installation" that is really just cinema or TV in a gallery space.25

Graham Ellard responded, “We tend not to describe what we do to somebody who’s never seen it. I suppose the first thing is to go and see it. Any description is pointless. It lacks the essential element produced, which is the actual experience of the work.”26

However Tae Hee Kim saw the Video Installation as an evolution in art and that sculpture is the main root of Video Installation. He mentioned that the brush, colours and canvas in the painting had an evolution. He said:

25 Adam Chodzko, Personal Interview, August 2003.
26 Graham Ellard, Personal Interview, July 2003.
The brush, the colours and the canvas of painting evolved, and the 'brush' changed to the camera. The colours were confronted with the electric light and the canvas was substituted by the monitor. And from traditional art, still images become moving image and the moving image follows the sound and the text at the same time so I think this is fundamental to Video Art.27

Tae Hee Kim's description, actually given in Korean, represents a more poetic view that had some echo for me even though it was imprecise.

My questions about Nam Jun Paik were based on the assumption that all the artists interviewed would have a clear view of his/her work as central to any definition of Video Art. However I was surprised that some contemporary Video Artists were not very familiar with it. For example, Adam Chodzko responded that he saw a Nam June Paik show many years ago and could not remember much about it other than it seemed pretty amazing. Chodzko said, "With Paik it was that sculpture was being generated by combinations of TV's."28 Sung Min Hong like Chodzko particularly used the term Video Sculpture to describe his works saying: "Nam June Paik did a lot of Video Sculpture but today the central focus is on Single-screen."29 I was surprised how many interviewees saw Paik's works as Video Sculpture rather then Video Installation.

27 Tae Hee Kim, Personal Interview, June 2003.

28 Chodzko, Ibid.

29 Sung Min Hong, Personal Interview, July 2003.
One of the most important questions I asked was about the relationship with audience and space in the interviewees' own work and their attitudes toward the form of interactivity of the audience. Generally, interviewees were very interested in talking about space and interactive audience and all said the space and audience influences their art work.

For example Susan Collins said, "When I am invited to make a piece of work for a particular space or situation, I look at the architecture of the space, the way the space is currently used. Existing expectations are around a space and the choreography of people within it. And then the form of the work will usually emerge in direct response to these observations."30 However for Sung Min Hong, the sociological connection is more important than the gallery space: "When I have exhibitions in Tokyo, Istanbul, or in China, I pay more attention to time and social environment than to the gallery's physical space."31 He describes the relationship between his art work and the audience as "...like a poem and the reader..." because "...some people can not understand my work; they ignore it. On the other hand some people like it very much and others try to understand the work rationally."32 He saw the audience as a reader or viewer rather then an interactive audience in his work.

---

31 Ibid.
32 Ibid.
Adam Chodzko gave an example from his work to illustrate the importance of the audience. He says,

In my own work it again depends from work to work. For example, *Limbo Land* (2001) has a dialogue with the audience by (a) ambiguously positioning a voice-over: A sound record is seen/heard to be making a phone call, responding to the challenge to make a soundtrack for an 'ending'. Are we (the viewer - the receiver of this call) then being addressed as the dying person (within the space we see)? Or the artist/director ('behind' the image we see)? Or are we being addressed directly as viewer (watching the space we see)? And (b) making an ambiguous relationship between sound and image (all the sounds appear to be at odds with the images...all the sound appearing to be generated from a DAT machine playing a collection of sound samples). As we the audience move through the space and orientate our bodies either more towards the screen or the speakers (at the back of the space) we prioritize either the spaces described by the images or the sounds. We shape our experience of *Limbo Land* by how we do this.33

To Hwa Young Park, a member of the audience is "...a person' who temporally occupies my time-space."34 She sees herself as someone who wants to communicate things that were not possible in other forms of language. However Tae Hee Kim offers a different view. He said, "In terms of physical space, the audience determines the final character of the art work. They are both obstruction and finisher."35

---

33 Chodzko, Ibid.

34 Hwa Young Park, Personal Interview, July 2003.

35 Kim, Ibid.
According to the responses, the space and audience seem to be given a great deal of weight by contemporary Video Artists and most interviewees expressed a particular interest in space and audience.

These interviews raised a number of questions that are addressed in the following chapters. Though inconclusive, the interviews confirmed my initial but then uncertain hypothesis, that there is a need for a more concrete understanding of the types of Video Art. As expected, the interviewees gave subjective answers based on their own particular understanding of Video Art and this was reflected in their different attitudes to space and audience. For Susan Collins, architecture plays an important role in determining the exhibition space but for Sung Min Hong, it is the social environment that shapes his artworks.

On the role of audience, Adam Chodzko gave a detailed description of how he tries to incorporate the audience into his artworks. On the contrary, Sung Min Hong presents a perspective derived from Single-screen artworks where the viewer is just a “reader” and the art work is a “poem” to experience or respond to.

On the notion of the types of Video Installation, the interviewees tended to use the term, “Video Sculpture” in connection to Nam June Paik’s work, an issue that will be explored later.

From these results, I realized that my questions were too general. I asked about Video Art and I did not give them any example of work or artist
other than Nam Jun Paik. So almost all of their views on Video Art were based on their own work or they chose some other example of work or artist to define Video Art.

From the interviews, I confirmed that these artists were still using the terms of Video Sculpture, Video Installation and Video Art interchangeably to describe the same art work. For example, when they described Nam Jun Paik's work, they made little distinction between Video Sculpture, Video Installation and Video Art, and Paik himself resisted a particular label for his works. Both as an undergraduate student and later in my practice I have found this interchangeability of terms confusing.

Ultimately I felt that these interviews or conversations did not lead to any specific conclusion about a classification. I decided that my own questions were too generalized and not focused enough on specific works, an approach I tried to correct with the process I used for getting responses at my PhD exhibition survey (see Chapter VI).

However, the diversity of the responses confirmed my own view that a better set of distinctions were needed, and strengthened my aspiration to test my concept of Video Space Art for a more concrete understanding of Video Art, especially my own practical work. In particular the interviews gave me confidence that I should concentrate my research on the issues of space and the spectator and on developing a distinction between Video Sculpture and Video Space Art.
3. **Single-screen Videotape vs. Video Installation**

In a broad sense, Video Art may be divided into two basic categories: Single-screen Videotape and Video Installation. Though not universal these two categories are explicit or implicit in much of the available literature. They are found for example in the essays of Dorine Mignot, John Hanhardt, and Eleanor Heartney. Hanhardt writes, "Video Art is not only Single-screen videotapes created for gallery and/or broadcast. It also has its expanded forms: sculpture and installation pieces that engage multimedia and formal issues within gallery spaces."^36^ Heartney concurs with Hanhardt that, "While early Video Art which tended to consist of Single-screen tapes played on television monitors, the field has expanded over the last four decades to encompass elaborate installations. These may incorporate large-screen projections, walls of monitors with multiple computer-coordinated channels, theatrical environmental settings, and recently, even the latest interactive technology."^37^ 

In connection with this in the catalogue *Luminous Sites: 10 Video Installations*, Peggy Gale emphasizes, as an essential difference between a Single-screen Videotape and a Video Installation, that "...while a single tape develops (moves forward) in time, a Video Installation work continues. It is cyclical in

---


form rather than directional, repeating pre-recorded material ... or generating constantly-new live images in response to its programming or its environment."

and, she continues, that the addition of a third dimension to a Video Art work, "... which in any case already contains the fourth, extension in time - through the addition of further monitors, structures, misses en scene, open the work to a new response. This experience takes place in OUR space, not "over there" in a two dimensional world of pictures. Video, with its glow-from-within, already suggests the sculptural HERE (as opposed to film's pictorial "there"), and video's "furniture" existence (a TV set) gives a mundaneness that is also "here", in every way."38

In Video Art: an Anthology, Peter Frank draws attention to the fact that "...a whole area of Video Art has capitalized on the spatial factor, permitting the manipulation of video not only as image but as object."39 Frank's distinction of video as an image and video as an object further aids the understanding of the differences between the Single-screen Videotape and Video Installations. Well known Single-screen works like John Baldessari's Folding Hat (1970-71) (ILL.4), Richard Serra's Hand Catching Lead (1968) (ILL.5) and Bruce Nauman's Art Make-up (1967-68) (ILL.6)40 can serve as examples to demonstrate the differences I wish to make here.

---


40 Note: Though Art Make-up was shot on film it is now almost exclusively seen or presented on video as in the installation in 'Behind the Facts' exhibition in Barcelona, Oporto and Kassel (2004/5)
(image from http://www.philamuseum.org/exhibitions/video/baldessari.shtml)

(ILL. 5) Richard Serra, *Hand Catching Lead* (1968), 16mm, 3:30 min, b&w.  
(image from http://www.henry-moore-fdn.co.uk/matrix_engine/content.php?page_id=369)
Baldessari's *Folding Hat* shows a half-an-hour sequence, a close-up of the artist holding a hat that he squeezes and flattens. The video shows the continuous interaction with the artist and the camera. In *Art Make-up*, Nauman shows himself, painting himself with different colours. He himself is the performer, while in the other works like *Live-Taped Video Corridor* (1969) he forces the visitor to perform. In *Art Make-up* Nauman "acts" by "painting" himself. Nauman makes reference to the artist as medium; the performative aspect of "making up" is emphasized in this work. In *Hand Catching Lead*, Richard Serra's hand is filmed as he attempts to catch, and often misses falling lumps of lead. In these works, artists have turned the performances into replicable objects – video. However in Single-screen Videotape works like the
ones mentions above, the viewer is temporally and spatially removed from the performance thus making the video a material object and a recording of a moment in time.

John Hanhardt attributed the birth of Video Installation art to the surfacing of a consciousness that rejected Single-screen television viewing within the home. The artist shows the work not on a single monitor but on a number of monitors. Yongwoo Lee describes Video Installation as follows: "...the work takes the form of multi-channel video using close-circuit technology, a grid formed by videotapes, the constructive manipulation of sculptured forms, or the monitor used with other materials as a primary or a secondary medium."

Like conventional installation art, Video Installations are not for permanent possession but for temporary occupation of a specific space. The value is in display. In Video Installations using image media, communication with the audience and interaction with the environment are more important than aesthetic consistency. The interior and exterior environment created by moving images is far more complicated than the static one surrounding painting and sculpture.

I agree with Paul Crowther's approach to installation as a deconstructive sensibility. He writes that:

---


42 Lee, p.228.
The deconstructive sensibility is very much the character of the times. One important artistic manifestation of this is the prevalence of Installation and site-specific Assemblage Art. For the very essence of these formats is to create a configuration whose meaning is manifestly emergent from a field of relations. The conventional art object is also determined in these terms; but in Installation and Assemblage it is made much more overt. The work comes to us in a context where the transience of the specific configuration is known in advance.43

As discussed earlier, the history of Video Installation can reasonably be said to begin with Nam June Paik’s Exposition of Music – Electronic Television displayed in 1963.44 Paik aligned 13 television sets on the floor of the gallery and induced participation by the audience. The same year Wolf Vostell specifically introduced the concept of installation by placing TV sets on office furniture in the Television Dé-collage show held at the Smolin Gallery in New York. Regarding Video Installation, Lee argues that “...these displays did not exactly coincide with the concept of installation in modern art, but their form belonged in the realm of early installation art.”45 They allowed the audience to manipulate the functioning of TV, subverting the veneration of the medium.

In my attempt to identify Video Space Art as part of but distinct from Video Installations, the distinction between Single-screen Videotape and Video Installation serves as a stepping stone. However my aim is not to produce a


44 Decker-Phillips, op. cit. 60.

45 Lee, p.230.
comprehensive categorization for all Video Art. The objective is limited to understanding Video Space Art in the context of Video Installation.

4. *Video Sculpture*

"The development of Video Installation as an art form and the discovery of its parameters can begin, as in John Hanhardt's work on Wolf Vostell and Nam June Paik, with the use of the television set itself as sculptural object." As Margaret Morse indicates the term Video Installation originates from Nam June Paik's pioneer works like *TV Garden* (1974-78) and *TV Buddha* (1974) (ILL.7).

(ILl.7) Nam June Paik, *TV Buddha* (1974)
(image from www.csun.edu/~hcarh001/305/postmoderimages.html)

---

Today, the term Video Installation has a variety of meanings and covers a variety of artworks. In the narrow sense any video that is shown in a setting designed by the artist may be called an installation. When at least one of the elements in the installation consists of video images, then the art work is called Video Installation.

A relationship with sculpture in one aspect of Video Installation has also been widely recognized. The term “Video Sculpture” has been used by Margaret Morse, Vito Acconci⁷, John Hanhardt and many others to describe Nam June Paik and Wolf Vostell’s early Video Art.

Distinguishing Single-screen Videotape from Video Installations, then Video Sculpture as a recognized category within Video Installation leads to this ‘Family Tree’ (ILL. 8) and its question mark.

(ILL. 8) Incomplete Family Tree of Video Art

In order to illustrate the point of my question mark I juxtapose two prominent Video Installations: Nam June Paik’s *TV Garden* (ILL.9) and Bruce Nauman’s *Live-Taped Video Corridor* (1969) (ILL.10).

(ILL.9) Nam June Paik, *TV Garden* (1974-78)
(image from http://www.guggenheim.org/exhibitions/past_exhibitions/paik/paik_top.html)
In *TV Garden* (1974-78), approximately thirty television sets of all sizes were positioned in a darkened gallery space, surrounded by plants and TVs. Televisions were placed on their back, side, upside down or upright and partly covered by ferns and plants. John Hanhardt praises Paik’s sculpture/installations, showing how they “...were to transform our customary view of the medium by creating powerful and witty metaphors out of its elements.”

---

48 John Hanhardt, p.213.
In *Live-Taped Video Corridor* (1969-70) Nauman forces the spectator to move through a narrow "corridor." A video camera above and behind the spectator records and reproduces the image of the spectator on one of the two monitors at the end of the corridor. And on the other monitor, connected to a hidden tape-recorder, the spectator sees the empty corridor.

The differences between *TV Garden* and *Live-Taped Video Corridor* may be described as follows: in *TV Garden*, the components of the work are arranged to occupy space in the manner of sculptural objects. One element – a TV set is juxtaposed with another so that their physical relationship, as objects, becomes an aesthetic experience. The images on the TV sets, as the title might suggest, are like flowers while the sets might be like rocks, in a video rockery or indeed like the classical Japanese Garden of Ryoanji (Ill. 11). As with Ryoanji, the spectator stands outside this work, appreciating its sculptural relationships.

(ILL. 11) *The Rock Garden* of Ryoanji, Kyoto, Japan
(image from http://shige-wallpaper-images.web.infoseek.co.jp/sceneries/kyoto4-e.html)
In Nauman's *Live-Taped Video Corridor* the experience of the work is created by the controlled movement of the spectator as one of the spatial component. The spectator must travel through the work in order to complete the experience. Also the video is not an additional 'decorative' component, but an active part of the construction and understanding of the space. By 'reflecting' the viewer's passage through the work, the video not only draws the spectator into an experience of the space but also, by representation, into a self-conscious appreciation of the work as concept. Here, as in my understandings of my own art practice, space and spectator are integral elements in understanding the work. These two different sensibilities epitomize the differences between the Video Sculpture and another field, represented by my question mark. This is where I propose, at least provisionally to place Video Space Art.

5. **Video Space Art – A Provisional Understanding**

In proposing the term Video Space Art, I recognize it can be further refined whilst I am trying to identify its special characteristics. The two main elements of Video Space Art are "space" and "spectator." Thus what ultimately distinguishes the one type of Video Installation from the other depends on the relationship of space and spectator in a work. In Nauman's *Live-Taped Video Corridor* the space is a space that is produced not just by the sculptural juxtaposition of objects but by the integral relationship between the video, the space and the action of the spectator.
CHAPTER II

Developing Languages of Video Installation

1. Space

2. Viewer, Observer, Audience, Perceiver or Spectator

3. Applying Concepts from other Media to Video Installation
   i. Pictorial Art
   ii. Video and Sculpture
   iii. Architecture and Environment
   iv. Landscape Architecture and the Urban Landscape
In this chapter, I have attempted to lay a theoretical background further to understand different types of Video Installation. My objective is to identify Video Space Art works within the parameters of Video Installation that differ from Video Sculpture. The two theoretical criteria I shall explore are space and spectator. In Section One of this chapter, I explore David Summer’s division of space into virtual and real spaces. The theoretical concepts of personal and social space are also discussed. In Section Two, I define the relationship between the spectator and the art work. In Section Three, I look into the languages of pictorial art, sculpture, architecture and landscape architecture, and apply them to Video Installation.
1. Space

Space in installation art can be considered a key element. Its crucial importance in installation art is highlighted in Adam Gopnik’s reflection on Video Installation.

Space is now being considered as an active ingredient, not simply to be represented but to be shaped and characterized by the artist, and capable of involving and merging the viewer and art in a situation of greater scope and scale. In effect, one now enters the interior space of the work of art... and is presented with a set of conditions rather than a finite object. Working within the almost unlimited potential of these enlarged, more spatially complex circumstances, the artists is now free to influence and determine, even govern, the sensations of the viewer, The human presence and perception of the spatial context have become materials of art.\[49\]

The element of space has been analyzed in every medium. The role of space is different in pictorial art, sculpture and architecture, and has become the major ‘material’ for many Video Installations. However the concept of space is complex particularly where video elements are included.

Real Space and Virtual Space

The general framework defining the different application of space devised by David Summers divides space in art into two broad categories: real space and virtual space. Real space is the space we find ourselves sharing with

other people and things. Virtual space is space represented on a surface, space we 'seem to see.' "Space can only be represented visually as virtual, but at the same time we always encounter a virtual space in a real space."\(^{50}\)

Paintings and the graphic arts including video images are principally arts of virtual space. Whereas sculpture and architecture are principally arts of real space. According to Summers, within the general category of real space, sculpture is the art of personal space and architecture is the art of social space.

**Real Space**

Summers identifies two sub-categories in real space: personal space and social space. The discussion of personal and social space can also be found in architectural literature. Bryan Lawson further quantifies personal and social space by offering a distance matrix (ILL.12).

![Lawson's Distance of Space](image)

(ILL.12) Lawson's Distance of Space
(image from Lawson, p.115)

The distance presented is the generally agreed taxonomy of human distances in space. Lawson argues that "...the challenge of spatial design is to facilitate rather than inhibit the behavioural settings appropriate to the social purpose of behaviour in space." According to Lawson, 'intimate', 'personal', 'social', and 'public' distances all have their uses and characteristics. The insights offered by Lawson's distance matrix can be applied beyond architecture and I have come to see this as central to my understanding of Video Space Art.

**Personal Space**

According to Summers, "Personal space is articulated by relations of artefacts to the real spatial conditions of our embodied existences; that is, our sizes, uprightness, facing, handedness, vulnerability, temporal finitude, capacities for movement, strengths, reaches and grasps." Tangibility, manipulability, portability, possessability, and their opposites are also characteristics meaningful in terms of fundamental personal spatial categories.

In the context of space and distance in architectural literature, Lawson defines personal space as the minimum public distance for strangers. It has a range of 0.5 metres and 1.2 metres. "Although not so intimate as the closer distance, we are still likely to be very familiar with people with whom we use

---


52 Summers, p.43.

this distance in public. It is difficult to ignore someone at this distance, and again when forced into such close proximity strangers will normally acknowledge each other.\textsuperscript{54} Although Lawson uses this distance concept to explain the interactions between human beings, the same concept can be applied to the interactions between the art work and the spectator. The human distance is not abstract since it relates to the way we are aware of our surroundings. The spectators' senses play the key roles in their interactivity with the art work. As shown in (ILL.13), "the senses work in a series of nested bubbles."\textsuperscript{55} Lawson states that we see, hear, smell, and touch people in this order.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{human_distances.png}
\caption{(ILL.13) Lawson's Human distances (image from Lawson, p.110)}
\end{figure}

\textsuperscript{54} Lawson, p.117.

\textsuperscript{55} Ibid., p.110.
Lawson explains why it is difficult to ignore someone at the personal distance. "When looking directly at each other the face is very clearly visible in the fovea. Once we are within personal distance of someone, the whole of his or her face fills our foveal field of vision. The fovea is that small centre part of the retina that allows for the detection of fine detail, and has very high acuity." He sees this as the reason why it is particularly hard to conceal emotion at this distance. This argument leads to an interpretation that proximities in artworks can, of themselves, initiate some emotional effects. Lawson points out that business negotiation normally takes place at a distance where the emotion can be concealed. The same concepts relating proximity or distance to emotional response may be applied generally in spatial arts. An art work that utilizes personal space provides and urges the audience to share the emotions expressed from and by the art work. The broader psychological effects of environment on human experience or behaviour have been widely debated. In his classic work Ecological Psychology (1968), Roger Barker argues that human behaviour is radically situated: in other words, you can not make predictions about human behaviour unless you know what environment the human in question is in. From another direction, the effects of personal space on human reaction are discussed by John Aiello. For example he points out how, when you move out of a close proximity "...voice level is moderate, vision is no longer distorted, and

56 Lawson, p.118.
body heat and olfaction are either no longer or minimally perceptible. These studies reinforce awareness that spatial relationships themselves and proximities between human beings and between human beings and objects initiate their own psychological reactions. It is this psychological reaction that forms the basis on which the artist may construct meanings by manipulating space and also the basis on which spectators may construct their symbolic interpretation, albeit, as Barker makes clear, influenced by the cultural and historic environment.

Social Space

Underlining the construction of 'social space', Henri Lefebvre explores the notion of space as 'product'. In The Production of Space, Lefebvre writes "...social space is produced and reproduced in connection with the forces of production (and with the relations of production). And these forces, as they develop, are not taking over a pre-existing, empty or neutral space, or a space determined solely by geography, climate, anthropology, or some other comparable consideration... A social space cannot be adequately accounted for either by nature (climate, site) or by its previous history. Nor does the growth of the forces of production give rise in any direct causal fashion to a particular space or particular time. Mediations, and mediators, have to be taken into consideration: the action of groups, factors within knowledge, within ideology

or within the domain of representations. Social space contains a great diversity of objects, both natural and social, including the networks and pathways which facilitate the exchange of material things and information.\textsuperscript{58} For my research and practice as an artist, Lefebvre reminds me that interpretation of the meaning of spatial relationships can not be easily separated from social conditions and ideology. However, again for the purposes of my practice, rather than critical interpretation, the attempt by Lawson to specify some relationship between distance and psychological effect has been particularly useful.

Following Lawson the social distance is considered to run from about 1.2 metres to 4 metres. He understands the closer distance here as that which might be used in polite society under normal circumstances. At the minimum social distance we can still see each other's faces clearly but not intimately. "It is certainly possible at such distances to know whether someone is listening to you and paying attention, and probably whether they understand or agree."\textsuperscript{59} As we move beyond this distance the sense of contact with other people tends to get lost. Lawson illustrates this through an analogy with the musical ensemble. As we move beyond this distance it is difficult to maintain "ensemble" as in a musical group, the audience looses any social contact with the live aesthetic values of the art work. "It is a most important distance to understand in making


\textsuperscript{59} Lawson, p.118.
many behavioural settings work well."\textsuperscript{60} We shall come back to discuss the impact of distance between the artwork and the audience when we explore individual artworks in Chapter IV.

Architecture is the art of social space because it both encloses and includes institutions. It is the means by which human groups are set in their actual arrangements. Returning to Summers, he says "As social space, architecture embraces the specifically articulated personal space of sculpture as well as the formats necessary for virtual spaces, and the conditional categories of personal space are embraced by those of social space, much as individuals belong to groups."\textsuperscript{61}

Virtual Space

Painting and photography have been principally arts of virtual space. According to Summers, when we look at pictures, we seem to look 'into' its surface and we may see an apparent three-dimensional reality. A virtual space is most often seen, if not exclusively, as an image on a surface. Virtual spaces are representations of space existing as a mental construct rather than actual. However this construct may carry some 'charge' of an encounter with real space.

\textsuperscript{60} Ibid., p.119.

\textsuperscript{61} Summers, p.43.
This is implied by Summers when he says: "Virtual spaces have something of the 'virtue', or force, of spaces and things we actually experience."  

Virtual spaces may be made to describe and record actual places and times, or they may simply seem to do so, projecting and elaborating imaginary ones. In all cases the space itself is credible, occupiable and traversable only in imagination; it can also never fully represent a real space, or correspond to one. The 'forms' in virtual space can never be complete. "Whatever illusionistic force they may have, virtual spaces show what is always at an unbridgeable remove, at a distance in space or time, another present, a past or future. The same conditions under which virtual spaces cannot fully represent what they show mean that they may be specifically bounded and qualified apparent regions of space and time for an observer, within which things seem to exist in certain ways." Thus virtual spaces must always be distinct from real spaces, even though they seem to refer to spaces that are real, or might be real. This is true even at the most extreme level of interactive spatial illusion in VR (virtual reality) simulations.

**The Virtual Arts and the Spatial Arts**

From the distinctions made of virtual and real spaces, David Summers makes an attempt to distinguish the Spatial Arts from the Virtual Arts. His goal is to challenge the critical basis of visual perception by denying art's exclusive

---

62 Summers, p.43.

63 Ibid., p.45.
and reductive association with sight and vision. He attempts to shift the base universality from the constitution of the world by human imagination to the conditions of human corporeality and spatial existence.

In this context, the term Visual Art simply implies it is about what we see, but the vision at issue is the inner imaginative and formative vision of pictorial imagination. "According to the alternative offered by the spatial arts, works of art are achieved not just in imagination but among real forms involving and shaping human uses; as the immediate results of the more or less specialized activities and to new circumstances."64 According to Summers, the forms articulating human space and time may be combined in ways that have the additional significance of being more or less pleasing and satisfying to the eye.

The spatial arts, "...having outlasted their makers, builders and users, the forms of the past persist utterly without their living surroundings and associations of sound, touch, taste, and smell...,"65 maintaining their own absolute personal and social spatial limits and values.

The visual arts imply 'viewers' who are sensitive to formal relations and expressions. Summers suggests that the word 'observer' is more adequate to explaining the experience of the spatial arts. For him the term, observer, refers to those who stand in one or another social/spatial relation to works of art. "Observe,' unlike the more purely visual terms 'view' or 'behold', possesses a

64 Summers, p.41.

65 Ibid.
useful ambivalence."\textsuperscript{66} This carries the implication of a process concerned with 'how' the space is related to one's experience. The term 'observer' will be revisited in the next section as well as the other alternatives regarding how the work of art is experienced.

2. \textit{Viewer, Observer, Audience, Perceiver or Spectator}

'Viewer', 'observer', 'audience', 'perceiver' and 'spectator' are all terms that might be used to designate the person experiencing a work. Though there are many areas of overlap between the terms, each carries particular implications. Where Summers favours the term 'observer', John Ravenal begins to talk of spectatorship comparing film and video. He says: "Unlike film's stationary audience, viewers of projected Video Installations are often active participants who move through the surrounding space. The heightened awareness of the conditions of spectatorship often becomes in some ways, the subject of the work."\textsuperscript{67}

In attempting to understand my own work and in developing the concept of Video Space Art, I have found it necessary to clarify this terminology. In order to understand contemporary connotations I begin from the following synthesis from a number of different dictionary based definitions.

\textsuperscript{66} Summers, p.42.

Viewer:

- One that views, especially an onlooker or spectator
- Any of various optical devices used to facilitate the viewing of photographic transparencies by illuminating or magnifying them.
- A person who watches television or movies: viewers of prime-time shows; viewers of action movies.

Observer:

- One that observes: 'an observer of local customs; observers of religious holidays.'
- A delegate sent to observe and report on the proceedings of an assembly or a meeting but not vote or otherwise participate.

Audience:

- The spectators or listeners assembled at a performance, for example, or attracted by a radio or television program.
- An opportunity to be heard or to express one's views.
- The act of hearing or attending.

Perceiver:

- To become aware of directly through any of the senses, especially sight or hearing.
- To achieve understanding of; apprehend

Spectator:

- An observer of an event.
As these simple dictionary definitions 68 show, a wide range of interpretation can be derived from each term. The term 'viewer' carries a strong association with the visual senses. A viewer is someone who watches or looks at a picture or a sculpture. There is an implication that it is primarily through the senses of sight, that the viewer contacts the art.

'Observer', unlike 'viewer', possesses a useful ambivalence; we may use the word as a synonym for 'see', or to mean 'to look closely' but we may also 'observe' a rule or a custom, meaning that we behave in appropriate ways. The 'observer' does not simply see the work but rather know and observe the decorum of the work and its setting. However the term 'observer' also has a passive tone. John Ravenal's interpretation of Single-screen reflects this notion. "Although not predicated on a physically active viewer, like projected Video Installations, much early Single-screen work also takes the role of the observer as a central subject."69 An observer is someone who notices and absorbs the environment near him or her. However an observer is not an active participant in an event, but to observe, one has to do more than see.

The term 'audience' is associated with hearing. It is an act of hearing or listening to an event. The audience hears or takes in the artist's expressions. There may also be some fusion between the term audience and the concept of art as 'language'. R. G. Collingwood asserts that since language as such is not


69 Ravenal, p.1.
necessarily addressed to any one, "the artist as such, therefore, is a person who talks or expresses himself, and his expression in no way depends upon or demands the co-operation of an audience."70 The audience is best described as those whom the artist permits to overhear him as he speaks. "Whether anybody so overhears him or not makes no difference to the fact that he has expressed his emotions and has therefore completed the work in virtue of which he is an artist."71

The term 'perceiving' assumes two different theories of aesthetic experience, one for the artist, and another for the audience. The aesthetic experience in itself, we may assume for both artist and audience is a purely inward experience, taking place wholly in the mind of the person who enjoys it. "But this inward experience is supposed to stand in a double relation to something outward or bodily. (a) For the artist, the inward experience may be externalized or converted into a perceptible object; though there is no intrinsic reason why it should be. (b) For the audience, there is a converse process: the outward experience comes first, and this is converted into that inward experience which alone is aesthetic."72 For Collingwood the 'Perceiver' can be interpreted as the 'Understander.' It means that the picture, when seen by someone else or by the painter himself subsequently, "produces in him sensuous-emotional or physical experiences which, when raised from

71 Ibid., p.301.
72 Ibid., p.302.
impressions to ideas by the activity of the spectator's consciousness, are transmuted into a total imaginative experience identical with that of the painter.\textsuperscript{73}

Brian O'Doherty contends "...as we move around the space, looking at the walls, avoiding things on the floor, we become aware that that gallery also contains a wandering phantom frequently mentioned in avant-garde dispatches – the Spectator."\textsuperscript{74} Speaking in terms of the ideology of the gallery space, O'Doherty frankly defines the spectator as a person who:

has no face, is mostly a back. It stoops and peers, is slightly clumsy. Its attitude is inquiring, its puzzlement discreet. He – I'm sure it is more male than female - arrived with modernism, with the disappearance of perspective. He seems born out of the picture and, like some perceptual Adam, is drawn back repeatedly to contemplate it. The Spectator seems a little dumb; he is not you or me. Always on call, he stagers into place before every new work that requires his presence. This obliging stand-in is ready to enact our fanciest speculations. He tests them patiently and does not resent that we provide him with directions and responses: "The viewer feels..."; "the observer notices..."; "the spectator moves..." He smells out ambiguities like a bloodhound: "caught between these ambiguities, the speculator..." He not only stands and sits on command; he lies down and even crawls as modernism presses on him its final indignities. Plunged into darkness, deprived of perceptual cues, blasted by strobes, he frequently watches his own image chopped up and recycled by a variety of media. Art conjugates him, but he is a sluggish verb, eager to carry the weight of meaning but not always up to it. He balances; he test; he is mystified, demystified. In time, the Spectator stumbles around between confusing roles: he is a cluster of motor reflexes, a dark-adapted wanderer, the vivant in tableau, an actor manqué, even a trigger of sound and

\textsuperscript{73} Collingwood, p.308.

light in a space land-mined for art. He may even be told that he himself is an artist and be persuaded that his contribution to what he observes or trips over is its authenticating signature. 75

Though slightly ironic in tone, there is much in O’Doherty’s understanding of the spectator that appeals to me.

However, in the context of defining Video Space Art, I want to stress, as a key element, the Spectator’s association with an event - the Spectator as an observer of an event. Ultimately for my own practice, the broader connotation of ‘spectator’ is more inclusive. It allows aspects of subjective reception but also of active participation. The spectator views, observes, listens, understands and perceives the art work. Again following Collingwood this experience of the spectator does not repeat the comparatively poor experience of a person who merely looks at a work; “it repeats the richer and more highly organized experience of a person who has not only looked at it but has painted it as well.” 76

For Video Space Art the spectator participates in an event presupposing a time, space and sequence. This element of sequence is also crucial to Video Space Art. It is the sequence of movement through space and movement from space to space, through which spectators have and define their own social space.

75 O’Doherty, p.39.
76 Collingwood, p.308.
Subject vs. Object

The discussion of the spectators, their role and behaviour, can not be separated from the issue of their condition as subject or object. This is particularly revived in the installation arts. Eleanor Heartney says: "Much early video still retained something of the classical Western division between subject and object – locating the viewer as an outsider peering, as through a window, into another world." Video Space Art, by contrast, places the viewer’s consciousness and body in the middle of the artwork. It implies a far more active role for the viewer thus again the term spectator has its merit.

As Heartney argues, "there is no physical object independent of our experience of it." It adds a new dimension to the observation and experience. Davidson Gigliotti puts the spectator "...into the position of being invited to widen his or her perceptual focus. As focus widens to include the whole work, it loses intensity but gains extensity. Single-screen work demands strict attention to the screen, since it is the sole visual manifestation of the program. To take one's eyes away from it for a moment interrupts the program substantially. Multi-channel work demands a different kind of attention. As our perceptual focus widens, we begin to ask ourselves: How is this work to be viewed? Do these channels carry information of the same value? Are we to

77 Heartney, p.15.
78 Ibid., p.16.
79 By Single-screen work Gigliotti means Video Art shown on one monitor, by multi-channel work Video Art, where you use more monitors and tape decks, that is: Video Installations.
view them all at once, or in some kind of order? Does the nature of the programming provide some kind of clue, or perhaps the nature of the system? Where are we supposed to stand? In Single-screen work these questions hardly arise. As viewers, we have a handy and convenient mode for watching Single-screen information. Our focus is on the content; we take the form for granted. In multi-channel work these questions are as much a part of the artist's problem as the program material.\textsuperscript{80}

Furthermore, according to Margaret Morse, "the spectator thus enters a charged space-in-between, taking on an itinerary, a role in a set in which images move through different ontological levels with each shift in dimension, in a kinesthetic art, a body art, an image art that is rather an embodied conceptual art."\textsuperscript{81}

In Video Space Art, the spectator also presumes the task of participation. This concept links directly to that of Julie Reiss who, talking of Video Installations says:

The viewer must enter into them physically. Participation is automatic, denied to no one. The artist can count on a response. His art is in designing an environment where this is the case. His design must be left incomplete. It must, in fact, be a near void or chaos, differentiated or given form only insofar as that form is open – automatically – to anyone who enters. Further, this random entering must – automatically – result as less


\textsuperscript{81} Morse, p.163.
formlessness. The participant must feel that his entrance means something, has an effect.\textsuperscript{82}

If the spectator is not taken account of – 'designed into' a work of Video Space Art then, as Reiss notes: "...before anyone can enter the exhibition, to protect the works he must remove his shoes, don a pair of clumsy paper slippers and then slide along the floors of the show."\textsuperscript{83} Reiss recognizes that the spectator is the main element in what I want now to call Video Space Art.

3. Applying Concepts from other Media to Video Installation

The object of my research has been to understand better the contributing elements of my own practice and to establish a distinct conceptual field for Video Space Art.

Here I shall attempt to begin from some fundamental characteristics of other media or practices (artistic discourses) and see how they related or might contribute to Video Space Art.

In a broad sense, regardless of its medium and form, all arts are processes, products and experiences that communicate aspects of human living in a variety of ways. Processes are the creative actions, thoughts, materials, and techniques artists combine to create products – that is, the artworks.

\textsuperscript{82} Julie Reiss, \textit{From Margin to Center: The Spaces of Installation Art}, The MIT Press, Cambridge, Massachusetts, 1999, p.98.

\textsuperscript{83} Ibid.
Experiences are the human interactions and responses that occur when people encounter the vision of the artist in the artwork. In this section, I explore the use of space as an element of process in pictorial arts, sculpture, architecture and landscape architecture, and its effect on experiences.

The purpose of this section is to find a relevant language for describing the pictorial arts, sculpture, architecture and landscape architecture in a way that can be applied to Video Installation. Because Video Art stems from many different media, a number of the elements found in Video Installation can be recognized in other media. For example, critics have spoken of 'Video Sculpture' because it shares certain strong similarities to sculptural form aesthetics or traditions. Applying the basic language or concepts of sculpture thus helps understanding of aspects of Video Installation. Let us begin with Pictorial Art.

i. Pictorial Art

In pictorial art, any experience of space is virtual and created from conventions relying on the mechanisms of perception. Though mass, like space may be suggested or represented, this again is the result of convention. It is self-evident that neither space, nor mass or density exists in fact in the representation.

Pictorial arts include painting, photography, print and major aspects of the film or video image. Differing primarily in the technique of their execution,
Two-dimensional artworks have traditionally taken on a range of subjects like landscape, portrait, religious pictures and still life. Therefore, at first encounter, the viewer’s response is a matter of observing subject matter in, as we have discussed earlier, a virtual space.⁸⁴

In pictorial art, space is depicted by conventions based on perception. Mass, which takes up space and density, is only present in three-dimensional objects. However, two-dimensional objects can give the illusion of mass, relative to the other objects in the picture and representation.

**Perspective and Perception**

It is well understood that perspective is the chief, if not exclusive, convention used to indicate the spatial relationships of objects in a picture. It is based on the perceptual phenomenon that causes objects farther away to appear smaller. A viewer can identify, through perspective, the spatial relationship between the objects in the foreground and the objects in the background: though aspects of the convention may be confounded by the artist, through perspective and its basis in perception, the viewer can discern whether the relationships conform or not.

Dennis Sporre characterizes linear perspective by “...the phenomenon of standing on railroad tracks and watching the two rails apparently come together

---

⁸⁴ Non-objective or abstract art may challenge this particular notion of subject matter and virtuality. Though an argument may be made that it can fit the concept it is simpler and less contentious not to consider it as a Pictorial Art as it does not aim at a depiction.
at the horizon."85 Here line is seen as the basic building block for creating a sense of distance. The important aspect of line is its applied rather than its physical condition. A line in the picture may not represent any depicted linear object, and similarly a spatial arrangement is possible by implication without a physical line between the forms. Thus line is used by the artist to control our vision, to create unity and by implication, emotional value, and ultimately to develop meaning. From this vision, form is created which is the shape of an object within the composition. Here form is a space created by line, it is illusory or virtual.

This artistic virtuality of pictorial art may be understood by contrast to artistic actuality as Chrissie Iles says for example: "Minimalist artists engaged the viewer in a phenomenological experience of objects in relation to the architectural dimensions of the gallery – not to pictorial space – transforming actual space into a perceptual field."86

Video and Pictorial Art

Of video's relationship to other pictorial arts, from the spectators' point of view, Ravenal states: "Visitors can choose to watch the video's entire linear sequence or choose not to watch at all. But they do not have the options of exploring the image part by part, layer by layer, at their own pace, as they do

with the fixed image or object. Video unfolds at the artist's discretion."87 The encounter of an observer with a virtual space described above through perception takes place within a culturally specific format – a screen, canvas or book, for example. The pictures are destined only for certain spaces – private, gallery or museum spaces – in which certain uses and certain reactions to them are appropriate. The "...cultural arrangement, however, is itself an example of interaction of virtual space, format and social space."88

As discussed above, through perceptual mechanisms, the viewer's senses are stimulated. One can not touch, smell or hear pictures. A picture affects the viewer's senses only in terms of visual stimuli that are transposed into mental 'images' or recollections of our sense of touch, smell, hearing and so forth.

Though Ravenal contrasts video to other pictorial art stressing artistic control of the linear sequence (an argument I believe only applies to Single-screen Videotape), it remains true that painters and other visual artists have developed methods of controlling the gaze of the viewer. When one looks at a picture for the first time, the eye moves around it, pausing briefly at those areas that seem to be of greatest visual appeal. Traditions of pictorial composition have sought to control and use these focal areas. Some paintings have a single focal area to which one's eye is drawn immediately and from which it will stray only with conscious effort. By contrast, some other paintings have an infinite

87 Ravenal, p.1.
88 Summers, p.45.
number of focal points where the eye bounces at will from one point to another
in the picture, without any attraction at all. Summers notes that: "Artists use
focal areas, of whatever number of variety, as controls over what we see and
when we see it when we look at a picture." 89

Wim Beeren attempted to define the relationships between painting and
video as follows:

Painting and Video Art have colour and the way it is formed in
common. Drawing and video both employ the line and the way it
is formed. Painting, drawing and video share an interest in space,
both open and closed. Like these art forms, Video Art can concern
itself with perceptible reality and transpose it into abstract signs
for percept. Video can also draw on visual art in order to
concretize a visual form built up from its own means into so-
called autonomous forms. Like painting and drawing, Video Art
is two-dimensional and manifests itself in colour and line,
creating them into form and units of form. Video Art can share
with the graphic arts the features it has in common with painting
and drawing. 90

For my purposes, I understand a range of overlaps between the pictorial,
depictive aspects, of painting or photography and the video image. Though the
language of pictorial art can control the sequence through which the spectator
experience the picture, this control does not match the degree of control offered
by the sequential linearity of video.

89 Sporre, p.55.
90 Wim Beeren, "Video and the visual arts", in The Luminous Image, Stedelijk Museum, Amsterdam,
1984, p.27.
ii. Video and Sculpture

Traditionally sculpture, in contrast to pictorial art, tended to occupy a more public and less personal context. Sculpture was frequently displayed in public spaces: in public parks, squares or outside buildings.

Though the historical context of sculpture remains in a tradition of public space the modern period has increasingly seen sculpture intended for gallery presentation. Consequently much sculpture, in the terms understood by Lawson91 for the spectator, occupies a personal space. The figures of Alberto Giacometti (ILL.14) for example are often viewed by the spectator in very close proximity creating a strong emotional presence.


91 See Lawson, pp.117-118.
Sculpture is a three-dimensional art. Its forms occupy rather than depict space and this is true for non-objective as well as representational work. Unlike a picture, a sculpture has actual mass and its materials have density. Not only does sculpture occupy space, when it is encountered by the spectator, both spectator and sculpture occupy the same 'real' space. They are present one with the other in the same real space.

By contrast, the space represented in a picture is of a different order to that 'real' space occupied by the spectator. This is most evidently demonstrated by the ability of the spectator to move around, and in some cases, through a sculptural work. The presence of a spectator with a work of sculpture lends a sense of 'reality' to the work and is intrinsically interactive through mobility.

Full round sculpture can be viewed from any angle. Because it explores full three-dimensionality, its actuality poses certain constraints in its subject matter. Pictures through their virtuality have 'virtually' unlimited choice of subject matter and compositional arrangements.

Sculpture unlike painting is also limited by the practicalities of engineering and gravity. Because it occupies real space, the use of perspective and illusory spatial relationships within sculpture may create paradoxes.

The tradition of sculptural relief (bas-relief) and paintings that extend physically from the canvas combine aspects of pictorial and sculptural form. In work of the modern period as for example in the collages of Picasso (ILL.15) or recent work by Frank Stella (ILL.16), the interplay between pictorial illusion and
(ILL. 15) Pablo Picasso, *Guitar and Sheet Music* (1912)

(image from http://www.artnet.com/artwork/170425/-Frank_Stella_A_Had_Gadya.html)
sculptural actuality has become part of the language and aesthetic experience of such works.

Similarly some fully free-standing sculptures, as for example works by Anthony Caro (ILL.17) have incorporated 'linear' elements where a suggested perspective may create an illusory space in contradiction to the actual space occupied by the work.

Steel, painted green & olive, 215 x 320.5 x 390cm

Linear sculpture may emphasize its construction with thin, elongated items such as wire or neon tubing. Like Beth Galston’s *Ice Forest* (2000-2003) (ILL.18), using linear materials, the works occupy an actual three-dimensional space but suggest another virtual space. Sporre notes that the three-dimensional
space created by the linear sculpture will "...occasionally puzzle us as we consider or try to decide whether they are really linear or full round." 92

Urethane resin, monofilament, Dimensions Variable
(Image from http://www.sculpture.org/documents/scmag05/March_05/webspecs/conner.htm)

**Viewer**

Though at first the mobility of the spectator in sculpture may seem to reduce the control the artist may exert on the sequence of viewing or focus, in fact, the form of a sculpture work may also direct our eye from one point to another, just as focal points do in a picture. In a work like Anthony Caro's *The Window* the eye is directed through the piece and then off into an 'external' space.

92 Sporre, p.68.
It is clear that the sculptural language is, like painting, able to control the spectator’s eye and thereby the formal and emotional experience. Indeed, though much analysis of modern sculpture concentrates on form and concept, many of the devices used can be understood in terms of an emotional language through controlling the eye of the spectator. For example, the introduction of negative forms and holes by Henry Moore (Ill.19) or Barbara Hepworth (Ill.20) may be interpreted as ways of directing the emotional gaze of the spectator. It might be argued that the attraction for certain avant-garde sculptors of incorporating pictorial features, like linear perspective or colour is the greater opportunity this offers for directing the gaze - an equivalent to creating focal areas, in the pictorial arts.

(image from http://www.answers.com/topic/henry-moore)
If the main tradition of sculpture derives from figurative statuary, from the Greek through the Roman period to Rodin and beyond, modern sculpture has increasingly imported forms from other sources in painting, architecture and kinetics. Modern experiment in sculpture has often highlighted features like touch, weathering effects or architectural scale as integral to the presence and actuality of the work. Though some of these qualities may exist in, for example, the ‘feel’ of the marble in a Michelangelo statue, the modern period has often given them a central place in the work.
Even the assumption of permanence in a work has been challenged by transient pieces that may decay or disappear back into a landscape, as in some of the remote works of Richard Long (ILL. 21).

(image from http://www.vitruvius.com.br/arquitextos/arq000/bases/texto119.asp)

Again, as well as understanding the extension of the sculptural language as a formal issue we need also to understand it in terms of its psychological effect on the spectator.

Though there are exceptions, sculpture tends to occupy a personal space relationship (in the terms understood by Lawson). In this respect it already has the characteristics that arouse people to touch, initiating sensory urges other than visual, allowing texture and even temperature to become part of the
sculptural language. Even when actual touch is impossible for the spectator, the surface texture or its illusory image translates into an imaginary tactile sensation.

A copper sculpture will change its colour by oxidation in time. A spectator's response to such work is shaped by the effects of age (time) on it. Increased awareness of pictorial elements like perspective and colour or issues of tactility like texture represent a form of fusion with the pictorial arts. Other features, like decay, weathering and transience involve other forms of fusion or extensions of the sculptural language. Sculpture now takes on not just the conditions of space but also of time.

Another feature of modern sculpture that combines the experience of time with space is in the exploration of kinetic works as in the mobiles of Alexander Calder⁹³ (ILL. 22), the sculptural machines of Jean Tinguely (ILL. 23) or

![Little Spider (1940)](http://academy.smc.edu/et16/s2002/images/calder_little_spider.jpg)

(ILL. 22) Alexander Calder, Little Spider (1940)
(image from http://academy.smc.edu/et16/s2002/images/calder_little_spider.jpg)

the mechanical sculpture by László Moholy-Nagy documented in his film *Ein Lichtspiel: Schwarz, Weiss, Grau* (1930) (ILL.24). This kinetic sculpture and the film he made from it also introduces another sculptural component to space and time, that of artificial light, an opportunity also taken up by contemporary sculptors.
Light and Environment

In traditional sculpture, until the introduction of electric lighting, it would normally be assumed that light was the natural illumination of sunlight. Even when not controlled by the artist, the lighting plays an important role in a spectator's perception. The direction and the intensity of light projecting three-dimensional work can change the composition significantly. This is particularly an issue in galley or in indoor presentation. Diffuse room lighting gives greater choice to the spectator to explore all aspects of a sculpture. By contrast, if a work is placed in a darkened room and illuminated from specific directions, this conditions the dramatic responses, controls the perception and experiences of
the spectator. This is true whether the lighting is determined by the artist or exhibitor.

Before the invention of electric light there could be no serious concept of illumination as a component of the work. In addition to the control or otherwise of illumination some sculptural works like Dan Flavin’s *Untitled (To Donna)* (1971) (ILL.25) have incorporated light sources into the three dimensional work, or as in Moholy-Nagy’s *Ein Lichtspiel: Schwarz, Weiss, Grau*, use specific light sources to play on moving surfaces creating reflections and casting shadows.
A further extension linking space, time and light has been explored in film and in particular in *Line Describing a Cone* (1973) (ILL.26) by Anthony McCall where the light beam from the projector becomes a translucent 'physical' entity into which the audience can walk and interact. Of course video, when used as a sculptural form, either with monitors or projection, also incorporates light sources and time linking directly to aspects of modern and contemporary sculpture.
iii. Architecture and Environment

Beyond and additional to light or illumination the physical environment is an intrinsic factor of sculpture's three-dimensional space. As artist and critic Thomas Zummer says: "Some works tacitly reproduced the museum's architecture as their own, or co-opted it, or some aspect of it; some effected an insular relation to the exhibition space; some contaminated it; some presumed it to reside solely within the purview of an audience; some blurred the distinctions between public and private."94

Architecture, together with the urban environment and landscape architecture, provides the predominant basis for our daily visual and three-dimensional experiences.

Architecture is the art of social space. In approaching architecture as an art and an art of social space, it is virtually impossible for us to separate aesthetic properties from practical or functional properties. An architect's principal concern has to be the work's practical function as a building and the aesthetics of the building must be tailored to overall practical considerations. Nonetheless, architecture offers a considerable aesthetic language in treatment of space, texture, line and proportion as the basis of style and character.

Largely if not exclusively, architecture is the design of three-dimensional space to create practical enclosure. It shapes and gives relative distinction to

places. Sporre says that in architecture, design of space essentially means the design and flow of contiguous spaces relative to functions.\textsuperscript{95} The design of space concerns the relationship of various aspects sometimes peripheral to the primary function of buildings. Sculpture may exist in the landscape but the presentation of sculpture most frequently involves some relationship to architecture even if this is the intentionally ‘neutral’ space of a gallery.

Thomas Zummer talks of "...a mediating instance between the architectures of the museum, gallery"\textsuperscript{96} as an interface.\textsuperscript{97} Zummer argues that the architectures of the museum or gallery serve as a mediator between the arts and the spectators.

"Installations were reterritorialized spaces, simulating, co-opting, or contaminating the museum or theater, tampering with private spaces and public places, in order to confront or destabilize conventional positioning of art and its audience."\textsuperscript{98}

For example, Robert Huot and Michael Asher applied paint and polyurethane to the surface of gallery, drawing attention to the shadows cast by it's lights, and offered the space itself as an object. Michael Asher’s \textit{Untitled Installation} (1970) (ILL.27), established a relationship between works of

\textsuperscript{95} Sporre, p.187.
\textsuperscript{96} Zummer, p.76.
\textsuperscript{97} Zummer defines interface as “a surface – physical and/or conceptual – where two or more (biological and technological) entities meet, the term has also acquired a general sense in which it connotes a connection, hierarchy, or relationship of some sort, between or among diverse, heterogeneous elements.”
\textsuperscript{98} Zummer, p.76.
minimalist art and the exhibition space.\textsuperscript{99} Huot and Asher treated a space large enough for the viewer to enter a work, rather than as a gallery to be filled with a discrete object.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{image.png}
\caption{(ILL. 27) Michael Asher, \textit{Untitled Installation} (1970), Claremont, California, Pomona College, Gladys K. Montgomery Art Center Gallery. View from outer compartment to inner one, with axonometric drawing. (image from Asher, p. 89)}
\end{figure}

Recognizing or reacting to the control environment has on sculpture, in recent years many performance or sculptural artists have developed the concept

of 'site specificness.' Artists like Graham Ellard and Stephen Johnstone have designed sculptural installation often incorporating projection or lightwork where the work is intended for presentation only in that specific place. In *Holding Pattern* (1997-2000) (ILL. 28), architectural factors are seen not as a negative constraint but as a positive and integral feature of the work. The work consists of 74 stainless steel needles, 5.5 metres high, their tips formed by a blue airport taxiway light. The needles are organised according to the geometry of the roads, the principle axes being the line of Ripple Road and the line of the A13.

iv. Landscape Architecture and the Urban Landscape

Landscape architecture makes a minimal conscious impact on us while unconsciously it may make a major contribution to our emotional state – a state of well-being or otherwise. With the exception of architecture, we come into contact with landscape architecture and the structured urban environment more than any other ‘art’ form. Landscape architecture together with urban planning is an art of designing three-dimensional outdoor space - these are the ‘real’ spaces of our environment - streetscapes, malls, urban plazas, shopping centres, parks, skyscrapers, etc. Their purpose is to accommodate people’s social and commercial lives and improve their relationship with their artificial or natural environments.

The concept of functionalism – signified by the maxim ‘form follows functions’ – left its mark on present-day landscape design. As Zummer reminds us, what has evolved from this history is an art form that embraces the organization and arrangement of land and the spaces above it, including the natural and artificial physical elements that give form and character to the spaces on the land.100 The desired result is a three-dimensional pattern of elements and spaces that have functional and visual harmony and create meaningful experiences for the people using them. This desire is of course modified by the inherited form of our environment and economic constraints.

---

100 Zummer, p.155.
Space, as in sculpture but at a different scale, is a basic medium of landscape and urban design. The space is defined by natural or organic elements, the contours of land buildings, parks, and roads and above by the sky, tree cover or enclosures.

Thus a character or quality is formed by the architect's use of space, colour and texture, flowing landforms, plants, curving forms, lines and spaces, and sounds. As with other arts an aesthetic language forms the basis linking design to emotional experience. In addition and of major importance in architecture is the scale itself of the elements and spaces created.

Designing the passage of people through the physical environment also incorporates issues of time and sequence - the movement through space and movement from space to space. The landscaper or city architect can control response by the way movement is structured. Spaces can be connected in intentional sequence to create certain forms of experience.

Awareness of landscape as the potential basis for a sculptural form emerged in the 1960's through for example work by Christo and Jeanne-Claude, Smithson, and Long. An area previously seen as the domain of landscape architecture, the design or modification of the natural environment became a sculptural activity. Christo and Jeanne-Claude in Running Fence (1972-76) (ILL.29) modified a given landscape by constructing a massive curtain dividing one region from another and creating a sculptural form by enhancing the natural contours.
Smithson constructed, as in *Spiral Jetty* (1970) (ILL.30), a landscape feature reminding us of primitive ritual constructions like Stonehenge.101

---

Long (ILL.31) walked alone in wild lands like Dartmoor and deserts like the Gobi and Sahara constructing occasional patterns - circles or lines of stone from material found in those spaces.

In summary we may say that the boundaries of the traditional art forms of painting and sculpture became increasingly blurred during the modern period. Though the elements of their expressive languages like line, shape, colour, texture mass or space remained, the possible combination of these elements went beyond traditional constraints. Sculpture incorporated aspects of the pictorial arts and they in turn incorporated real three-dimensionality.

At the same time aspects of other art forms, like architecture, and urban or landscape architecture extended the three-dimensional basis of sculpture. In
addition, controlled illumination or light sources became part of the sculptural language as did kinetics and other time related features like decay and transience. Each of these features had an impact on what was understood as the role and behaviour of the spectator and the basis of the aesthetic, emotional experience. It was in this context that Video Art had its beginnings and emerged as a distinct art form.

The purpose of this chapter was to find a language for describing pictorial art, sculpture, architecture and landscape architecture in a way that could be applied to Video Installation. Especially I have concentrated on the understanding of space and the associated experience in each of the art forms. It was clear from the study that in the modern history of the plastic arts the boundaries have often dissolved and aspects of one medium or art form have been incorporated into another. Pictorial art has extended into space; sculpture has incorporated the virtual and extended to include light, movement and time. My aim here was to discover characteristics of these various art forms as they might relate to and form a base for the interdisciplinary nature of Video Installation.
CHAPTER III

VIDEO SPACE ART DEFINED

102 The reader should be aware that my attempt to define the characteristics and features of Video Space Art is primarily drawn from distinctions I have made as a result of my own practice. Though I am trying to define some general critical distinctions beyond my own art work, the main motivation has been to improve my own understanding and to guide the development of my practice.
Amongst this fusion and expansion of the forms and language of sculpture, the new technology, video emerged and became linked both to the development of sculpture and the visual arts. As Wim Beeren says: "Like sculpture, Video Art can concentrate on three-dimensionality and how to formulate it. Like sculpture, video can try to forge a link with perceptible reality, or can employ abstract means, or its own (material) plastic means."[103] The extended understanding of the elements of sculpture like space and time, people, movement, site and surroundings are also factors in Video Installation.

Video Space Art is particular in that it stimulates the senses by the full participation of the "spectator" in the use of its spaces. Video Space Art depends on a special relationship between the virtuality of pictorial art (an integral feature of the video image) and a spectator controlled in a three-dimensional environment. The element of sequential control of the spectator, as in Nauman's Live-Taped Video Corridor, is central to the interplay between active and passive participation. The medium of space – the elements constituting its boundaries or existing within it – create the atmosphere and environment of reaction.

Space is a basic medium of Video Space Art creation. In the context of David Summer's argument as discussed in Chapter II, Video Space Art can be interpreted as a virtual art within a spatial art. One finds and must accommodate both the virtual image and experiences of a real space. Both

---

[103] Beeren, p.27.
'virtual' and 'real' spaces are essential to Video Space Art. The video image, whether it is on a Single-screen Videotape or a video projection, always has elements of virtual space. When we look at the video image, we have to look into its surface (screen) to see an apparent three-dimensional reality. The images shown on the screen are understood as representations of space and additionally representations of time. Also crucial to Video Space Art is the condition of the spectators and the quality or their experience.

Once we enter the exhibition space of the Video Space Art work, we find ourselves in a real space where we may share the spaces with other people and objects. One finds the personal space of sculpture underneath the social spaces of architecture. For example, the spatial character of intimacy can be achieved by narrow paths, curving forms, lines and spaces, and even quiet sounds. The spectators find themselves in a personal space interaction\textsuperscript{104} with the art work. Tangibility, manipulability, portability and possibility are within reach of the spectator as well as its opposites when they walk through the work. The distance between the artwork and the spectator is controlled by the artist's intention. Thus Video Space Art as in architecture makes the scale, or size, of the elements of spaces, an important factor in creating an aesthetic experience. The art work embraces an articulated personal space as well as the technologies and forms necessary for virtual space. An artist gives a 'character' to its space. By 'character', I refer to the intent of the artist to create an art work whose

\textsuperscript{104} As per Summers and Lawson.
elements are harmonious and unified and support intended functions and experiences. In the course of my research, I have become aware that some aesthetic concepts differ between the eastern and western traditions and notions of harmony or unity would be expressed differently in my native Korean and it is difficult to find an equivalent for it. However, it has played a major part in my understanding linking space to emotional response.

Achieving harmony or unity has been central to my work. Through my experience of Western culture I have come to understand better how this particular notion of artistic harmony is embedded in my culture and it can be traced in the ancient Korean arts. Traditional Korean paintings search for characteristics that underline the harmony and unity of the universe. In the painting *Ten Longevity Symbols* (III.32), these symbols - the sun, clouds, rock, water, bamboo, pine, crane, deer, turtle and the fungus of immortality - are often presented all together in a single picture.
Symbols with traditional meanings have been fundamental to Korean art, for example pictures of pines and cranes or deer in large groups, and cranes and peaches presented with sea waves are expected to represent wishes for a long life.

Together with this symbolic tradition, finding and creating or adjusting my work to achieve harmony and unity has been an important aspect in making my artwork. My concept of Video Space Art, together with the importance of harmony means that I see no simple separation between symbol and space. For example in Love Potion in my Heart, the corridors, two chambers, the screen images, and heart beat sounds were intended to form a harmony with the circulation theme. I wanted the spectators to find a unity within my work. Spectators may find a harmony with the flowing water images and the heart beats and this in turn results in an emotional response. For me harmony and unity are important elements bringing space, spectator and video into one - this is central to my notion of Video Space Art.

Another basic consideration in Video Space Art is time or sequence within the spatial. Again in architecture, sequence involves movement through space and movement from space to space. Artists can control a desired response by the way they organize this movement. Spaces can be connected or directed in sequential movement forward or backward, from narrow to wide, from closed to open, from large to small, or in controlled random movement, depending on the responses and experiences desired. Of course this control is
neither precise nor absolute. It is based on the artist acting or thinking as if they were themselves the spectator. Their control of devices and forms remains intuitive.

Within a given space, Video Space Artists can create light or dark spaces depending on the density, mass, texture and colour of the enclosing elements. In addition, they can induce sequential movement through space by contrasting dark with light in their layout of spaces.

One of the most important factors in Video Space Art is the arrangement of the floor. The floor of the space becomes a basic organization of elements. The floor contains the walking spaces that define movement, and the linear qualities of these ‘arteries’ – from flowing or rigid and straight – from the backbone of spatial function and the experience of the designed spaces.

The analysis of how a work of Video Space Art is synthesized does not consist merely of an explanation of the factors I have discussed above. Video Space Art is a space-time experience that includes people as participants. It is the spectator who makes the ultimate synthesis of the work, its interplay between the actual and virtual.

Many of the components of the Video Space Art work are shared with sculpture and Video Sculpture but at the centre of its distinctness is that it can stimulate the senses only by the full participation of the ‘audience’ in the use of its spaces. I repeat Ravenal’s statement on video spectatorship: “Video presents a different model of spectatorship. As a time-based medium, it thwarts the
viewer's all-embracing glance and control of time. Visitors can choose to watch the video's entire linear sequence or choose not to watch at all. But they do not have the options of exploring the image part by part, layer by layer, at their own pace, as they do with the fixed image or object."\textsuperscript{105} As discussed in Chapter II, we shall call this full participating audience the "Spectator." Spectators move around the space, look at the walls and 'find-themselves' within the floor sequence. As Sporre states of Video Installation but modified by an insertion of my term Video Space Art, "A person's reaction to the various stimuli [in Video Space Art] can encourage active or passive participation. The medium of space— the elements constituting its boundaries or existing with it— create the atmosphere for reaction."\textsuperscript{106}

Although Video Space Art is my term and not hers, I am also happy to adopt, as part of my definition Julie Reiss' 'condition' concerning the space needed for Video Installation as: "a space large enough for the viewer to enter as a single work, rather than as a gallery to be filled with discrete objects. Emphasis is placed on the experience the viewer would have."\textsuperscript{107} An artist can stimulate a predetermined response from the spectators by her organization pattern, definition of form and spaces, use of lines, textures, and scale, and choice of materials. She is responsible for communicating her sensual qualities.

\textsuperscript{105} Ravenal, p.1.

\textsuperscript{106} Sporre, p.166.

\textsuperscript{107} Reiss, p.88.
In Video Space Art, you do not simply observe what artists have done; you experience it. You actually go into the works of art. Again I am happy to borrow the following statement by Margaret Morse as part of my understanding of Video Space Art: “These arts address the wide-awake consciousness that we call experience. Experience implies that a change has taken place in the visitor, that he or she has learned something. Rather, it exploits the capacities of the body itself and its senses to grasps the world visually, aurally, and kinesthetically.”

The key distinction between Video Space Art and other Video Installations or sculptures is that in Video Space Art, there are spectators who experience the video space by entering the artist’s realm of expression. Through the physical interaction they become an integral part of its emotional and symbolic experience.

---

108 Morse, p.165.
CHAPTER IV

Practical Analysis

1. *Magnet TV* (1965) – Nam June Paik


3. *TV Clock* (1963-81) – Nam June Paik


So far in my thesis, I have attempted to define and defend the term, Video Space Art, by means of theorizing space and the spectator. I shall now 'test' the concepts and ideas by application to existing Video Art work. I have chosen various works from a range of artists. They serve as the case studies on which to develop further the application of the Video Space Art elements, particularly space and the spectator. I attempt to explore each work by applying my understanding of space and the spectator.

In this chapter, I shall explore Nam Jun Paik's Magnet TV, Eagle Eye and TV Clock, Shigeko Kubota's Three Mountains, and Bill Viola's Heaven and Earth, The Crossing and Passage, Dan Graham's Present Continuous Past(s), Bruce Nauman's Live-Taped Video Corridor, David Hall's Progressive Recession, and Peter Campus' Negative Crossing. These 11 pieces I discuss are not meant to be comprehensive. They are chosen to provide a broad enough range of work through which we may explore an understanding of space and the spectator, and to indicate the relationships in terms of space and spectator and how we can conceptualize it. I attempt to explore how this conception of space and the spectator reshapes the medium of video and aids in understanding a broader experience of that medium.

My aim is to investigate the role of space and the spectator in each work. In order to maintain some continuity in my research, I used the works discussed here as the basis of the spectator feedback included in my PhD exhibition (see Chapter VI).
With the exception of Peter Campus' *Negative Crossing*, my discussion of the following works is based on my own experience of viewing them together with description and comment by other authors and the artists themselves where I think this adds to my understanding.
1. *Magnet TV – Nam June Paik*

(Ill. 33) Nam June Paik, *Magnet TV* (1965)
Television and magnet; black-and-white, silent; variable dimensions.
(Image from Decker-Phillips, p.129.)
Magnet TV (1965) (ILL33) was developed by Nam June Paik after other video (TV) experiments. "He had already experimented with some complicated interventions inside television sets but had not taken into consideration that magnets attached to the outside could change the electro-magnetic stream of electrons in the same way"¹⁰⁹

Nam June Paik experimented with ways to alter the video image in Magnet TV (1965). It offers a simple but radical treatment of the ways in which interactions with technology can yield new visual experiences. Paik attempted to gain audience participation through this TV experiment. Edith Decker-Phillips argues that the underlying idea came from Paik's wish to find an open form of art¹¹⁰: "As the next step toward more indeterminacy, I wanted to let the audience itself act and play."¹¹¹ Magnet TV used a large magnet which could be moved on the outside of the television set to change the image and create abstract patterns of light. The power of attraction of the magnet deflects the electronic beam from filling up the rectangular surface of the TV screen. "The field of lines is drawn up and builds veil-like patterns within the gravitational field of the magnet."¹¹² If the magnet stays in a fixed position, the picture remains stable with only minor variations which are created by fluctuations in the electrical power supply.

¹¹⁰ Ibid., p.62.
¹¹² Decker-Phillips, p.64.
Decker-Phillips states, "...with the superimposed veil, the three-dimensional picture which thus appears of the black and white TV set becomes, with the colour TV, a two-dimensional design. The horseshoe magnet is attached to the front of the screen on its lower edge. The red, blue and green of the three colour tube mark with spots the power lines of the gravitational field. They thereby make an ornament, which, through proximity to the end of the magnet, creates oscillating tracks separated into small parts (sic)."  

Decker-Phillips describes "...in the middle of the TV screen these tracks spread in lines and, on the upper edge, come to rest in round, almost perfectly round, patches." Paik used magnets to distort a 'normal' TV image and create a new abstract picture that also reveals the functioning and an understanding of the technology. Decker-Phillips argues that the fact that the critics could see the technological principle behind the work at first glance made Magnet TV so successful. "Also that a simple artistic intervention, which anyone could carry out, had created pictures of such stunning aesthetic charm."

Magnet TV may be seen as the starting point of Video Sculpture. The TV set itself has become a medium of sculpture. Chrissie Iles describes Magnet TV in her essay as the "rupture of the pictorial surface." By placing a large magnet on top of the TV, the art work is challenging "...the boundary of the

113 Decker-Phillips, p.64
114 Ibid.
115 Ibid.
object’s frame and suggest movement into a space beyond it.” 117 The art work is more than the visual disruption we see on the TV. The work has characteristics of kinetic sculpture and is experienced in the personal space of sculpture. The audience was initially allowed to move the magnet and to experiment with the work. Decker-Phillips documents that “…Magnet TV, in earlier shows, could be manipulated by visitors, as could the Participation TV (1982) (ILL.34) exhibit right next to it, which had been installed just for this purpose.” 118 This could satisfy the audience’s curiosity to touch the new medium and to enter into the personal space of the work. Each visitor could create his or her own designs with a magnet.

(Ill.34) Name June Paik, Participation TV (1982)
(image from Decker-Phillips, p. 63.)

117 Ibid.

118 Decker-Phillips, p.64.
However Decker-Phillips notes that the presentation of this work at the Whitney Museum in New York (1965) was clearly "atypical" of Paik's work method and attitude toward the works he exhibits.

Magnet TV is both three dimensional through the solidity of magnet and monitor and two dimensional though the screen surface and image. However the image also has an illusory three-dimensional quality created by the distorted lines on the TV screen. This combination could link the work to the tradition of sculptural relief and its paradoxical contradiction between perspective and real space. In addition the explicit 'intervention' of the magnet also creates a conceptual understanding of the technology but as well maintains its wonder and magic. From the real space of the sculpture, the audience is drawn to the virtual space of the TV screen.

It is difficult to give a classification to this work. It mainly has the characteristics of Video Sculpture, particularly as most presentations now do not include any audience participation. Participation through moving the magnet, which I have never experienced, creates a new dimension bringing it closer to my concept of Video Space Art.
2. **Eagle Eye – Nam June Paik**

(ILL. 35) Nam June Paik, *Eagle Eye* (1996): antique slide projector, aluminium, nine computer keyboards, eye chart, neon, nine Sony 5" white televisions model FDT-5BX5, two KEC 9" televisions model 9BND, DVD 67 x 81 x 24 1/2 inches, 5 minutes

(image from http://www.ackland.org/art/exhibitions/illuminations/image6.htm)


(image from http://www.unc.edu/tour/LEVEL_2/ackland.htm)
In *Eagle Eye* (1996) (ILL.35 & 36), the spirit of Zen and the changing dynamics of American society inspired Paik. The eagle image has connotations of the American eagle symbol but is shaped more like the eagle of Native Americans as found in their traditional art. Paik has integrated new technology into an expressive style of art. This assemblage is made up of nine computers and keyboards, forming the eagle's wings and feathers. A doctor's eye chart, projector and obsolete technologies are used for the body. As I have discussed in the video and sculpture section in Chapter II, the direction and the intensity of light projecting three-dimensional work can change the composition significantly. Here the characteristics of Dan Flavin's sculptural techniques are found in a blue neon light which highlights the atmospheric space of the eagle. The video material is a collage of images flashing onto the screen. The screen images include the earth, a solar eclipse, and American missiles.

Paik's Zen response to American society has created a unique and expressive style that creatively brings together new and old technologies. Here, there is a stronger emphasis on the computerized image than on the television image. The video is a kaleidoscope of pulsating images programmed and edited with the aid of a computer. Sublime satellite photographs of the Earth and a solar eclipse intermingle with images of American missiles launched and targeted for destruction.

While incorporating high-tech video display with low-tech sculptural collage, Paik juxtaposes these two opposing aspects of technology of past and
present. With *Eagle Eye* the artist not only provides a prescription for seeing but also a richer understanding of both art and life.\(^\text{119}\)

When viewers enter the exhibition, the bright flashing lights against the black mechanical technological pieces initially attract them to the artwork. Looking at the structure gives them instant energy and excitement because there is an endless display of simultaneous images flashing on the TV screens. The form is overwhelming when viewed close-up. One keeps trying to view all the images on each of the nine television screens which are nearly impossible due to the conflicting focal points in the installation. One gets confused by the location of the centre of interest because the bright flashing images on the TV screens draw one in from all angles - single focus is made impossible.

Upon further observation, one realizes that the nine televisions are attached to the ends of computer keyboards. One instantly wants to type on the keys but the physical interaction with the art work is not allowed - punching the keys must be imagined. The key boards symbolize and encourage interaction but also frustrate it; interaction becomes symbolic and virtual not real.

The blinking images that appear in concentric circles relax and calm the audience. However looking intensely at the lights becomes uncomfortable. Viewers are forced to shut their eyes for a while and then take a few steps back and view the image again. In this context it is a surprise to observe an eye examination chart of a kind found in doctor's surgery. Being able to read the

letters clearly from the chart is reassuring. It also suggests that Paik wished the spectator to make a connection between optical effect and the eye’s function. In addition to the similarities in the sculpture’s components, the video shown on each of the television screens are also alike. They not only comprise similar images, but draw on the compositional experience from his musical background. Jacquelyn Serwer describes that the video represents “…visual ‘compositions’ where Paik creates the sequence and tempo in which the viewer observes the image.”

Though this work has a strong interplay between the visual of the screen image and the actual physical presence of the piece, the strong object quality dominates the experience associating it not only with sculpture but with a tradition of the representational statue. I would not consider this to be a work of Video Space Art.

3. **TV Clock – Nam June Paik**

(Ill. 37) Nam June Paik, *TV Clock* (1963-81), Twenty-four manipulated colour televisions. (Only 18 televisions shown in this picture) Santa Barbara Museum of Art

(image from http://www.guggenheim.org/exhibitions/past_exhibitions/paik/paik_top.html)

(Ill. 38) Nam June Paik, *TV Clock* (1963-81), 12 black and white TVs, 12 colour TVs. In the retrospective at the Whitney Museum of American Art, New York 1982

(image from Decker-Phillips, p. 69.)
TV Clock (1963-81) (ILL.37 & 38) comprises twenty-four black and white and twelve colour TV sets, which in each case represent the hours of a night and a day. Each television has hands that show the division of the clock faces into twelve daytime hours and twelve night time hours. The images on each is compressed into a single line with the lines on succeeding monitors rotated to suggest the hands of a clock representing each hour of the day.

Decker-Phillips points out that "...the sequences of the twenty-four TVs are not meant to show the respective exact concrete times."121 The variably inclined lines on the TV screens make one involuntarily think of the hands of a clock without in fact their actually imitating that function. From a technical point of view this line is produced through the removal of the vertical deflecting device which is on the outside of the neck of the tube.122 The installation visualizes, in a static form, a time concept of the twenty-four hour cycle whose frequency results from the rotation of the earth. "The use of colour and black and white TVs includes, beside the differentiation of light and dark, the contrast of hot and cold."123

Paik's concern here is with measuring time with a static measurement tool. The ability to measure time seems here to be expressed as a great mysterious accomplishment. By using the televisions to show time, it shows the

---

121 Decker-Phillips, p.68.

122 "The vertical output tube is cut out; you see only one straight line." Nam June Paik, "Electronic TV & Color TV Experiment", in Cat. Nam June Paik, Video 'n' Videology, 1959-1973, p. 8.

123 Decker-Phillips, p.69.
world’s changing ways of measuring this phenomenon. Here the audience can wander around the exhibition space of the installation. Paik has arrayed rhetorical and aesthetic strategies to dismantle customary ways of seeing. Even though the forms of the installation is closed in the front and open at the back, it maintains the spaces within. The curve of TV monitors embraces the spaces within. Between the closed-circuit input of the viewer and the environment, Paik creates an architecture that ‘incorporates’ the video display in the space. Building the monitors into oval shaped wall reduces the usually overbearing presence of the monitor as a sculptural object. The space created by the surrounding monitors develops an emotional relationship I relate to the enlarged negative space we find in works of Henry Moore or Barbara Hepworth. However, it is an installation with only a frontal view. The lack of space-time element limits the spectator participation. Here the sense of time the spectator witnesses is signalled and constructed by the image the artist created not by the spectator’s experience. Thus I do not consider TV Clock to be a work of Video Space Art.
Three Mountains (1976-79) (ILL.39) comprises three freestanding plywood structures: one mountain with two thirteen-inch monitors; one mountain with a five-inch and a thirteen-inch monitor, and a speaker with sounds of wind and ambient sounds from the landscape. Plastic mirrors on the monitors' surface reflect a four-channel tape of the south-western landscape. Mary Jane Jacob, a
long time Kubota curator, states that "...Three Mountains installation was undertaken in 1976 as an ode to the landscape of the American West."\textsuperscript{124}

Shigeko Kubota describes the mountains in her work as follows: "my mountains exist in fractured and distended time and space. My vanishing point is reversed, located behind your brain. Then, distorted by mirrors and angles, it vanishes in many points at once. Lines of perspective stretch on and on, crossing at steep angles, sharp like cold, thin mountain air. Time flies and sits still, no contradiction."\textsuperscript{125}

Kubota’s installation remains mainly in a two-dimensional perceptual area. The virtual space presented inside the monitor is doubled by the layout of the installation. It has its focus more on the meaning of virtual space than the real space. Three Mountains presented the image of desert and mountains in southwest America as a distorted prismatic pattern.\textsuperscript{126} This work is an example of image processing in that its emphasis was on the geometric pattern of the mountains rather than on their reality. The mountains provide a visual storm of perceptual complexity in a setting of almost incomprehensible mass and volume. Sculpture mirrors nature while containing the imprint, the consciousness, of its maker.


\textsuperscript{125} Ibid., p.36.

The work employs a subtle interpretation and treatment of the monitor within an allegorical sculptural form. The viewer has to lean forward and look into its centre to observe a pool of video images. This action by the viewer is similar to looking into a mountain stream. The physical angularity and the strengths of the structure reflect the characteristics of free standing sculpture. Margaret Morse calls Three Mountains, a ‘Video Sculpture’ which "...presents an act of inverting what is inside to the outside," and says "it is as if the TV image of mountains were emptied out, its contents taking geometrical shape in the pyramids surrounding the monitors. These pyramids are, then no longer imitations of mountains, but processed, as to speak, through our image culture and offered to us again as image ghosts and mental apparitions in three dimensions." 127

This work has strong pictorial effects incorporated into a sculptural form but does not engage the spectator in its actual space. I would not consider this to be a work of Video Space Art.

127 Morse, p.162.
5. *Heaven and Earth* – Bill Viola

two-channel Video Installation, edition 1 of 2  
(image from http://www.mcasd.org/collection/permcoll/artists/viola.html)
In *Heaven and Earth* (1992) (ILL.40), a column like structure is enclosed in a small alcove. Two wood columns extend from floor to ceiling, separated by a gap of several inches. In this gap, the exposed tubes of two black and white video monitors are positioned facing each other but not touching. The upper monitor shows an image of an old woman's face on the verge of death, and the lower monitor shows the face of a new baby only days old. The images are silent and the entire structure is enclosed in a small room. Curators David Ross and Peter Sellars state, "Since the surface of each monitor screen is glass, the reflection of the image on the opposing screen can be seen through the surface of each image, with the birth-face and death-face reflecting and containing each other."128

*Heaven and Earth* is a full round sculpture with a video element in it. At eye level, the viewers are drawn into the spaces between the two monitors. The reflections and the lights between them attract the viewers to imagine the authenticity of spaces formed by two pieces. The personal space of sculpture is highlighted by the intimacy between the two monitors between death and birth.

*Heaven and Earth* has strong Video Sculpture elements. There is no spectatorship and social space involved in the work. The spectator has no form of interaction with or within the space of the work. Their role is largely passive in relationship to the symbolism of the images and the translation of this

expressive symbolic content into the sculptural form of the work. I would not consider this a work of Video Space Art.
6. The Crossing – Bill Viola

(Ill.41) Bill Viola, The Crossing (1996) Two-channel colour video and stereo-sound installation, continuous loop, ideal room dimensions: 16 feet x 27 feet 6 inches x 57 feet.

(images from http://www.guggenheimcollection.org/site/artist_work_lg_1608_2viewb.html)
In *The Crossing* (1996) (ILL.41), the violent annihilation of a human figure by opposing natural forces of fire and water are projected simultaneously on two large screens. The image of a man approaches from a long distance in slow motion. He finally stops and stands still. On one screen, flames appear at his feet and quickly spread to consume his entire body. On the other screen, water pours down from above, increasing until he becomes completely ‘drowned’. The sounds of crashing water and cracking flames rise in step with what we see. In the end, the man is gone and only small flickering flames on a burnt floor remain in the one image, while a few lingering drops of water fall onto a soaked floor in the other.

Because the images are projected on the opposite sides, the viewers are at liberty to choose which side to view first. Most likely, the viewer is not aware of the choice and chooses randomly. David Morgan describing the behaviour of the viewers says that “...far more people gather quietly before this piece and remain there for its duration than most other Viola installations.”129 Morgan provides the reason for this as “...the spectacular roar of flames and deluge of water would have impressed Gianlorenzo Bernini, who thrilled his seventeenth-century audiences with dazzling stagecraft as well as hyper-theatrical sculptural installations.”130 I consider *The Crossing* as a Video Sculpture in the monumental scale. Even though the art work contains full round sculpture features, the


130 Ibid.
images on one side are unpredictable from the other. The continuum of the
sculpture – its unity - is denied by this work which creates an unexpected and
surprising reaction when one moves to the other side. The work is sculptural;
though the physical movement of the spectators and their construction of a
meaning for the video are present, pictorial elements are strong in the work
which leads me not to see this as a work of Video Space Art.
In *Passage* (1987) (ILL.42), a long narrow corridor (20 feet) leads to a small inner room where a large projection fills an entire wall, 16 feet wide by 12 feet high. A videotape of a child's birthday party is being played back in extreme slow motion, taking seven hours to unfold. As spectators enter the room, they find themselves in a real space. The room's architecture places the viewer uncomfortably close to the image, and the deep rumbling sound of the slowed children's voices fills the space. The narrow corridor to the video image creates
an intimacy of personal space. Many spectators do not walk towards the video image when someone else is already inside the corridor. They avoid the personal interaction which is inevitable between the walls. Thus most of the spectators are wandering outside the corridor looking into the image far away. Only the 'brave' and 'curious' ones may take a risk of entering the "birth canal" of Viola’s work. The use of space is well reflected in this work. An architectural structure encloses the spectator's time. The hallway and viewing room frame an image that transcends human scale in both time and space, placing the child's birthday party in the internal, subjective domain of ritual, memory and emotive association.

David Ross and Peter Sellars, the curator of Bill Viola's exhibition at the Whitney Museum of American Art in New York, state that "...Passage is a hybrid between the forms of installation and Single-screen videotape." The installation is constructed in the physical form of an archetypal emblem of transition and transformation, the tunnel or long narrow passageway, which ultimately refers to our original passage through the birth canal. David Morgan writes, "If the narrow corridor is the 'passage' to the past, which is replayed as the massive image of the party on the wall, the room itself is the inner chamber of memory in which the raw sense data of experience are played and

132 Ibid.
replayed.\textsuperscript{133} The structure frames an image that transcends human scale in both time and space, placing it in the internal or subjective domain of memory and emotive association. The child's birthday party, a familiar rite of passage and contemporary vestige of an ancient perennial ritual, regains some of its ritualistic and mythic stature through the manipulation of space and extreme extension of time. Morgan argues that Bill Viola has constructed a spatial metaphor for memory in order to express the 'you-are-there' experience.

Morgan describes the experience of the spectator in viewing the art work: "The images are so magnified that the scene dissolves before the eye in ever-shifting patterns of colour and the horizontal scanning lines that comprise the video screen. Since the room in which one stands is only seven feet deep, the viewer cannot gain much distance from the screen. If one backs down the passageway to get a better view of the piece, most of the image is blocked. There is no optimal point from which to view the video and assemble it into a coherent narrative whole even though the subject matter is intelligible."\textsuperscript{134}

As discussed in the previous chapter, the time and space forms sequence and the sequence leads to an event. In this work, the conflicting time scale of the 7 hour birthday party and the less than 15 second walk through the 'birth canal' expresses a paradox of our lives. The video requires the spectator to occupy real time in order to experience the art work. The art work requires you to stand as a body in a public space among other people. In Passage, we can find

\textsuperscript{133} Morgan, p.91.

\textsuperscript{134} Ibid., p.89.
many elements of Video Space Art. Bill Viola has built an installation where the spectators can have different experiences going though the personal and social space. Viola makes the viewer self-visible in a social presence confronting oneself and as an integral part of the artwork.
In Present Continuous Past(s) (1974) (ILL.43), the mirrors reflect present time. The video camera tapers what is immediately in front of it and the entire reflection on the opposite mirrored wall. The image seen by the camera (reflecting everything in the room) appears 8 seconds later in the video monitor (via a tape delay placed between the video recorder which is recording and a second video recorder which is playing the recording back).

If a spectator’s body does not directly obscure the lens’ view of the facing mirror the camera is taping the reflection of the room and reflected image.
of the monitor (which shows the time recorded 8 seconds previously reflected from the mirror). A person viewing the monitor sees both the image of himself, 8 seconds ago, and what was reflected on the mirror from the monitor, 8 seconds ago which is at this point now 16 seconds in the past (as the camera view of 8 seconds prior was playing back on the monitor 8 seconds ago and this was reflected on the mirror along with the then present reflection of the viewer). An infinite regress of the time continuums within time continuums (always separated by 8 second intervals) within time continuums, is created.

The mirror at right-angles to the other mirror-wall and to the monitor-wall gives a present-time view of the installation as if observed from an 'objective' vantage exterior to the viewer's subjective experience and to the mechanism which produced the piece's perceptual effect. It simply reflects present time.

Here Graham creates a space within space, more specifically, personal space. It is a play of convergences on the perception of the specular image and short term memory, the image of oneself and others producing a replay of immediate past that appears inexhaustible. The interval, which is both a gap in time and a gap in identity, becomes simultaneously established and cancelled out.

The installation contrasts the experience of two different systems of visual capturing: the static image in the mirror and the fluid video image. By juxtaposing them, the artist gives materiality to the impalpable gap between a
tantalizing illusion and its dissolution. The installation highlights the experience of looking and participating in a retroactive video loop, isolating the peculiar link between an active and passive state.

Here, Dan Graham thematizes time as a dimension that can be experienced in space. With his ‘Video Space Art’, he treats the relationship of spatial and temporal experience. Perception takes place in the present. Spectators are thus not in the position of perceiving directly things past or future. Rather the perception and the experience carry a stronger meaning here. Graham constructs a space that makes a phenomenon of constantly continuing presence available to experience by visualizing temporal distance in space. Thus Graham locks the spectator into the fiction of closed and self-contained time loop where everything is retained, recorded and controlled, producing a distinct unease in the viewer.

Michael Rush argues that the installation placed viewers in the midst of an architectural environment and thus the work “…became for the audience a lesson in feedback, watching, self-analysis, and objectivity.” 135 As Rush describes, the spectator gains an experience by entering the work. Here, the spectators “…experience their own image on mirrors as well as on monitors, thus confounding perception of what is ‘real’ and what is not.”136 The role of the spectator is central to the Graham’s work. The spatial and temporal layers are created by Graham’s use of time delay with mirrored walls. I consider this


136 Ibid.
work to be a good example of Video Space Art. Graham says: “The space/time it presents is continuous, unbroken and congruent with that of the real time, which is the shared time of its perceivers and their individual and collective real environments.”^{137} This statement tends to confirm that Graham sees the role of the spectator as an essential component in the work.

Live-Taped Video Corridor (1969-70) (ILL.44) is a study from the Performance Corridor work group; Nauman set two monitors above one another at the end of a corridor. It is built as a wide corridor with two parallel walls made from plywood measuring twenty feet long and only twenty inches wide. According to the recent exhibition catalogue at Deutsche Guggenheim, "in the video, the artist is seen parading down the corridor in the exaggerated, stylized manner of
classical sculpture. By striking this pose, whose historical function was to create the illusion of movement in a static figure, Nauman is perhaps making the point that in art that allows for real action, such devices are unnecessary. Not long after making this piece, the artist realized that the viewer could enact the same action or performance, and in so doing experience a keener sense of his physical and perceptual states. Nauman disappeared from his work and his subsequent series of corridors and rooms became the stage sets upon which he would choreograph the viewers' activities and responses. “138

*Performance Corridor* originally conceived as a prop for the other work, *Walk with Contrapposto* (1968). *Performance Corridor* was a simple composition which led to many variations. “With *Performance Corridor* Nauman transformed a prop that had initially been built for one such piece into an autonomous work.”139 The reaction from the first exhibition at the Whitney was “understandably confused”:

Willoughby Sharp: I don’t think people realized that they were supposed to enter it.

Nauman: Well, that was difficult. I didn’t want to write it down, or have an arrow, so it was left open. That piece is important because it gave me the idea that you could make a participation piece without the participant being able to alter your work.140

---

138 Deutsche Guggenheim, Bruce Nauman, Theaters of Experience (31/10/03 – 18/01/04), <http://www.deutsche-bank-kunst.com/guggenheim/e/ausstellungen-nauman01.php/>


Dörte Zbikowski asserts that in terms of conception, the art work is easy to describe: "the basic construction of his corridor is visible to everyone, the video monitors are placed on the floor or on their original cardboard boxes. There is no element that does not contribute decisively to the installation's message."\textsuperscript{141} From the original installation, \textit{Performance Corridor}, Nauman had incorporated mirrors, cameras, and monitors thus "allowing the viewer to watch his own performance, yet he or she is often confronted with a simultaneous recognition and mis-recognition of his or her variously truncated, masked or inverted image."\textsuperscript{142}

Nauman in \textit{Live-Taped Video Corridor} has shifted the focus from the visually tangible to what can be physically, emotionally experienced. The experience gained when walking towards the monitor at the end of the corridor is the essence of this piece. Nauman provokes a new observation in which 
\textquote{...the only means of finding out how something works, is to do it.}\textsuperscript{143} The elements of space and spectator are abundant in this work.

Nauman's provocation for spectator participation in the corridor is interesting. The spectator experiences the real space bounded by the two plywood wall and the description of the experience Peter Schjeldahl offers is


\textsuperscript{142} Deutsche Guggenheim.

\textsuperscript{143} Nauman in interview with Michelle De Angelus, quoted from: \textit{Bruce Nauman, Image / Text}, Kunstmuseum Wolfsburg, 1997, p.122.
“claustrophobic discomfort.” The space of twenty inch (approx. 0.5 metres) wide corridor is a very personal space. The personal space explored in Chapter II ranges from 0.5 metres to 1.2 metres. The Deutsche Guggenheim catalogue explains that the twenty inches originates from the width of the artist’s hips. Nauman offers the personal space to the spectator and invites the spectator to walk in. It places the viewer in “...the position of the performer as soon as he or she enters.” Coosje van Bruggen observes, the “...visitor entering this space goes through the same experience as artist, who in his work publicly exposes his most profound feelings and at the same time offsets his disclosures by withholding one part, thus preserving his privacy.”

The virtual space is also present in the closed-circuit installation in which the images the camera records are simultaneously played on a monitor. The lower monitor features a videotape of the corridor and the upper monitor shows a closed-circuit tape recording of a camera at the entrance to the corridor. “The viewer sometimes sees themselves and at times other person or recordings of video projections on the monitors – which are typically incorporated into a spatial setting. (sic)” As a spectator enters the corridor, and approaches the monitors, he/she realizes that the image playing on the monitor is the recording...


146 Ibid., p.117.

of him/her. "But the closer you get to the monitor, the further you are from the camera, with the result that your image on the monitor becomes increasingly smaller."¹⁴⁸ The spectator witnesses a tension between the real space and the virtual space. The spectator inside the space now watches his or her own performance on a monitor as it happens.

It is Nauman's expressed desire to produce an art where "somebody else would have the same experience instead of just having to watch me have that experience."¹⁴⁹ It is not enough to visually understand the piece; one must walk through the corridor and experience its personal and somewhat claustrophobic environment. A New York Times article commented on this as the "...ordinary viewer be [coming] the star."¹⁵⁰

Nauman makes the spectator's responses an integral part of the work. Zbikowski attributes the success of this work to Nauman's ability to transpose his own experiences onto others. Nauman creates situations the spectators are not accustomed to adapt to. Cooke says this "...frustrating denial of physical access to what can be seen engenders a strange sense of removal or dislocation."¹⁵¹ Nauman's own words quoted by Van Bruggen, emphasize the function of space and spectator in understanding this work.

¹⁴⁹ Paul Schimmel, "Pay Attention", in Bruce Nauman, Walker Art Center, Minneapolis, 1994, p.78.


¹⁵¹ Lynne Cooke, Bruce Nauman, Dia Art Foundation, <http://www.diabeacon.org/exhibs_b/nauman/>
It's very easy to describe how the piece looks, but the experience of walking inside it is something else altogether which can't be described. And the pieces increasingly have to do with physical or physiological responses. - Bruce Nauman\textsuperscript{152}

As with Dan Graham's \textit{Present Continuous Past(s)}, I consider \textit{Live-Taped Video Corridor} to be a good example of Video Space Art.

\textsuperscript{152} Van Bruggen, p.238.
David Hall’s *Progressive Recession* (1975) is a live interactive installation (using no recording equipment) which, as the participant moves through, progressively separates and distances his/her image from its origin. “Many early installations were devised as a complex analogical mirror where the viewer, interacting with his/her image as collaborator rather than spectator, was simultaneously viewed in a process of ‘self-referring’ consciousness. It is quite evident here that the artist’s intent was to explore relationships of hitherto unapproachable psychological innovation and response, where the formal,
physical (and technological) framework was essentially the site of the experience."\textsuperscript{153}

Walking along the corridor (ILL.46) the image of the participant's back (from camera 9) is shown on monitor 8 at the opposite end, it recedes as he moves closer. Simultaneously; whereas the participant confronts his image when facing monitor 1 at the start of the walk (position \textit{A}); at position \textit{B} his

\begin{footnotesize}
\end{footnotesize}
image appears on the monitor ahead on 3; at position C his image is two ahead on 5; and at D it is three ahead on the last monitor 7.

The spectator does not then see his image again until he reaches this last monitor at position G, at which point his image is one monitor ahead (6) on the return journey; at F two monitors ahead on 4; and at E three ahead on 2. When reaching the end position the spectator’s image again appears on monitor 1. The end wall monitor 9 has a same effect on the return journey as 8 has on the outward.

Those are primary relationships at the given fixed positions. In actuality; moving from A to B to C etc. he sees partial images moving simultaneously through monitor 1 and 3, 3 and 5, 5 and 7, etc., as he moves from one lens field to the next. If he moves along the corridor, for instance, behind the described position and nears to the wall (as at AB) his complete image appears on two alternate monitors simultaneously (1 and 3 at AB).

In addition, each individual image on monitors 1-7 moves in the reverse direction to that of the participant and the overall accelerated progression. Also the receding image on monitor 8 and 9 are complimented by a continuum of ‘inserted’ images of themselves and the participant’s recession seen by facing camera 9 and 8.

Though Hall seems never to have used my term ‘Video Space Art’, in ‘progressive recession’ he has built a sequence of events that conform well to my understanding of the concept. The path of progressive recession is a directed
route. Of course one may go forward or back but Hall has built the route on which the spectator walks.

The experience depends on the spectator. In the likely event of more than one viewer being present, the added complexity of images heightens the relative spatial juxtaposition. Because the spectators are fully drawn to the video image of themselves, they seem not to be concerned about sharing their personal space. The complexity of the event and the puzzling juxtaposition of screens cause the spectators to lose inhibition about the sharing of personal space. This work is a good example of Video Space Art.
I have not seen this work exhibited. Because I consider it to be important to my study I have included it and based my description on critical descriptions and visual documents of the work.

Peter Campus' *Negative Crossing* (ILL.47) exhibited at the Everson Museum, Syracuse, N.Y. in 1974 is a closed circuit Video Installation. It included a video camera, a video monitor, a video projector, an electronic device and one double-sided screen measuring 15 metres by 6 metres.

In *Negative Crossing*, the viewers find themselves between the video monitor and the screen. On the screen, the viewer finds both self-image and the 'negative film' effect image. "For the most part, being in these pieces is like
being split, seeing yourself coming and going. You witness the interaction of two images, one (the video) often more ‘real’ than the other (a shadow, reflected, reversed or rotating image), both less real than you."\textsuperscript{154} Using the image-shadow combination, Campus gives a perceptual disorientation.

Both virtual and real space is present in this piece. The virtual space is found in both the monitor and more dramatically on the screen. Through the perceptual disorientation, the viewer is mystified by the image shown on the screen. The viewer must make the image in her head to realize that the negative image is the vertical reflection of the adjacent image. Roberta Smith observes the experience as "...a bit like seeing your own ghost or, stranger still, like watching another version of yourself see its ghost."\textsuperscript{155} The artistic experience is not just bounded by the spaces found in the virtual space. The video image allows the creation of a certain scientific ‘cool’ effect to the viewer. The image the viewer finds is a reflection of her. The intimacy the viewer finds is intensified by Campus’ knowledge of real space. According to Smith, Campus wanted "...to give the human image a new immediacy, to give the aesthetic experience of it a new intensity."\textsuperscript{156} "Campus had done this by opening out the

\textsuperscript{154} Roberta Smith, “Dark Light”, in Peter Campus, Video-installationen, Foto-installationen, Fotos, Videobänder, Neuer Berliner Kunstverein, Berlin, 1979, p.34.

\textsuperscript{155} Ibid.

\textsuperscript{156} Ibid., p.32.
image, placing it in real space and giving the viewer a crucial role to play in the image’s actual production.”

This leads to the discussion of the role the spectator plays.

The room is pitch black, my eyes need to adjust to the light... There is the sound of a machine and the presence of the room around me. I approach the area of activity. There is an explosion of light – I pull back, the room goes dark again. More carefully, I enter this area again... I must stand next to the wall, next to the image to make an image. My view from this position forces a distortion but my mind allows me to adjust to it. The image of me grows out of my body – it comes from the side where I’m standing. I look down to see the image. I feel myself drawn through the wall, but there is a wall to stop me. Again my more primitive feelings overcome me and I step back. I compose myself in the abstractions. The presence of the equipment helps break the illusion. A clumsy machine on the floor where the light comes from, a camera along the wall, a light above it... I pay attention to the realities. Very dark room, camera, light, thing that makes image, rectangle of light on the wall... I re-enter the area adjacent to the rectangle of light. My image appears.

These words of Peter Campus are an excellent illustration of what the spectator does in Video Space Art. The aesthetics of this work can not be fully absorbed by sight. The aesthetic experience described by Campus is a series of events a spectator participates in. A person, having a time and space experience within a sequence. As discussed in Chapter III, sequence involves movements through space and movements from space to space. The spectator is essential to experiencing Negative Crossing. Without the spectator, the camera has no image

157 Ibid.

to capture and nothing is projected to the screen. "You must first enter a darkened room which contains a live closed-circuit video camera (usually on a small tripod), a cone-nosed video projector and the dim, vibrating light-field which the latter projects onto the wall it points toward."159

In Negative Crossing, the spectator physically finds herself in real space and through Campus' screen projection, the spectator also finds herself in virtual space. In describing his art practice, "...your mind, eyes, and body become part of the closed-circuit system."160

Though I have not experienced this work directly, the descriptions, documentation and above all the comments by Campus himself make me see this as a good example of Video Space Art.

From the above eleven artworks in this chapter, I have explored and searched for the characteristics of Video Space Art. I have discussed the forms and contents of each artwork by applying my understanding of space and the spectator. As a result, I considered Bill Viola’s Passage, Dan Graham’s Present Continuous Past(s), Bruce Nauman’s Live-Taped Video Corridor, David Hall’s Progressive Recession, and Peter Campus' Negative Crossing fit the concept of Video Space Art well. In the next chapter I shall discuss further examples of Video Space Art based on my own practice.

159 Smith, p.32.

160 Ibid.
CHAPTER V

MY OWN VIDEO SPACE ART PRACTICES

1. Two (1999)

2. It Takes me 15 Minutes to go to School (2000)

The practical work of my doctoral research project culminated in a single installation, *Love Potion in my Heart* (2004), designed to explore and test my notions of Video Space Art. However, the concepts and ideas for this work are based on my two previous works made during my Masters course at The Slade School of Fine Art, University College London in 1999 and 2000. These earlier works are re-examined here in the light of the development of my concepts and the characteristics I have defined for Video Space Art.

*Two* (1999), *It Takes me 15 Minutes to go to School* (2000) and *Love Potion in my Heart* (2004) are my key experiments of Video Space Art and here I reflect on the making of these works. In addition I evaluate how mutually space and spectators play important roles in an understanding of my work and in my development of its expressive and formal language.

**Background, Ideas and Themes**

This is a video work that I first thought of as a Single-screen Video. It begins from a story. The story is about two people. On the surface their physical appearances are very different. Because they grew up from very different backgrounds and have different characters they do not even seem to try to understand each other. But as they go through the process of understanding each other's inner-feelings, they discover their similarities. By erasing their outer appearances they are allowed to see through the other person's inner-feeling.

As a foreign student in London, I have had to face many people who came from very different backgrounds to mine. I observed that people tended to link up with those from similar backgrounds. However, my best friend at that time came from a different background to mine and our character differences seemed great. But as time passed, we realized that we shared many similar beliefs. I realized one should not judge others based by surface appearances. I was surprised at how my views changed over time and was interested in expressing this changing viewpoint in an art work. So I shot a video aiming to portray the changing viewpoint of two people through a Single-screen Video.

But I quickly became dissatisfied with this format and so conceptually I thought that I should use the configuration of the space to explore these two
people beyond the constraints of the Single-screen. This piece was my first attempt to combine Single-screen Video and space and in retrospect I can see it as my first attempt to make a work, of what I now call Video Space Art.

(ILL.48) Two (1999)
Descriptions of the art work

In Two (ILL.48), the Single-screen Video is split between two monitors (ILL.49). There are two people walking on a yellow line in distinct and non-naturalistic style. As the camera slowly ascends, the video shows more of the two people. One person is wearing bright red shoes and colourful clothes and the other person is wearing black shoes and black clothes. The distinction is also shown in the way they walk. As the camera reaches the chest level of these two people, it zooms in.
Now the video shows two people in a situation where they are opening boxes. The performance of the two people opening the boxes is shown simultaneously on the two screens. The video only shows the hands and the box. After one box is opened, the two people find another box. They continue to open the smaller boxes (ILL.50).

(ILL.50) Two

When they open the last box, the camera fades in and an identical image is shown on the two screens. The image shown is the two people now dressed in white. Around them, a projected image of an angel sings a melody and circles them. The two people perform exactly the same action. They look at the
projected moving image of the angel and enjoy the movement. The video shows only their backs. Now the camera fades out and again fades in to the early image of the chest shot where the fading began. The camera continues to ascend. When the camera reaches the faces of these two people, their faces are painted white. Because of the paint, one can not tell the differences between the two. Like the blank paper before drawing, their faces symbolize 'Mu (無)' or emptiness. The faces are looking at each other and the camera focuses on the intimate space between the faces (ILL.51). As the video focuses on the space between them it fades out and the sounds of people walking are heard.

(Ill.51) Two

161 'Mu' is a Zen Buddhism word which can be roughly translated as 'emptiness.' When discussing Zen Buddhism, one often encounters the character for emptiness, 'mu', in expressions such as "no self," "no ego," "no holiness," and "no permanence." It is through the actual experience of 'mu' — which means transcending affirmation and negation, being and nonbeing — spiritual awakening occurs and one can finally come to realize the essential spirit of Zen.
In the installation each TV monitor displays one person. I built a cube of 2.3 metres by 1 meter. The cube was covered with translucent film and the inside of the cube became a room. As the spectator exited the room, the spectator could see the projected moving image of people walking. Because the cube was covered with translucent film, from the inside of the cube, the outside image was blurred. In the middle of the projected image on the wall, there was also a mirror. The spectator could only see the image in the mirror when he or she approached the mirror in close proximity.

*From Single-screen to Video Space Art*

When I first made this work I was not using the term Video Space Art. As an artist the concept for the physical installation emerged from an expressive desire that needed to involve the spectator in the subject and image beyond the Single-screen Video. The attempt to construct an installation began a process of clarification of a more defined theoretical understanding. The Single-screen Video within the installation and the installation structure itself express the same theme. In the video work, I express the two persons' changing viewpoints of each other. By constructing a space I had further expanded the emotional language for expressing the complexities in the representation of these two people – the idea of their differences and ultimate similarity. By transforming the images in the Single-screen into what I now think of as Video Space Art, I added another dimension to the experience. Rather than watching the image on
the Single-screen Video split in half, I had placed the split image on two separate monitors (ILL.52). I found these two separate monitors more effective than the Single-screen image for expressing the idea of two different people from different backgrounds. As these two monitors are two clearly separate objects, there exists a surrounding space between them. In a way this physical space is a kind of mental space for the spectator to make their connections.

The room where the spectator entered to view the video was small, just room enough for two people (ILL.53). The spectators had to enter the room to view the image. I created a personal space within the real space of the outside
projection. The room served as a private space where two people could come in and view the image. While the installation was being exhibited I particularly observed the behaviour of the spectators. I discovered there were various ways to experience the personal space. Some spectators preferred to go into the cube as a pair and some spectators waited to go in alone. Some people ignored the privacy of the viewing room and entered the cube while there were two people already inside.

The spectators could also experience the real space from the outside of the small room. On the wall, there was a projected video image of people walking in the street. The outside projections where you could see a lot of people walking echoed the other spectators walking around the installation (ILL.54).
Some spectators who wanted to watch the video projection were interrupted by the people who walked forward to see the mirror. On the other hand some spectators did not recognize that there was a mirror. Some spectators saw the blurred image of the other people walking from the small room as if they were experiencing these two people’s view of society. However the people in the small room could not escape the surrounding space of exhibition. Applying Bryan Lawson’s theory of space, as discussed in Chapter II, both the small room and the space in the exhibition were within the ‘social distance’ – the distance at which we can still see the faces but not intimately. The sheltered space within the cube was flimsy and the outside influence was inevitable. However, once inside the small room, the two people’s space became a ‘personal space’ in Lawson’s terms. Thus the spaces used were a
personal space within a social space. *Two* had developed from a Single-screen Video to become a work with space and a particular form of experience for the spectator.

This work depended on the spectators and ultimately on their experience not just of the video but also of the relationship between it and the scale and form of the spatial configuration of the work.

In particular I realized that I had constructed the space deliberately to control the passage of the spectator and this became more evident to me when I watched how the spectators behaved. This work began my awareness of a need to develop a form that put video in the context of space and the behaviour of the spectator.
2. *It Takes me 15 Minutes to go to School (2000)*

The next large work I made became the installation for my Masters exhibition at the Slade School of Fine Art which I described as ‘Video Space Art’ for the first time in the title card used in the exhibition.

**Background, Ideas and Themes**

This piece reflected my experiences in year 2000. I wanted to express the changes I had undergone. The year 2000 was a significant year for me. When I was a child, I dreamed about what the year 2000 would be like and what I would have become. I saw it as a turning point of my life. It was a time for my imaginings to become reality and it was a time for deep self-reflection.

Everyday, I walked to the school. It took me fifteen minutes from Judd Street to Gower Street in London. Those specific and repeated fifteen minutes for me became a very important time. It was a time to reflect on yesterday and a time to set a new hope for the day. I spent most of the walk setting a plan for the day and those blocks of fifteen minutes came to ‘represent’ year 2000 for me.

I wanted to make a piece that revolved around that repeated fifteen minutes. It was an emotional time and I wanted to make a work about that emotion. Sometimes I felt I was losing my identity in my busy day to day living and I wanted to reflect my feelings in moving image. After my experience of making *Two*, I already knew I wanted to explore video in a space and a form
that controlled the physical interaction of the spectator. But I also wanted this space and movement to express my thoughts and emotions symbolically. I never saw my work as simply a formal exercise and I always began from some emotional content.

(ILL.55) It Takes me 15 Minutes to go to School (2000)
Description and interpretations of the work

*It Takes me 15 Minutes to go to School* (2000) (ILL.55), my final postgraduate work at the Slade School, was a Video Installation that I described for the first time as 'Video Space Art'.

As the spectators entered my work, they found a number of doors in front of them (ILL.56). Multiple doors surrounded them. On the right side, they found a wall that was also a screen. The screen showed an unclear image. It was blurred but the spectator saw that it was part of a big image. Spectators wondered what that image was. It represented my path-way to the Slade School as a goal to achieve; finding the meaning of the blurred image became a parallel task and desire for the spectator. Among the many doors, only one door opened to the next stage. The spectators had to try different doors to figure out a real door that opened. Some spectators never tried to open the doors and even just left the exhibition.

(ILL.56) *It Takes me 15 Minutes to go to School*
Once the spectators went to the next stage, they saw part of the blurred image moving on the right side and found themselves in a bigger corridor than the one before. In this second corridor space, the spectators saw what the two screen-walls were. The screens were sewn together with strings on the right side closing the gaps of the two screen walls (ill. 57). Some spectators peeped through the gap to see the light which looked like a moving image. Again the spectators went through the same process of finding the right door that led to the next stage. The third corridor was a narrow path and it was just wide enough for one person to look for a door to proceed to the next stage. For me, as an artist, these three different corridors and finding the doors for the next stage were to symbolize my fifteen minutes journey to the school. The different sizes
of the corridors were the symbolism of the different situations and emotional feelings.

When they opened the last door, the spectators found themselves in a mirror reflection. On the mirror, the spectators saw a full scale view of themselves. The spectators were surprised to find themselves in the mirror because the spectator was so pre-occupied with the task of finding the way; the mirror image was unexpected. However, some spectators did not finish the journey to go to another corridor and went back to the entrance to leave the exhibition.

After the last 'journey of the corridors', the spectators followed the light and sound in the corridor which led to a projected image. On the two screen walls, the spectators found the clear images which were previously blurred.

The spectators discovered that on the two screens, there were two different images (ILL.58). One was a young girl of about 5 years old, making a sand house on the beach. The other image showed that I, a woman of 25 years old, was making a replica sand house just like the young girl. The images simultaneously showed the video performance of me and the young girl but the video image of me was in colour and the little girl was in back and white. The images showed the little girl making mistakes in her sand house whilst I made a perfect house. The young girl failed every time because her hand was very small and she did not know how to shape the sand. On the contrary, the older person was better. I had learned to control the sand.
The two girls sang a song as they built the house. The song had the same melody but the lyrics were different. The modified lyric the younger girl sang was:

Toad, Toad;  
Are you giving me a new house or old?  
Toad, Toad;  
Are you giving me a new house or old?

The lyric I sang was:

Toad, Toad;  
You will give me a new house for old.  
Toad, Toad;  
You will give me a new house for old.
The song I sang was from my childhood and it was a Korean song traditionally sung when making a sand house at the beach. In the video the song was sung in Korean but I translated it into English and placed the translation on each side of the wall for spectators to read.

For me the young girl represented my past and the other image of me was to represent the present. These two moving images with the song of the young girl and me represented the changing point of view – the change in me of year 2000.

(ILL.59) It Takes me 15 Minutes to go to School
After the spectators viewed the images on the screen, they exited through the door made of translucent film with dots (ILL.59). Above the final door, there was another projected moving image. The moving image was horizontally divided into two. The top image was shot from above - a sky view image of my daily fifteen minute journey. The bottom image was shot from below - a ground view image of the journey. Exiting though the dotted door was the end of the journey represented through the work. The dotted translucent film door served as a metaphor for my future and as the last door of my Video Space Art work.

In *It takes me 15 minutes go to school*, the spectators find my self-images on the screen and their own reflected images from the mirrors. This raises the issue of narcissism, both my own reaction to my self image and the spectator's reaction to their reflection, an issue discussed by Rosalind Krauss in "Video: The Aesthetics of Narcissism" (1976). The psychological aspect of narcissism can be one of the elements of Video Space Art like it can be in the other media. Though her arguments are interesting critically, and my own body or the reflected images of the spectators appear in my work, I do not see this as based on either self-love or a fascination with self-image for its own sake. Instead I understand it as an essential component in the exploration of space and proximity and in the symbolic field from which I construct meanings.


Experience of Video Space Art

When I made this work I knew that the 'expressive' content was to be a symbol for my daily fifteen minutes journey - my walk to the school. It would be an attempt to embody my act of reflection on yesterday and the new hope for today. My journey from yesterday to today, past to future, was step-by-step as in one of the video sequence. But my emotions on this journey were complex, as well as hope and excitement I could feel fear and pressure. In making this work I already knew that instead of simply expressing my experience in a Single-screen videotape, I wanted to take the spectator though an equivalent experience.

Like Bruce Nauman in Live-Taped Video Corridor which I described in Chapter IV, I wanted the spectators to have an experience which was equivalent. But unlike Nauman, I also wanted to incorporate symbolic aspects like the hopeful but frustrating image of me and the child building a sand house. In this respect the work was closer to Bill Viola's Passage combining a structured movement for the spectator with video shot and constructed for its symbolic content.

In order to do this I tried to structure the work as a controlled journey for the spectator who would encounter in sequence both the formal and symbolic elements. Though the spectator may understand the detail of the symbolism differently to me I saw the Video Space Art structure as an equivalent for my daily fifteen-minute journey - its thoughts and emotions.
I used the real space, the personal and social space, by creating the different sizes of the corridors. The spectators passed through the work as an event and made the symbolic connections. As David Summers might understand, this work incorporated an apparent three-dimensional experience - the virtual space - with the experience of a real space.

The experiences of the spectators who came to the exhibition varied. The spectators understood my work in their own way according to their own experience. I became fascinated and excited by the idea that though I had made one work I had made many works in the minds of the spectators.
3. *Love Potion in my Heart (2004)*

**Background, Ideas and Themes**

*Love Potion in my Heart* was prepared as the main practical component of this research. Unlike my other two works, this became almost a laboratory experiment. For about four months I experimented with the idea of space and the spectator in an empty studio. The limits of the projected image were tested and I tried to incorporate all the components of my concept of Video Space Art into the work. In this way, the work and the context of the exhibition were part of my research project and not simply an exhibition of an 'artwork'.

In *Love Potion in my Heart*, my aim was to create a work that reflected the theories I have discussed in this thesis. The use of sequence for the spectators in corridors, the difference between the private and social space, and the perception of virtual space were among the issues I wanted to explore and 'test' in this work.

The idea started simply from the expressive feeling of conflict between love and hate. When I began, I had a sense of the emotional content. I conceptualized the space in my mind and produced an actual physical model. However when I started to work in an empty studio - the real space - I realized that I could not make what I had planned. I started to divide the studio space and experimented with different configurations for the projection.

I became very aware of the big difference between working in the real space – a specific location – and exploring the spatial ideas in my imagination.
I also became aware of how different it is, not just to make a work, but also to create the basic facilities and context for a large scale installation, particularly in an academic environment. I had encountered this when I made *It Takes me 15 Minutes to go to School* at the Slade. In that case one tutor advised me to make the work as a VR (virtual reality) piece like a computer game. But I rejected this simpler option as it would not create the experience I wanted.

In making *Love Potion in my Heart* I was completely aware that the physical encounter, its scale and the reality of this for the spectator was essential for what I wanted to explore. The real space has its own language of communication with the spectators. The smell, the sound, and the feelings from different material on the walls as well as the various sizes of space are all important for the work. I wanted to explore how the language of the space affects the spectator by using both virtual and real space in my work. This was essential to exploring the concepts of Video Space Art.

Though I had some clear ideas about the space and about what I saw as the Video Space Art components I wanted to explore, the link between this and what I desired as an 'emotional' or symbolic content was less clear.

It was in the process of experimenting in the studio that some of these links become evident to me. For example, I became focused on the idea of the heart. The heart is both an emotional symbol and an impressive physical mechanism. I began to explore and consider the analogies with the heart as a basis for aspects of the installation. For example, I asked myself if the flow of
the spectator in the work might be like the flow of blood pumping though the heart. I became increasingly interested in this reality of the heart and its emotional metaphor as I researched the mechanism of circulation (ILL. 60).

1. Initial Heart Structure – First Model

2. Inside of First Model
3. Developments to Heart Structure Drawing: Circulation of blood

4. Forming of Second Heart Structure Model

(ILL.60) Developing Structures (Progress)

The Final Heart Structure Drawing for Exhibition
Description and Interpretations

After experimenting, finally I wanted to make a piece where the spectator enters my heart. When the spectators entered Love Potion in my Heart (ILL.61), it was like they were entering my heart. They entered from a directed entrance and found themselves in the left chamber of the heart. The circulation of blood was symbolic. The passage of spectators became part of the metaphor for the flow of blue and red blood cells. I connected this to the interpretation of Bill Viola’s passage as a ‘birth canal’ as (discussed in Chapter IV). The blood circulation mapped out the main structures. Like the blue blood - the deoxygenated blood - entered the left chamber, the spectators from the outside world entered my heart. In the left chamber, the spectators found the first screen. On the screen, some image was projected from far away. The image was not clear and it was difficult to make any sense of it. Also through the screen, the spectators could see other visitors in my piece. Other people’s shadows were shown on the screen so the spectators in the left chamber were seeing an interrupted image from other people in the right chamber (ILL.62).
Now the deoxygenated blood entered the transitory phase. The blue lights led the spectators into the narrow corridors. As spectators took the first turn in the corridor, they saw a red portion of the corridor. Only one person could walk through this corridor at a time. The sense of personal space was strengthened by the walls in the corridor which were wrapped with bubbles to indicate its fragile-ness. The spectator could even hear the bubbles as he walked. The walking motion in a narrow corridor caused a breeze and the bubbles made a sound. The Spectator now entered the transition door. It was a door made of bubbles (ILL.63). Once you passed the door, you became the oxygenated red blood. It was the climax of the piece. The spectators found themselves in a bright red space (ILL.64).

The spectator made another turn in the narrow corridor and found the right chamber of the heart. The space of the chamber was bigger and more spacious than the left chamber. I constructed the chambers as social spaces as defined by Lawson (see Chapter II). In that space, the spectator found other visitors in the exhibition. The spectators were free to walk around and their interactions were inevitable. Before them, there was a projected image. It was the same image as the one seen in the left chamber but clearer. It was the image of water flowing. The circulation concept was reinforced here. However now the spectator was more drawn to the sound of the heart beat. The sound of heart beat was also audible throughout the installation but it became more evident when linked to the video image (ILL.65).
(ILL.64) Love Potion in my Heart

(ILL.65) Love Potion in my Heart
One could find a harmony with the water flowing and the heart beats. But there were times when the water flowed at an extremely slow speed and the heartbeat was very fast. This conflict could be very uncomfortable.

On the right side of the screen, there was a circular moving image. In order to see the origin of this, the spectator had to go to that part of the chamber. When there, the spectator found a self image projected. The image was broken by the slow shutter of the video camera and the image was half a frame later as the video camera captured the spectator. There are similarities between this and aspects of Dan Graham’s *Present Continuous Past(s)* (discussed in Chapter IV). The spectators saw a slightly delayed image of themselves and when the camera captured the spectator, it also captured the reflected water image on the screen behind. It looked as if the spectator was in the water but interrupted by the circular movement of the image. The circular movement reinforced the whole circulation theme in the piece.

In constructing the symbolism of the piece I saw the emotional feeling of conflict between love and hate as similar to the different parts of the heart and its circulation of blood. Might the spectator be the love potion? Love is unexpected and sometimes, interrupted. There is a complex relationship between love and its opposite hate and I could only approach this through symbols and my blood and heart metaphor.

It would be misleading and too simple to describe the detail of my own symbolic interpretation. In working with the materials and developing the
metaphor I worked from intuition but linked to my research intention to explore the various aspects of my concept of Video Space Art.

For the spectator the experience of the piece is not as an eye, not as a brain, not just as a bundle of reflexes moving a body around. The work is 'offered' to the spectators for them to make their own emotional space and to live through this experience.

**Limitation and Difficulties of making Love Potion in my Heart**

Video Space Art has limitations and intrinsic difficulties for the artist. Firstly, finding the space I needed to show this piece was very difficult. I needed a large space with technical support. I had some idea and planned everything before making the work but it was not how I had envisaged it when I tried to make it in the studio. So I had to change my plan significantly when I knew where I could make the piece.

My intentions are not like those of site specific artists. I begin from an idea and emotion then plan the work and try to find the space which is similar to my ideas. Of course I knew it would be impossible to find exactly what I wanted but having a clear initial idea allows me to modify the form to fit the particular space.

In making this, work being in the space was important. I tried different materials, colours, and sizes in the studio within a limited budget. The first
screen had to be transparent enough to transfer the projected image to the next screen. I tested different fabrics for screens. I learned that making this kind of work in an academic environment was very different to working in a gallery.

By the time of the exhibition I had solved many of the problems but was not satisfied by a number of features of the work. Some of the construction was too flimsy and the black-out was never sufficient so the visual quality of the image was not as clear as I intended. In the end, the work was adequate to demonstrate and explore the concepts but not really satisfactory to give the spectator a 'full' experience.

However, the exhibition as a whole was structured to incorporate other aspects of the research including a feed-back experiment involving the visitors to the show. I saw this exhibition as a part of my research process testing and examining my concepts of Video Space Art.
CHAPTER VI

EXHIBITION SURVEY

1. Cluster Analysis

2. Survey Setting and Procedures

3. Data Analysis

4. Tree Diagrams
While I may have begun my research assuming I would establish clear categories, my own works, theoretical exploration and review of the artists showed me that these categories would always be imprecise. It was in this context that I devised an experiment with spectators who visited my exhibition in order to give a wider test for my concepts.

During the PhD Exhibition which was presented at Central Saint Martins College of Art and Design in a studio in the Charing Cross Road building from 4 - 6 June 2004, I incorporated three elements. The installation work Love Potion in my Heart, a documentation of other works related to the research, and a survey project inviting responses on a prepared form from the visitors to the exhibition. This survey was based on the eleven works I have reviewed in Chapter IV plus my own artwork in the studio. The questions were developed as a test of the applicability of the theoretical variables I had developed during my research and which have been discussed in this thesis. I wanted to find out if a group of other people would confirm my own classification for Video Space Art.

In this Chapter, I introduce a method known as 'Cluster Analysis'. This has allowed me to group the twelve art works into clusters as a way of testing the concepts that led me to the establishing a category of Video Space Art. Here I shall describe the ‘Cluster Analysis’ method, the procedures of the survey I conducted, and the results of the analysis. I shall present and interpret a graphical representation of the result as a Tree Diagram.
1. **Cluster Analysis**

Cluster Analysis is an exploratory data analysis tool for solving classification problems. I was first introduced to this method from a conversation with Dominic Chai, researcher at the London School of Economics who specializes in this method. Following discussion of my intention to develop a distinction between Video Sculpture and Video Space Art, he recommended that I attend the Masters level lectures at the Methodology Institute at the London School of Economics. From the lectures on the introduction to Cluster Analysis and suggested readings and research, and guidance from Dr. Jouni Kuha and Dominic Chai of LSE, I was able to conduct this simple survey experiment. The main objective of Cluster Analysis is to sort cases (people, things, events, etc.) into groups, or *clusters*, so that the degree of association is strong between members of the same cluster and weak between members of different clusters. Thus cluster analysis is a tool of discovery. It can reveal associations in data which were not previously evident.

Clustering techniques have been applied to a wide variety of research problems. "It is used in many areas, including artificial intelligence, biology, customer relationship management, data compression, data mining, information retrieval, image processing, machine learning, marketing, medicine, pattern recognition, psychology, recommender systems and statistics."\(^{162}\) John Hartigan provides an excellent summary of how this method has been

\(^{162}\) Alexander Strehl, *Cluster Analysis*, <http://hercules.ece.utexas.edu/~strehl/diss/node5.html>
applied. For example, in biology, clustering is used to build taxonomies of species based on their features. Hartigan describes how, in the field of psychiatry, the correct diagnosis of clusters of symptoms in paranoia or schizophrenia has been essential for successful therapy. Nearer to the field I wanted to test, he discusses the use of Cluster Analysis in archaeology, where researchers have attempted to establish taxonomies of stone tools or funeral objects for example. Artifacts made at about the same time or by the same group of people are likely to be more similar than those originating from different times or peoples. By forming clusters of similar objects, it may be possible to reconstruct something of the history of a region.

This technique seemed to me to be potentially well suited to my own attempted classification where the boundaries might be blurred and the responses subjective. The method which aims at sorting different objects into groups in a way that the degree of association between two objects is maximal if they belong to the same group and minimal otherwise, seemed appropriate to the test I wanted to make.

---

2. Survey Setting and Procedure

The visitors to my exhibition were asked to complete a questionnaire immediately (whilst they were still in the exhibition) (see Appendix 1). A photograph representing each of the works was displayed (see Appendix 2) together with instructions for completing the questionnaire. The exhibition visitors were asked to “compare and contrast the 12 Video Installations shown in the pictures...” and then to “rate the degree of similarity between each pair on a scale from 1 (very similar) to 9 (very different) and circle the appropriate number.”164 There were 66 questions which included all possible pairs. The following set of examples was given to help to understand the instruction: (orange & tangerine) pair was given a scale of ‘1’ and (orange & apple) pair was given a scale of ‘7’. Thus here the art works are described by relationships with other art works (e.g. similarity). In addition the visitors were encouraged to “use full imaginations to put [themselves] inside the pictures...” as if they were “experiencing the exhibition.”

There was no discussion about the purpose of this survey with the participants. Unlike classification, “clustering does not require assumptions about category labels that tag objects with prior identifiers.”165 Therefore,

---

164 This type of questionnaires is often used in a blind taste test. An example given by Dr. Kuha in LSE lecture was a study that surveyed 20 people for the taste test of 9 soda drinks (i.e. Coke, Diet Coke, Pepsi, Dr. Pepper, Diet Dr. Pepper, etc...) The study finds two clusters where all the diet drinks are clustered together and all the non-diet drinks are clustered together. The implication of this study is that to consumers, the sweetness distinguishes the drinks into two groups rather than the brand of the drinks.

165 Strehl.
"clustering is an unsupervised learning technique versus classification, which belongs to supervised learning."\(^{166}\)

The questions were uniquely designed so that the participants were not asked to label what they thought were Video Sculpture or Video Space Art. This was deliberate to avoid ‘biased’ responses. The advantage of the Cluster Analysis method is that the participants are not aware of any classification that is being tested. My objective here was to observe how people unconsciously view Video Installation artworks. I was not interested in any conscious classification they might make nor did I want my classification theory to influence their choices. I was interested in mapping how people saw and responded the artworks.

A total of 49 people participated in the survey. Three of the returns were discarded as the forms were incomplete. As an additional test, the questionnaire asked about the familiarity of the visitors with the specific works and Video Installation as follows:

- How familiar are you with the above art works?
- How familiar are you with Video Installations?

Here the choices were “Very Familiar”, “Somewhat Familiar” and “Not Familiar at all.”

\(^{166}\) Ibid.
These self-identification questions were asked to provide different sample groups for the analysis. From these questions, 15 participants described themselves as “very familiar” with both the particular works and Video Installations in general; 9 were “somewhat familiar” with the particular works and “very familiar” with Video Installations in general; and 11 said they were “somewhat familiar” in both cases. This left 11 of the completed questionnaires where the participants were “not familiar at all” in either case.
3. Data Analysis

My questionnaires provided me with the data which I later subjected to the Cluster Analysis. I applied the Cluster Analysis to all the responses but decided to limit my eventual findings to the 24 participants who expressed at least some familiarity with the particular works and were very familiar with Video Installations in general (The result for the "non-expert" group is documented in Appendix 3 together with a discussion of any differences). In other words my final Cluster Analysis represented the response of a group with reasonable expertise in the field.

The first stage of Cluster Analysis is the construction of distances between pairs of objects. In the survey, the participants were asked to measure the similarities between the two artworks. The less similar the artworks were the higher the rated number in a scale, and visa versa. Because the ratings are in ordinal measures, we use a "complete linkage clustering method" where in this method, "the distances between clusters are determined by the greatest distance between any two objects in the different clusters." In other words, if the respondents rated the pair (No. 2 [Bruce Nauman's Live-Taped Video Corridor] & No. 6 [Bill Viola's Passage]) as a "3" then the "3' is the distance between these two art works. In this process, the measure of the

---


relationship between any two artworks is that pair's similarity score. So, once the distance matrix (ILL.66) has been constructed by averaging the 24 respondent's ratings on all 66 pairs, the SPSS\textsuperscript{169} – Cluster Analysis software program can then display the output in the form of tree diagrams (ILL.67). Here the relationship between each pair is represented graphically by the distance between the origin and the branching lines leading to the two artworks.

\textsuperscript{169} SPSS for Windows (Release 11.5.1)
(ILL.66) Distance Matrix (Average Scores) of 24 "expert" questionnaires

<table>
<thead>
<tr>
<th>ARTWORKS</th>
<th>Magnet TV</th>
<th>Video Corridor</th>
<th>Heaven &amp; Earth</th>
<th>3 Mountains</th>
<th>Pres.Cont. Posts</th>
<th>Passage</th>
<th>TV Clock</th>
<th>Negative X</th>
<th>Eagle Eye</th>
<th>Prog. Recession</th>
<th>Crossing</th>
<th>Love Potion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnet TV</td>
<td>0.00</td>
<td>6.75</td>
<td>4.50</td>
<td>5.88</td>
<td>7.13</td>
<td>7.63</td>
<td>5.88</td>
<td>7.88</td>
<td>4.13</td>
<td>6.50</td>
<td>5.50</td>
<td>7.63</td>
</tr>
<tr>
<td>Video Corridor</td>
<td>6.75</td>
<td>0.00</td>
<td>6.33</td>
<td>5.38</td>
<td>3.88</td>
<td>3.38</td>
<td>6.75</td>
<td>5.50</td>
<td>7.25</td>
<td>4.00</td>
<td>6.75</td>
<td>5.50</td>
</tr>
<tr>
<td>Heaven &amp; Earth</td>
<td>4.50</td>
<td>6.33</td>
<td>0.00</td>
<td>4.88</td>
<td>7.13</td>
<td>7.00</td>
<td>5.75</td>
<td>7.13</td>
<td>4.50</td>
<td>8.38</td>
<td>5.00</td>
<td>6.38</td>
</tr>
<tr>
<td>3 Mountains</td>
<td>5.88</td>
<td>5.38</td>
<td>4.88</td>
<td>0.00</td>
<td>6.00</td>
<td>5.50</td>
<td>4.13</td>
<td>5.38</td>
<td>4.38</td>
<td>6.63</td>
<td>5.00</td>
<td>6.38</td>
</tr>
<tr>
<td>Pres.Cont. Posts</td>
<td>7.13</td>
<td>3.88</td>
<td>7.13</td>
<td>6.00</td>
<td>0.00</td>
<td>4.25</td>
<td>6.88</td>
<td>3.25</td>
<td>7.50</td>
<td>3.00</td>
<td>7.00</td>
<td>3.50</td>
</tr>
<tr>
<td>Passage</td>
<td>7.63</td>
<td>3.38</td>
<td>7.00</td>
<td>5.50</td>
<td>4.25</td>
<td>0.00</td>
<td>5.63</td>
<td>4.38</td>
<td>7.00</td>
<td>5.63</td>
<td>5.63</td>
<td>3.13</td>
</tr>
<tr>
<td>TV Clock</td>
<td>5.88</td>
<td>6.75</td>
<td>5.75</td>
<td>4.13</td>
<td>6.88</td>
<td>5.63</td>
<td>0.00</td>
<td>6.63</td>
<td>4.68</td>
<td>5.50</td>
<td>5.63</td>
<td>7.25</td>
</tr>
<tr>
<td>Negative X</td>
<td>7.88</td>
<td>5.50</td>
<td>7.13</td>
<td>5.38</td>
<td>3.25</td>
<td>4.38</td>
<td>6.63</td>
<td>0.00</td>
<td>7.63</td>
<td>4.25</td>
<td>4.75</td>
<td>3.25</td>
</tr>
<tr>
<td>Eagle Eye</td>
<td>4.13</td>
<td>7.25</td>
<td>4.50</td>
<td>4.38</td>
<td>7.50</td>
<td>7.00</td>
<td>4.88</td>
<td>7.63</td>
<td>0.00</td>
<td>5.88</td>
<td>5.75</td>
<td>7.88</td>
</tr>
<tr>
<td>Prog. Recession</td>
<td>6.50</td>
<td>4.00</td>
<td>8.38</td>
<td>6.63</td>
<td>3.00</td>
<td>5.63</td>
<td>5.50</td>
<td>4.25</td>
<td>5.68</td>
<td>0.00</td>
<td>7.13</td>
<td>4.63</td>
</tr>
<tr>
<td>Crossing</td>
<td>5.50</td>
<td>6.75</td>
<td>5.00</td>
<td>5.00</td>
<td>7.00</td>
<td>5.63</td>
<td>5.63</td>
<td>4.75</td>
<td>5.75</td>
<td>7.13</td>
<td>0.00</td>
<td>4.63</td>
</tr>
<tr>
<td>Love Potion</td>
<td>7.63</td>
<td>5.50</td>
<td>8.38</td>
<td>6.38</td>
<td>3.50</td>
<td>3.13</td>
<td>7.25</td>
<td>3.25</td>
<td>7.88</td>
<td>4.63</td>
<td>4.63</td>
<td>0.00</td>
</tr>
</tbody>
</table>
(Ill. 67) Tree Diagram based on 24 “expert” questionnaires

<table>
<thead>
<tr>
<th>CASE Label</th>
<th>Num</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Crossing</td>
<td>8</td>
</tr>
<tr>
<td>Love Potion in my Heart</td>
<td>12</td>
</tr>
<tr>
<td>Present Continuous Past(s)</td>
<td>5</td>
</tr>
<tr>
<td>Progressive Recession</td>
<td>10</td>
</tr>
<tr>
<td>Video Corridor</td>
<td>2</td>
</tr>
<tr>
<td>Passage</td>
<td>6</td>
</tr>
<tr>
<td>Magnet TV</td>
<td>1</td>
</tr>
<tr>
<td>Eagle Eye</td>
<td>9</td>
</tr>
<tr>
<td>Heaven and Earth</td>
<td>3</td>
</tr>
<tr>
<td>Three Mountains</td>
<td>4</td>
</tr>
<tr>
<td>TV Clock</td>
<td>7</td>
</tr>
<tr>
<td>Crossing</td>
<td>11</td>
</tr>
</tbody>
</table>
4. Tree Diagram

The above Tree Diagram is the graphical presentation of results. The purpose of this method is to join together art works into successively larger clusters, using some measure of similarity or distance. The result of clustering is this tree.

On the left of the plot, we begin with each object in a class by itself. "Now imagine that, in very small steps, we 'relax' our criterion as to what is and is not unique. Put another way, we lower our threshold regarding the decision when to declare two or more objects to be members of the same cluster." As a result we link more and more objects together and aggregate larger and larger clusters of increasingly dissimilar elements. Finally, in the last step, all objects are joined together forming a complete 'tree'.

The diagram indicates the similarity of the perceived relationships between pairs of art works by the relative distance from the origin (0) of the nearest vertical line that connects the art works' horizontal lines. To find the similarity of the perceived relationship between any two artworks, trace a path from one of the artworks to the other, following the branches of the tree diagram and taking the shortest possible path. The standardized distance from the origin (0) to the outermost vertical line required by this path represents the perceived degree of similarity between the two artworks.

For example, the survey result finds Peter Campus’ *Negative Crossing* and my *Love Potion in my Heart* very similar. Also at the same similarity magnitude, it finds Dan Graham’s *Present Continuous Past(s)* and David Hall’s *Progressive Recession*. On the contrary, Bill Viola’s *The Crossing* joins the Shigeko Kubota’s *Three Mountains* and Nam June Paik’s *TV Clock* at a further distance.

The general interpretation can be made by “cutting the branches of the tree.” It is illustrated by the dotted lines above\(^{171}\). The tree diagram above shows two clear ‘branches.’ We see two groups of art works. The first group compromises *Negative Crossing, Love Potion in my Heart, Present Continuous Past(s), Progressive Recession, Live-Taped Video Corridor, and Passage*. The second group compromises *Magnet TV, Eagle Eye, Heaven and Earth, Three Mountains, TV Clock* and *The Crossing*.

Exceeding my expectations, the results from this survey tended to confirm my own responses (as represented in Chapter IV) and supported a division between works that I would classify as Video Sculpture and those I would see as in another category, my category of Video Space Art. The clear division of the branches indicates that the people who are “somewhat familiar” with Video Installation recognise (if unconsciously) these two separate clusters. And it also implies that these participants know how to tell the difference between the two clusters of art works, again even if this is not a conscious distinction.

\(^{171}\) Here we can have more clusters by cutting more to the left but Dominic Chai and Dr. Kuha recommend that given 12 samples, having two clear clusters brings more explanatory power.
Of course this test does not and was not intended to confirm without doubt the division I had made, nor did it confirm my naming of this other category as Video Space Art. However, by using the Cluster Analysis method, the results have sufficient independence from my initial classification to support the distinction I have made.
CONCLUSIONS
This research project started when my practice began to move in a direction that I did not feel fitted the kind of critical categories that were being used to define Video Art. I was working intuitively as an artist and wanting to understand my practice better. From the work I did during my Masters Degree, my work with video moved away from making Single-screen Video and began to explore the way in which video might be incorporated into a spatial environment. I was generally aware of the history of Video Art and had seen a range of Single-screen Video both historical and contemporary. I also knew video work that had been generally understood as installation or Video Sculpture including works by Nam June Paik, Bill Viola or Dan Graham for example. I knew the work but had never analysed it in any consistent or methodical way.

In comparing my own work to that of other video artists I felt that the concept of installation was too general and that the term Video Sculpture did not apply to the way I wanted to involve the spectator within my work. At the same time I began to see a similar distinction in works by other artists but I had no secure framework with which to explore or demonstrate this distinction. At the end of my Masters course I started to use the term Video Space Art - a term I had not encountered from any other source - and when I decided to study for a PhD, I decided that this concept could form the basis linking the development of my practice to a better and more secure theoretical base.
When I began, I assumed my research would lead me to a clear description of a new theoretical category, and whilst I believe it has supported the value of this distinction, it has shown me that the concepts when looked at in detail are complex and the boundaries remain blurred.

I started the research by discussing the basic distinctions in Video Art with a number of artists and teachers through a series of interviews or extended conversations. This part of the research generally confirmed that the direction in which I was going was reasonable but, in retrospect, the framework of these interviews was not sufficiently methodical to allow any firm conclusions. Later in the research I attempted to improve this method by conducting a survey during my PhD Exhibition and produced a Cluster Analysis based on a more reliable and accepted method.

Simultaneous with my early interviews, I began to do background research in two directions. One focused on the general artistic context from which Video Art emerged and on examples of Video Art itself. The other explored theoretical issues related to space and the spectator, including theoretical work deriving from an architectural context. In this I found the concepts of Bryan Lawson and David Summers particularly stimulating.

In the early period, my research tended to be embedded in formal terms, but I became increasingly aware that my own work was strongly driven by an emotional and symbolic content. The attempts by Lawson and Summers to understand the importance and quantification of spatial proximities began to
allow me to make a bridge between the formal aspects of space and the emotional response this could bring about for the spectator.

My review of the modern historical context from which Video Art emerged was particularly challenging for my attempt to form strict categories. It became clear to me that in the modern period, the boundaries of traditional practices had been continuously broken down. Elements of the virtual, pictorial arts were being incorporated into sculpture and at the same time three-dimensionality was being incorporated into painting. In sculpture itself, the formal language was being expanded. Sculpture was exploring kinetics, time, artificial light, transience, performance, remoteness and architectural scale. It was already a mixed media activity when artists like Nam June Paik or Wolf Vostell began to work with TV, later to be called Video Art. Video Art from the beginning inherited this context of mixed media and the crossing of boundaries of art forms. If Single-screen Video (not the subject of my research) related to the pictorial arts and experimental film, much of the work that has made an impact as Video Art related itself to installation and the three-dimensional context of sculpture. Quite early on the concept of Video Sculpture became part of the critical language.

As part of my research specifically into Video Art, I drew on commentators like John Hanhardt, Chrissie Iles or Julie Reiss, but also on scholars who had recently written a PhD thesis on Video Art: Young Woo Lee, Chris Meigh-Andrews and Jackie Hatfield. Ultimately I was not trying to
develop a general theory about video Art or its history but to find a theoretical framework that helped me to understand the distinctions I made around my intuitive creative practice and particularly to develop a distinction between Video Sculpture and my term Video Space Art.

In order to examine this distinction I decided to focus on a set of eleven key works that would be considered as Video Installations and discuss their form and content. In this I used both my own response to the work and views expressed by critics or the artists themselves. For each work I finally tried to decide if I considered this to be a work that fitted my concept of Video Space Art. Of course, some of the works fitted my concept well but others only had some of the characteristics that I was looking for related to the physical incorporation of the spectator into the work though the controlled use of the space. Even if my early intention was to develop a secure category, my own review of these works showed that a completely strict categorisation was not possible. Within the research, for consistency, I used these same eleven works together with my own Love Potion in my Heart, as the basis for the more methodological survey I carried out during my exhibition. The analysis has organized these artworks into clusters based on the respondents' ratings on the similarities of the artworks. The result of the cluster analysis has shown two clusters which tended to confirm my own responses. However I would like to reiterate that my intent for using Cluster Analysis was not to provide a statistical significance to the categories I have put forward. The interesting and
noteworthy finding from this experiment was that twenty-four people who were familiar with the Video Artworks have grouped these twelve artworks into two clusters dividing what I called Video Sculpture and Video Space Art, giving me more confidence in my own distinction is that the results were based not on the pre-defined assumptions about the category labels but from undirected responses. In other words, from this cluster analysis, I have discovered structures in the people's responses without explaining why they exist. For my purposes, this general confirmation was sufficient to allow confidence that the concepts I had been developing around my practice and works from the history of Video Installation provided a workable distinction. This was a distinction that, in the details of its characteristics, helped me to understand the relationship between formal and emotional or symbolic aspects of my own work.

At the end of the research I am aware of some directions that others might explore further. In particular, the temporal aspects of the passage of the spectator might be related to the way time is controlled in Single-screen Video or in experimental film. In the early period of Video Art, artists felt a strong need to stress the media differences between film and video and to establish video as a separate art form. At that time, there was a significant difference in image quality - video, using low-band portable recorders, was black and white and had very low resolution compared to 16mm film. There was also no widespread video projection so the assumption was that, unlike film, it would
be presented as a small image on a monitor. Technological development in the past fifteen years of high resolution, low cost digital video, the availability of simple digital editing and good quality video projection have meant that film and video practice have converged. It is often now difficult to distinguish between Single-screen work produced on film or video and their aesthetic languages have come closer.

There could also be an extensive research on the way the image of the spectator, brought back into an installation through instant or time delayed video, extends and changes the emotional response of the spectator. Exploring this aspect of video, which clearly has its place in Video Space Art, could open up another range of video use and digital interactivity for example in video surveillance, web-casting and incorporation of live video into virtual reality environments.

I would also make a tentative suggestion that Cluster Analysis might be a valuable tool in art criticism and theory generally. As far as I am aware my use of this method here is the first attempt to apply it in an artistic field.

For my research, I took the lead from the issues I could see as primarily raised in my practice and have concentrated on the physical relationship between the spaces I constructed and their emotional content. At the end of the research I think I can say that a distinction can be made between Video Sculpture and Video Space Art even if many works have areas of overlap. The main characteristics of Video Space Art are primarily related to the way the
spectator is brought into the work to have a controlled spatial/emotional experience from the form of the spaces themselves, their scale, structure and proximities within the framework of social and personal space. Video Space Art also involves a fusion between the real space, emotional experience, and the virtual time and space brought about through the incorporation of video images. These images or sequences of video may be pre-recorded as in Bill-Viola's Passage or be some form of live or delayed video feed-back as in Bruce Nauman's Live-Taped Video Corridor or Dan Graham's Present Continuous Past(s). I have used video in both ways in my work - pre-recorded video in Two and It Takes me 15 Minutes to go to School, and live video in Love Potion in my Heart. But for my concept of Video Space Art in either use of video there must be some fusion between the structured movement of the spectator, the space experienced and the video representation. For my own work, I have tried to develop this fusion through some metaphor or parallel between the symbolic content of the video and the structure of movement through the space. The symbolic content in my work is clearly influenced by Korean culture. For example, as discussed in Chapter V, the two girls' faces were painted white to symbolize 'Mu (無)' (the emptiness) in Two (1999).\footnote{The colour white in Korean culture deserves a special note. From ancient times, Korean people have described themselves as the “white-clad folk” emphasizing the values of integrity and innocence. In some cultures black is the colour of mourning, while in Korea it is white. The importance of white is reinforced in Korean culture where both the new born baby is first wrapped in white cloth and the dead are buried in white clothes.} I believe research specifically on the symbolic content of Video Space Art as seen from different cultural contexts would make an interesting topic for my future research.
The limited survey experiment I carried out and my own observation of the behaviour of spectators in my work give me confidence that my own distinction between Video Sculpture and Video Space Art is not just a personal distinction that has been valuable for understanding my own practice but is a useful critical distinction within the theory of Video Art practice. It is in broadening a practicable theoretical framework for video practice by understanding the spectator's role and the implicit emotional aspect of the spaces within a Video Installation that I think my PhD has made its main contribution to the field.
**Appendix 1**

**Video Installation Experience Survey**

You are to compare and contrast the 12 Video Installations shown in the pictures.

Please rate the degree of similarity between each pair of 12 art works on a scale from 1 ("very similar") to 9 ("very different") and circle the appropriate number.

For example, (Orange, Tangerine) 023456789
(Orange, Apple) 123456789

Since the seeing the pictures is not the same experience as being present at the exhibition, please use your full imaginations to put yourself inside the pictures.

<table>
<thead>
<tr>
<th>No. 1 &amp; No. 2</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 1 &amp; No. 3</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 1 &amp; No. 4</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 1 &amp; No. 5</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 1 &amp; No. 6</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 1 &amp; No. 7</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 1 &amp; No. 8</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 1 &amp; No. 9</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 1 &amp; No. 10</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 1 &amp; No. 11</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 1 &amp; No. 12</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 2 &amp; No. 3</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 2 &amp; No. 4</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 2 &amp; No. 5</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 2 &amp; No. 6</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 2 &amp; No. 7</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. 2 &amp; No. 8</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>(very similar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(somewhat different)</td>
<td>(very different)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combination</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>No.2 &amp; No.9</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.2 &amp; No.10</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.2 &amp; No.11</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.2 &amp; No.12</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.3 &amp; No.4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.3 &amp; No.5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.3 &amp; No.6</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.3 &amp; No.7</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.3 &amp; No.8</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.3 &amp; No.9</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.3 &amp; No.10</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.3 &amp; No.11</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.3 &amp; No.12</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.4 &amp; No.5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.4 &amp; No.6</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.4 &amp; No.7</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.4 &amp; No.8</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.4 &amp; No.9</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.4 &amp; No.10</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.4 &amp; No.11</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.4 &amp; No.12</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.5 &amp; No.6</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.5 &amp; No.7</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.5 &amp; No.8</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.5 &amp; No.9</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.5 &amp; No.10</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.5 &amp; No.11</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>No.5 &amp; No.12</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>-------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>No.6 &amp; No.7 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.6 &amp; No.8 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.6 &amp; No.9 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.6 &amp; No.10 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.6 &amp; No.11 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.6 &amp; No.12 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.7 &amp; No.8 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.7 &amp; No.9 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.7 &amp; No.10 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.7 &amp; No.11 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.7 &amp; No.12 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.8 &amp; No.9 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.8 &amp; No.10 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.8 &amp; No.11 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.8 &amp; No.12 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.9 &amp; No.10 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.9 &amp; No.11 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.9 &amp; No.12 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.10 &amp; No.11 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.10 &amp; No.12 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.11 &amp; No.12 (very similar)</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How familiar are you with the above art works? (please tick the box)

- [ ] Not familiar at all
- [ ] Somewhat familiar
- [ ] Very familiar

How familiar are you with Video Installation? (please tick the box)

- [ ] Not familiar at all
- [ ] Somewhat familiar
- [ ] Very familiar
No. 4

No. 3
No. 11

No. 12

Love Potion in my Heart
Appendix 3

Cluster Results for “Non-Expert” Group

Chapter VI presents the Cluster Analysis results for the “expert group” which is based on the 24 participants who expressed at least “some familiarity” with the particular works and were “very familiar” with Video Installations in general. The results for the rest of the participants – those who said they were “somewhat familiar” with the particular works and Video Installation, and those who said they were “not familiar at all” – are discussed briefly here.

The distance matrix (ILL.68) and Tree Diagram (ILL.69) shown below are the analysis based on the 22 participants (11 from “somewhat familiar” and 11 from “not familiar at all.” The results from this “non-expert group” vary slightly from the “expert group” discussed in Chapter VI.

There are two clusters shown in the Tree Diagram. In the first cluster, there are Negative Crossing, Love Potion in my Heart, The Crossing, Present Continuous Past(s), Progressive Recession, Live-Taped Video Corridor, Passage, and Three Mountains. In the second cluster, there are Magnet TV, TV Clock, Heaven and Earth, and Eagle Eye. Like the “expert group” result, the Tree Diagram suggests two clusters which I can label one as “Video Space Art” and the other as “Video Sculpture.” The differences are that Bill Viola’s The Crossing and Shigeko Kubota’s Three Mountains now belong in the “Video Space Art” cluster. Particularly, The Crossing is in a sub-cluster with Negative Crossing and Love Potion in my Heart; Three Mountains is close to Video Corridor and Passage.
The differences between the two samples are relatively small and do not undermine the general division. The small differences may be interesting if my objective had been to test the distinctions between “expert” and “non-expert” viewers, but this was not the objective.
(II1.68) Distance Matrix (Average Scores) of 22 “non-expert” questionnaires

<table>
<thead>
<tr>
<th>ART WORKS</th>
<th>Magnet TV</th>
<th>Video Corridor</th>
<th>Heaven &amp; Earth</th>
<th>3 Mountains</th>
<th>Pres Cont. Pats</th>
<th>Passage</th>
<th>TV Clock</th>
<th>Negative X</th>
<th>Eagle Eye</th>
<th>Prog. Recession</th>
<th>Crossing</th>
<th>Love Potion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnet TV</td>
<td>0.00</td>
<td>5.78</td>
<td>5.22</td>
<td>5.94</td>
<td>8.06</td>
<td>6.69</td>
<td>4.78</td>
<td>6.17</td>
<td>5.72</td>
<td>4.72</td>
<td>5.94</td>
<td>6.94</td>
</tr>
<tr>
<td>Video Corridor</td>
<td>5.78</td>
<td>0.00</td>
<td>5.89</td>
<td>5.11</td>
<td>4.56</td>
<td>3.93</td>
<td>5.67</td>
<td>7.17</td>
<td>5.94</td>
<td>6.44</td>
<td>4.69</td>
<td>5.50</td>
</tr>
<tr>
<td>Heaven &amp; Earth</td>
<td>5.22</td>
<td>5.89</td>
<td>0.00</td>
<td>5.89</td>
<td>5.67</td>
<td>6.61</td>
<td>8.22</td>
<td>7.28</td>
<td>6.33</td>
<td>5.44</td>
<td>6.77</td>
<td>7.50</td>
</tr>
<tr>
<td>3 Mountains</td>
<td>5.94</td>
<td>5.11</td>
<td>5.89</td>
<td>0.00</td>
<td>5.39</td>
<td>4.94</td>
<td>5.11</td>
<td>5.94</td>
<td>5.33</td>
<td>6.28</td>
<td>6.33</td>
<td>5.72</td>
</tr>
<tr>
<td>Pres Cont. Pats</td>
<td>6.06</td>
<td>4.56</td>
<td>5.67</td>
<td>5.39</td>
<td>0.00</td>
<td>4.11</td>
<td>6.22</td>
<td>3.78</td>
<td>5.83</td>
<td>5.50</td>
<td>6.22</td>
<td>3.89</td>
</tr>
<tr>
<td>Passage</td>
<td>6.89</td>
<td>3.39</td>
<td>6.61</td>
<td>4.94</td>
<td>4.11</td>
<td>0.00</td>
<td>5.33</td>
<td>3.67</td>
<td>7.39</td>
<td>6.56</td>
<td>6.22</td>
<td>4.17</td>
</tr>
<tr>
<td>TV Clock</td>
<td>4.78</td>
<td>5.67</td>
<td>6.22</td>
<td>5.11</td>
<td>6.22</td>
<td>5.33</td>
<td>0.00</td>
<td>5.67</td>
<td>5.78</td>
<td>4.61</td>
<td>5.50</td>
<td>5.94</td>
</tr>
<tr>
<td>Negative X</td>
<td>6.17</td>
<td>5.83</td>
<td>7.28</td>
<td>6.94</td>
<td>3.78</td>
<td>3.87</td>
<td>5.67</td>
<td>7.83</td>
<td>4.94</td>
<td>4.50</td>
<td>3.33</td>
<td>3.33</td>
</tr>
<tr>
<td>Eagle Eye</td>
<td>5.72</td>
<td>7.17</td>
<td>5.83</td>
<td>5.33</td>
<td>6.83</td>
<td>7.38</td>
<td>5.78</td>
<td>7.83</td>
<td>0.00</td>
<td>5.94</td>
<td>6.67</td>
<td>7.22</td>
</tr>
<tr>
<td>Prog. Recession</td>
<td>4.72</td>
<td>5.94</td>
<td>5.17</td>
<td>6.28</td>
<td>3.50</td>
<td>5.56</td>
<td>4.61</td>
<td>4.94</td>
<td>5.94</td>
<td>0.00</td>
<td>7.17</td>
<td>5.11</td>
</tr>
<tr>
<td>Crossing</td>
<td>5.94</td>
<td>6.44</td>
<td>5.67</td>
<td>5.33</td>
<td>6.22</td>
<td>5.22</td>
<td>5.50</td>
<td>4.50</td>
<td>5.67</td>
<td>7.17</td>
<td>0.00</td>
<td>4.39</td>
</tr>
<tr>
<td>Love Potion</td>
<td>6.94</td>
<td>4.89</td>
<td>7.50</td>
<td>5.72</td>
<td>3.89</td>
<td>4.17</td>
<td>5.94</td>
<td>3.33</td>
<td>7.22</td>
<td>5.11</td>
<td>4.39</td>
<td>0.00</td>
</tr>
</tbody>
</table>
(ILL.69) Tree Diagram based on 22 "non-expert" questionnaires

Rescaled Distance Cluster Combine

<table>
<thead>
<tr>
<th>Label</th>
<th>Num</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Crossing</td>
<td>8</td>
</tr>
<tr>
<td>Love Potion in my Heart</td>
<td>12</td>
</tr>
<tr>
<td>Crossing</td>
<td>11</td>
</tr>
<tr>
<td>Present Continuous Past(s)</td>
<td>5</td>
</tr>
<tr>
<td>Progressive Recession</td>
<td>10</td>
</tr>
<tr>
<td>Video Corridor</td>
<td>2</td>
</tr>
<tr>
<td>Passage</td>
<td>6</td>
</tr>
<tr>
<td>Three Mountains</td>
<td>4</td>
</tr>
<tr>
<td>Magnet TV</td>
<td>1</td>
</tr>
<tr>
<td>TV Clock</td>
<td>7</td>
</tr>
<tr>
<td>Heaven and Earth</td>
<td>3</td>
</tr>
<tr>
<td>Eagle Eye</td>
<td>9</td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY


Chodzko, Adam, Personal interview, August 2003.


Hong, Sung Min, Personal Interview, July 2003.


Kim, Tae Hee, Personal Interview, June 2003.


Park, Hwa Young, Personal Interview, July 2003.


Strehl, Alexander, Custer Analysis, <http://hercules.ece.utexas.edu/~strehl/diss/node5.html>


