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PhD in Composition

Chih-Hung Weng

Music Department

City University, London

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THESIS CONTAINS

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Symbolism and Chinese culture: conceptual and practical resources in the composition of electroacoustic music

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Abstract

This thesis accompanies the five electroacoustic compositions of the Bardo series and presents a discussion of symbolism within contexts of Chinese culture and the electroacoustic medium. The work develops a view of interaction between cultures of East and West, considering issues raised in terms of philosophical research and as a substantial creative resource for composers and listeners.

Part I

1

Introduction

As a research focus this thesis examines symbolism in terms of concept and function, and can be divided into two parts, the first of these centring upon philosophical development following research in Chinese culture, and the second examining the composer's five Bardo pieces.

Part One is organised into three sub-categories, firstly examining the six methods of Chinese character design, bringing to light symbolic expression specific to both areas, but also recognising their shared creative potential, secondly discussing the various usages of symbolism within Buddhist tradition in order to draw further parallel developments with electroacoustic music; and thirdly, exploring the aspects of sound and structure in Chinese literary culture as elements of symbols which may function compositionally.

In Part Two the Bardo series will be discussed, considering the design and realisation of five compositions based on the composer's consideration of Buddhist themes of death and reincarnation.

I shall only be exploring the scenario within Chinese culture. Whilst acknowledging that there is a well-developed foundation of symbolism within

Western philosophy and psychology, my intention is to remain open to insights such

work may offer in the future.

2

The design and evolution of Chinese characters:

Considering potential parallels with symbolism in

electroacoustic music

2.1 Introduction

Both sounds and Chinese words carry two different intrinsic characteristics, the natural and the social. The natural characteristic of sound includes volume, amplitude, timbre, pitch...and so on, and for Chinese words these properties are included in combinations of lines/strokes. The convention is more about the recognised precedent of established and customary practices. For example, in social contexts, sounds appearing within spoken language communicate meaning through representing the social characteristics of sounds, and Chinese words can be used in discussion to illustrate ideas only on the basis that people understand all their definitions.

Symbolism is defined in the Chinese Dictionary[1] as "the practice of presenting abstract ideas or concepts by using concrete images." However, this definition cannot properly apply to electroacoustic music because, in this context, images evoked by sounds can never be defined as having concrete meanings. In

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[1] 康哲茂, (1978) *Chinese Dictionary* 圖解國語辭典, Zhong Guo Jin Xue Publishers 中國晉學出版社., p. 550

terms of electroacoustic music, symbolism acts as a bridge, connecting sounds and meanings. In this procedure, mediation plays an important role in determining success, or otherwise. Trevor Wishart, in referring to the voice, states: "It is the mediation between the sound of a voice and the electronic sound which gives rise to a metaphorical interpretation which would not arise if no meditation were established between the two." [2] Although this quotation is about the voice, the same mediation process can be applied to other types of sound. The relationship between words and literature may, in certain ways, parallel that between sounds and music. After organising, combining, texturing, and structuring, both words and sounds can create a more profound and abundant landscape of expression. Chinese characters are designed using lines (or strokes) - the natural characteristics of words - to symbolise their social characteristics. In electroacoustic music, a parallel procedure may exist, whereby the natural characteristics of sounds are used to indicate or suggest their social characteristics, which will be discussed in detail later[3]. It is significant that Chinese characters have at least 5000 years of history, whilst the symbolism of electroacoustic music is only a very recent development. This study will examine the development of Chinese character design, attempting to identify parallels with the symbolism of electroacoustic music.

2.2 The classification of words in written language

Words created by man can be divided into two different systems:

1) The alphabetic sequence system (for example: English).

2) The shape sequence system (for example: Chinese characters).

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[2] Wishart, T. (2002) *On Sonic Art*, Routledge, London., p. 165

[3] See 2.4.The six methods by which Chinese characters were designed

In the alphabetic sequence system, meaningless individual letters are placed in linear organisation to create words. Words in this system contain the pronunciations, but do not show the meanings. For example, when the reader sees the word 'Bardo', he knows how to pronounce it; however, the word 'Bardo' in itself does not give the meaning. By contrast, in the shape sequence system, meaningful individual lines or strokes are put together to create words. Words in the system contain the meanings, but do not show the pronunciation. As an example of this, on seeing the word '日' the Mandarin-speaking reader visualises a meaning; however, the word '日' in itself does not indicate an appropriate pronunciation.

2.3 The Origin of Chinese Characters

In 1899, when illness struck Wang Irong (王懿榮), an official in the Qing (清) Dynasty (1616-1911), he found that one of his Chinese medicines, made up of fragments of tortoise shell, had a strange appearance. The shells all bore strange carvings on their surfaces. After showing them to scholars it was discovered that the carvings were in fact written records from 3,000 years before and were of important historical significance. Further investigation found that the site where the tortoise shell fragments (See Figure 2.3.1, Figure 2.3.2) had been unearthed was actually the remains of the capital of the Shang Dynasty (1523 B.C.-1028 B.C.). Excavation revealed more than 100,000 pieces of bone and shell, all of them bearing similar markings. About 4,500 different characters have been counted, and 1,700 of them have so far been deciphered.[4]

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[4] 林西莉, (2006) *China: An Empire of Living Symbols* 漢字的故事, Mao Tou Ying Publishers 貓頭鷹出版社., p16

Figure 2.3.1₅ and Figure 2.3.2₆ - Ancient record of Chinese character design: 16th to 11th century B.C.
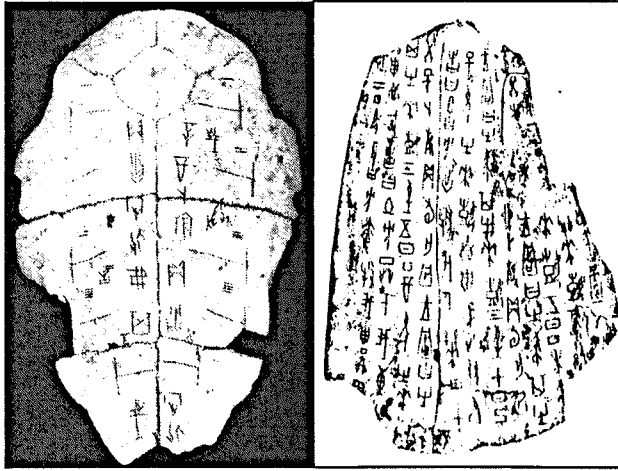
Since 1970, about a dozen pottery wine vessels have also been unearthed at Yanghe, Shandong Province. Each of them bears a character, which is quite similar to those found on the oracle inscriptions carved by the ancients of the Shang Dynasty. After careful study, scholars found these characters were created 4000-5000 years ago. At present, these characters are the earliest Chinese words to have been found. Over time, these words were reduced and simplified to a few lines and became the highly stylised Chinese characters now in use. Figure 2.3.3 shows an example of how the word ' horse' gradually transforms from the original oracle word to the Chinese Character now used.

[5] 林西莉, (2006) *China: An Empire of Living Symbols* 漢字的故事, Mao Tou Ying Publishers 貓頭鷹出版社., p19
[6] 林西莉, (2006) *China: An Empire of Living Symbols* 漢字的故事, Mao Tou Ying Publishers 貓頭鷹出版社., p18

Figure 2.3.3.[7] - Historical development of the Chinese character 'horse'

Oracle-bone script	Bronze script	Large-seal script	Small-seal script	Clerical script	Standard script	Running script	Cursive script
chia ku wen	chin wen	da chuan	hsiao chuan	li shu	k'ai shu	Hsing shu	ts'ao shu
12th - 11th centuries B.C.E.	15th - 11th centuries B.C.E.	c. 8th century B.C.E.	2nd century B.C.E.	2nd century C.E.	since c. 4th century C.E.	since c. 4th century C.E.	since c. 4th century C.E.

2.4 The six methods by which Chinese characters were designed

Lio-Sue 六書 is a theory of word structure which first appeared in the Zo

Dynasty (1600 BC-1030 BC). It contains methods by which Chinese characters were

designed and divides Chinese characters into six categories which are[8]: -

1 Shian-Sin   (象形)

2 Jir-Shir   (指示)

3 Hwe-I   (會意)

4 Shin-Shun   (形聲)

5 Jirwan-Ju   (轉注)

6 Ja-Jie   (假借)

[7] http://www.mcps.k12.md.us/curriculum/socialstd/MWH/11042%5FHandout2.html
[8] 孟世凱, (1996) *Historical Development of Chinese Characters* 中國文字發展史, Wen Jin Publishers 文津出版., p. 96

At present, most scholars view the first four categories[9] - Shian-Sin, Jir-Shir, Hwe-I, and Shin-Shun - as theories with which Chinese characters were designed, whilst the last two, Jirwan-Ju and Ja-Jie are auxiliary theories for determining the use of Chinese characters. So here, only the first four categories - Shian-Sin, Jir-Shir, Hwe-I, and Shin-Shun - will be used for the purposes of examining the relationship between Chinese characters and symbolism in electroacoustic music.

1 Shian-Sin　（象形）

Shian-Sin is a method of designing Chinese characters using pictures combined with lines to represent objects observed from a certain direction/viewpoint. The design of Chinese characters begins with observation. After observation, pictures of the objects, according to their shape and form, are drawn. Over time, these pictures were reduced and simplified to a few lines and became highly stylised. The Shian-Sin method is employed in designing these words, for example: 日，月，晶，口...

There are four points-of-view with which the Chinese character designer observes the objects before drawing the pictures that will later transform into Chinese characters[10].

a. The 'head-on' view（正面）
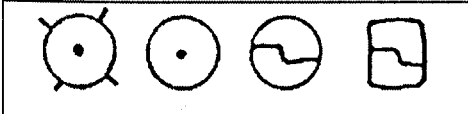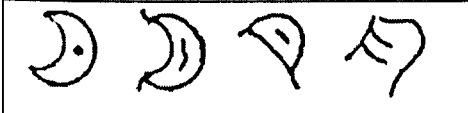
Words are observed and shaped from a 'head-on' point of view. This kind of word includes 日-Sun, 月-Moon, 人-People, 木-Tree, 山-Mountain... Figure

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[9] 許錟輝, (1999) *Basic Introduction to Chinese Characters* 文字學簡編, Wan Juan Lou Publishers 萬卷樓出版., p. 2
[10] 許錟輝, (1999) *Basic Introduction to Chinese Characters* 文字學簡編, Wan Juan Lou Publishers 萬卷樓出版., p. 160

1.4.1 is an example showing how picture-words observed from a head-on direction, gradually transform into the Chinese character now used.[11]

<u>Figure 2.4.1[12]</u> - Character development in Shian-Sin using head-on design

b. **The Side-on view (側面)**

Words are observed and shaped from a side-on point of view. This kind of word includes 鼎 – 'Container', referring to an object that was made of copper and has been used since the Shan Dynasty (1523 B.C.–1028 B.C.). Figure 2.4.2 is an example showing how the picture-word, 'Container', observed from a sideways direction, gradually transforms into the Chinese character now used[13].

<u>Figure 2.4.2[14]</u> - Character development in Shian-Sin using side-on design

Container

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[11] 許錟輝, (1999) *Basic Introduction to Chinese Characters* 文字學簡編, Wan Juan Lou Publishers 萬卷樓出版., p. 160
[12] http://logos.uoregon.edu/explore/orthography/chinese2.html#trans
[13] 林西莉, (2006) *China: An Empire of Living Symbols* 漢字的故事, Mao Tou Ying Publishers 貓頭鷹出版社., p. 169
[14] 林西莉, (2006) *China: An Empire of Living Symbols* 漢字的故事, Mao Tou Ying Publishers 貓頭鷹出版社., p. 169

c. The Aerial view (俯視)

Words are observed and shaped from an aerial point of view. This kind of word includes 川 - River, and 囪 - Chimney. Figure 2.4.3 is an example showing how the picture-word, 'River', observed from an aerial point of view, gradually transforms into the Chinese character now used.

Figure 2.4.3[15] Character development in Shian-Sin using aerial design

River
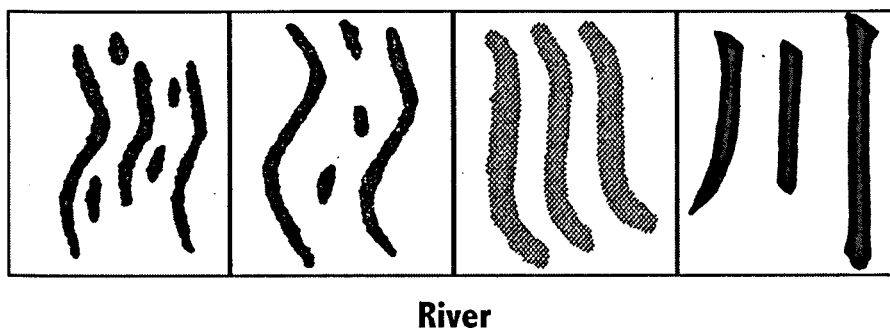
d. The Cross-section view (剖面)

Words are observed and shaped from the point of view of a cross-section. These kinds of words include: 臼 – rice container. Figure 2.4.4 shows how this word is observed in relation to the object, the rice container. The dots inside the container represent rice grains[16].

[15] 林西莉, (2006) *China: An Empire of Living Symbols* 漢字的故事, Mao Tou Ying Publishers 貓頭鷹出版社., p. 48
[16] 許錟輝, (2006) *Basic Introduction to Chinese Characters* 文字學簡編, Wan Juan Lou Publishers 萬卷樓出版., p. 160

Figure 2.4.4 - Character development in Shian-Sin using cross-section design
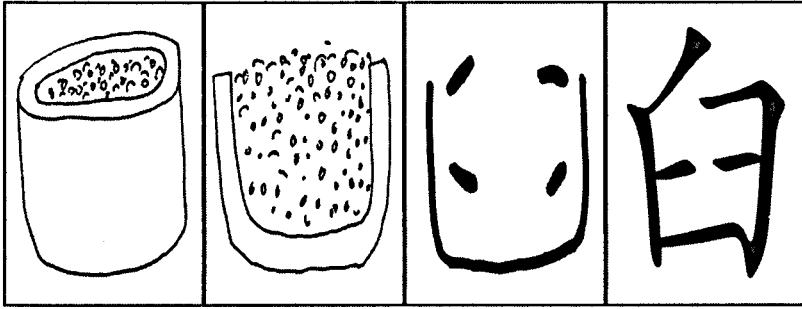
Rice container

The examples above show ways in which the Shian-Sin method of designing Chinese characters combines pictures and lines to represent objects viewed from a certain direction or with a particular orientation. Within electroacoustic music, a corresponding relationship may be observed in the use of imitation/simile as a form of symbolism, appearing through the observation and projected development of central characteristics within the sound. In a sense, sounds that directly imitate characteristics of an original sound can be used as Shian-Sin symbols in electroacoustic music. For example, sounds imitating the characteristics of a rolling stone and a moving breeze can be used in an electroacoustic context as Shian-Shin representations of earth and wind, or a juxtaposition of sounds from different contexts might be achieved via shared spectromorphological characteristics. The piece *Red Bird* (1977), composed by Trevor Wishart, employs a system of symbolism relating to imitation (or 'mimicry'). After transformation, the sound material depicts birdsong as a form of screaming and this is an example of Shian-Sin method because it imitates the characteristics of 'birds screaming'. (Music example 2A) Another such example can be found in the work 'Asklepion', composed in 1999 by Paul Fretwell (music example 2B). Describing the beginning of the piece, the composer states:

"Variants on dense, white noise, which I had created in the studio, alluded to the

almost continuous sounds of insects on the island."[17] This provides another example of Shian-Sin method, in that the white noise is used to imitate the characteristics of insect sounds.

2 Jir-Shir（指示）

Jir-Shir is an intuitive method of Chinese character design. In other words, there is first an idea in the designer's mind, which may relate to a concept, a kind of state or motion. He then creates the words using a combination of proper lines. Therefore, Chinese characters of Jir-Shir are often created by marks instead of pictures and their meanings are of abstract concepts rather than objects with real forms and shapes.

Classification of the meaning of Jir-Shir[18]（指示）

1 Words of Jir-Shir indicating concepts :

For example, the word 小 is created originally by the combination of three small dots, which express the idea of small. With the word 王 king, the three horizontal lines indicate heaven, man and earth. The vertical line connecting the three symbolises the power from heaven to earth to rule over man[19].

2 Words of Jir-Shir indicating positions :

上 Up, above: Originally shows a dot above a line,

下 Down, below: Originally shows a dot below a line.

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[17] Fretwell, P. (2003) *Mythopoeisis: a Composer's Creative Process*, unpublished doctoral thesis, City University London., p. 210

[18] 許錟輝, (1999) *Basic Introduction to Chinese Characters* 文字學簡編, Wan Juan Lou Publishers 萬卷樓出版., p. 170
[19] 林西莉, (2006) *China: An Empire of Living Symbols* 漢字的故事, Mao Tou Ying Publishers 貓頭鷹出版社., p. 206

3 Words of Jir-Shir Indicating states :

囚 Imprisonment : a sketch of a man - 人 confined within a quad -

口 as a prisoner. Though the symbol 囚 seems very picture-like,

because it is used to symbolise a specific state, as opposed to an object

or objects, the method of designing 囚 is regarded as Jir-Shir rather

than Shian-Shin.

Figure 2.4.5 Standing imprisonment in Shian-hi 1904[20]
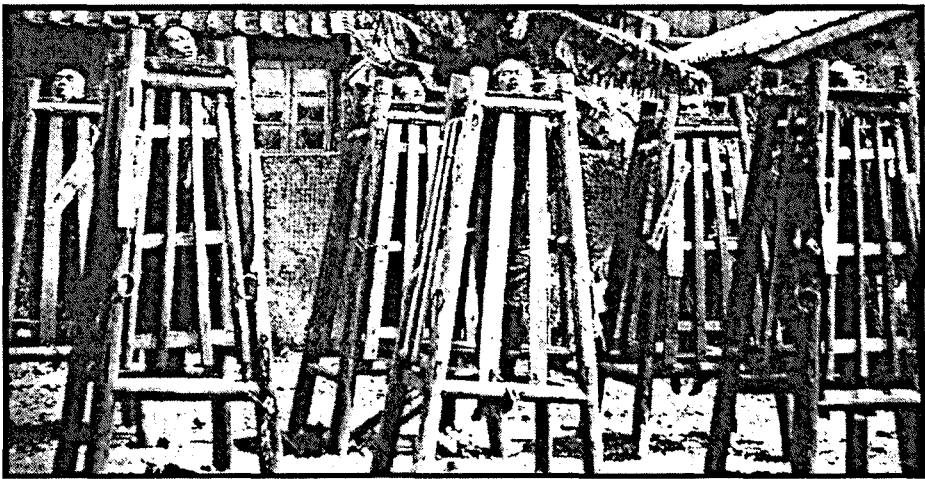
4 Words of Jir-Shir indicating motions :

入 to enter: the origin of the word uses an arrow to indicate the

motion of entering.

The function of Jir-Shir marks is not as direct as in Shian-Sin. They can only

be understood through association. In electroacoustic music, a corresponding

relationship may be observed in the symbolism of metaphor, which appears through

the presentation of the atmosphere/ambience of sounds, whether through direct or

indirect association. Since the atmosphere/ambience of sounds is not as evident as

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[20] 林西莉, (2006) *China: An Empire of Living Symbols* 漢字的故事, Mao Tou Ying Publishers 貓頭鷹出版社., p. 235

with the symbolism of imitation, association plays an important role. For example, using direct association, the metaphors of wind and fire could be perceived symbolically by the sound of wind chimes and the crackling sound of burning wood. Because such sounds are caused by wind and fire, meaning can be perceived through association. Association in its more indirect sense can be seen in the 'fire' section of *Bardo I*, in which the slight changing of pitch is used as a metaphor for a candle flame trembling in the wind. Another such example can be found in the dragon's flight towards the sky in Bardo V (music example 2C). The rhythmic section of the sounds at 5'38" is used to symbolise the dragon following the composer's imagination, while the characteristic rising of sounds from low to high at 7'19" is used as a symbol of 'flying into the sky', listener's interpretation of the metaphor can vary. Because this kind of association is more indirect, the metaphor can vary according to the listener.

Finally, Shian-Sin and Jir-Shir are limited in what they are able to express. In creating Chinese characters solely by the use of lines, a point would eventually be reached where no further variation would be possible. In addition, through the expressing of concrete objects, Shian-Sin is unable to distinguish between objects with similar shape and form - objects like stone, sun, wheel, ball, and watermelon for example. Though Jir-Shir is able to express concepts such as motion, location or a particular state, it cannot express other abstract emotional ideas such as happy, angry, sad.

Following Shian-Sin and Jir-Shir came another two revolutionary methods of Chinese character design, Hwe-I and Shin-Shun. Hwe-I expresses character meaning by using a combination of words, whilst Shin-Shun expresses character meaning by using the combination of word and sound (pronunciation).

3 Hwe-I （會意）

Literally, Hwe means "gather" and I means "meaning". So Hwe-I is a way of designing Chinese characters to express concepts by combining the meaning of one word with that of another. Sometimes, Hwe-I combines 3 or more words.

Methods of Combination[21]:

If we use 1, 2, and 3 to represent Shian-Sin, Jir-Shir, and Hwe-I, here is a list of possible combinations:

1+1 (Shian-Sin + Shian-Sin)   2+2 (Jir-Shir +Jir-Shir)   3+3 (Hwe-I + Hwe-I)

1+2 (Shian-Sin + Jir-Shir)   2+3 (Jir-Shir + Hwe-I)

1+3 (Shian-Sin + Hwe-I)

Examples[22]:

1+1 (Shian-Sin + Shian-Sin)

林 Tree - 木 + tree - 木 = small forest: The combination of two symbols for 'tree' represents a group of trees or small forest.

1+1 (Shian-Sin + Shian-Sin)

明 Bright: the combination of sun - 日 and moon - 月, to give the idea of brightness.

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[21] 許錟輝, (1999) *Basic Introduction to Chinese Characters* 文字學簡編, Wan Juan Lou Publishers 萬卷樓出版., p. 174
[22] 林西莉, (2006) *China: An Empire of Living Symbols* 漢字的故事, Mao Tou Ying Publishers 貓頭鷹出版社., p. 276

1+1 (Shian-Sin + Shian-Sin)

休 Rest: a sketch of a man - 人 leaning against a tree - 木 which means resting under a tree.

1+1 (Shian-Sin + Shian-Sin)

炎 Burning hot: The two symbols of fire - 火 give the meaning of very hot.

1+1 (Shian-Sin + Shian-Sin)

官 Official: 宀 indicates the roof of a palace, and two mouths - 口 as symbols of many people arguing, so 'Official' is designed as many people arguing their benefit at court.

In electroacoustic music, a corresponding relationship may be observed in the symbolism of a combination of metaphors. The final section (at 9'39") of *Bardo I* is an example of this, in which the subject of leaving the world is presented by a metaphorical combination of wind sounds, insect sounds, and high-pitch solo sounds. In a general sense, this may apply to any electroacoustic pieces in which the composer's underlying themes or objectives are illustrated via the development of sections, the relationships of musical material, or even by the title of the piece, wherein such factors serve a system of symbolism realised through the combination of metaphors.

4 Shin-Shun （形聲）

Generally speaking, Hwe-I and Shin-Shun are design rules of Chinese characters which combine two (or more) words. The difference is that Hwe-I combines words/marks representing meaning with other words/marks representing meaning, whilst Shin-Shun combines words/marks representing meaning with words/marks representing sounds. The words of Shin-Shun present both the social characteristics (the meaning of the word) and the natural characteristics (the sound of the word)[23]. For example, in the word strawberry (莓), the (艹) mark indicates a kind of plant and the (每) mark shows the sound - 'Mei' with its pronunciation. In a sense, the Chinese character for 'strawberry' (莓) contains two words: the first word 艹 presents the meaning while the second word 每 presents the pronunciation.

Within electroacoustic music, a corresponding relationship may be observed in the symbolism of 'extension', which appears through the combination of the images of sounds' natural characteristics and the images of sounds' social characteristics. For example, in *Happily Ever After* (1987), the composer Randolph Hosteler used the spoken sounds of story telling as source material for composition. The sound's natural characteristics (how it sounds) represent an image of language flow through abruptly cutting the speaker's words, repeating the words, relocation of the words and other editing techniques; simultaneously, the sound's social characteristics (what it means) represent another image. (music example 2D) The use of voice/text in the last section of Bardo V (at 11'07") provides a further example of this,

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[23] 許錟輝, (1999) *Basic Introduction to Chinese Characters* 文字學簡編, Wan Juan Lou Publishers 萬卷樓出版., p. 183

whereby the text reading carries the meaning of the poem[24], while the arrangement of the sounds carries the symbolism[25].

Exceptions

As with most rules, there are exceptions. Exceptions give the rules the chance to develop and grow through variation. The simple Chinese characters now used in mainland China are an example of this. This kind of Chinese character has developed because it is more convenient to use, and generally speaking, is not in close relationship with Lio-Sue - the six methods of designing Chinese characters. In Taiwan, most people still use the traditional Chinese characters; however, many new words have been created as a result of mixing with foreign languages, or mixing with local languages, neither of which have any connection with Lio-Su. We expect that similar flexibility will exist in the symbolism of electroacoustic music.

2.5 Comparison between Chinese characters and sounds

Similarities

1 Chinese characters and electroacoustic music are time based

Chinese characters and electroacoustic music are both time-based in their nature. Regarding the human senses generally, Bao-Dir Han thinks that the less a

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[24] See 8.1-The research and its influence on composition
[25] See 8.1.4-The symbolism of the reading of the poem

sense is related to the continuity of life, the more it approaches a spiritual-esthetic

sense; the more a sense is related to the continuity of life, the closer it becomes to

physical/pleasurable sense. Therefore, in order of significance, the four most

important categories of spiritual-esthetic sense are hearing, seeing, touching, and the

sense of tasting/smelling. When compared with hearing, the major function of the

sense of seeing is to search for things that are crucial for survival, and it follows

therefore that the sense of hearing can be more spiritual-esthetic than the sense of

seeing.[26] This might explain a common scenario in which the first response to word-

expression is a concrete image, and yet to music it is a spiritual feeling, and time

offers both a stage on which to perform.

In the case of Chinese calligraphy, its long history of development is

significant when considering the temporal nature of this calligraphic form; its status

as an art-form is a consequence of such continuous refinement, in addition to the

performance aspects of calligraphic mark-making. In this sense both Chinese

characters and sounds in electroacoustic music express themselves over time,

offering a basic common ground allowing the forms to be brought together and their

relationship developed. For this purpose, conceptual space elaborated through a

system of symbolism and physical space in terms of an electroacoustic listening

situation, are interpreted as productive neutral ground.

2 Original meaning and extensional meaning

There are original meanings and extensional meanings in both Chinese

characters and sounds in electroacoustic music. For example, the original meaning of

血 means the sacrifice of blood for God. And then, through association, 血 has

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[26] 漢寶德, (2004) *Discussion of Aesthetics by Han Bao Teh* 漢寶德談美, Lian Jing Publishers 聯經出版社., p. 136–p. 139

other extensional meanings, such as red, suffering, and tears. The symbolism of 'thunder' in the context of electroacoustic music has, for example, an original meaning but also extensional meanings such as 'strength', 'power', 'energy', 'turning point', 'threat', 'shock', 'accident' and 'an omen of tragedy'.

3 Evolution of natural characteristics

Both Chinese characters and sounds in electroacoustic music have evolved in terms of their natural characteristics. The sounds in electroacoustic music present the music as a form of sound, whilst Chinese characters present the words as a form of calligraphy. The natural characteristics of both forms have evolved through time with the development of tools as well as artistic creation. The characters in Fig 2.5 are tightly organised in terms of order and stroke-expression, while characters in Fig 2.6 show a freer approach to order and stroke-expression, which clearly presents the evolution of calligraphy from ancient times to the present day, and electroacoustic music is similarly informed and improved through the inspiration of previous generations.

The hair-pen tool for writing Chinese calligraphy has been improved since it was created. Although both tools and human creation play important roles in calligraphy, in terms of artistic 'achievement', the ideas of tool usage to attain specific goals is often judged to be most important. Electroacoustic artists today can learn a lesson from this experience, though the improvement of tools, computers and software evolves much faster than before.

Figure 2.5[27] - Chinese calligraphy (317-420)
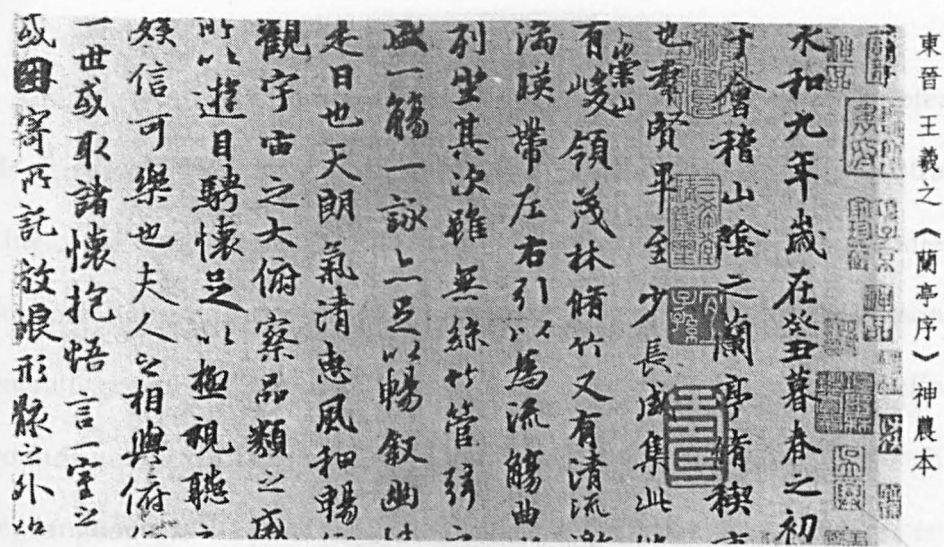
Figure 2.6[28] - Chinese calligraphy 1998

27 http://www.chinesart.com/calligraphy/chinese1.html
28 古干, (2005) *Contemporary Calligraphy* 現代書法三部, Dian Zang Yi Shu Publishers 典藏藝術家庭出版., p. 180

Difference

Chinese words are processes that have both abstract and concrete potential. Sounds also embody this potential, but music is, in general, regarded as abstract while literature is more concrete. Clearly there are exceptions: poetry embodies abstract potential, whilst the sound of a car-crash conveys facts, but the reason for the generally accepted differences is that words in literature have clearer definitions than sounds in music. In terms of human communication using sound, speech (spoken language) is the most commonly used form, the dominance of spoken sound having come about in this setting because of the need to define meaning and express intentions as clearly as possible. Speech has become dominant because of its close relationship with the concrete, discrete meanings of the language being spoken.

Such clear definition is absent in electroacoustic music. For example, as we have seen the sound of thunder can be interpreted as 'strength', 'power', 'energy', 'turning point', 'threat', 'shock', 'accident' and 'an omen of tragedy'. As a result, symbolism will function from a common platform of generalised human experience. However, this may be influenced by alien cultural background or individual adventure. As an example, due to cultural difference the sound of a raven singing can be interpreted as a sign of 'good luck' in both the UK and Japan, whilst in Taiwan, Hong Kong and mainland China there is the opposite interpretation of 'bad luck'. Furthermore, the sound of a moving train can be interpreted as 'travelling', and yet for those living with a railway nearby, such a sound is more likely to be interpreted as 'noisy', 'bothersome' or 'an interruption'. This dimension of uncertainty in symbolism within electroacoustic contexts means that reception can vary greatly among possible listeners.

2.6 Conclusion

From the point of view of Buddhism, all worldly phenomena, such as beauty, ugliness, kindness, evil or even mathematics, can only have meaning within the existence of a human being. Human expression starts with a concept and as a consequence, in two exhibitions of work involving very different media we can find common ideas. The concept of minimalism can be found in dancing as well as in other fields, and the concept of impressionism is present both in painting and music. Research in comparing subjects such as these often helps in the understanding of human expression, creating further potential for ideas and also contributing to a specific medium. This is especially so when comparing different expressions sharing one similar idea - where one form has just begun and the other has already five thousand years of development.

3

The Symbolism of Buddhist art and Chinese Zen Buddhism

Since the Bardo cycle is related to Chinese culture, Buddhism, and symbolism within electroacoustic contexts, in order to follow the research focus on the six methods of Chinese character design (which can be applied to symbolism in electroacoustic music globally) we need to examine the symbolism of Chinese Buddhism (which will also offer a view of Buddhist cultures more locally). The choice to discuss symbolism in contexts of Buddhist art and Chinese Zen Buddhism relates to the use of symbols in Buddhist art to reflect a direct image - for example, 'mercy', 'empowerment' and 'kindness' - whereas uses of symbols in Zen Buddhism tend to focus on releasing a more profound understanding of the essence of Buddhism itself. As an additional factor, both dimensions of sense-perceiving exist in electroacoustic music practice.

3.1 Symbolism of Buddhist art

From historical scholars we know Buddhism started using sculpture to express Buddhist stories from 273 B.C. - 232 B.C., and examples of this are presented in Figure 3.1, which shows sculptures of this era. However, because ancient Buddhists deified Buddha, making it too difficult to create his likeness, there was no sculpture of Buddha at all before 200 A.D. In this period, people still tried to use other sculptures as symbols to express Buddhism. After 200 A.D. when the sculpture of Buddha had been created, far more possibilities of Buddhist visual symbolism

start to appear. Therefore it would be interesting to compare symbolism created before and after 200 A.D.[29]

Figure 3.1[30] - Symbolist sculpture at the gateway to Buddha's tower (200 B.C.–100 A.D.)

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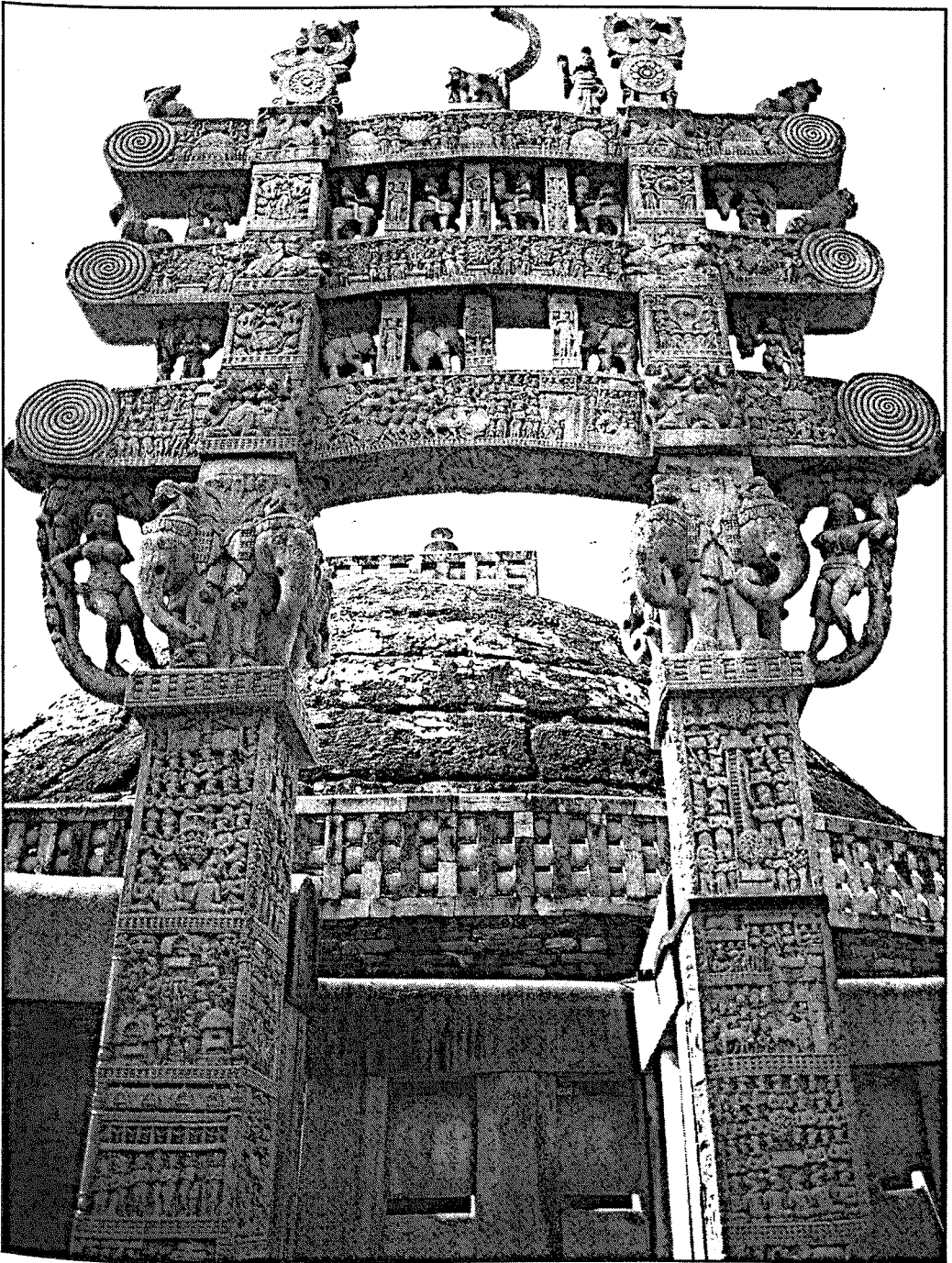
[29] 林許文二 陳師蘭, (2003) *The Buddha Tower in Sun Chi* 桑奇佛塔, Xiang Shu Lin Publishers 橡樹林出版社., p. 79
[30] 林許文二 陳師蘭, (2003) *The Buddha Tower in Sun Chi* 桑奇佛塔, Xiang Shu Lin Publishers 橡樹林出版社., p. 19

3.2 Some symbols of Buddhist art before 200 A.D.

1 Buddha's foot :

People used the sculpture of Buddha's feet to symbolize places that Buddha had visited.

Figure 3.2.1[31] - Symbolism in Buddhist sculpture: early representation of travel (273 B.C. - 200 A.D.)
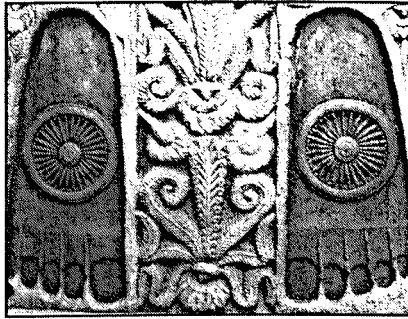
2. Cakra wheel :

In war, soldiers used wheels with sharp knives around them as weapons. Here, it symbolizes 'all-conquering'. When the Cakra wheel is turning, Buddhists use this as symbolic of conquering all the devils without stopping, as well as representing Buddha's teaching.

Figure 3.2.2[32] - Symbolism in Buddhist sculpture: early representation of teaching (273 B.C. - 200 A.D.)
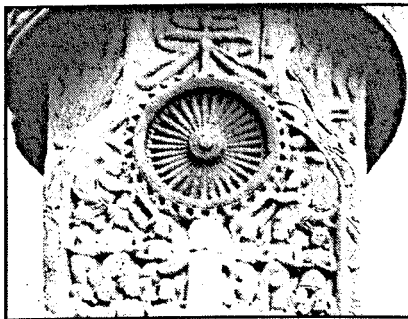
[31] 林許文二 陳師蘭, (2003) *The Buddha Tower in Sun Chi* 桑奇佛塔, Xiang Shu Lin Publishers 橡樹林出版社., p. 81
[32] 林許文二 陳師蘭, (2003) *The Buddha Tower in Sun Chi* 桑奇佛塔, Xiang Shu Lin Publishers 橡樹林出版社., p. 83

3. Deer :

There were many deer around the place where Buddha first gave sermons.

Therefore the deer is used as a symbol of Buddha's first teaching.

4. Tree :

Buddha reached his enlightenment under the Pu-Ti tree, so the tree is used as

a symbol of enlightenment.

Figure 3.2.3[33] - Symbolism in Buddhist sculpture: early representation of
enlightenment (273 B.C. – 200 A.D.)
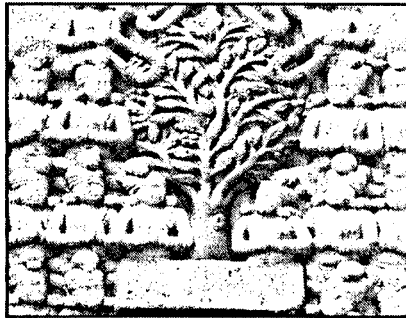
5. Buddhist Tower :

The Buddhist tower is where Buddha was buried, so it is used as a symbol of

Buddha's death. (See Figure 3.2.4)

Figure 3.2.4[34] - An early symbol of Buddha's death: the tower (273 B.C. – 200 A.D.)

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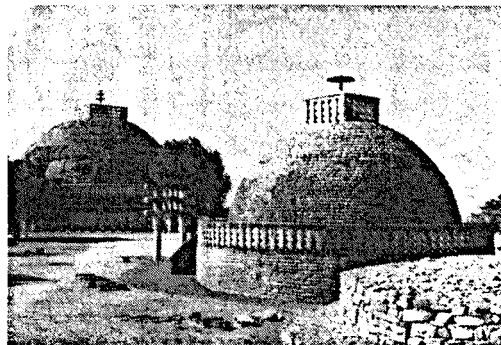
[33] 郭乃彰, (1968) *The Lilly-Patterned Decoration in Indian Buddhism* 印度佛教蓮花紋飾之探討, Fo Guang Publishers 佛
光出版社., p. 21
[34] 林許文二 陳師蘭, (2003) *The Buddha Tower in Sun Chi* 桑奇佛塔, Xiang Shu Lin Publishers 橡樹林出版社., p. 82

5. The emptiness under the umbrella:

Emptiness under the umbrella is used as a symbol of Buddha. (See Figure 3.2.5) The standing hair on the horse indicates that it was from the royal family. Furthermore, when the royals went outside, an umbrella was always used to keep the sun off their heads. With these symbols, therefore, the notion of a royal family member under the umbrella was perceivable. Using the emptiness under the umbrella as a symbol of Buddha is an example of abstract symbolic function from this era.

Figure 3.2.5[35] - An early symbol of Buddha: emptiness under the umbrella (273 B.C.–200 A.D.)
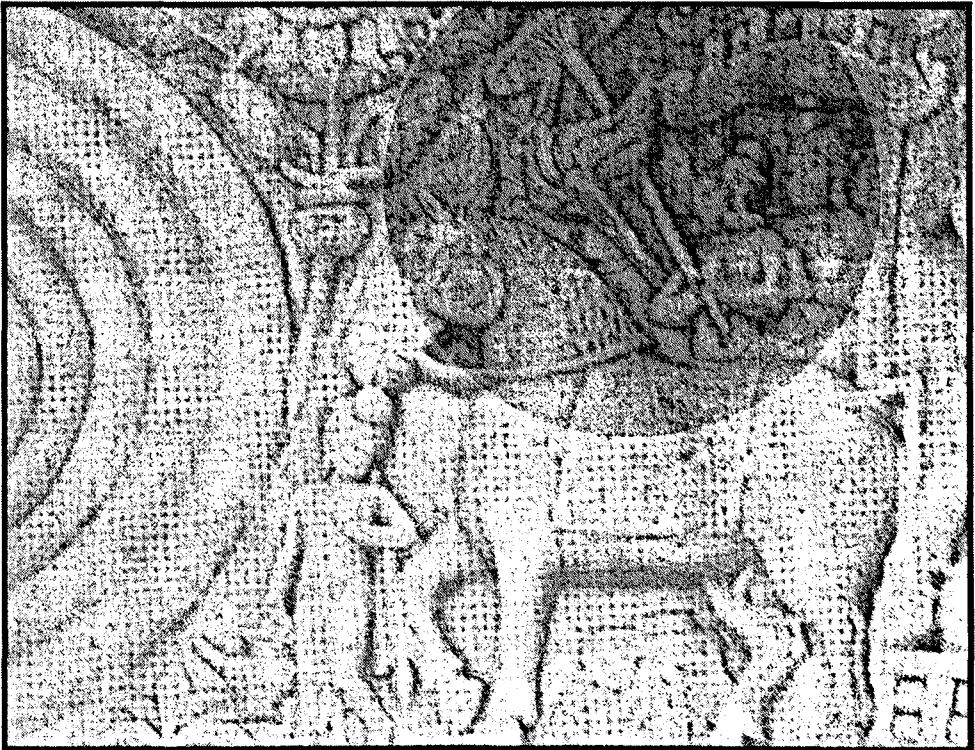
[35] 林許文二 陳師蘭, (2003) *The Buddha Tower in Sun Chi* 桑奇佛塔, Xiang Shu Lin Publishers 橡樹林出版社., p. 81

3.3 Some symbols of Buddhist art after 200 A.D.

1 Female Kuan-In :

Kuan-In is a male Buddha. However he appears as a female image in

Buddhism for the purpose of symbolizing kindness and mercy. (See Figure

3.3.1 and Figure 3.3.2)

Figure 3.3.1[36] - Kuan-In representation of mercy

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[36] 季崇建, (1999) *The History of Buddhist Sculpture* 千年佛雕史, Yi Shu Publishers 藝術出版., p. 318

Figure 3.3.2 - Kuan-In representation of mercy[37]
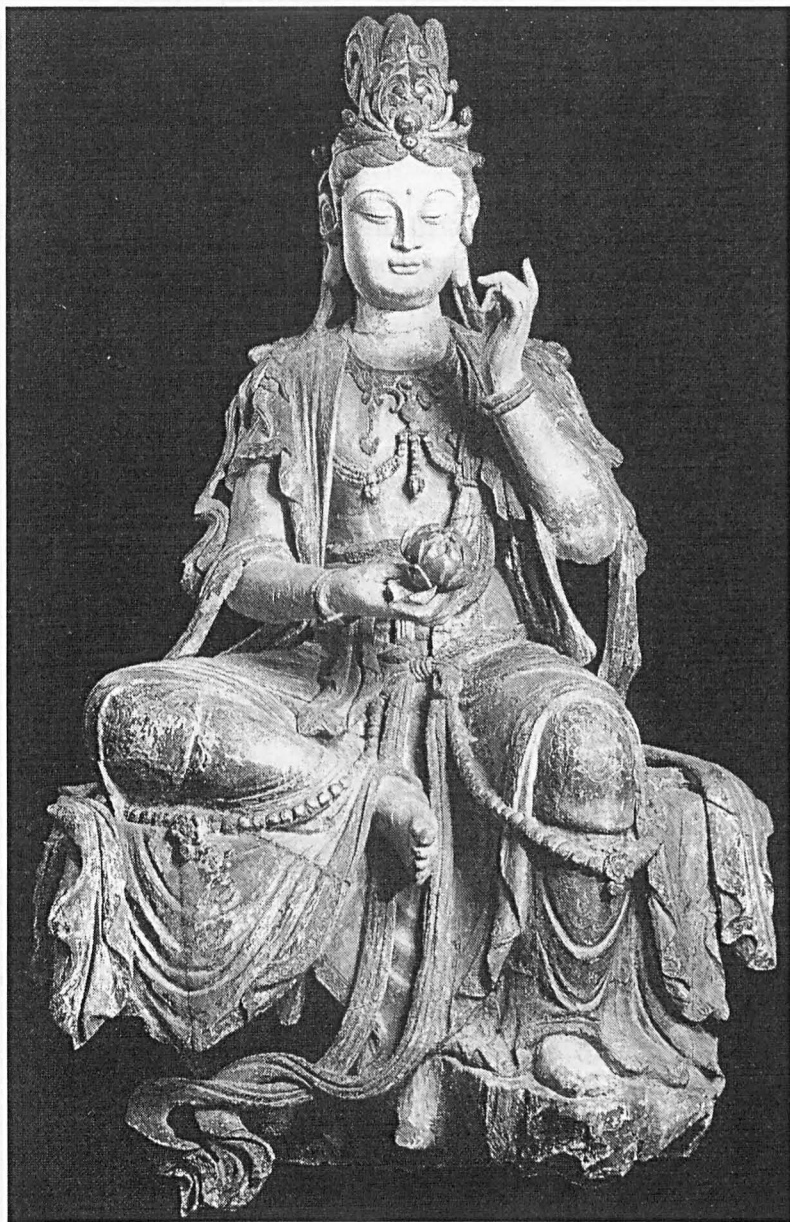
[37] 季崇建, (1999) *The History of Buddhist Sculpture* 千年佛雕史, Yi Shu Publishers 藝術出版., p. 296

2 Thousand hands and thousand eyes Kuan-In :

The thousand hands holding different tools and thousand eyes which can see anything are a symbol of mighty power supporting Buddhism and helping people. (See Figure 3.3.3 and Figure 3.3.4)

Figure 3.3.3[38] - Kuan-In representation of empowerment and shared benefit

Figure 3.3.4[39] Kuan-In representation of empowerment and shared benefit

[38] 季崇建, (1999) *The History of Buddhist Sculpture* 千年佛雕史, Yi Shu Publishers 藝術出版., p. 300
[39] 季崇建, (1999) *The History of Buddhist Sculpture* 千年佛雕史, Yi Shu Publishers 藝術出版., p. 321

3 Buddha head :

> With the use of the head, many troubles are created that bother us. The cut
>
> Buddha head symbolizes cutting our bothersome thoughts. (See Figure 3.3.5)

Figure 3.3.5 - The cut head symbolic of mental control photographed by the author
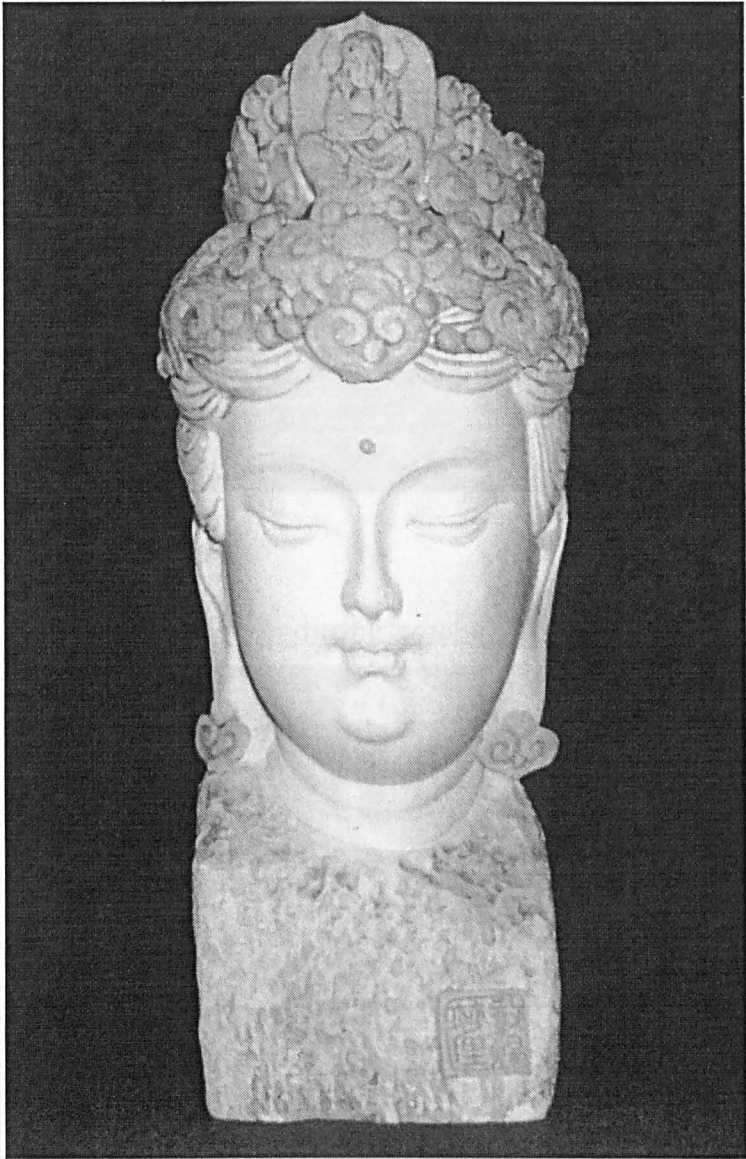
4 Lotus :

Though sprouting from dirty mud under the water, the graceful lotus (See

Figure 3.3.6) is not polluted at all. Buddhism uses the lotus as a symbol of the

idea that 'true-self' will not change when surrounded by bad environments.

(See Figure 3.3.7, Figure 3.3.8 and Figure 3.3.9)

Figure 3.3.6 - The Lotus symbolises enduring 'true self' photographed by the author

Figure 3.3.7[40] - The Lotus symbolises enduring 'true self'

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[40] 郭乃彰, (1968) *The Lilly-Patterned Decoration in Indian Buddhism* 印度佛教蓮花紋飾之探討, Fo Guang Publishers 佛光出版社., p. 75

Figure 3.3.8[41] - The Lotus symbolises enduring 'true self'
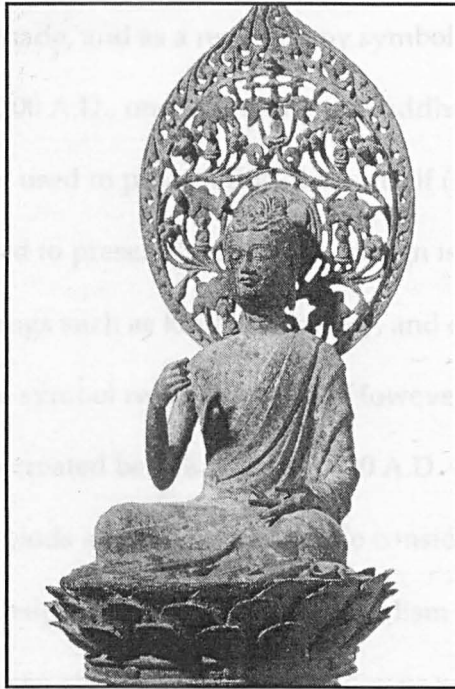
Figure 3.3.9[42] - The Lotus symbolises enduring 'true self'

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[41] 季崇建, (1999) *The History of Buddhist Sculpture* 千年佛雕史, Yi Shu Publishers 藝術出版., p. 196
[42] 白雲山人, (1986) *The Secret of Chinese Buddhism* 密宗大精彩1, Nong Nong Publishers 濃濃出版., p. 118

The symbols created before 200 A.D are in the manner of Jir-Shir, because the image of Buddha cannot be made, and as a result many symbols were created as an indication of Buddha. From 200 A.D., once the image of Buddha had been created, the image of Buddha was not used to present Buddha himself (in such cases, where the image of Buddha was used to present Buddha, the design is Shian-Sin) but as a symbol to represent other things such as kindness, mercy, and empowerment, and therefore the designing of the symbol remains Jir-Shir. However, comparing the differences between symbols created before and after 200 A.D. we recognise that the symbolic levels of the two periods are quite different. To consider such a difference it may be necessary to acknowledge that the world of symbolism is abstract and complex to a degree that is often elusive to simple analogy or word description. A fixed mathematical function (such as the equation form presented below) may offer further insight by serving as a model of symbol function, despite clear limitations in that it will not be possible entirely to cover the detail of these phenomena within an electroacoustic context.

Here we can use a simple function and mathematical model[43]:

$$S + R = 1$$
$$S = 1 - R$$
$$0 < S < 1$$

S = Symbolism World
R = Real World

When the symbol is created completely according to copying, S is equal to 0. But this is impossible to attain.

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[43] inspired by the equations of Yao Yi Wei (姚一葦), (1970) 藝術的奧祕, 臺灣開明書店., p.149

And S after 200 A.D. > S before 200 A.D.

The closer the representation of the symbol to an object in the real world, the less the presence of symbolic interpretation. Conversely, the more a symbolic level occurs, the less a real world form appears and the greater the role of imagination.

3.4 History of Chinese Zen Buddhism

One day at a meeting, Buddha showed a flower to his followers. While all of them were silent, Da-Ga-Yet was the only person smiling. So Buddha taught Da-Ga-Yet Zen Buddhism from mind to mind. Many centuries later, PuTi DaMo was the 28th Master of Zen Buddhism, which arrived in China from India in 520. DaMo then meditated in front of a wall in Shou Ling Temple (少林寺) for as long as 19 years. Hwe-Ker was his first student after the long meditation, and after this, Zen Buddhism combining other Chinese philosophies became one of the most profound in Chinese history – as philosophy as well as religion[44].

3.5 Symbolism of Chinese Zen Buddhism

Understanding the limits of language, though respecting the function of words, Zen Buddhism claims that what has been said or written by words, cannot be the truth. Kuan-An is the record of proving and testing students' learning status. Studying Kuan-An is also one of the most important procedures of Zen Buddhism's cultivation. Kuan-An therefore plays a role in symbolizing intelligence-procedure

[44] 南懷瑾, (1992) *Chinese Zen Buddhism* 禪話, Lao Gu Publishers 老古文化事業公司., p. 1

which helps the student to reach the enlightenment of 'true-self'. However, whilst trying to say that truth is beyond language and logic, Kuan-An also says that the truth never exists. Here are some ways which Kuan-An uses to express the symbolism of intelligence-procedure.

1 By poems

Here are two poems written by Shin-Show and Hwe-Nan. Through the symbolism of the two poems, a different enlightenment status has been expressed.

Shin Show wrote:

My body is like the Pu-Ti Tree,

My mind is like a mirror and stand,

I shall always clean them.

I won't let the dust pollute them[45].

身是菩提樹，

心為明鏡臺，

時時勤拂拭，

沒使若塵埃。

To which Hwe-Nan replied.

Pu-Ti (symbolism of enlightenment) is not a tree.

A mirror (symbolism of mind) doesn't need the support of a stand.

The true-self is always clean,

How can dust pollute it?

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[45] 星雲大師, (2005) *Zen Buddhism and the Pure Land* 禪學與淨土 禪淨篇, Xiang Hai Publishers 香海文化出版., p. 16

菩提本無樹，

明鏡亦非臺，

佛性常清淨，

何處有塵埃? [46]

2 By sounds: the fiddle without strings

Chinese Zen Buddhism uses the symbol of a 'fiddle without strings' to represent the idea that people should listen more to the sounds of the mind.

Kuan-An form:

問: 久負勿弦琴，請師彈一曲

師曰: 負來得多少時也?

曰: 未審作何音調?

師曰: 話墮也，珍重!

Monk : "I have carried the 'fiddle without strings' for a long time. Could Master please play a song for me?"

Uan-Dir Zen Master : "How long have you carried it?"

Monk : "Which tune are you going to play for me then?"

Uan-Dir Zen Master : "Good bye."[47]

[46] 星雲大師, (2005) *Zen Buddhism and the Pure Land* 禪學與淨土 禪淨篇, Xiang Hai Publishers 香海文化出版., p. 16
[47] 佛光出版社, (1998) *Collected Buddhist theses: 1998* 1998年佛學研究論文集, Fo Guang Publishers 佛光出版社., p. 185

When a monk asked Uan-Dir Zen Master to take the 'fiddle without strings' and play a song, implying the Monk's own attainment of understanding the sound of mind (a symbol of reaching enlightenment), Uan-Dir Zen Master was quite happy and would like to test him. The Master asks: "How long have you carried it?" - which is symbol of the question: "How long since you reached enlightenment?" The Monk's answer releases the truth that he is, in fact, far from an understanding of what the symbolism of 'fiddle without strings' means, and Uan-Dir Zen Master therefore recognizes there is no need to talk any more.

Kuan-An form:

問: 無弦一曲。請師音韻。

師良久, 曰: 還聞麼?

曰: 不聞。

師: 何不交聲問著?

Monk : "Could Master please play a song for me with the 'fiddle without strings'?"

Zen Master : "Do you hear it?"

Monk : "No, I don't."

Uan-Dir Zen Master : "Why not ask louder!!" (as a symbol of asking the monk to study harder because he can't hear the sound of his own mind.)[48]

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[48] 佛光出版社, (1998) *Collected Buddhist theses: 1998* 1998年佛學研究論文集, Fo Guang Publishers 佛光出版社., p. 186

3 By metaphor

Kuan-An form:

A monk visits a Zen Master asking how to study Zen. The Zen Master pours tea into his cup without stopping. The Monk finally has to remind him "It's full!! It's full"

The Zen Master uses the action of pouring tea into the monk's cup as symbol that if one's mind is full (showing arrogance and lack of openness), you won't be able to accept anything new any more[49].

4 By dialogue

Kuan-An form:

A Zen Master and a monk saw a young beautiful lady wandering on the bank. She was afraid of crossing the river. The Zen Master then carried her across the river, upsetting the monk very much. After a long period of time, the monk could not keep silent:

Monk: "How could you break the rule to make contact with the female body?"

Zen Master : "I have let her go a long time ago. You haven't."[50]

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[49] 星雲大師, (1992) *Hsing Yun's Ch'an Talk* 星雲禪話, Fo Guang Publishers 佛光出版社., p. 164
[50] 星雲大師, (2005) *Zen Buddhism and the Pure Land* 禪學與淨土 禪淨篇, Xiang Hai Publishers 香海文化出版., p. 46

禪宗公案

有一位元機比丘尼，

很仰慕雪峰禪師的學養風範，

有天專程前往禮座。

雪峰禪師問他名字。

「我的法名叫元機。」元機比丘尼答。

雪峰禪師又問：「一天織多少？」

「寸絲不掛。」

元機比丘尼答完起身就要離開，

雪峰禪師告訴他：

「看！你的袈裟拖地了。」

元機即回頭看看。

Kuan-An form:

Shir-Fun Zen Master : "What's your name?"

Uan-Gi nun : "My name is Uan-Gi."

Shir-Fun Zen Master : "How many garments do you weave in one day?"

Uan-Gi nun : "Not even a string."

After his reply, Uan-Gi immediately stands up preparing to leave.

Shir-Fun Zen Master : "Look! Your garments are dragging on the ground."

Uan-Gi nun turns back to check her clothes[51].

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[51] 星雲大師, (2005) *Zen Buddhism and the Pure Land* 禪學與淨土 禪淨篇, Xiang Hai Publishers 香海文化出版., p. 28

In Chinese, Uan-Gi also means a weaver, the reason why Shir-Fun Zen Master asks the quantity of clothes that the nun weaves in one day. After answering "not even a string", to symbolize a mind that is totally free without being attached to anything, the nun thinks she has already answered the right question and would like to leave. When she turns back to check her clothes, both of them know that she has not really yet freed her mind.

5 By question

Kuan-An form:

Shien-Kuan (神光) follows Da-Mor Zen Master, studying Zen Buddhism for a long time. Though he worked very hard, Shien-Kuan always felt nervous. .

Shien-Kuan : "Though I was working and meditating very hard, I still can't calm my mind."

Da-More Zen Master : "Give me your mind, and I will calm it for you."

Shien-Kuan : "But I couldn't find my mind to give you."

Da-More Zen Master : "If there is no mind to be found, then there is no mind needing calm."

Shien-Kuan is silent.

Da-More Zen Master : "I have calmed your mind already, haven't I?"

Shien-Kuan reached his enlightenment at this moment.

禪宗公案

以前禪宗祖師幫祂的徒弟安心,

但心要怎麼安呢?

師父向徒弟說：把心拿來！

弟子說：心不可得啊，心怎麼拿，拿不出來呀！

師父說：安心竟！

我已經幫你把心安好了[52]。

3.6 Kuan-An in Chinese Zen Buddhism and the programme note in electroacoustic music

Because Chinese Zen Buddhists recognise that words are a medium with limited expressive powers, they avoid words in their attempts to illustrate Buddha nature. However, Zen Buddhism created by far the largest number of Kuan-An documents written with words - more than any other Buddhists in history. The limitations of the Kuan-An form are not only related to what words can express, but also that the Kuan-An form cannot in itself bring into focus the full landscape of related cultures, as discussed below.

For example, when Shien-Kuan's (神光) understanding of Buddha nature is discussed, the Kuan-An notion of 'Calming mind'[53] is always considered the most important point. However, the Kuan-An form has helped very few people to understand Buddha nature as most readers either do not know or else ignore the procedure whereby Shien-Kuan studied Buddhism before the moment of 'calming mind'. This kind of misunderstanding also explains why Zen Buddhism is against Kuan-An in that, whilst most Kuan-An offers wisdom that will assist in the

[52] 星雲大師, (2005) *Zen Buddhism and the Pure Land* 禪學與淨土 禪淨篇, Xiang Hai Publishers 香海文化出版., p. 15
[53] See Chapter 3-The Symbolism of Buddhist art and Chinese Zen Buddhism., p. 52

understanding of Buddha nature, without fully comprehending the context as well as the related cultural background of such wisdom, Kuan-An can help nothing and may in fact mislead.[54]. The notion that Kuan-An can really help readers to understand Buddha nature is always open to argument, but on the other hand Buddhists never doubt the important role that Kuan-An plays in Buddhism.

The relation between Kuan-An and the understanding of Buddha nature parallels that of the programme note and an understanding of electroacoustic music. Electroacoustic composers in general might expect their music to be understood directly through the listening experience. If the cultural perspectives are right, listeners can understand electroacoustic music with or without the help of a programme note. However, a well-composed programme note can be helpful if it delivers salient information, or even through passing hints that help unfold the maze of an electroacoustic work for an listener.

Just as Chinese Zen Buddhism cannot give 'the understanding of Buddha nature' a definition, to define 'the understanding of electroacoustic music' is also a difficult task. What rules could possibly empower us to judge whether the electroacoustic music has been understood? Consequently, it is difficult to define what constitutes a proper programme note. From the composer's point of view, he/she can only imagine what kind of information will be needed to guide the listening of people with specific cultural backgrounds, whilst from the listener's point of view the programme note can be the spark to ignite an interpretation, raising this to different levels of understanding. With these different perspectives, both sides should know that it does not matter how much information is offered in a

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[54] 南懷瑾, (1992) *Chinese Zen Buddhism* 禪話, Lao Gu Publishers 老古文化事業公司., p. 11

programme note; only that if successful it will assist in the understanding of the electroacoustic work; if unsuccessful then it will become an obstacle to understanding and will mislead.

3.7 Conclusion

Because the presentation of Buddha's likeness was prohibited before 200 A.D., people in this period used sculptures[55] to indicate the stories that relate to Buddha. Therefore, in Buddhist art before 200 A.D., the way of designing symbols is Jir-Shir. After 200 A.D. sculptures[56] of Buddha eventually appeared. Since the images or sculptures represent Buddha their design as symbols should be regarded as Shian-Sin. However, because Buddha was described as having thirty-two kinds of beauty in external appearance and this idea proved too complicated to be represented, such sculpture was not used to represent Buddha himself but was instead used to indicate one or a small number of his traits (for example: kindness, majesty and health). It follows therefore that this way of designing symbols is still Jir-Shir, rather than Shian-Sin.

To consider the design of symbols through Kuan-An in Chinese Zen Buddhism, the fact that Kuan-An messages were expressed through combinations of many metaphors means that this form is regarded as Hwe-I. However, certain differences exist. The combined symbols, which were employed in Hwe-I when designing Chinese characters, were immediately accessible to readers on seeing a

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[55] See 3.2-Some symbols of Buddhist art before 200 A.D.
[56] See 3.3-Some symbols of Buddhist art after 200 A.D.

word, whereas the symbols combined to express meanings in Zen Buddhism can appear either together or with the different combination of orders in time. This characteristic can greatly affect the interpretation of symbols, and this is especially true in contexts of electroacoustic music. For example, the message suggested by the sound of church bells after a thunderstorm may be 'peace eventually arrives following turmoil', whilst the message carried by the church bells, thunder and rain sounding simultaneously might tend to be 'peace in time of danger'.

Further similarities exist when comparing the expression of Zen philosophy through the use of symbolism in Kuan-An and the use of symbols in electroacoustic music. The parallels between the two worlds are as follows:

1 Both fields cannot be explained through words or literal meanings.

2 Both carry the features of multiple meaning and uncertainty with no single viewpoint covering total meaning within the two worlds. For example, the sounds of bird-screaming in *Red Bird* represent 'freedom' as the association that birds fly freely in the sky; however, for those who have had bad experiences with birds or for whom bird flu constitutes a great threat, the interpretation of bird-screaming may well be 'forms of disaster'.

The way of analyzing the symbolic systems in Chinese Zen Buddhism will therefore invite inspiration and an informative perspective with which to view symbolic identity and function in electroacoustic music.

4

Phonetic structure and design in Chinese words, as viewed by an electroacoustic composer

4.1 Introduction

Both music and spoken language involve articulations that are sonically complex, predominantly pitch-oriented in the case of standard repertoire music, and perhaps with greater timbral complexity in the case of spoken language. Although both areas have the possibility to be equally sophisticated, semantic understanding and intimate connections to vocal timbre may extend to the language stream the potential for a broad paralanguage, which may in turn be significant in the composition of electroacoustic pieces.

Considering Chinese as a language, utterance and communication of its meaning is unlike other languages in that other languages do not need to reflect in any way the properties of the objects or activities to which they refer. Chinese uses two dimensions to refer to the properties of the objects or activities.

The Chinese linguistic stream conveys meaning and its relation to the signifiers in two well-plotted systems: the shape/contour system and the phonetics (sonic dimension) system. By combining the two systems, Chinese semantics are expressed.

4.2 The Chinese shape system applied to symbolism

Attributes of the Chinese character shape system

1 Characters easily recognized as pictures :

Many Chinese characters resemble pictures depicting the objects, analogies or

processes to which they refer, and as a consequence they are easily

recognised. We find most traffic signs are shown as pictures instead of words;

this is because pictures can be perceived faster than words.

2 Reading direction:

Chinese can be read/written in any direction. Many Chinese poets also use

this characteristic to compose. For example, the following poem was written

by Wei-Jir Chen in the Sun Dynasty. It is specially designed so we can read

from left to right, or right to left, or from top to bottom, or from bottom to

top, and all aspects fit the literature poem format of the Sun Dynasty in

addition to the creation of different meanings through different

combinations. For ease of explanation, I attach a number for each Chinese

character in the poem which can be read as follows[57]:

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[57] http://www.cc.nctu.edu.tw/~lccpan/newpage122.htm *Chinese Characters: Their Features As Applied In Literature*
中國文字特性在文學作品中的應用

宋．錢惟治＜春日登大悲閣＞

碧 - 01	天 - 02	臨 - 03	迴 - 04	閣 - 05,
晴 - 06	雪 - 07	點 - 08	山 - 09	亭 - 10.
夕 - 11	煙 - 12	侵 - 13	冷 - 14	箔 - 15,
明 - 16	月 - 17	斂 - 18	閑 - 19	庭 - 20.

Way 1

碧 - 01	天 - 02	臨 - 03	迴 - 04	閣 - 05
晴 - 06	雪 - 07	點 - 08	山 - 09	亭 - 10
夕 - 11	煙 - 12	侵 - 13	冷 - 14	箔 - 15
明 - 16	月 - 17	斂 - 18	閑 - 19	庭 - 20

Way 2

碧 - 01	晴 - 06	夕 - 11	明 - 16
天 - 02	雪 - 07	煙 - 12	月 - 17
臨 - 03	點 - 08	侵 - 13	斂 - 18
迴 - 04	山 - 09	冷 - 14	閑 - 19
閣 - 05	亭 - 10	箔 - 15	庭 - 20

Way 3

閣 - 05	迴 - 04	臨 - 03	天 - 02	碧 - 01
亭 - 10	山 - 09	點 - 08	雪 - 07	晴 - 06
箔 - 15	冷 - 14	侵 - 13	煙 - 12	夕 - 11
庭 - 20	閑 - 19	斂 - 18	月 - 17	明 - 16

Way 4

明 - 16	夕 - 11	晴 - 06	碧 - 01
月 - 17	煙 - 12	雪 - 07	天 - 02
斂 - 18	侵 - 13	點 - 08	臨 - 03
閑 - 19	冷 - 14	山 - 09	迴 - 04
庭 - 20	箔 - 15	亭 - 10	閣 - 05

And so on...

Another example can be found in the poem written by Sirh Su in the Sun Dynasty. The poem was specially designed to be readable regardless of the starting point, from any words in the circle[58], and all fit the literature poem format of the Sun Dynasty, again with the ability to create several meanings through different combinations. For convenience of explanation, I have again numbered each Chinese character in the poem[59]:

蘇軾

賞 - 01

暮 - 14　　　　花 - 02

已 - 13　　　　歸 - 03

時 - 12　　　　去 - 04

醒 - 11　　　　馬 - 05

微 - 10　　　　如 - 06

力 - 09　　　　飛 - 07

酒 – 08

And here are some ways of reading the poem:

Way 1

賞 - 01 花 - 02 歸 - 03 去 - 04 馬 - 05 如 - 06 飛 - 07

去 - 04 馬 - 05 如 - 06 飛 - 07 酒 - 08 力 - 09 微 - 10

酒 - 08 力 - 09 微 - 10 醒 - 11 時 - 12 已 - 13 暮 - 14

醒 - 11 時 - 12 已 - 13 暮 - 14 賞 - 15 花 - 16 歸 - 17

Way 2

花 -02 歸 -03 去 -04 馬 -05 如 -06 飛 -07 去 -04

馬 -05 如 -06 飛 -07 酒 -08 力 -09 微 -10 酒 -08

力 -09 微 -10 醒 -11 時 -12 已 -13 暮 -14 醒 -11

時 -12 已 -13 暮 -14 賞 -15 花 -16 歸 -17 賞 – 01

And so on...

3 Ease of creation

Chinese characters are created by combining 2-4 words, offering the convenience to create new words (Ex：鉎、鐳、鈷). Many poems were also created using these characteristics.

Ex：

乾隆皇帝一日偕紀曉嵐出遊，

至一古寺小憩，

靈機一動，

出一聯以難紀昀

曰：

寸土建寺　寺旁言詩　詩曰　風月送帆離古寺

紀即應聲道：

雙木成林　林下示禁　禁曰　斧斤以時入山林

明張顯宗中榜眼，帝命對曰：

張長弓　騎奇馬　單戈作戰

顯宗應云：

種重禾　犁利牛　十口為田

古文故人做

日月明空墾

In these poems, such characteristics are adopted. As we can see the word 寺 can be divided into 寸 + 土, and the others are as follows:

林 ＝ 雙 + 木

禁 ＝ 林 + 示

張 ＝ 長 + 弓

騎 ＝ 奇 + 馬

戰 ＝ 單 + 戈

種 ＝ 重 + 禾

犁 ＝ 利 + 牛

田 ＝ 十 + 口

故 ＝ 古 + 文

明 ＝ 日 + 月

4 Six methodologies 六書

    1 Shian-Sin   （象形）

    2 Jir-Shir   （指示）

    3 Hwe-I   （會意）

    4 Shin-Shun   （形聲）

    5 Jirwan-Ju   （轉注）

    6 Ja-Jie   （假借）

The six methodologies above show how Chinese characters are designed. Not only can they be applied in the symbolism of electroacoustic music (Chapter 2), but also visual artists have applied the six methodologies in their works.

For example, the montage techniques of film directors V.I. Pudovkin and Sergei Mikhailovich Eisenstein are inspired by Hwe-I Methodology. Examples of their techniques are as follows[60]:

Montage technique of V.I. Pudovkin (1893-1953) : (A+B=AB)

The montage technique of Pudovkin is based on juxtaposition. In order to illustrate that a picture's meaning is not fixed in relation to the picture itself, he created a simple sequence of three images - a bowl of soup, a coffin and a little girl playing - by re-ordering the images. The resulting interpretations of the three pictures were that they conveyed 'hunger', 'sadness', and 'upset

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[60] 徐德襄, (1996) *Film Editing and the Influence of Chinese Word Design* 從中國文字六書中會意的概念來探究對西方電影蒙太奇剪接的影響, Jiao Tong University 交大應藝所.

plus happiness', meanings that were different when images were shown without the combination.

When trying to create a certain relationship or tension, Pudovkin very often used the technique of combining several related pictures to reinforce the presentation. Using a car driven on a muddy road to communicate a sense of anxiety, Pudovkin juxtaposed images of wheels turning through mud, of hands pushing the car, tensed muscles and faces contorted by exertion in order to reinforce the sense of anxiety.

Montage technique of Sergei Mikhailovich Eisenstein (1898-1948):
(A+B=C)

For Eisenstein the combination of images results in a new image with new meaning, and is not just a means of reinforcing pre-existing tensions. He gave two examples of the Hwe-I method, which are as follows[61]:

口 (mouth)　　+　　鳥 (bird)　　= 鳴 (birds singing)

– Birds using the month to sing

門 (door)　　+　　耳 (ear)　　= 聞 (news)

– Going outside you will hear news

One of these examples can be found in the film, *October*, which Eisenstein directed. In the film, montage techniques were used, juxtaposing a prime

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[61] Bordell, D. (1995) *Creative Languages in Film* 開創的電影語言, Yuan Liu Publishers 遠流出版社, 台北.

minister (Figure 4.2.1) and a robotic peacock to represent the arrogance and pride of the minister. The metal material of the peacock is also a symbol to represent power and wealth and by combining the clumsy movement of the machinery with the minister's walk upstairs, a metaphor of clumsy and inefficient government[62] is expressed.

Figure 4.2.1 - The prime minister in the film '*October*', directed by Sergei Mikhailovich Eisenstein

Figure 4.2.2 - The metal peacock in the film '*October*', directed by Sergei Mikhailovich Eisenstein

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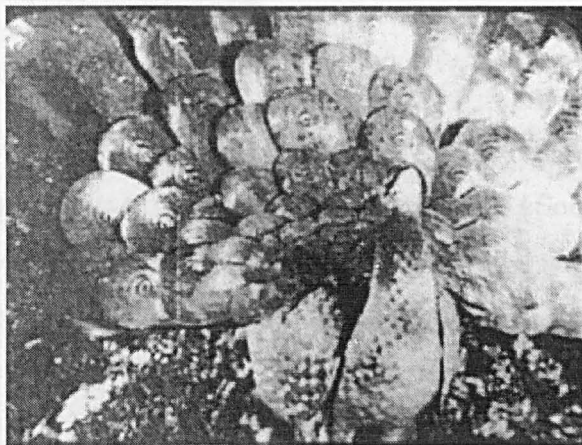
[62] 徐德寰, (1996) *Film Editing and the Influence of Chinese Word Design* 從中國文字六書中會意的概念來探究對西方電影蒙太奇剪接的影響, Jiao Tong University 交大應藝所.

4.3 Chinese Phonetic systems applied in timbre - stream music

Timbre/Phonemic contour

There are three groups of Chinese pronunciations[63] :

1 Sound Pronunciations 聲母 (music example 4A):

ㄅ(b) ㄆ (p) ㄇ (m) ㄈ (f) ㄉ (d) ㄊ (t) ㄋ (n) ㄌ (l)ㄍ (g) ㄎ (k)

ㄏ (h) ㄐ (ji) ㄑ (chi) ㄒ (shi) ㄓ (j) ㄔ (ch) ㄕ (sh) ㄖ (r) ㄗ (tz)

ㄘ (ts) ㄙ (s) ㄦ (ʒ)

2 Bridge Pronunciations 介音(music example 4B) :

一 (yi) ㄨ (wu) ㄩ (yu)

3 Rhyme Pronunciations 韻母(music example 4C) :

ㄚ (a) ㄛ (ɔ) ㄜ (ə) ㄝ (ε) ㄞ (ai) ㄟ (ei) ㄠ (au) ㄡ(ou) ㄢ (an)

ㄣ (en) ㄤ (ang) ㄥ (eng)

Chinese timbre/phonemic contours are made by combination of the three

pronunciation groups and their order is always Sound, Bridge, and then Rhyme.

For example :

Safe 安 = ㄢ (an) (music example 4D) (Rhyme pronunciations)

Heart 心=ㄒ (shi) 一 (yi) ㄣ (en) (music example 4E) (Sound

pronunciations+Bridge pronunciations+Rhyme pronunciations)

One 一= 一 (yi) (music example 4F) (Bridge pronunciations)

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[63] 郭志忠, (2006) Feature Systems in Linguistics, 工業技術研究院 電腦與通訊工業研究所

Linguistic flow

We can divide all the Chinese pronunciations into 3 groups:

1 Vowel (music example 4G)

ㄚ (a) ㄛ (ɔ) ㄜ (ə) ㄝ (ɛ) ㄞ (ai) ㄟ (ei) ㄠ (au)
ㄡ(ou) ㄦ (ǯ)

2 Semi – Vowel (music example 4H)

ㄧ (yi) ㄨ (wu) ㄩ (yu)

3 Consonant (music example 4I)

ㄅ(b)ㄆ (p) ㄇ (m) ㄈ (f) ㄉ (d) ㄊ (t) ㄋ (n) ㄌ (l)
ㄍ (g) ㄎ (k) ㄏ (h) ㄐ (ji) ㄑ (chi) ㄒ (shi) ㄓ (j) ㄔ
(ch) ㄕ (sh) ㄖ (r) ㄗ (tz) ㄘ (ts) ㄙ (s)ㄢ (an) ㄣ
(en) ㄤ (ang) ㄥ (eng)

Since Chinese timbre/phonetic contour is created by the combination of the 3 groups, we find the relation between combination and continuity:

Cv>Csv>Cc+v>Cc+sv>Cc

C = continuity

v = vowel

sv = semi - vowel

c = consonant

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Figure 4.3.1 - Linguistic flow: the vowel Y(a) and Ɛ(ɔ) (made with Audiosculpt)
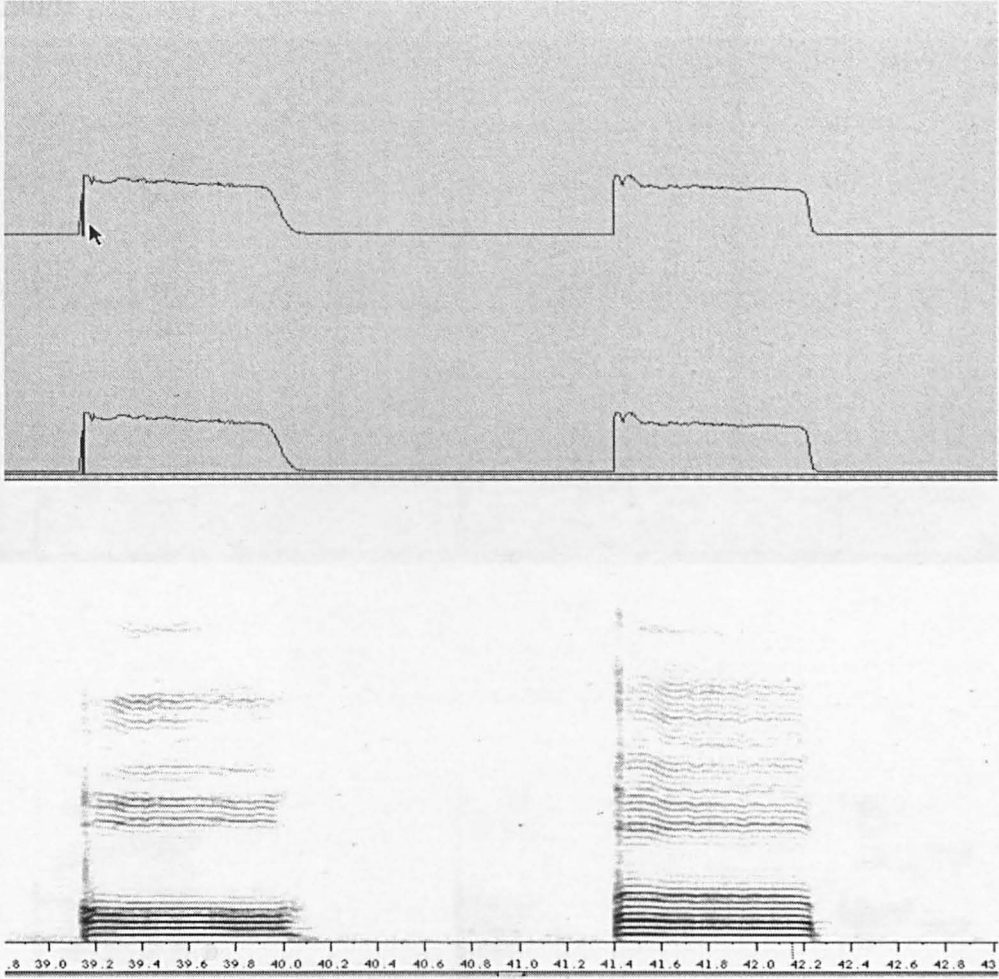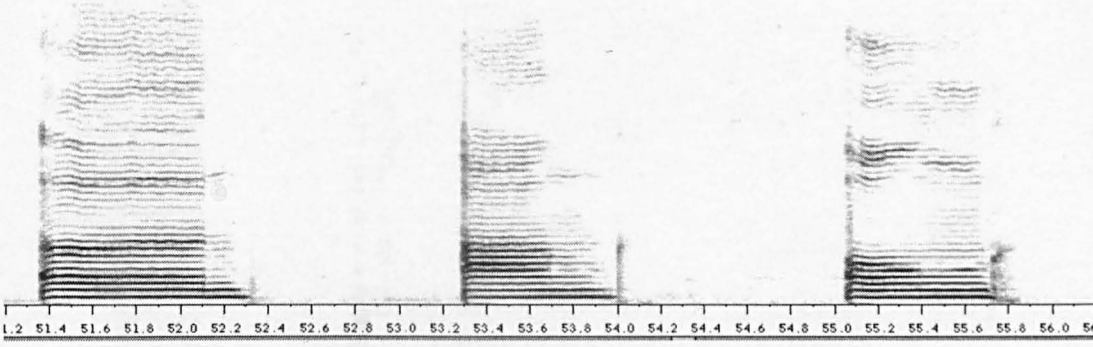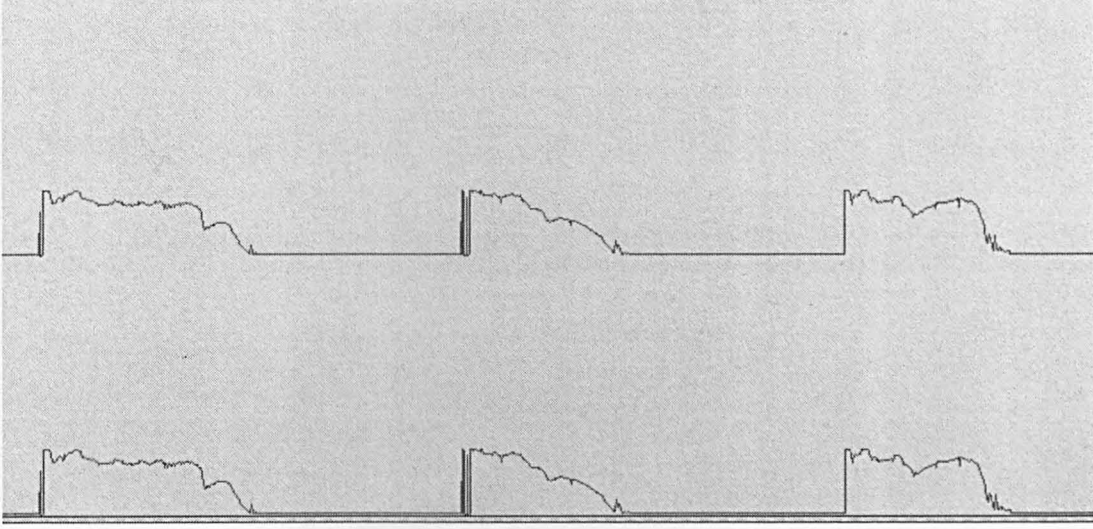
Figure 4.3.3 - Linguistic flow: the consonant-plus-vowel ㄅㄚ(ba) (made with
Audiosculpt)
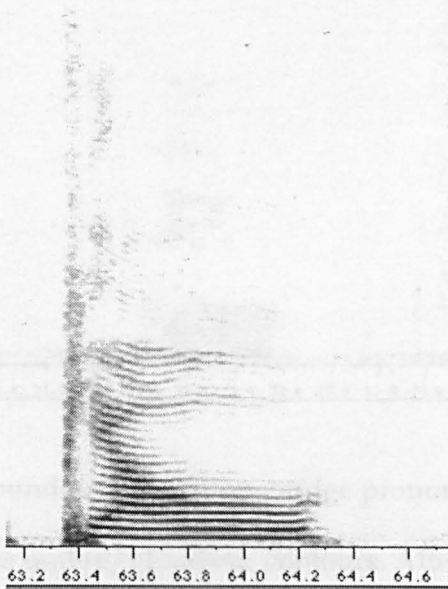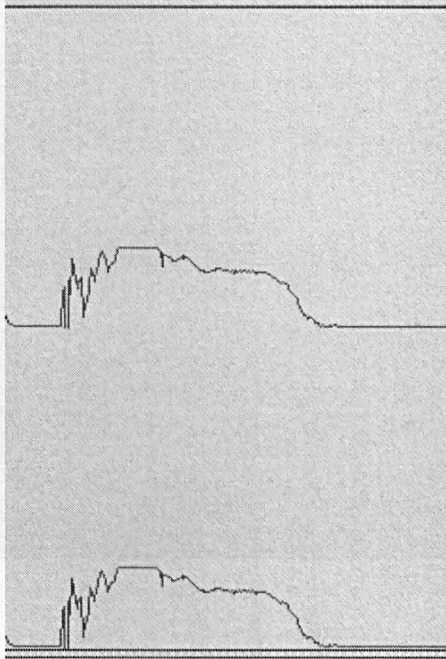
Figure 4.3.4 - Linguistic flow: the consonant ㄅ(b), ㄆ(p) and ㄇ(m) (made with Audiosculpt)
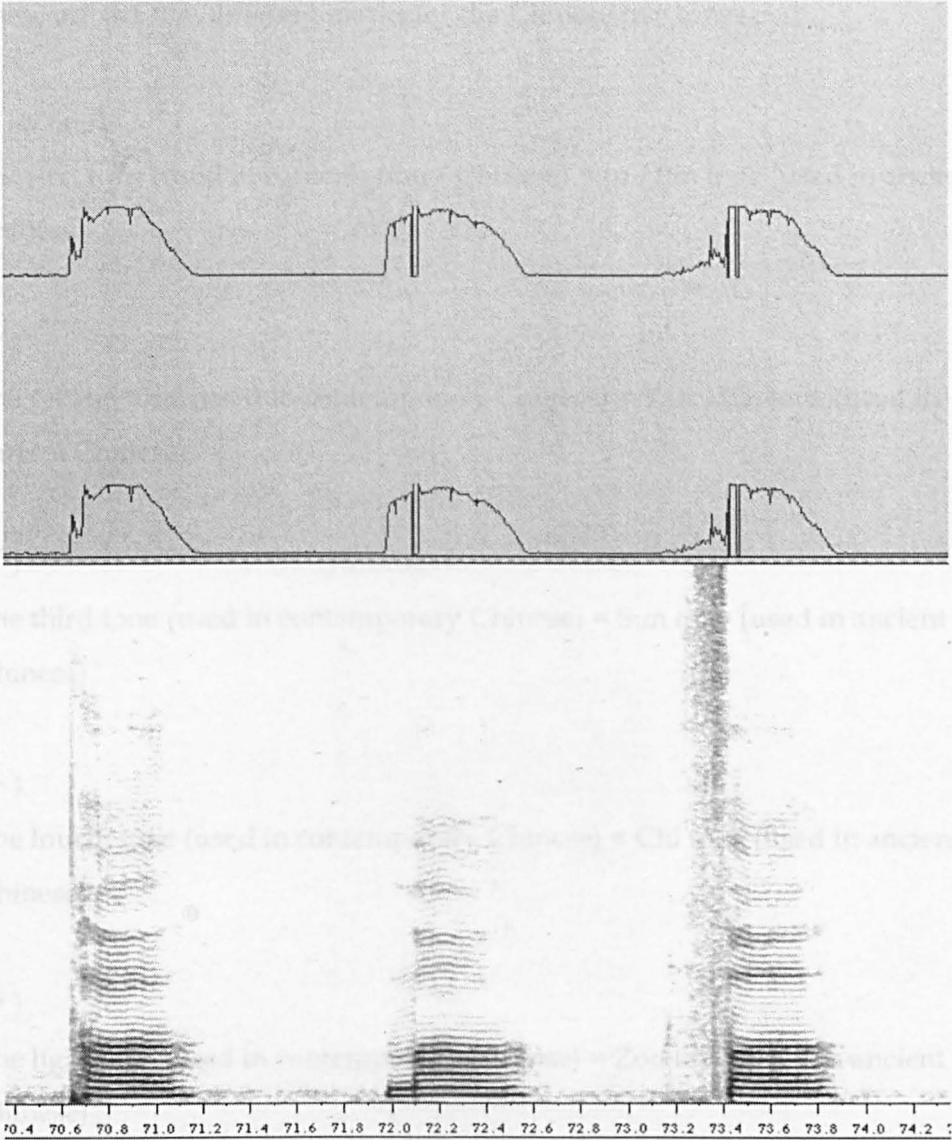
The combination of sound pronunciation, bridge pronunciation, and rhyme pronunciation creates Chinese timbre/phonemic contours. After combining with accent/pitch contour – Chinese language's five tones – the Chinese linguistic spectrum is complete.

Chinese linguistic spectrum

= Timbre/Phonemic contour + Accent/Pitch contour

Accent/Pitch contour: the Chinese language's 5 tones

These are the five different marks for the Chinese five tones :

( ) no mark

The first tone (used in contemporary Chinese) = In - Pin tone (used in ancient Chinese)

(ˊ)

The second tone (used in contemporary Chinese) = Yan - Pin tone (used in ancient Chinese)

(ˇ)

The third tone (used in contemporary Chinese) = Sun tone (used in ancient Chinese)

(ˋ)

The fourth tone (used in contemporary Chinese) = Chi tone (used in ancient Chinese)

(•)

The light tone (used in contemporary Chinese) = Zoo tone (used in ancient Chinese)

For example

Face 臉

= ㄌ (l) ㄧ (yi) ㄢ (an) ㄋ (n) (Timbre/Phonemic contour) + ˇ (Accent/Pitch contour)

Read 唸

= ㄋ (n) ㄧ (yi) ㄢ (an) (Timbre/Phonemic contour) + (Accent/Pitch contour) ˋ

Linguistic flow

Here are the linguistic flows of the Chinese five tones accent/pitch contour :

( ) no mark   The first tone :

Figure 4.3.5 - Linguistic flow and the five Chinese tones: the first tone (made with Audiosculpt) (music example 4J)
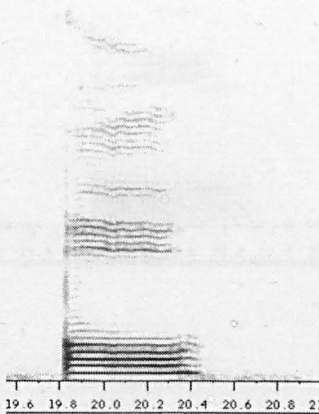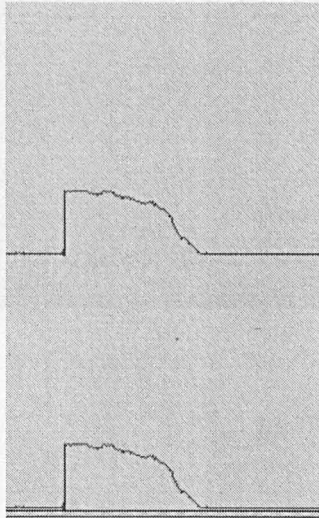
(✓) The second tone

Figure 4.3.6 - Linguistic flow and the five Chinese tones: the second tone (made with Audiosculpt) (music example 4K)
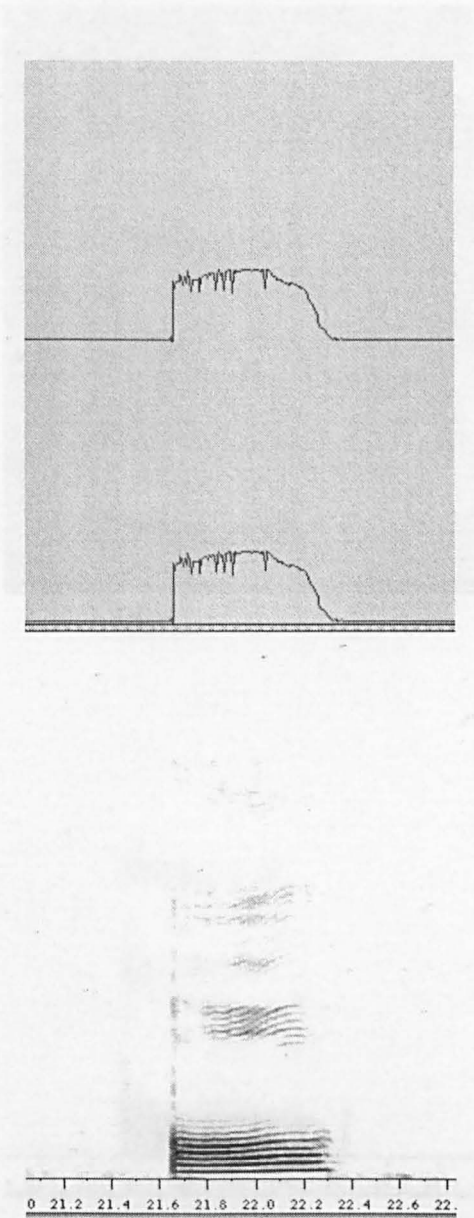
(˅) The third tone

Figure 4.3.7 - Linguistic flow and the five Chinese tones: the third tone (made with
Audiosculpt) (music example 4L)
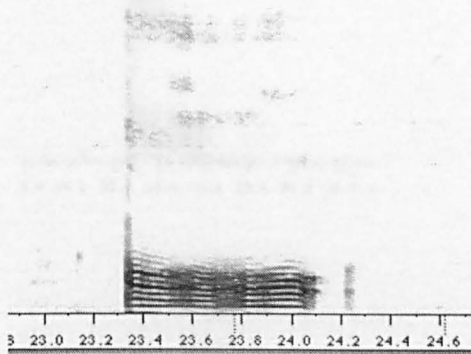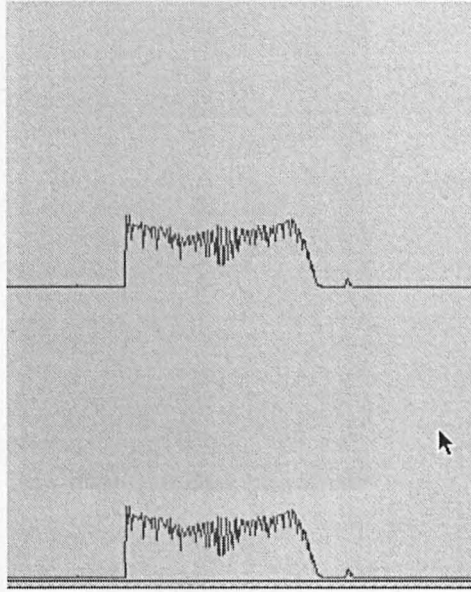
(﹨) The fourth tone

Figure 4.3.8 - Linguistic flow and the five Chinese tones: the fourth tone (made with Audiosculpt) (music example 4M)

(•) The light tone

Figure 4.3.9 - Linguistic flow and the five Chinese tones: the fifth tone (made with
Audiosculpt) (music example 4N)

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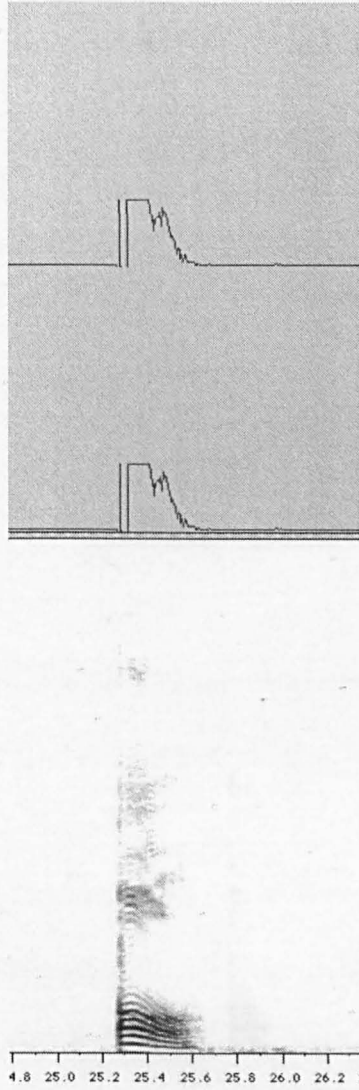
Semantics and cultural landscape

Since rhythm, dialects, accents, cultural styles, special poetic forms and so on all have particular sonic aspects as well as cultural reference for humans to build and form their special cultural landscape properties, it can therefore be interesting to know some important characteristics of Chinese characters' cultural landscape:

Characteristics of the Chinese character phonetic system:

1   There is only one syllable in each Chinese character, yet each dynasty has its own distinct rhythmic character and potential to expand rhythmically by combining words.

2   The phonetic system of Chinese characters consists of the combinations of sound pronunciations, bridge pronunciation, and rhyme pronunciation

3   There are close relations between the meaning and pronunciation, when words share the same sound pronunciations or rhyme pronunciations.

Example 1

宏、洪、鴻、泓 All these words mean 'Huge'; while the pronunciation is the same, requiring the mouth to be wide open to its maximum to pronounce it, only the context may determine which written character is intended.

Example 2

纖、線、細、絲 All these words mean 'Tiny'; the pronunciation

requires that the mouth be closed to its minimum.

Example 3

彎、灣、宛、轉、圓、圈、管、環、丸

All these words mean 'round'; the pronunciation needs the mouth to

be round.

4   Imitations of the sounds of animals

For example : 鵲 (Magpie)、鳩 (Dove)、鴉 (Raven)、鴨 (Duck)

All these words are pronounced according to the way these birds

sound, though they 'sound' different in different languages.

5   One word may have different pronunciations, and different

pronunciations have different meanings. For example, there are two

pronunciations for the word 長: either meaning 'grow' (and

pronounced: ㄓ ㄤ ˇ) or meaning 'longer' (and pronounced: ㄔ ㄤ

ˊ), despite the fact that the character appearance in both cases is the

same.

長長長長

長	長
長	長
長	長
長	長
長	長
長	長
長	長[64]

6   Many different words share the same pronunciation. This characteristic exits in many languages; for example, 'climb' and 'clime' are two words with different meaning, yet they share the same pronunciation. However, because of the pronunciation system, these kinds of characteristics are very common and abundant in Chinese. For example, in the article below, all the word pronunciations sound similar. (music example 4O)

施氏嗜獅史（趙元任）：

石室詩史施氏，嗜獅，誓食十獅。氏時時適市視獅。十時，適十獅適市。是時，適施氏適市。氏視是十獅，恃矢勢，使是十獅逝世。氏拾是十獅適氏石室。石室濕，氏拭室。氏始試食十獅屍。食時，始識是十獅屍實十石獅。試釋是事

A history about Shir, a woman who enjoys eating lions (by Uan-Zen Chau)

Shir is a woman living in a stone house and an official responsible for things relating to poetry. She likes to eat lions very much and swears that she will eat ten lions. Shir very often visits the market to see if there are lions for sale. One day at ten o'clock in the morning, when Shir was visiting the market, ten lions arrived. Shir, using her political power, ensures the ten lions are killed and brings them to her house. The stone house is too humid and so Shir needs to clean it first, before starting to eat the ten lions. The moment she takes her first bite she realises the ten lions are actually made of stone. Can you explain why?

7   Two words that have the same sound pronunciation are called a double sound -雙聲

雙聲詞: Ponder: 思（ㄙ）索（ㄙㄨㄛˇ）

Two words that have the same rhyme are called Pile rhyme - 疊韻

疊韻詞: Compliment: 讚（ㄗㄢˋ）歎（ㄊㄢˋ）

Two words that have the same rhyme and the same pronunciation are called Pile rhyme Double sound - 雙聲疊韻

雙聲疊韻: Couple : 夫（ㄈㄨ）婦（ㄈㄨˋ）

In the following poems several Chinese characters have been highlighted using brackets(【 】) to illustrate use of this method of repeating the words for emphasis.

詩經. 王風. 黍離

彼黍【離離】，彼稷之苗，行邁【靡靡】，中心【搖搖】.

知我者，謂我心憂;

不知我者，謂我何求？悠悠蒼天，此何人哉！

彼黍【離離】，彼稷之穗，行邁靡靡】，中心如醉.

知我者，謂我心憂;

不知我者，謂我何求？悠悠蒼天，此何人哉！

彼黍【離離】，彼稷之實，行邁【靡靡】，中心如噎.

知我者，謂我心憂，

不知我者，謂我何求？悠悠蒼天，此何人哉！

李清照. 【聲聲】慢

【尋尋】，【覓覓】，【冷冷】，【清清】，【悽悽】，【慘慘】，

【戚戚】。乍暖還寒時候，最難將息。

三杯兩盞淡酒，怎敵他晚來風急。雁過也，正傷心，

卻是舊時相識。滿地黃花堆積，憔悴損，如今有誰堪摘？

守著窗兒，獨自怎生得黑？梧桐更兼細雨，到黃昏點點滴滴。這次第，

怎一個愁字了得！

9   The Chinese system of five tones ensures a full timbre as well

     as pitch contour.

10   Pin - Jir 平仄 Contrast (different Pin - Jir) and harmony (same

     Pin - Jir)

     Pin = Chinese first tone

     Jir = Chinese second tone, third tone, fourth tone and fifth tone.

          The phrase is the basic expression unit of Chinese. In general, a

     phrase contains either two or four Chinese characters. If the phrase

     contains two characters, then they must be Pin - Jir or Jir - Pin. If the

     phrase contains four characters, then they must be Pin - Pin - Jir - Jir or

     Jir - Jir - Pin - Pin. This is because the Chinese believed that this

     combination could create the most beautiful tone.

     For example :

     Two - word phrase :

     China 中國 = Pin - Jir

     Nature 自然 = Jir - Pin

Four - word Phrase :

Pin - Pin - Jir - Jir :

船堅砲利、 窮兇極惡、 長吁短歎 、 峰迴路轉、 東山再起、 飛花點翠

Jir - Jir - Pin - Pin :

柳暗花明、 克紹箕裘、 觸景生情、 壽比南山、 鳥語花香、 餓馬搖鈴、 柳

浪聞鶯、 百尺竿頭

11   Format of Five Word Poem

Pin - Pin - Pin - Jir - Jir

Jir - Jir - Jir - Pin - Pin

Jir - Jir - Pin - Pin - Jir

Pin - Pin - Jir - Jir

Pin - Jir - Pin - Pin - Jir - Jir

Pin - Jir - Jir - Pin - Pin

Jir - Jir - Pin - Pin - Jir

Pin - Pin - Jir - Jir - Pin - Jir

12.   Format of Seven-word poem

Add Pin - Pin or Jir - Jir in front of every sentence of the five-word

Poem

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4.4 Conclusion

Of course where there is semantic knowledge, there are differences: 'The degree to which we recognise the semantic content of language will also alter the focus of our perception upon the language stream.[65]' However, we need not know the specific linguistic semantics to be able to appreciate text-related electroacoustic pieces because a wide range of information is perceivable through the age, status, regional accent, personal dialect, physiological state and attitude of the speaker.[66] Furthermore, certain culture-related traits (for example, the text rhythm generated by following the rule of the literature format of the Song 宋 Dynasty) can be perceived and may enhance the interpretation of the music without requiring an understanding of the related culture. Again, however, where there is knowledge of the culture, there are differences.

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[65] Wishart, T. (2002) *On Sonic Art*, Routledge, London., p. 308
[66] Wishart, T. (2002) *On Sonic Art*, Routledge, London., p. 301

Part II

5

Bardo I - Death 中陰 I - 死亡

Duration: 15'49"

Year of composition: 2000

5.1 The research and its influence on composition

According to *The Tibetan Book of Living and Dying*[67], the period of time between death and rebirth is called Bardo, so *Bardo I* is a piece about death - the start of Bardo. This piece is inspired by the idea that Buddhists believe death is the process of the resolution of the four elements: earth, water, wind and fire. Therefore, four different kinds of sounds are employed as symbols to represent these elements, and musically the task is to explore the possibilities of developing these sounds and the relationship between them, as well as man's emotional reaction to death.

With these objectives and with my Chinese background in mind, the strongest idea seemed to be the study of parallels between Chinese character design and dimensions of symbolism existing in electroacoustic music. Considering that Chinese characters use lines to build symbolic structures, the decision was to study the design of Chinese characters, to see if there could be any benefit in applying the findings within contexts of electroacoustic music. The link between written research and compositional process proved to be one of simultaneous and constant feedback.

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[67] Sogyal Rinpoche, (1996) *The Tibetan Book of Living and Dying*, Zhang Lao Shi Publishers 張老師文化.

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5.1.1 Earth and wind

The design of symbols of the earth and wind aspects of *Bardo I* was inspired by the Shian - Sin 象形 rule. As mentioned in Chapter 1[68], the Shian - Sin is a rule for designing Chinese characters using pictures combined with lines to represent objects observed from a certain direction or viewpoint. Within electroacoustic music, a corresponding relationship may be observed in the use of imitation as a form of symbolism, appearing through the observation and projected development of central characteristics within the sound. The 'earth' and the 'wind' aspects in *Bardo I* (see Music example 5C and Music example 5D respectively), share the use of symbolism relating to imitation. After transformation, the two kinds of sound material sound like rolling rocks and moving air, and represent 'earth' because of the similarity of sound spectrum between the transformed sounds and real rolling rock and moving wind sounds.

5.1.2 Water and fire

fire

The design of symbols of the fire aspect in *Bardo I* was inspired by the Jir - Shir (指示) rule of designing Chinese characters, which uses marks combined with lines to indicate the concept of a state, motion or position. The function of these marks is not as direct as in Shian - Sin (象形), in that they can only be understood through association. In *Bardo I*, a corresponding relationship may be found in sounds

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[68] See Chapter 1-'The design and evolution of Chinese characters: considering potential parallels with symbolism in electroacoustic music'

focussed upon for their contribution to an atmosphere or ambience, or for sounds of an imitative nature.

In the 'fire' representation (music example 5A), the slight changing of pitch is used as a metaphor for a candle flame trembling in the wind, rather than the sounds of fire. Because there must be wind movement to cause the trembling of the fire, it is also intended that the images of breeze will be represented. Besides this, within my personal experience there is quite a clear connection in terms of the associations between the flame trembling in the wind and the fading of life: the famous Chinese idiom 風燭殘年 uses the trembling flame in the wind as a symbol for those close to death.

In composing using symbolism, although one can always record the action of fire on materials, I find it more interesting and also challenging to transform a visual into an aural analogy, interpreting a way of conceiving 'fire' in which sound is absent.

Water element

The symbolic design of the 'water' element in *Bardo I*, inspired by the Jir - Shir (指示) rule, represents water in motion in a metaphorical sense, as continuous motion. (music example 5B)

In musical terms, most sections of *Bardo I* employ long continuous sounds which naturally lead the listener to pay close attention to textural changes. Examples of this can be found in the 'earth' section (music example 5C) at the very beginning of the piece and also the 'fire' section (music example 5A) starting at 6'30". Following

the sense of continuity that is inherent to the sound material, the 'earth' section invites the listener to observe the texture of the landscape which was created with many layers of moving rock-sounds, whilst the 'fire' section invites listeners to pay attention to the procedure whereby the texture of sounds changes from granular to continuous.

5.1.3 The 'Leaving the world' element

The design of symbols to convey 'leaving the world' in Bardo I (from 9'39" to 15'49") was inspired by the Hwe - I rule (會意 - discussed in the following section), as a way of designing Chinese characters to express concepts by combining the meaning of one word with that of an other. In some cases, Hwe - I combines three or more words.

In the 'leaving the world' element of *Bardo I*, a corresponding relationship may be observed in the symbolism of combining metaphors – a combination of wind sounds, insect sounds, and high-pitched solo sounds, which for me form an image that would be an ideal representation of the world to have in mind were I about to leave it. This may be due to the creation of a sense of suspension that relates to spectromorphological characteristics (a weightlessness created by a lack of strong causal events), the presence of a sound without seeing its source (disembodiment), associations of flight, of peaceful summer days and modes of perception associated with times of relaxation.

5.1.4 The design rule of Hwe - I

In *Bardo I* the concept of death, in terms of symbolism, was dealt with according to the design rule of Hwe - I. According to the composer's intention (and Buddhist belief), death is the resolution of the four elements of earth, water, wind and fire. The process of dying starts with the dissolving of earth. The first section, earth was created according to the following description:

'We feel as though we are falling, sinking underground, or being crushed by a great weight. Some traditional texts say that it is as if a huge mountain were being pressed down upon us, and we were being squashed by it.[69]'

However, the other parts in the piece - water, fire, wind and space - were combined in ways that would evoke free movement indicating that the imagination is released. This strategy was adopted after acknowledging that due to a level of uncertainty associated with the meanings of sounds, listener interpretations can vary widely. As an example of this, despite the fact that the earth is represented in the sounds of moving rocks and stone, the characteristics of continuous movement in rolling stones might also be symbolic of wind. It follows, therefore, that the combination of all the symbols representing the four elements is the means of symbolising death.

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[69] Sogyal Rinpoche, (1996) *The Tibetan Book of Living and Dying*, Zhang Lao Shi Publishers 張老師文化., p. 316.

5.1.5 Space

Using different natural reverberation characteristics that I felt could be used in combinations, the resulting sounds were to be played together as symbols of different worlds which, according to Chinese belief, people pass through after death. However, most of these music experiments failed because I found in the majority of cases that by combining multiple sound materials exhibiting different reverberant space characteristics the tendency is for a single new space to be created, rather than a collection of individually discernable spatial characteristics. Luckily, one such experiment was successful and the 'water' element was drawn from this. The experiments showed that there are certain spatial characteristics within sounds that always resist mixing, and consequently in the 'water' part we are still able to perceive the different spaces between the foreground and background material. (music example 5B)

5.1.6 The pentatonic chord

In the crescendo section of Bardo I (from 9'11" to 9'38") the fire aspect is involved, combining gestural material, rising in pitch until a kind of vanishing point is reached, and a pentatonic harmony is used to bring about an association with Chinese culture and to evoke an atmosphere. There is also a short silence between the disappearance of the rising pitch objects and the struck event that introduces a long, continuous low-frequency wind-like sound. This is designed to emphasise the contrast between the extremely high pitches and the struck, low-frequency sounds which follow, as well as providing a gap to indicate the transition from 'fire' to 'leaving the world'. This situation – 迴光返照 often occurs in patients in a

temporary transitional state where the mind clears before death[70]. As an example of this, the condition of a patient who has suffered serious illness for many years may improve suddenly and dramatically a short time before their death. To my mind these last peaceful hours resemble a candle that burns all of its remaining fuel before quickly fading out. This idea inspired the design of the crescendo section in *Bardo I*, combining gestural material that rises in pitch until the vanishing point is reached, the attack-event that follows triggering a low wind-like sound which becomes animated and symbolises the opening gates of death.

Setting aside the pentatonic design, organization of pitch and harmony within the Bardo cycle took place according to my own aural judgment, as I found through much experimentation that large-scale plans for the control of pitch and harmony, in the context of the cycle, were exceedingly difficult to realise successfully.

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[70] 旺文社, (1997) *Contemporary Chinese-English Dictionary* 旺文現代漢英辭典, Wang Wen Publishers 旺文社., p. 386

6

Bardo II – the conceptual journey 中陰 II - 神識之旅

Duration: 10'42"

Year of composition: 2001

6.1 The research and its influence on composition

As previously mentioned, according to *The Tibetan Book of Living and Dying* the period of time between death and rebirth is referred to as Bardo. *Bardo II* is about a conceptual journey, inspired by what Buddhists believe will happen after death. Two categories of sound function symbolically to represent these events, and the relationship between them is explored and developed.

6.1.1 Two categories of sound as symbol

'Wind' category sounds are used to symbolise the soul. The other category of sound material includes the continuous metallic sound present at the start of the piece, the Chinese five-tone pitched material at 3'00", and the sound at 4'00" which, after a loud attack, transfers from the long and continuous to the granular. The sounds within this category are used as symbolic of events that happen after death. When these sound categories were designed, I initially read some related Buddhist texts, discussed issues with monks and nuns, and then organized the two categories to describe what would happen after death in an abstract way, seeking to develop

these ideas in symbolism as opposed to following the sequence as it is written. For example, discussion of the soul as weightless and invisible but nevertheless existent, led to the decision for 'wind-like' sound to be used as the symbol to represent the soul, as characteristics of wind possess a certain weightlessness and invisibility (in that wind itself is not seen but becomes apparent to human beings after causing other materials to be animated), and because wind nevertheless exists. (music example 6A[71])

The first section (from 0'12" to 5'40") is formed between the silence that opens the piece and the development of two categories of sound; the second section (from 5'41" to 10'41") is concerned with the combination of the two categories of sound. I give the two sections a symbolic function – communicating the idea that events observed by the soul after death are actually produced by the soul itself.

6.1.2 Silence as symbols

The object which cannot be destroyed

The concept of Kuan was misunderstood and rejected in the West when first introduced due to an incorrect translation as 'emptiness', which indicates anti-sense. The Diamond Vehicle is one of the best known Buddhist sutras. One of the important concepts introduced in the sutras is that despite the fact that the diamond is the hardest object in the world it can still be destroyed; the only thing which cannot be destroyed is Kuan. The closest translation of Kuan should be 'unattachment'. If a person can stay 'unattached' spiritually, and this does not mean 'without emotion

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[71] The wind is represented by the almost-pitched material and also by the rising noise-band.

towards anything', then that person is in Kuan - a status meaning 'cannot be destroyed' because the person is not holding anything to be destroyed[72].

Kuan 空 emphasises the status whereby one is not being controlled by anything, either spiritual or physical. There are many symbols to represent this status: for example, 'the sound of silence' and 'the fiddle without strings'[73]. One of the connections between these symbols and Kuan is that there is no main concrete body in existence - no sound of silence and no string to play sound. The symbol's creators use these characteristics to represent Kuan's status of unattachment[74].

The sound of silence

After finishing the chapter, 'The Symbolism of Buddhist art and Chinese Zen Buddhism', I became interested in the symbols of the 'fiddle without strings' and the sound of silence, and this led to the incorporation of the silent period at the opening of *Bardo II* (from zero to 10 seconds), which fulfils two functions: firstly, as a symbol which has the status of Kuan, and secondly, as part of the Tai Chi structure, illustrated in the next section[75].

The 'sound of silence' can be found both in Bardo I (at 9'38") and Bardo IV (at 0'21"), although in both cases this functions more musically than symbolically. The silence in Bardo I acts as a bridge to connect the high-pitched, vanishing sound to the low-attack, whilst the silence at the opening of Bardo IV is designed to be in contrast with that of Bardo III.

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[72] 南懷謹, (1993) *The Diamond Sutra* 金剛經說什麼, Lao Gu Publishers 老古文化事業公司., p. 97
[73] See 3.5-Symbolism of Chinese Zen Buddhism, p. 47
[74] 佛光出版社, (1998) *Collected Buddhist theses: 1998* 1998年佛學研究論文集, Fo Guang Publishers 佛光出版社., p. 174
[75] See 6.2-The Symmetrical Structure in *Bardo II*, p. 96

6.1.3 Structures as symbolism

Introduction of the Tai Chi diagram

The Symbol of Tai Chi (Yin - Yang) relates to an ancient Chinese
understanding of the way things work in the world. The concept of yin and yang
originates in ancient Chinese philosophy and metaphysics, describing two primal
opposing but complementary forces found in all things in the universe. The symbol
itself (Traditional Chinese: 陰陽; Simplified Chinese: 阴阳; y ī n yáng) probably
dates from early agrarian religion; it exists in Confucianism, and it is prominent in
Taoism, though the words yin and yang only appear once in the Tao Te Ching 道德
經[76]. The concept is called yin yang, not yang yin, just because the former has a
preferred pronunciation in Chinese, and the word order has no cultural or
philosophical meaning.

The yin and yang states are equally important, unlike the typical dualism of
good and evil, and each of the two characters necessarily has more than one
connotation. Generally speaking, the symbol of 'yin' represents the dark and the
passive, a downward motion and a contraction. Yin is often related to night and
coolness, to winter and the north; to introversion and rest, as well as to femininity,
the earth and 'the even'. Connotations of 'yang' are brightness and activity, an
upward motion and expansion. Yang is associated with day, heat, light and the sun
as well as summer and the south, with further connotations of strength, masculinity,
extroversion, heaven and 'the odd'[77].

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[76] 楊安舟, (2006) *The Moral Sutra* 老子道德經, SAN MIN SHU JU Publishers 三民書局.
[77] 南懷謹, (2000) *Introduction of the history of Chinese Taoism* 中國道教發展史略述, Lao Gu Publishers 老古文化事業公司.

The interlocking design of figure 6.1 is a well-known form of the Tai Chi symbol. However other representations are also possible: yang can be represented as a solid line and yin as a broken line, which could be divided into the four stages of yin and yang and further divided into the eight trigrams. (These trigrams are used on the South Korean flag.) The symbol (See Figure 6.1), called *Taijitu* (太極圖), is another way of representing the pair. In each representation of Tai Chi, both the yin and yang states contain the seed of their opposite, in line with the notion that nothing in our lives can be treated as completely black or white, that one state cannot exist without the other[78].

Regarding the symbol shown in figure 6.1, the part outside the circle represents 'everything', while the black and white shapes within the circle represent the interaction between the two different kinds of energies. The shaping of the interlocking sections offers a sense of the continual movement of these two energies which, as complementary opposites rather than absolutes, are usually in movement rather than held in absolute stasis. To present the interaction, when the yang is at its most massive, we can also find the yin begins from the centre and the edge of Yan, and vice versa. The analogy corresponds with a view of everything that happens in the world - expanding and contracting, starting and stopping.

Most forces in nature can be broken down into their respective yin and yang states. The related states can also be seen as a process of transformation that describes the changes between the phases of a cycle. For example, cold water (yin) can be boiled and eventually turn into steam (yang). It is also possible to look at yin

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[78] 南懷謹, (2000) *Introduction of the history of Chinese Taoism* 中國道教發展史略述, Lao Gu Publishers 老古文化事業公司.

and yang with respect to the flow of time. Noon is full yang, sunset is yang turning to yin; midnight is full yin and sunrise is yin turning to yang. This flow of time can also be expressed in seasonal changes and directions. South and summer are full yang; west and autumn are yang turning to yin; north and winter are full yin, and east and spring are yin turning into yang.

Figure 6.1 - The Taoist Taijitu or 'Tai Chi'[79]

6.2 The Symmetrical Structure in *Bardo II*

Figure 6.2.1 - Tai Chi and formal symmetry in Bardo II (made with SoundMaker)
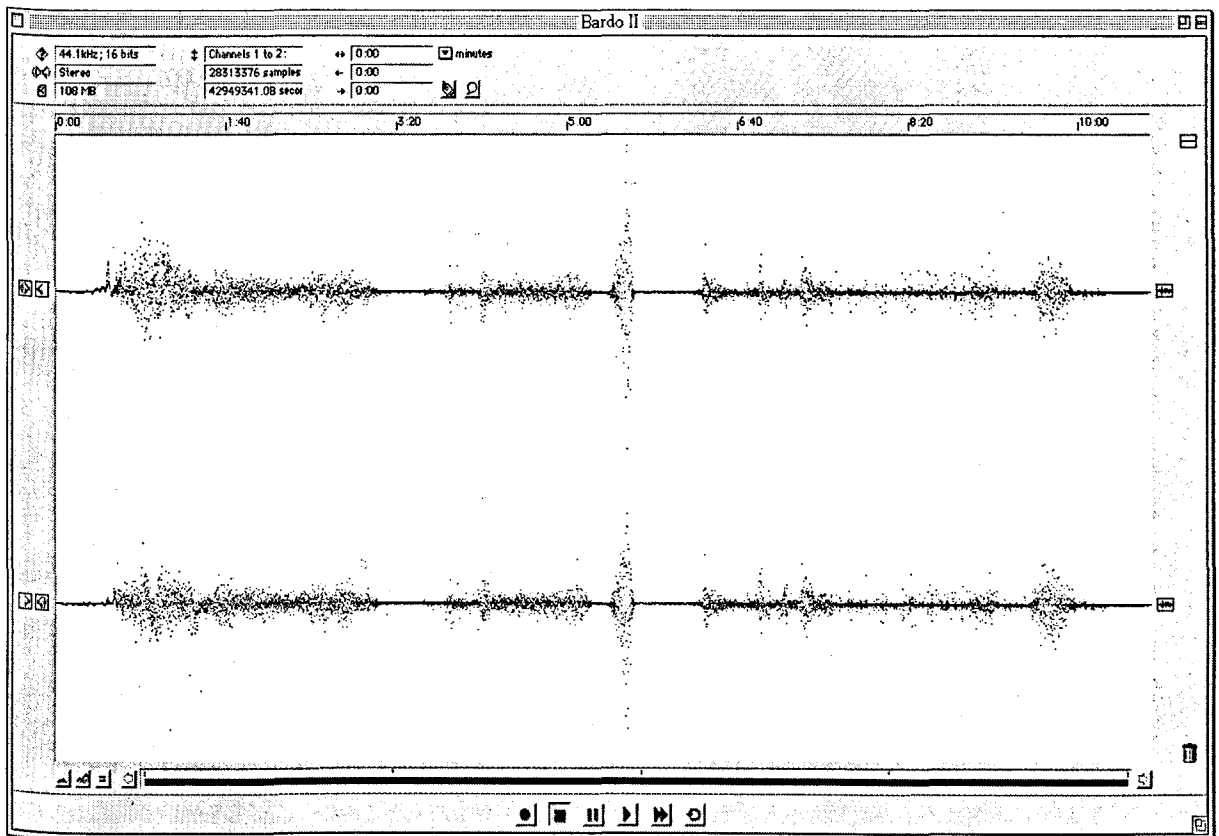
[79] 勵忠發, (2000) *Symbols, The Arts and Information* 記號 藝術 情報 Zheng Zhong Shu Ju Publishers 正中書局., p. 139

If we cut Figure 6.2.1 into two parts and compare the two (see Figure 6.2.2), which reveals the symmetry of the overall form, it should be possible to sense the other explosion which does not appear literally in the piece.

Figure 6.2.2 - Illustration of formal symmetry in Bardo II (made with SoundMaker)

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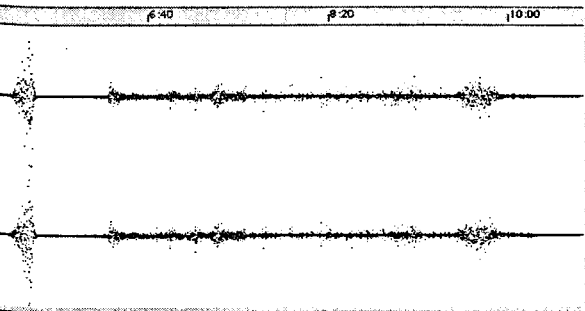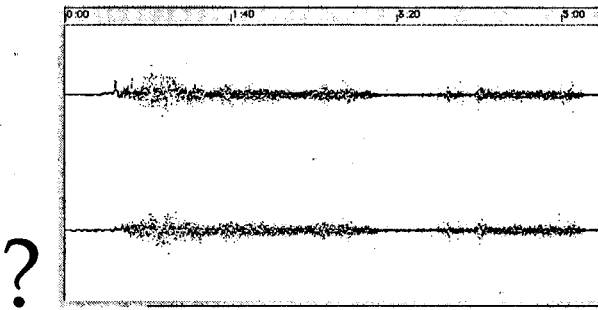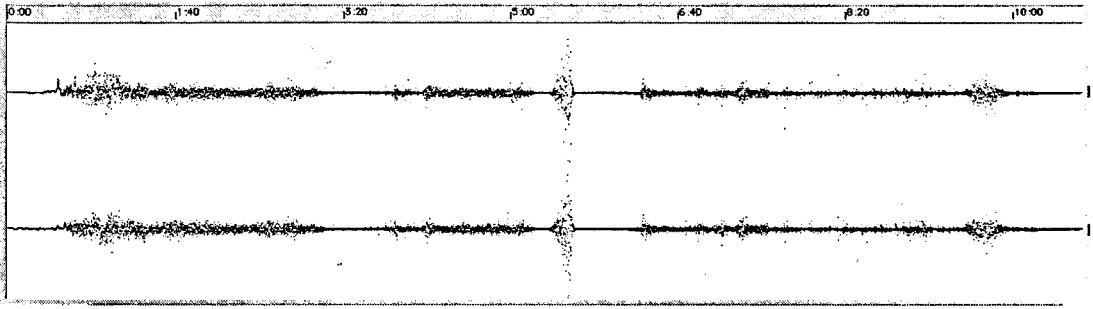
In terms of structural development, to achieve a symmetrical form that symbolises Tai-Chi I have concentrated on continuation and contrast. To show how the idea of continuation has been developed, if Bardo II was to be played as a repeating loop the listener would find that the fade-out at the end of the piece can smoothly connect with the silence section at the start of the piece, thus recalling the continuity within Tai-Chi whereby as the white region diminishes, the black region grows. Furthermore, the presentation of sounds in section I prior to the attack at 5'34", is in contrast with that of section II commencing after the attack. In a sense, sounds within section I are presented sequentially (one sound after another), whilst in section II different sound-types and their groupings are presented in combination. For example, sounds related to the Chinese five-tone system can be found in both section I (at 3'00") and section II (at 5'54"); however, the group comprising such sounds in section I is presented in solo, whilst the similar group in section II is presented in combination with a collection of metallic sounds. In addition, the contrast serves not only as a symbol of Tai-Chi since, in this musical context, the priority of section I is for listeners to be encouraged to observe the way the sound is transformed. If the sound group at 4"00, in which a transition occurs from continuous to granular sounds, had been presented with several other types of sound, the objective that the transformation should be perceived would have been more difficult to achieve. On the other hand, the combination of different sound groups in section II offers another type of tension in the piece.

Figure 6.2.3 - Tai Chi: an illustration of the universe[80]
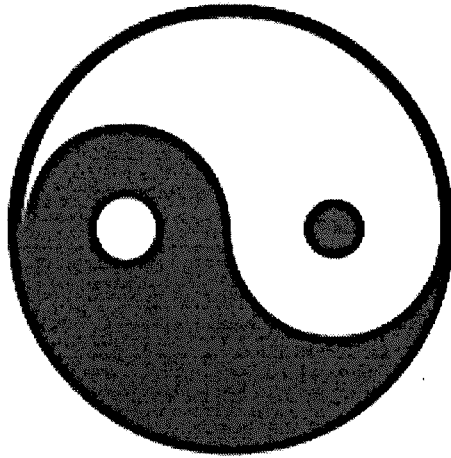
6.2.1 Using triggering as symbolism:

The invisible attack of silence at the start of *Bardo II*, triggering the start of the

next sound, was used as a symbol of the black dot in the Yang part while the audible

attack in the middle part of *Bardo II*, which triggers all sounds to stop, represents the

white dot within the Yin. Of course, the silence is much more easily perceived when

listening to a CD in private as opposed to listening in a concert because playback

equipment would show the exact starting point of the piece. In concert it is not easy

to tell the exact starting point and in this case prompting the listener before the start

can be helpful in calling their attention to the coming silence and as preparation to

listen. In this way a similar result can be achieved. As explained regarding the

manner of Yin and Yang interaction, the audible attack in the middle of *Bardo II* (the

white dot) also triggers the sounds of the other groups to begin, representing the

Yang part.

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[80] 勵忠發, (2000) *Symbols, The Arts and Information* 記號 藝術 情報 Zheng Zhong Shu Ju Publishers 正中書局., p. 139

7

Bardo III – A thought causing ignorance 中陰 III - 一念無明

Duration: 09'38"

Year of composition: 2002

&

Bardo IV –Reincarnation 中陰 IV - 輪迴

Duration: 12'22"

Year of composition: 2004

7.1 The research and its influence on compositon

Influences of the Symbolism of Buddhist Art and Chinese Zen Buddhism

Bardo III was composed together with *Bardo IV* with the intention of using the contrasting expression of the two pieces together to explore sound relationships both musically and symbolically.

During completion of chapter 3, 'The Symbolism of Buddhist art and Chinese Zen Buddhism', acting on the inspiration provided by this research work, I became most interested in a composition centring on Buddhist philosophy. The symbolism in Buddhism is very rich and many different kinds of media have been used as symbols to express Buddhist concepts, ideas or philosophies. For example, the sculpture of Buddha's foot has been used to symbolize places that Buddha visited, icons of Female Kuan-In have been created as symbols of kindness and mercy, and the

painting of the lotus has been used as symbolic of the idea that 'true-self' will not change even when surrounded by bad environments. However, music has almost never been used as a symbol to express Buddhist concepts, ideas or philosophies. This statement holds true even with some notable areas of interest regarding the use of sound in Buddhist practices. For example, the sound of temple bells struck 108 times at the start of the Chinese lunar year has been used to symbolise the 108 temporal crackings of hell, and is believed by Buddhists to be the only brief period in which souls in hell can be relieved of their suffering[81]. Composing a piece using sounds as symbols of Buddhist concepts therefore became an interesting proposition for exploration.

In terms of symbolism the main focus of *Bardo III* was the Buddhist concepts, 'the Buddha nature' and 'a thought causing ignorance'. Buddhists believe that all human beings initially possessed the Buddha nature, and then because of the appearance of the first thought all things both good and bad began, the cycles of life and death. That the concepts drew my attention so strongly is not only a question of interest through explanation, but is also due to a certain degree of doubt. One such doubt concerns the suggestion in the sutra that a person reaching his/her enlightenment, hence becoming a Buddha, will never again start the life and death cycle, yet the 'first thought' is still expected to influence the enlightened. I believe these two conflicting assertions present a philosophical problem that remains unresolved, as if the reincarnation thesis resembles an incomplete circle. Most monks and nuns with whom I discussed this treated the question as asking when time starts,

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[81] 無名, (2005) *101 Religions Questions* 對宗教101個問題, Hao Du Publishers 好讀出版., p. 92

and I am not totally convinced by this standpoint. It follows, however, that this has become for me one of the most special and personally attractive Buddhist concepts[82].

7.1.1 The symbol designed for the Buddha nature 佛性

Designing a symbol for the concept of 'the Buddha nature' and 'a thought causing ignorance' was the first thing that came to my mind when I started composing *Bardo III*. Buddhists believe that initially everybody has a pure clear Buddha nature. Following a thought causing ignorance, then the second thought, third thought (and so on) arrive, which gradually transfers the pure soul into complex life cycles with different forms. However, it does not matter what degree of complexity exists in which the soul is twisted; the Buddha nature would never change and will be recovered when an individual re - discovers it. The first task was therefore to observe or create a kind of simple pure sound that can be used as a symbol of the Buddha nature and another different kind of sound as symbol of the first thought which triggers the change of that pure kind of sound. Following this musically, after tracing the development of the sounds and their movements as representing the Buddha nature, the stories of the piece then develop, and are conveyed according to the notion of 'ignorance' following the first thought.

When experimenting with different kinds of music applications, I found that all sound material sounds very similar when over-stretched; for example, when expanded 100 times in duration. The result resembles the sine - wave. From this phenomenon parallels may be drawn with the Buddha nature in that whilst a creature/soul might be transfigured into different forms (a bad person, a dog etc),

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[82] 南懷謹, (1995) *The ways to Buddhism* 如何修證佛法, Lao Gu Publishers 老古出版社.

the Buddha nature inside remains the same. In the first part of *Bardo III*, I therefore decided to create a sound resembling a sine - wave as a symbol of the Buddha mind. Following the sound representing 'a thought causing ignorance', the journey of transferral begins with two struck sounds, distinguished by their reverberation character, triggering a process of transformation in material designed according to the sine – wave shape.   This material then begins its transition towards a setting of more glass-like, high-pitched character, and the internal relations of this material in itself becomes more complex.

7.1.2 The symbol designed for 'a thought causing ignorance' 一念無明

Because of 'a thought', the endless transferring of the soul from pure to complex commences.

Although a thought, in 'Buddhist' thought, has mostly been understood as most insignificant, in fact it is also the case that because 'a thought' dramatically changes 'everything', it actually plays a very 'substantial' role. Therefore, I designed a loud attack sound as a symbol for 'a thought' to express the power which the thought has in its ability to change everything. And intentionally, the following second attack, as a symbol for the second thought, presents an even bigger image following the first. Here, different spatial effects have been applied to both the first attack (large room reverberation) and the second attack (huge hall reverberation) as a kind of sound treatment with a specific purpose rather than as a broad imitation or evocation of natural space. In real life, contrasting with the spaces presentable over loudspeakers, it is impossible for human beings to hear two continuous sounds

coming from different spaces at the same time. Listeners are therefore expected to pay attention to perceiving the expansion of the space.

7.1.3 The changed structure of *Bardo III* and the pace of *Bardo IV*

Taking account of changes in the listener's mental focus, receptivity, emotional state and memory, of the images left by the previous composition just heard or the last things the listener was doing, generally speaking it is not easy for all the listeners to be concentrating sufficiently at the beginning of a composition. Musically, the very 'loud' introduction of *Bardo III* was composed to play the role of an initiating causal event, drawing enough attention and mental focus so that listeners might perceive the symbolism of 'a thought causing ignorance' as a central idea of this piece. However, because of the expansive image of the introduction, the density of the rest of *Bardo III* is forced into becoming very high to be able to keep a proper overall balance, from the introductory section through other sections of *Bardo III*. Following this logic I composed many fast movements and a high density of interaction between sounds in the sections of *Bardo III* after the introduction. In spite of this *Bardo III* is, in my opinion, still slightly dramatic and therefore the idea of creating another piece with similar structure but contrasting in its slow pace was realised in *Bardo IV*.

The design process focused on creating the material and context intended to represent 'a thought' played an important role in the overall development of my ideas, which were transformed from the original plan; this musical process is itself reminiscent of the Buddhist notion of life transformed by 'a thought causing ignorance'.

7.1.4 The combination of different types of sound source

As far as sound relationships are concerned, there are two aspects which are quite different from *Bardo I* and *Bardo II*.

Firstly, one of the main ideas of the sound relationships in *Bardo III* is continuous interaction between different sound - groups. After statement of 'the first thought', there follows 'everything'. Therefore, the design for a variety of sounds (A) triggers a variety of sounds (B), which in turn triggers the variety (C), developing a chain of influence as a plausible symbol for this 'everything' to take place. As an example, at 3:33 in *Bardo III*, a slow shuffling kind of sound triggers the start of a low vibrating sound, which in turn triggers the high - frequency squeaky granular material to become smooth, and eventually to become a type of very active fast – moving, high - frequency sound, beginning after another fast shuffle type at 04:05. (Music example 7A)

Secondly, because of this kind of gesture created from the interactions between different groups of sounds, many possibilities of different combinations of a variety of sound types were explored, something which did not happen in *Bardo I* and *Bardo II* as the intention there was to focus on the observation of change inside groups.

7.1.5 Causality relations inspired by nature

In *Bardo III* and *Bardo IV*, there are causal relationships between sounds (one sound triggering another sound to stop, start, or change), designed following the

inspiration of nature observed. For example, when I was composing *Bardo III* in my

home studio in London, there were birds which flew nearby trying to steal fruit from

the trees. When they flapped their wings vigorously trying to find a perch in the tree,

I heard the wind. And when cocks fight each other on the ground, the sand is kicked

and scattered. When the wind blows and moves the trees, there is also the movement

of falling leaves. When the waves break on the shore, they are diffused into mists

and splashes... Many of these causalities were observed and inspired me to design

special relationships in *Bardo III* and *Bardo IV*. In *Bardo III* (Music example 8D) for

example, following the process of transferal, the sound of the birds' flapping feathers

gradually triggers low wind - like sounds, while at 01:37, the flapping feather sound

triggers sounds reminiscent of sands rising and pebbles falling which are perceivable

to the listener.

7.1.6 Design to regulate contrast and the balance between *Bardo IV* and *Bardo III*– pace and space

As mentioned above, the function of *Bardo IV* was initially to 'balance' *Bardo

III*, and therefore the pace of *Bardo IV* is comparatively slow. This also means there

are not as many causalities as *Bardo III* and most of the sound types are longer and

more continuous in nature. Naturally with this kind of style the listeners tend to be

drawn into observing the gestures, timbral and textural qualities of the music, as

opposed to a greater preoccupation with the events, as is the case with listening

where there are many causalities. Furthermore, the spatial design of *Bardo IV* is quite

different from that of *Bardo III*. The spatial effect used at the beginning of *Bardo III* is

a treatment employed to encourage perception of the sudden expansion of space,

while in *Bardo IV*, the space is designed to be a large chamber while the positions of

sounds are set to move slowly from a close position to a distant position or from distant to close.

7.1.7 The symbols of the four elements

Bardo IV is about reincarnation. Because of the contrast in meanings between *Bardo IV* (return to the world) and *Bardo I* (death), I used a reconstruction of the four elements of earth, water, wind and fire, as symbols to represent reincarnation. Design of the symbols representing earth, water and wind is in accordance with the rules of Shian – Sin (象形); in tune with this the sounds of rolling rocks have been used as a symbol representing the earth, marine waves as a symbol representing water, and the sounds of wind - effecting - movement as a symbol representing wind. The symbol representing fire was designed according to the Jir - Shir rule which uses marks combined with lines to indicate the concept of a state, motion or position, and these can only be understood through association. Here the association in the fire part in *Bardo IV* is with the Phoenix, a legendary creature born to, and dying within, fire. The bird - like sounds were used here as a symbol representing fire.

8

Bardo V – Jia Chen Zer 中陰 V- 江城子

Duration: 12'50"

Year of composition: 2006

8.1 The research and its influence on composition

Writing in space

Following completion of the chapter, 'Phonetic structure and design in Chinese words, as viewed by an electroacoustic composer', I became interested in the shape of Chinese calligraphy and in the motions associated with its writing. From this point my ideas developed regarding the writing of Chinese characters as sound within audio spaces, encouraging the listener to appreciate performances of moving lines corresponding to this calligraphy. As a consequence these ideas became an important part of *Bardo V*.

The poem - Jia - cheng - zer

Within the audio spaces of the piece, what should be written? Since *Bardo V* is concerned with relationships between the living and the dead, the poem 'Jia - cheng - zer', written by ancient Chinese poet Sue Tong - Po ten years after his wife's death, is well - suited as source material. That it is almost unheard of in classical Chinese

poetry for a male poet to express love towards a female lover, in my personal opinion, makes this poem even more romantic.

Here is the poem both in Chinese and English[83]

十年生死兩茫茫。不思量。自難忘。

千里孤墳，無處話淒涼。

縱使相逢應不識，塵滿面，

鬢如霜。

夜來幽夢忽還鄉。

小軒窗。

正梳妝。

相顧無言，惟有淚千行。

料得年年斷腸處，

明月夜，

短松岡。

Ten years, dead and living dim and draw apart.

I don't try to remember,

But forgetting is hard.

Lonely grave a thousand miles off,

Cold thoughts, where can I talk them out?

Even if we met, you wouldn't know me,

Dust on my face,

Hair like frost.

In a dream last night suddenly I was home.

By the window of the little room,

You were combing your hair and making up.

You turned and looked, not speaking,

Only lines of tears coursing down.

Year after year will it break my heart?

The moonlit grave,

The stubby pines.

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[83] translated by Burton Watson http://www.blog.edu.cn/more.asp?name=fainter&id=76130

8.1.1 Desire and the dragon

須菩提！於意云何？可以三十二相見如來不？

不也，世尊！不可以三十二相見如來。

何以故？如來說三十二相，即是非相，是名三十二相。

Shi-Pu-Ti asked: Can we recognize you by learning to recognizing the thirty-two kinds of beauty in you?

Buddha: No, you cannot recognize Buddha in this way.

Shi-Pu-Ti: Why is that?

Buddha: This is because the thirty-two kinds of beauty are the external, surface forms, while Buddha is the status of the mind.

金剛經

Diamond Vehicle[84]

This dialogue encourages people not to allow themselves to be cheated by appearances at a surface level, but instead discover the truth behind a story. Inspired by this saying, I began designing the 'actor's part' to represent desire.

From a Buddhist point of view, avarice, anger, obsession, arrogance and suspicion are manifestations of desire. In the West, following the story of Eden, the snake as a symbol of desire usually connotes bad or evil. Seen from a Buddhist standpoint, despite the fact that a decade had passed since the death of Sue's beloved wife, the poet's enduring love vividly indicates the swing of desire between regret for a loved-one's absence, deep yearning for her, and obsession, as dimensions which are not exactly bad or good.

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[84] 南懷謹, (1993) *The Diamond Sutra* 金剛經說什麼, Lao Gu Publishers 老古文化事業公司., p. 225

Observed in this way, the Dragon lends itself as a suitable symbol for desire because its body looks and moves like a snake but is not regarded in Chinese tradition as bad or evil.

8.1.2 The writing of Chinese words and the use of the sword

In Chinese culture the high status of Chi[85] is emphasised both in the practice of calligraphy and in use of the sword in Kuan – Fu 功夫. In addition to this, because of the similarity of their free styles and imaginary motions, the Chi status of calligraphy and that of Kuan-Fu are frequently associated with each other. In *Bardo V* this association is the link to show that the writing of Chinese words and use of the sword are interchangeable, and sonically both were presented by using the same kinds of sound.

8.1.3 The story

As a general guide to my thinking when composing *Bardo V*, I can describe the following narrative:

In the first section of *Bardo V* there are three types of force - the chi, the sword, and the attack - and each is focused on destroying the initial form of dragon, the symbol of desire. This struggle only serves to make the dragon grow until finally it comes into the light in the second section, then makes its ascent into the sky.

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[85] In Chinese culture, Chi means 'life-energy', which can be used in assessing a person's health or when referring to the status of Chinese arts, including painting, calligraphy, and Kuan-Fu.

In the third section there is the realisation that the dual forces of sword and chi are in fact writing and chi; that which writes the poem expressing how much Sue misses his wife, and which simultaneously creates desire and the dragon. The sword that is intended to extinguish desire is actually the writing which creates desire.

8.1.4 The symbolism of the reading of the poem

Since this passionate poem was written for Sue Tong - Po's deceased wife, it seemed fitting that the piece should attempt to convey to her her husband's message. Pursuing this idea, I began designing material intended to contribute to the piece's symbolism and soon became conscious of the necessity of representing the wife's status as deceased. Following this, the piece's narrative suggested itself in the final coming together of male and female to read together, as a symbol that the wife has received the message, before her final departure.

A pair of very high quality microphones was used in a very close manner initially, with the intention of enhancing the sense of intimacy in the recording of the voices. The reading of the poem begins with the male voice, which represents that of Sue Tong - Po. As the female voice represents the dead wife, I arranged those readings to appear consecutively in different spaces, intended to evoke the surreal and associate with her death, and to make a distinction from those of the male, which contrast in their constant intimacy and spatial closeness (exploiting characteristics of the original recordings), presenting the symbol that he is alive and real. It is hoped that the symbolism of male and female readings coming together in the final part, and the conclusion with the female voice receding into the distance, will be clear and perceivable.

8.1.5 The sounds of the reading of the poem

As explained in the chapter 'Phonetic structure and design in Chinese words, as viewed by an electroacoustic composer', because the poem 'Jia - cheng - zer' (江城子) was carefully written according to the 'Tsir' (詞) rhyme format created for literature in the Son (宋) dynasty (960 A.D. – 1279 A.D.), a certain cultural atmosphere should be perceivable in this section of poem-reading without the need to explain the Chinese meaning.

When listening to this section, four factors contribute to the cultural atmosphere perceivable through the music or to apprehension of the poem's meaning for a non-Chinese speaker. The first of these is the expression of the speaker's voice, for example in the melodic character of the language, volume expression and accent. Secondly, symbolism is expressed via the treatment and the combination of sounds, an example of this being the male voice, distinguished by its small-chamber reverberation characteristic and representing the poet, while the female voice is revealed through a multitude of spatial treatments and represents the dead wife. Another example can be found in the combination of the male and female voice in their joint recital of the poem which is used to represent the poet facing his dead wife, whose voice is now within the same small living room and conveyed through vocal expression that she knew the poem written by her still living husband, and that as his wife she understands what he is trying to say. Thirdly, there is the meaning of the poem itself.

It is certainly true that an understanding of the poem's meaning expressed in the Chinese language will affect the way the music is perceived, but it is equally

important to recognise a wealth of other information available to the listener, as described above.

8.1.6 Symbolic design

In the Bardo cycle, the poem reading within *Bardo V* is the only appearance of symbolism designed according to the rule of Shin – Shun, in that of the words of Shin-Shun. The words of Shin - Shun present both the social characteristics (the meaning of the word) and the natural characteristics (according to the sound of the word).

Within the poem reading section of *Bardo V*, a corresponding relationship may be observed in the combination of the images of sounds' natural characteristics and the images of sounds' social characteristics. The spoken sounds of the poem reading as source material, regarding a sound, its natural characteristics (how it sounds) represent an image; simultaneously, the social characteristics of the sound (what it means) represent another image.

8.2 Conclusion

Five compositional stages and the pieces of the Bardo series.

There are, roughly speaking, five stages of composition regarding the Bardo pieces.

Stage 1 - Main ideas

Only after I have accepted the main ideas that the pieces will explore can I begin to compose. A high proportion of ideas for the pieces fail due to a lack of techniques specifically suited to the idea or simply in proving excessively difficult to realise and therefore unwise to continue pursuing. Beyond these difficulties more than two main ideas are needed to compose. As an example, 'writing in space' is realised as different space-images developing a symbolism involving the poem's content and the vocal reading, and secondly the notion of 'the dragon' and procedures to realise it are finalised prior to beginning composing. Both are ideas central to *Bardo V*.

Stage 2 - The preparation of sounds and techniques

At this stage, I record the sounds needed and also practise related techniques as much as possible. Employing the chosen techniques is similar in nature to a painter's use of the pen, and I always intend to create some new forms of expression as well as trying hard to avoid certain ways of using these techniques that have been overused through the work of other composers over the years.

Stage 3

At this stage I decide upon the relationships between sounds and chosen 'characters' that will function in a symbolic way. Symbolic systems developed in this way are integral to the creative process from which the piece is formed, rather than merely a means of generating side-stories to accompany the piece.

Stage 4

The musical structure is then built concurrently with the ideas of symbolism. Very often I have found that a longer period of time for considering the relationships of sounds and ideas is necessary in order that a piece may attain a sufficient level of structural complexity. Approaches to composition involving many shorter periods of time very often lead to pieces severely restricted in scope, offering one idea after the other without any complex interaction between periods.

Stage 5

On finishing a piece I follow a procedure of refraining from listening for a while, then ensuring that I re-listen after this break. This is very important for me as I can make use of a greater distance from my music, enabling me to make corrections and adjustments.

Perhaps the above observations will appear clichéd to many Western composers. However in terms of the perspective offered after observations of cultural difference, I have benefited greatly from cultivating compositional methods that sharply contrast with the typically Taiwanese orientation towards the 'spiritual' in terms of artistic practice. For example, when Why-min Lin (leader of the Cloud

Gate Dance Company) spoke during a TV interview in 2006 (101 Summit Conference 101 高峰會議), he described his preparations for choreographic work. Seeking a specific frame of mind, Lin reads simple novels during the night time, finding that the next day he will have forgotten both the stories of the novel and ideas of. designing for dance that he may have accumulated. At this point fresh ideas will come. Many Taiwanese artists I know work like this and attempt to free the mind from thinking. In contrast my experience whilst in the West has demonstrated to me the definite benefits of constant thinking when composing.

The following are accounts of experiences and observations regarding the five pieces in the Bardo series.

8.2.1 Two angles

Regarding the symbolism employed, two approaches are offered for examination. In *Bardo I* (concerned with the death experience), *Bardo II* (the conceptual journey), *Bardo III* (the flow of energy) and *Bardo IV* (the reincarnation), the composer attempts through the use of symbolism to look at Bardo from the point of view of the dead, whilst *Bardo V* (a love poem) provides an angle in which the living view the dead.

8.2.2 Zen symbolism and Electroacoustic music

In general, words in literature have clearer definitions than sounds in music. In Zen philosophy, sometimes even the symbol is defined. For example, Chinese Zen

Buddhism uses the symbol of a 'fiddle without strings' to represent the idea that people should listen more to the sounds of mind.

Kuan - An form:

Monk : "I have carried the 'fiddle without strings' for a long time. Could Master please play a song for me?"

Uan - Dir Zen Master : "How long have you carried it?"

Monk : "Which tune are you going to play for me then?"

Uan - Dir Zen Master : "Good bye."

In this example, a 'fiddle without strings' is used to symbolise reaching enlightenment and seems quite defined, whilst in electroacoustic music there is no sound that can be defined with a fixed meaning due to uncertainty brought about by interpretation, changing in scope and outcome according to both public and individual experience and to cultural differences.[86]

8.2.3 Chinese characteristics

There are some characteristics which may, for the listener, successfully link the Bardo pieces with Chinese culture. For example, use of the pentatonic scale in *Bardo I*, *Bardo II* and *Bardo III*, and additionally the Son dynasty literature format perceived through the poem read in *Bardo V*.

8.2.4 Causality

'Triggering, both in itself and reversed, can be a generative engine of musical structure at its lowest level. Triggering is embedded into the concept of causality,'[87] which '...is concerned with one sound acting upon another, either causing the second event to occur or instigating change in an ongoing sound... [it] tends to add impetus to the forward motion of musical structure.'[88].

Because of the evocation of natural phenomena in the Bardo pieces, three different types of triggering are present, representing three different symbols.

1 Death

One sound triggers another sound to cease.

(music example 8A[89]):

2 The living

One sound triggers another sound to start.

(music example 8B[90]):

3 Change

One sound triggers another sound to change.

In this way four different gestures are learned from observation of natural phenomena.

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[87] Garcia, P., (2003) *Aesthetic and temporal forces in electroacoustic composition*, unpublished doctoral thesis, City University London.

[88] Smalley 1992, p. 527

[89] *Bardo II*

[90] *Bardo V*

3.1 The wind blows and lifts the leaves. (music example 8C[91])

3.2 The feather wafts and produces the wind. (music example 8D[92])

3.3 The sand and pebbles bury things. (music example 8E[93])

3.4 The sword is unsheathed, with consequences. (music example 8F[94])

The use of causal-event sounds (for example, the bell attacks in *Bardo III*) provokes a special mode of attention for the listener and concentration on the contour of music, whilst continuous sounds (for example, the rock slides in *Bardo I*) bring people to observe texture.

8.2.5 The combination of sound groups

Through the experience of composing the Bardo pieces I have found that it is easier to perceive change in the case of a single group of sounds than in situations of multiple groups sounding simultaneously. For example, the intention in *Bardo II* for the listeners to perceive motion in 'an air fountain' (music example 6.A), and to perceive the change in sounds from long to short (music example 8G), will be difficult to attain if there are other groups of sounds occurring at the same time. An example of that situation can be found in *Bardo V*, where change and development of the squeaking material (music example 8H) is less easy to perceive because some other sound groups are active at the same time. However, the combination of sound groups offer much interest in terms of gesture and interaction, as is shown in *Bardo III, Bardo IV* and *Bardo V*.

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[91] *Bardo III*
[92] *Bardo III*
[93] *Bardo I*
[94] *Bardo III*

8.2.6 Space

During composition of *Bardo I* and *Bardo II* it was necessary to consider large concert hall performance venues, where much reverberation would be produced as a consequence of the buildings' natural acoustics. As a result, no reverberation spatial effects were added in the composition of the pieces.

In composing *Bardo III*, *Bardo IV* and *Bardo V*, the smaller City University performance area was considered where very limited reverberation might be produced. Two different attitudes were taken regarding the spatial approaches employed in composition of *Bardo III*, *Bardo IV* and *Bardo IV*:

1 As a means of enriching the spatial sense within sound material.

Most sounds were initially recorded in very dry surroundings, so different space effects were used to indicate different environments.

2 As a treatment rather than an imitation of real space.

As an example, there are two strong attacks at the beginning of *Bardo III*; the first set in a medium space, the second taking place in a much larger space. In this way the composer attempts to present the listener with a spatial expansion. As a second example there are the many different spatial effects used in the poem reading of the female in *Bardo V*, which is an attempt to associate the female voice with surreal images and symbolise that she is dead. After reading the programme note provided by the composer, the listener should be aware that the poem was written by the Chinese poet for his wife, who had been dead for ten years. In addition to the context provided via this

background information, experience of the spatial treatment of male and female voices – the stability of the male contrasting with the female which changes almost with each word – infers that the male voice represents the poet, whilst the female voice represents his dead wife.

8.2.7 Positioning in space

In daily life human beings depend more on the eyes than the ears to judge the position of objects. For example, a person sits in a stationary train which waits at the platform whilst another train stands opposite; the person often mistakenly believes when the neighbouring train moves off that their own train is in motion. However, on hearing a sound move from left to right with eyes closed, a person could hardly misunderstand that it was in fact their own body that was moving from right to left.

The same point is made when highlighting the way that drivers commonly judge the speed of the car they are driving. Reliance on the speedometer rather than available sound information of the engine emphasises the typical dominance of the visual in a person's assessment of their environment and relationship to it. The visual rather than the aural cue is chosen, even though pitch information generated by an engine's rotations is associated with fixed mechanical realities, and in this way is a more reliable guide to the car's speed on the road.[95]

It seems that it is not very easy for human ears to tell the positions of sounds when they are moving very fast. Also, it is easier for people to distinguish positioning of high frequency sounds than for those of low frequency. In order to

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[95] Maconie, R., (1997) The Science of Music, Oxford University Press, Oxford., p. 15

help the listener to sense the calligraphic shapes and writing motions in *Bardo V*, the low writing sounds are made to move more slowly, accompanied by the high frequency sounds to reinforce the sense of position.

8.2.8 Symbol design in the Bardo cycle and the role played by symbolism in electroacoustic music

The operations of symbolism take place between what the composer tries to express, the dynamics of the chosen medium and the imagination of the listener. However, unlike the word in literature which works upon clear definitions, due to the differences in cultures, experiences, associations and imagination the composer faces a difficult task in attempting to transmit musical symbols to the listener without any ambiguities. My opinion is that the music should articulate itself through its realisation rather than its symbolism directly, whilst underlining the capacity musical symbolism has to add colour, to provide the composer with means to structure the form of pieces, or for listeners to trace and unravel the composer's maze via hints that a programme note or particular cultural background may provide.

As well as acknowledging the difficulty of transmitting 'correct' symbols to listeners, I have found that certain symbols, very recognizable due to overuse, should be avoided, an example of this being the moving train used to symbolise travel.

Equipping the listener with 'clues', for example by taking advantage of the programme note, might contribute to the listener's processes of engagement with the

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piece and may also make it easier to connect with its symbolism. For example, through the inclusion of the words 'A love poem' in programme notes for *Bardo V*, an indication is given to the listener, potentially connecting to the symbolism of writing in the piece.

As a summary, there are three methods used in designing the symbols for the Bardo cycle. In the first of these, symbols are designed using direct imitation, an example in *Bardo I* being the rolled stone used as a symbol of 'earth'. Secondly, symbols are designed using metaphor, in which case representation tends to be more abstract or indirect. An example of this can be found in Bardo V, where the symbol of the poet's dead wife has been created through the use and combination of many types of reverberation which become attached to the female voice. Thirdly, symbols are designed by combining symbols with metaphors. This method is usually used to design symbols for more complicated objects, images, or even abstract concepts. For instance, in Bardo I the symbols of earth, water, wind, and fire were combined to represent a more complicated image – that of death. When using these methods to design symbols two additional factors are important and are also able to influence the way symbols are interpreted: these can be expressed as 'related cultures' (the literature format of the poem-reading is an example of this) and 'sequential ordering' (the significance of sequence becoming clear if the two struck sound events at the beginning of *Bardo III* are re-ordered, giving rise to a very different interpretation).

It is common sense that designers (composers) use symbols to express what they want to represent. However, a correct interpretation of the meaning of the symbols cannot be the purpose of symbolism in the context of electroacoustic music. It is my view that the symbols of the Bardo cycle fulfil roles of interaction with the

sounds which can be helpful for both the composer and the listener. To composers, symbolism can be used to develop narrative, to generate structure, or even as a means of developing tangential stories, which are generally of a lesser value to electroacoustic music. As a consequence of the uncertainty associated with the sound object, the opportunity for listeners is to pursue a closer understanding of the composer's intention or to form their own interpretation according to their imagination, which can sometimes be even better than the composer's. In only one situation can the symbolism of an electroacoustic work have no effect at all for a listener - where they ignore it completely. And such situations happily exist in any art form.

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