# # M0054011NC



## National College of Art and Design

Faculty of Fine Art Painting

An Investigation of John Cage's 4'33"

by

Colin Campbell

Submitted to the Faculty of Fine Art and Design and Complimentary Studies in candidacy for the Degree of Bachelor of Arts and Fine Art Painting



## **ACKNOWLEDGEMENTS**

I would like to thank Sue McNabb for her patience and support during the course of this study.



## **CONTENTS**

INTRODUCTION	Page 1
CHAPTER ONE - John Cage and Zen Buddhism	Page 4
'I Ching' - Chance operations	Page 8
'Emptiness' and 'Nothingness	Page 9
'Unimpededness' and 'Interpenetration'	Page 11
CHAPTER TWO - Silence	Page 13
Background and Development	Page 15
Sound and Silence	Page 15
The Experience of Silence	Page 18
CHAPTER - 4'33" is this music?	Page 21
Music: A Definition	Page 22
The Cagean View of Music	Page 24
4'33": Impact and Influence	Page 28
CONCLUSION	Page 31
BIBLIOGRAPHY	Page 36



# **INTRODUCTION**



### **INTRODUCTION**

"A mind that is interested in changing... is interested precisely in the things that are at the extremes. I'm certainly like that. Unless we go to extremes we won't get anywhere." (Cage in Kostelanetz, 1988, p.xi)

John Cage was born in Los Angeles, California in 1912. An Avant-garde composer, Cage is considered to have had a profound influence on the development of various art forms in the 20<sup>th</sup> century.

His commitment to music came when he received lessons from the innovative European composer, Arnold Schoenberg. The agreement was that if Cage decided to devote his life entirely to music, then Schoenberg would give him lessons free of charge. Cage was heavily influenced by Schoenberg's twelve-tone approach to musical composition during the 1930's. Other groundbreaking composers such as the American, Henry Cowell had an important affect on Cage. Under their example Cage decided to develop his own theories and practices towards a new music.

Cage first received recognition for his invention, the 'Prepared' piano in the late 1930's. The sound of a grand piano was radically altered due to the placement of foreign objects between the strings. The result was an instrument with a wide range of unusual harmonic and percussive properties that could be controlled by a single player.

This thesis deals, primarily with the composition 4'33" from 1952. Cage considers this silent piece to be his most important. This unique composition changed Cage's approach to making music and had a profound affect on western musical practice. There is a major problem that arises with this particular work, which is still a source of constant debate. This problem is whether 4'33" can be considered a piece of music or not. In order to decide, certain factors need to be evaluated.

The concepts and ideas of Zen Buddhism, which were a vital factor in Cage's approach to musical composition need to be addressed. A brief description is given of



the story that is central to Zen beliefs, the legend of the Buddha. The reasons for Cage's involvement with Zen Buddhism and key Zen ideas are outlined in order to give some insight into the philosophical basis that Cage embraced and its influence on his working methods.

The development of Cage's theories on silence progress from the first mention of his intent to create a silent piece until his final realisation of the idea with 4'33". His primary concerns in music are outlined to find out what he regarded as the central elements of musical composition. His discoveries with regards to silence and other certain key developments within the avant-garde are examined, for these factors gave him the encouragement to organise a public performance of the piece. This should give an indication into how, in the Cagean view, a silent piece would be legitimate within a musical context.

In order to determine whether 4'33" is a piece of music or not, a definition of music needs to be established. This definition should outline the generally agreed principles which are considered to constitute a piece of music. These principles are examined through the exploration of composition, performance and auditory notions of music. 4'33" will then be applied to this definition to see how it compares. It is also important that these three factors mentioned should be seen from the perspective of Cage's own musical notions. This will give an insight into how he justifies his own view with regards to composition, performance and how he feels music should be perceived by the listener. Due to the sheer amount of controversy that surrounds 4'33", it would also be appropriate to address the impact that this piece has had on western culture.

Answer can then possibly be determined in evaluation of 4'33" and its relationship to western notions of music. The role of Oriental methodology and philosophy in the development of this silent piece can then be concluded. Also, through the examination of a particular performance of 4'33", the possible role of this unique work can then be determined within the context of music and other art forms, as a reflection of particular ideas.



## **CHAPTER ONE**



### <u>CHAPTER ONE :</u>

### John Cage and Zen Buddhism

In 1936, during the time he spent teaching at the Cornish School, Seattle, John Cage was introduced to the ideas of Zen Buddhism. This ancient religion would have a profound influence on his work, especially towards the end of the 1940s. This introduction to Zen came in a lecture entitled 'Dada and Zen Buddhism' by Nancy Wilson Ross. Cage was well aware of Duchamp and was very interested in Dada and the anti-art stance that it endorsed. The lecture outlined similarities between the philosophies of Dada and Zen. Cage, was impressed, '... it drew a parallel for me with its insistence on experience and the irrational rather than on logic and understanding.' (Westgeest, 1996, p.55). As a result of this, Cage began to read literature relating to the subject such as 'Oriental Classics' and 'Zen in English literature' by R.H. Blyth. The writings of Ananda Coomaraswamy were becoming important to Cage; '...the Oriental way of thinking had become almost as accessible as that of the European thanks to Coomaraswamy.' (Westgeest, 1996, p.55). Through Coomaraswamy, Cage was introduced to the 'Nine permanent emotions' in Oriental thought: ' The four white ones; the heroic, the erotic, the mirthful, the wondrous; tranquillity in the centre; the four black ones; fear, anger, disgust, sorrow.' (Kostelanetz, 1987, p.213).

Aspects of Zen philosophy began to appear in Cage's percussion and prepared piano musical works during the 1940s. Embracing and incorporating such ideas to his music would help Cage to get away from traditional European musical notions and practices. It was the teachings of Daisetz T. Suzuki during the early 1950s that really saw Cage use Zen ideas as a fundamental part of his work. The use of Buddhist wisdom as a philosophical basis for composition would become an aesthetic for Cage. With the application of Zen, the axioms of western art would be challenged and contradicted. Notions of beauty, the communicative purpose of art, artist expression and generally accepted western values and ideas of art would all be called into question.



A brief outline of the Buddha legend and some of the features of the Zen tradition would help in examining the ideas and aesthetics of Cage. The first patriarch of Zen was the Indian monk Bodhidharma around 520 AD. The beliefs of his sect 'Ch'an', stem from the story of the Buddha, Shakyamuni who was born around the 6<sup>th</sup> century BC.

The family of Shakyamuni were very wealthy and he was provided with every material and sensuous pleasure that he desired. One restriction was that he was never allowed to go outside the grounds of the family palace. This developed a curiosity in Shakyamuni about what lay beyond his world. Eventually, he escaped into the street and he discovered the horrors of suffering, sickness and death. These were aspects of life that he had never experienced before. With his strong sense of compassion, he decided to leave the palace so he could be of some help to other people.

The Buddha had trouble reconciling these new experiences with his own life so far. He wanted to solve these contradictions for himself. Through the use of meditation, austerity and other practices he sought to find enlightenment. Shakyamuni studied with two teachers who taught him self- discipline '...to enter the sphere of nothingness and to concentrate the mind.' (Richards, 1996, p.90). He practised meditation and austerities for six years and almost died due to the extent of his fasting.

Shakyamuni concluded that he would have to be alone to gain enlightenment. The methods he had learnt had not helped his quest. After six days of contemplation under a tree he finally gained enlightenment when he saw the rise of the morning star. *'Enlightenment, he concluded, is the very nature and essence of all things.' (Richards, 1996, p.90).* What he was looking for had never been lost.

'Buddhism ... takes a realistic view of life and of the world. It tells us exactly and objectively what we are and what the world around us is, and shows us the way to perfect freedom, peace, tranquillity and happiness.' (Rahula, 1976, p.31)

Zen Buddhism is entirely different from traditional western modes of thought. In western culture a dualistic approach prevails in which something is one or the other. That is good or bad, ugly or beautiful. One thing that could be seen as central to this is the concept of



God, a higher being or entity. This is the familiar narrative of good versus evil. This idea of opposing powers in conflict for control is common in western religions. Self-control and reverence are signs of respect to a higher being. These are important in order to avoid influence from undesirable forces. This, in a sense has created a culture in the west that thinks dualistically. Cage was advocating a different approach to living life. '*No need to cautiously proceed in dualistic terms of success and failure … or good and evil but simply walk on.' (Hobbs, 1997, p.90).* 

The main focus in Zen Buddhism is on 'Here and now' (*satori*). The past and the future do not exist, they are just an illusion. The main concern is on the concrete things that are existing in the present moment. Experiencing the world in this way would create a fresh and new perspective free from thoughts of the past and worries for the future. In order to attain such enlightenment involves meditation. An active mind and body are essential and the experience is different for every individual towards self-awakening and liberation.

Cage became seriously interested in Zen Buddhism towards the end of the 1940s. At that time he was suffering from some personal problems due to the break up of his marriage. There was also a sense of disillusionment, due to unfavourable reactions from critics and the public towards his work, which was causing him a great deal of distress.

' I saw that all composers were writing in different ways, that almost no-one of them, nor among the listeners, could understand what I was doing ...so that anything like communication as a raison d'etre for art was not possible.' (Westgeest, 1996, p.55)

Friends recommended psychoanalysis to Cage. The psychoanalyst he approached told him "*I'll be able to fix you so that you'll write much more music*." Cages reply was "… *I already write too much music, it seems to me.*" (*Revill, 1992, p.87*). As a result, Cage decided to seek an alternative. He needed something that would give him direction in his professional and private life. Cage found such clarity in Eastern thought. It became therapeutic for him during this difficult period and helped develop his ideas and theories towards musical composition.



Cage started to attend the lectures of Daisetz T. Suzuki in 1952 and continued to attend these lectures for the next three years. This was of vital importance as Zen Buddhism would become a philosophical basis for his work. Through the use of Zen ideas, Cage was able to give his work a meaning and a direction in which it could develop. With the use of Zen, Cage concluded that his work had no purpose, that it did not need a purpose. '*There is no inner meaning in my work …it, and the sounds I use exist solely for their own sake.*' (*Revill, 1992, p.122*).

Cage had opened his music to the entire field of sound. He wanted the sounds to be free from his control. This would involve the renunciation of his ego, the human element of control during the process of composition. This idea of detachment from the ego is a fundamental part of Zen thought. Suzuki gave a lecture on the ego. Cage describes Suzuki drawing an egg-like shape on a blackboard with two horizontal lines intersecting the lefthand side. One line was labelled 'A', the other 'B'. The oval shape represents the 'Big mind' (Universe) which passes through the two labelled lines which represent the 'Small mind' or ego. The 'Small mind' has the ability to cut itself off from the 'Big mind' through its likes and dislikes or it can be open to it.

> 'Zen would like the ego to open up to the mind which is outside it. If you take the way of cross legged meditation, when you go through discipline, then you get free of ego '(Kostelanetz, 1988, p.229).

#### 'I Ching' - Chance operations

In terms of music, this freedom from ego came from the use of chance operations. In this way the outcome of a particular composition would not be affected by decisions dictated by Cage's taste. In Cage's opinion, the experience of life through ones likes or dislikes leads to more extreme experiences. Pleasure is experienced when something favourable happens, and pain when experiencing something that is disliked. Living without these preferences would, according to Cage, be better; *Your pleasure will be more universal ... both constant and spacious*. *' (Revill, 1992, p.116)* 

Initially, in order to remove his ego from composition, Cage applied a magic square method to determine the sounds that would appear in his music. He was then introduced,



by Christian Wolff to an English translation of the 'I Ching' in 1951. The 'I Ching', also known as the 'Book of Changes' is an ancient Oriental text that had a practical use as an oracle, for decision making.

With the 'I Ching', Cage developed a technique that became a way of producing work without intention. There are sixty-four possible outcomes using the 'I Ching'. Cage divided various sounds and durations of time into sixty-four parts using a Gerber variable scale. Using a time consuming method of tossing coins, Cage came up with answers from a wide variety of possibilities. These answers determined the time structures and sounds that would occur in his compositions. '...my use of the I Ching in my work is just a mechanism of the chance operations.' (Kostelanetz, 1988, p.97.)

By using this method of chance operation to create his musical compositions, Cage had freed his ego from his work. The music was not based on his preferences. The sounds were allowed to be themselves. This echoed Zen ideas as sounds became closer to their essence. '*The Zen precept ... is "never explain, indicate," for there is no such thing as final understanding." (Gena, 1982, p.13).* With chance methods, there is no central theme or idea that Cage tries to convey to an audience. In a Zen context, there does not need to be. Sounds can be appreciated by the audience in whatever way they wish.

#### 'Emptiness' and 'Nothingness'

An aspect of Zen that was important to Cage and other artists of the period such as Ad Reinhardt, were the notions of 'Emptiness and Nothingness'. In Zen thought these were considered to be 'full' and 'something'

'... all things have a character of emptiness, they have no beginning , no end, they are faultless and not faultless, they are not perfect and not imperfect.' (Westgeest, 1996, p.19).

In the Zen arts, emptiness is seen as a formal aspect that has as much importance as the active areas of an art form. The empty space that occurs in a Zen garden or painting is seen to have a quality of ambient activeness due to the vast areas of raked gravel and the



subtle texture of Japanese paper. Emptiness and nothingness are associated with a state of total freedom and detachment that is gained as a result of enlightenment. This involves the transcendence of every worldly relationship creating a feeling of 'at-oneness'; in which everything is seen as one cohesive whole.

'Zen wants us to make ourselves free and untrammelled and sees the practice of art as a way of attaining the awakening and liberation of the self ... Zen wants us to get in touch with the inner workings of our being, without seeking refuge in the 'self' or resorting to anything external or superadded.' (Westgeest, 1996, p.13).

A state of emptiness is required for the practice of Zen arts. In relation to the mind, this is the absence of thought. Through concentration, the mind can be freed from all rational decisions and considerations. 'Sunyata' (emptiness) and 'Mu' (nothingness) suggest an abandonment or release from the self. Walpola Rahula describes 'Sunyata' as a void without self (1978, p.81), attaining such a frame of mind is an ultimate sense from which to practice Zen arts.

Void suggests negation, and with Cage's approach to Zen, negation is not a bad thing. The use of negation is commonplace in Zen belief. A good example of this is when Helen Westgeest's describes the character of emptiness as having no beginning and no end, as being perfect and not perfect. Emptiness, like most aspects of Zen, is defined not by what it is, but by what it is not. Cage also used negations as a method of description. An example of this is a statement he made with regards to the 'All White' monochrome paintings of Robert Rauschenberg from 1951.

> 'To whom, no subject, no image, no taste, no object, no beauty, no message, no talent, no technique (no way), no idea, no intention, no art, no feeling, no black, no white (no and) ...there is nothing in these paintings that could not be changed, that they can be seen in any light and are not destroyed by the actions of shadows.' (Cage in Feinstein, 1986, p.30)

In this statement, Cage is using a nihilistic approach to endorse a method of painting that departs from traditional ideas of art. Ad Reinhardt also made similar statements about painting using Zen-like negation. He once said that absolute statements can only be made negatively (Westgeest, 1996, p.72).



#### 'Unimpededness' and 'Interpenetration'

Another example of how Zen Buddhism affected the work of John Cage can be seen in his theories of Indeterminate composition from 1958. This outlines the two key ideas in the work of Cage, 'Unimpededness' and 'Interpenetration'.

Cage suggests that performers should be separated in space. This would help the performers to work independently of one another. Traditional performances would have placed musicians beside each other on a stage. Cage wanted performers to be dispersed around the stage or among the audience, depending on what the architectural situation allowed. *Separation in space will facilitate the independent action of each performer. (Stiles, 1996, p, 707).* This would reduce the chances of performers influencing each other consciously or subconsciously. As a result of this separation, Cage hoped that the following would happen...

'Sound will...arise from actions, which will then arise from their own centres rather than as motor or psychological effect of other actions and sounds in the environment.' (Stiles, 1996, p.707).

This idea of independent action from each performer relates to the Zen concept of 'Unimpededness'. The idea behind 'Unimpededness' is that each person is considered the centre of the universe. Concern is centred around the individual rather than a higher power. Each person is considered, as Suzuki states, '*The most honoured of all'* (*Hobbs, 1997, p.90*). Cage expands on this idea in '*Conversing with Cage*' by Richard Kostelanetz.

"...everything and everybody ... is the Buddha . These Buddhas are all at the centre of the universe. They are in interpenetration and they are not obstructing one another. This doctrine has made me tick in the way I have ticked." (1988, p.211).

Indeterminacy is an experimental action, the outcome is unknown and cannot be predicted. It is an unique action that respects the individual performers with regards to the chance sounds they wish to make. In Zen terms the performers are all centres of the universe and their uniqueness should be preserved.



The concept of 'Unimpededness' links with 'Interpenetration' and both relate to the relationships between individual centres. 'Interpenetration' describes individual reality as not only reflecting itself but also something of the Universal. Individuality is maintained due to the presence of other centres. Opposing characters in the context of western thought become complementary or correlatives in this concept of 'Interpenetration' and live harmoniously.

'A system of perfect relationships exist among individual existences and also between individuals and universals... This perfect network of mutual relations has received the technical name of "Interpenetration"' (Revill, 1992.p, 111)

In Zen belief, 'Unimpededness' and 'Interpenetration' are revealed only through unintentional and coincidental events in space and time. This is central to what Cage tries to convey in his music.



# CHAPTER TWO



#### **<u>CHAPTER TWO</u>**:

### Silence

In 1952, John Cage wrote what is probably his most important composition. It was a work that caused a great deal of uproar and sparked off a huge debate about what constitutes a piece of music. The piece, entitled 4'33" was premiered on the 29<sup>th</sup> of August 1952 at the Maverick hall, Woodstock, New York. It was performed by the pianist David Tudor.

4'33" contained no sounded keys from the piano. It was a 'silent' piece, which had three parts. These parts were indicated by Tudor closing the cover of the piano keyboard at the start of each part. The cover was then opened again at the end of the specified time of each movement. Apart from these motions the pianist did nothing but sit on the piano bench, occasionally looking at a watch as guidance and turning the pages of the composition, as further indication of the three parts.

Naturally, this piece was surrounded by a great deal of controversy. The audience at Woodstock considered 4'33" either to be a mockery of music, a joke or had been unaware that anything was being performed at all. Few could understand its intention. How could this be considered a composition or a musical experience?

Cage was very pleased with the results at the premier of 4'33". Different ambient sounds occurred during the three parts.

'...during the first movement the sound of the wind in the trees; during the second there was a patter of raindrops on the roof; during the third, the audience ... added its own perplexed mutterings...' (Tomkins, 1965, p.115)

These unintentional sounds became the central focus of 4'33"; they became the 'music'. Cage felt that anyone in the audience who didn't realise this had missed the point. '... there 's no such thing as silence. What they thought was silence (in my 4'33"), because they didn't know how to listen, was full of accidental sounds.' (Kostelanetz, 1988, p.65).



With 4'33", Cage determined the time lengths of the three parts using chance operations. The possibility of getting an all silence result fascinated Cage. He gradually built up the three movements applying the disciplined method of the I Ching to short durations of time. The results added up to four minutes and thirty-three seconds, hence the title of the piece.

#### **Background and Development**

The first mention of this idea for a silent piece came on the 28<sup>th</sup> February 1948, four years before Cage actually composed the work. This idea, along with other future intentions were made clear during a lecture entitled '*A Composers Confessions*' at the Vassar College. One of his ideas was '... to compose a piece of uninterrupted silence and sell it to Muzak Co (in manuscript)' (Kostelanetz, 1993, p.118). It took four years for Cage to develop and realise his ideas towards the evolution of the concept of silence. In 1937, eleven years before the Vassar College lecture; Cage delivered a talk in Seattle entitled '*The Future of Music; Credo.*' In this lecture, Cage was looking towards a new definition for music, or more appropriately, a substitute for the term 'Music'. Cage felt a more relevant term would be '...the organisation of sound.' (Lander, 1990, p.15). He called for an end to the distinction between 'musical sounds' and 'noise'. Cage's desire was for music to encompass all sound, 'If a sound is unfortunate enough not to have a letter ... it is tossed out of the system on the grounds it is a noise or unmusical.' (Revill, 1992, p.120). Thus Cage wished to disregard no sounds, all sounds have the potential to be music. He opened his music to an attitude that had no restrictions.

It is important that this is pointed out. If Cage is open to all sounds he must be also open to the use of silence, though he does not mention this at the time. This becomes more apparent when he redefines the term 'Silence' after his experience in a sound proof chamber. This will be discussed later.

#### Sound and Silence

At Black Mountain College in the summer of 1948, Cage organised a festival that celebrated the music of the composer Eric Satie. Satie was virtually unknown at Black


Mountain and Cage had been interested in his work for many years. It was during a lecture entitled *'In defence of Satie'* that Cage outlined what he thought were the four main elements of music: structure, form, method and material, with structure being the most important element.

"...Structure in music is its divisibility into successive parts from phrases to long sections . Form is content, the continuity. Method is the means of controlling the continuity from note to note. The material of music is sound and silence .Integrating these is composing." (Kostelanetz, 1993, p.139).

The reason that he considered structure to be the most important element in music was because structure deals with time lengths or duration. Cage considered this to be the most fundamental part of music as duration is the only characteristic that sound and silence have in common.

> "....Sound is characterised by its pitch, its loudness, its timbre and it's duration ... silence the necessary partner of sound is characterised only by its duration ... the very roots of sound and silence - lengths of time." (Kostelanetz, 1993, p.119)

Cage always freely admitted that he never had any time or feeling for harmony. While studying under the Structuralist composer Schoenberg, Cage learnt of the innovative twelve - tone system of composing which Schoenberg developed. Initially, Cage accepted this compositional method, for it avoided natural harmonic relationships associated with tonal music. He realised though that due to this intentional opposition to these harmonic relationships, it was still being ordered by it. As a result, Cage wanted to ignore harmony altogether. Having nothing to do with tonality in music would bypass something that Cage was not interested in. So rather than harmony or 'musical sounds', Cage had an interest in all sounds. The very essence of music is temporal structure. Structure becomes measurements of silence from which sounds can appear, sound becomes something that emerges from silence. Silence is seen as an absence of sounds, and hence becomes something that is closely related to sounds. Both move together in time.



During his Black Mountain lecture on Satie, Cage went on to challenge Beethoven's methods of structure which are based on pitch and harmony. This outraged many of his audience. 'Beethoven was in error, and his influence ... has been deadening to the art of music.' (Duberman, 1974, p.471). Cage was in favour of Satie's methods. Satie imposed a rhythmic structure that had the potential to break from structures based on pitch and harmony.

Cage had a similar approach, as in 'Sonatas and Interludes' from 1948. This piece for 'prepared' piano features '...constant use of the pause as a time element in composition.'(Revill, 1992, p.97). On listening to this piece there clearly is a use of pause. This helps the listener to hear the varying degrees of decay from the different 'prepared' notes sounded. Pause also creates short periods of silence and the use of subtle, tranquil sounds in parts of the composition have a sense of complimenting the moments of silence. The rhythmic structure of 'Sonatas and Interludes' is varied and complicated.

Around this time, 1948, Cage's theories on silence had a structural approach. Sound and silence are temporal and viewed in a horizontal and vertical relation. Placed one after the other on a horizontal axis of time, sound and silence follow and exclude each other. In the vertical relationship, they move in parallel. Silence does not disappear when sound is evident; it is present as the place from which sound emerges. Sound and silence are always present with each other.

In 1949, Cage developed his theories on silence further. These ideas were outlined in *'Lecture on Nothing'*. In this lecture, Cage had a new view on the relationship between sound and silence. A mutual, bi-directional relationship exists, in which sounds help in the creation of silence and vice-versa. Silence is now given a new positive character.

*...what we require is silence; but what silence requires is that I go on talking ... But now there are silences and the words help make the silences ... ' (Kostelanetz , 1993 , p.120)* 



Now sound and silence have a dependency on each other to co-exist. Interpenetration is a necessity. Silence contains an element of sound and sound has an inclusion of silence. They are no longer viewed as opposing characters. This can be related back to the Zen idea of 'Emptiness and Nothingness' from the previous chapter. Silence is nothing but in being a nothing it is something and each something (i.e. Sound) is a nothing. There can be no exclusion of sound according to Cage. In order to accept this positive concept of silence the composer must be open to all possible sounds.

A silence piece would be the ultimate in non-intention as the composition would solely depend on the sounds created by the surrounding environment, not the controlling hand of the composer. It would be the ultimate in non-duality as sound and silence would be complimentary to each other, rather than being seen as opposing elements. The piece would be dealing with what sound and silence have in common, duration.

#### The Experience of Silence

John Cage wanted to experience exactly what silence was like, what it would be like to hear nothing at all. In 1952, he gained the opportunity to do this by entering an anechoic chamber at Harvard University. The anechoic chamber was a room creating an environment that absorbed 99.8 or more percent of sound wave energy in a single reflection. '...an environment as soundproof and reverberation - free as was technologically possible.' (Revill, 1992, p.1992). The chamber was constructed with thick concrete walls and had only one heavy door as an entrance and no windows. Wedges of foam covered the walls, which had the function of dampening out sound and echo. Such a chamber was used for testing acoustic and hearing aid equipment, and general research of vibration and sound in both air and liquid.

Cage thought he would experience total silence in the stillness of the anechoic chamber. What he actually experienced was unexpected and surprised him. '..,*he could hear two sounds* ... *a constant singing high tone and a throbbing low pulse*.' (*Revill, 1992*, *p.163*). Initially Cage felt that maybe there was something wrong with the chamber. On questioning the engineer about the experience, Cage was informed that the two sounds



were '...sounds from his blood circulation and from his nervous system.' (Kostelanetz, 1993, p.125).

As a result of this, Cage felt that silence could not possibly be an absence of sound. The concept of 'Silence' had to be redefined. What Cage concluded was that silence is a combination of the sounds that exist in permanence and in the surroundings. Permanence describes the constant sounds that occur internally within the human body, as these sounds are unavoidable. The surroundings include the ambient sounds that occur in the environment which are unintentional and include sounds that are non-human. Cage states...

'The situation one is clearly in ... is not objective (soundsilence), but rather subjective (sounds only), those intended and those (so called silence) not intended.' (Revill, 1992, p.163-4)

Silence is no longer perceived in Cagean thought, as an absence of sound. It is something that is filled with the activity of unintentional sound. This new perspective, in the context of the lecture *'The Future of Music: Credo'* brings Cage closer to the realisation of a silent piece. Now sound and silence are definitely connected rather than in opposition. As this lecture explains, Cage is open to all sounds in his approach to composition and therefore must be open to the unintentional sound activity in silence.

With the experience in the anechoic chamber, Cage was able to create a link between his two ideas of silence. Silence is a reflection of events that permanently occur, as it is a constant due to its internal presence in the body; thus it identifies with life. The other idea is the 'Spatial' concept of silence, as the place from which sounds appear.

It was not until Cage saw the 'All Black' and 'All White' paintings by his close friend Robert Rauschenberg that he felt a silent piece would be a viable performance. These paintings, especially the white canvases were filled with shadows and reflections that changed in whatever environment they were exhibited in. It is interesting to point out that Rauschenberg wrote a letter from Black Mountain College to Betty Parsons in

19



1951. This letter was concerned with his 'All White' paintings in which he described them as,

"... dealing with the suspense, excitement and body of an organic silence, the restriction and freedom of absence, the plastic fullness of nothing, the point a circle begins and ends ... It is completely irrelevant that I am making them - Today is their creator. ' (Feinstein, 1986, p.75).

This statement echoes Cage's own statement on the 'All White' paintings and has remarkable similarities with Cage's general approach to musical composition, particularly 4'33". Both Rauschenberg's 'All White' paintings and Cage's compositions endorse an impersonal aesthetic. Cage's work is a reaction to the function of music as an art form that conveys emotion and feeling. Rauschenberg's 'All White' paintings rebel against the use of highly personal painterly gestures that prevailed during the late 1940s and early 1950s with Abstract Expressionism.

4'33" acts as a musical counterpart to the organic silence of the 'All White' paintings. Like these paintings, 4'33" relates to the fullness of nothing and is very much a creation of today in the sense that it relies on the sounds of its immediate surroundings, not the hand of the composer. As Rauschenberg states, '...*a canvas is never empty.*' (*Revill, 1992, p.164*) just like silence which is also never empty. In effect, the 'All White' paintings gave Cage the encouragement to compose 4'33" which could be seen as their aural equivalent. Both works were full of subtle activity and were constantly affected by their surrounding environment.



# **CHAPTER THREE**



## **<u>CHAPTER THREE</u>**:

## <u>4'33" is this Music?</u>

There are certain principles that can be generally adhered to when describing a conventional view of what music is. These principles are difficult to pin down due to their subjective nature. Fluid as they may be, they still are the foundations of western musical practice. This chapter aims to create a coherent view of what constitutes a piece of music. It does this by underlining certain axioms of music from the perspective of western values. Cages 'Silent' piece, 4'33" is discussed in relation to these principles. This is done in order to study if 4'33" can comply with our western notions of music. It also outlines how this 'Silent' piece challenges our concepts of music and the impact that this work has had on western culture.

#### <u> Music : A Definition</u>

Music is a human product, a means of communication between the composer and the audience. It is the intention of the composer to express certain feelings through the organisation of sound elements within the structure of planned duration's of time.

Duration, intensity, tone and timbre are basic qualities of all musical sounds. Duration is the temporal space in which music occurs, Intensity relates to the felt energy found within music, its strength and weakness in terms of the power and magnitude of sounds used. Timbre refers to the quality of distinctive tones, the 'colour' in the musical sounds. Tone is the actual pitch of the notes produced.

Composition is the fusing together and arrangement of tones with regards to their qualities of intensity and timbre, within the temporal structure of duration. Tones are grouped in a series creating a movement in time. The relationship between tones along this movement creates the melody. Tones that occur at the same time create harmony or disharmony depending on their characteristics and how they relate to one another on the tonal scale. The intensity and timbre help to give music its expressive quality.



Expression of feelings is an important aspect of music according to Suzanne Langer who believes that,

"...feelings cannot be articulated in a meaningful way through language due to its "closed", denotative or agreed upon conception ... The "open", connotative dynamism of music has the capacity to articulate the very nature and patterns of feelings ' (Campbell, 1992. p.84)

According to Langer, music is more successful than language in articulating feeling, and therefore that is the function of music. The content in a piece of music has a kind of uncertainty that words cannot have. Music is '...*the language of emotion ... the art of expressing sentiments and passions through the medium of sound.*' (*Kivy, 1992, p.367*)

The development of a composition is centred around what Langer calls, '*The Commanding form*'. This is the original idea conceived by the composer. This guides the creative process and is the criterion by which material is accepted or rejected. The finished work is complete through actual performance. This '*Commanding form*' is the measure of a successful work, depending on whether it is clear in the performance. The performers are crucial at this point. They must direct their personal feeling to compliment the formal aspects of the musical instruction and express the '*Commanding form*'.

With the musical experience the primary activity engaged is hearing. Physical hearing involves stimulation of the mechanisms in the ear and our instinctual perception of sound. There is also another kind of hearing which Langer describes as '*Inward hearing*' which is '... the mind at work' (Campbell, 1992, p.86). This deals with our concepts of form and presentation of music. This '*Inward hearing*' is very important as it contains our definitions of music and preconceptions of what 'musical' and 'non-musical' sounds are. This is a conditioned mode of hearing that holds our familiar notions of musical form, concepts and practices. The criteria from which we draw these distinctions are not precise. But it would generally be agreed that music is intentional and that it is an art form created from the hand of the composer. Sounds found in nature or the sound of machinery, for example would,



"...lack either the kind of overall coherence, development, closure and elaboration characteristic of works of music or the element of human intention - that distinguishes art from nature or from the purely fortuitous." (Herwitz, 1993, p.145)

So it would be logical to say that we place sounds into familiar categories. The relationship between these sounds, in terms of structure, expression, melody etc., are what we look for in our definition of music, also, the origins of sounds, whether they are composed or natural. These relationships stem from an established and well-known musical history. While listening to music we look for various devices that we are familiar with. This familiarity makes a constant reference back to previous encounters that have shaped our concepts of music. These experiences are informed by a vast history of various established methods of musical practice and performance that we have encountered during the course of our lives. A person knows a piece to be music because they have had previous experience of that particular genre or certain devices it uses and therefore knows how to understand the work.

Of course, the musical experience is different for every individual due to varying degrees of acceptance and understanding of musical values. The common unifying factor is that it is an art form of a highly expressive nature that uses sounds in a controlled way to communicate feelings and emotions from the composer to the listening audience.

### The Cagean View of Music

With Cages 4'33" there is no sense of communication between the composer and the audience. There are no intentionally produced sounds, therefore the end results could not be seen as being produced by the human hand. Through the use of chance operations Cage has attempted to remove all ego from his music, he was advocating a way to '... *prevent sounds from "being exploited to express sentiments, ideas or order " ' (Hobbs, 1997, p.74).* Even the time lengths of 4'33" were determined through the use of the *I Ching* method.



Zen is of vital importance in relation to this silent piece. Through Zen, Cage justifies his removal of ego and the non-communicative nature of 4'33". Cage does this by applying Zen ideas to his music and in using this eastern philosophy he challenges the very foundations of western music practice.

Communicating to an audience through the organisation of exclusive sounds is interfering with the very nature of sounds. Zen strives for equality, in which no characteristics of a particular thing will give it a reason to be treated in a different way than any other thing. Cage believes that this should apply to all sounds. That no sounds should be given preference over other sounds.

There is no necessity for music to function as a medium for communicating feelings. "My feelings belong, as it were, to me, and I should not impose them on others." (Kostelanetz, 1988, p.213). Sounds should be able to act of their own accord. We impose our concepts onto sound through our ears that have been conditioned through accepted and familiar notions of musical criteria. Cage wants an immediate, unmediated response in which we hear sounds just as sounds, without any distinctions between them. Approaching sounds with concepts and ingrained definitions is...

> "... a kind of distorted attempt at control ... the very attempt to order sound in the mind's ear as coherent, complete, resolving , elaborative, formal is an act of manipulation or possession." (Herwitz, 1993, p.146)

This idea of control and manipulation goes against Cage's understanding and how it should apply to music. In Zen, everything is sacred and through 'Unimpededness' and 'Interpenetration' things work in harmony as a whole and their individual characteristics are respected. In terms of possession, Cage's utopian aim is for a world in which '... ownership will quite naturally no longer be useful.' (Mc Evilley, 1992, p.98). He disagrees with the thought of approaching music and sound in a possessive nature.

As duration is the essential characteristic that sound and silence share this, for Cage, becomes the absolute essence of music. Descriptions of intensity, tone and timbre can



only be applied to traditional musical sounds. In composition, the organisation of these elements to create melody and express feeling tend to ignore the importance of silence.

Cage's approach to music is anarchic. The silence piece, 4'33" challenges the structured notions of composition through the dissolution of all structure and the destruction of old musical preconceptions. He has no intentions of trying to create new structural boundaries in music, for in the Cagean view sounds can work in a more natural way without any structure. Compositional development through the '*Commanding form*' is directly related to a structural creative process that uses particular musical devices to inform and establish a particular idea to the listening audience.

Though 4'33", Cage attempts to destroy these devices used in music. 4'33" does not inform the *'Inward hearing'* of the listening audience. It concentrates on the physical nature of hearing, the actual sound stimulus, our immediate perception of sound. The audience is left in a situation that is unfamiliar within the context of a normal musical performance. Nothing in the piece fulfils the audiences' perception of what music is. The pianist has not made a sound, how could this be music? Where are the tones and the element of composition?

Such a situation would create a state of bewilderment. Cage is not trying to cause such a state. He is trying to get us to think about music. To re-evaluate our perceptions of music and what constitutes a musical experience. He wants to create a different approach to listening. To create a situation which moves towards an interaction with sound that is unmediated. In such a situation, sound would have a freshness when it is left to its own devices. Such a feeling can only be achieved with a new attitude in which there is liberation from one's mind and desires, and an attitude of openness and acceptance. '*To accept whatever comes, regardless of the consequences is to be full of that love which comes from a sense of at-oneness with whatever.*' (Herwitz, 1993, p.147)

Whether 4'33" can be called a piece of music or not is a subjective question. It surely contains an important element of music, which is silence. '*Silence is a part of music the* 



same way that the art object is distinguished from everyday life only by frame of reference.' (Spiegel, 1985, p.23). Withdrawing all sense of ego and denying creation from the composer's hand, is something that could deny the notion of 4'33" being a musical experience. This, most people would agree is fundamental to music, and what separates it from sound in general. But according to Cage any concatenation of sounds can be considered music, it depends on what perspective we choose when we listen to sound. Cage has created a radical alternative to our western musical practices through this concept of structureless hearing. The influence of Zen gives such a concept validity.

The idea of giving up our concepts of communication, ego, tastes and desires all come from Zen. "*My religious involvement has been with Zen Buddhism … I couldn't have composed without its influence.*" (*Revill, 1992, p.168*). The Zen notions of 'Unimpededness' and 'Interpenetration' are central to Cage's musical practice. Although these were fully developed in the late 1950s with 'Indeterminacy' and used throughout the rest of his musical career, they have a strong connection to the silence piece, 4'33".

At the New York premier, 4'33" drew its ambient sounds from its surroundings. The piece relies on the unintentional output from a multiplicity of centres. The wind and the rain were evident during the first and second movements. The audience talked amongst themselves during the third movement. These sound elements were unhindered in their effect on 4'33". In this sense 'Unimpededness' and 'Interpenetration' are clearly evident and could be seen as the ultimate expression of these Zen ideas in Cage's work.

4'33" had an outcome that could not possibly have been foreseen. Due to its unintentional nature its performance can never have the same outcome, the ambient sounds that emerge from the silence are unique. 4'33" is not biased or selective, all sounds are equally respected to be as they are. This aspect of 4'33" has a strong linkage with Cage's ideas on composition in that it has an indeterminate nature.

With these strong ties to Zen concepts, it is clear to see the spiritual aspect of Cage's work and its importance. Ananda Coomaraswamy, an early influence on Cage's Zen



developments, wrote that the function of art was to '*imitate nature in her manner of operation* '*(Richards, 1996, p.96).* 4'33" creates a situation in which composition becomes 'a question of "attaining not life as art, but rather art as life." '(Kostelanetz, 1993, p.126). The distinctions between art and life become blurred, for life is experience as an art form. The composer, performer and audience are all in union; they all share equal importance. A sense of transcendence or as Cage would say 'At-oneness' occurs,' *which gives the art its power and makes the performance art* '*(Herwitz, 1993, p.162).* 

#### 4'33": Impact and Influence

It is up to the individual to decide whether 4'33" is music or not. One thing is certain, this work has had a major impact on our culture and is still the subject of an ongoing debate. Peter Gena stated in the book *'A John Cage Reader'* that...

' 4'33"... in fact, may be the third milestone in the history of western culture ( the first being the development of musical notation, before 1000 AD, the second being the invention of sound recording)' (1982, p.2).

This may over glorify the impact of 4'33". It is hard to see how it could be put in such a context. The development of musical notation and sound recording are undisputed in their innovation. Notation and sound recording relate to the transcription of music and are innovations as methods of communicating and preserving musical information for others. 4'33" is more of a philosophical statement and a challenge to our perceptions of hearing sound.

4'33" created a renewed awareness of ambient sound and became the basis for the future work of Cage. He considered it to be his favourite and most important piece. Max Neuhaus, who was heavily influenced by Cage, did a similar piece entitled *'Listen'* between 1966 and 1968,

'An audience expecting a conventional concert or lecture is put on a bus, their palms are stamped with the word 'Listen' and they are taken to and through an existing sound environment.' (Revill, 1992, p.166).



Projects like this all stem from 4'33" which was the first to bring ambient sound to the forefront, creating an intense listening experience through an awareness of sounds that occur throughout everyday life.

Minimalist music is very different to the music of Cage due to its highly structural nature, but certain Cagean ideas have had an important impact on its development, in particular, the emphasis on the musical element of duration and the removal of the ego conveyed in 4'33". The prominent minimalist composer Steve Reich is interested in removing the ego from live performance to '... set aside ... individual thoughts and feelings ... and focus ... minds and bodies clearly on the realisation of one continuous musical process.' (Reich, 1974, p.44). Philip Glass has also cited Cage as an influence, saying that his life and his way of thinking were changed after reading Cage's book 'Silence' (Revill, 1992, p.4).

Cage's influence has gone beyond music. The widening of the boundaries in contemporary art has been the result of the diverse experimentation used in the work of Cage and other members of the avant-garde during the 1950s and 1960s. Cage himself has thought that 4'33" may well have had an influence on conceptual art *(Kostelanetz, 1988, p.206)* in which art was not necessarily manifest as a physical object but primarily as an idea. Cage lectured on chance procedure and Zen at the New School of Social Research, New York. Major artists such as Yoko Ono, Nam June Paik and Jackson Mac Low became extremely interested in the idea of chance as a result of these lectures. The teachings and writings of Cage are claimed to be directly involved in the development of conceptual art and of Fluxus with which Yoko Ono and Nam June Paik were associated...

*`... the perennial and infectious influence of John Cage,.. in many ways was the major ideological force, along with Marcel Duchamp in the formation of Fluxus.' (Morgan, 1994, p.118)* 

Cage had emphasised emptiness and duration as an integral part of music. 4'33" as it were, created a clean slate in which things could be examined in a new and fresh way.

' When I was young, you had either to follow Stravinsky or



Schoenberg. There was no alternative. Now ... there are 1,001 things to do and I think that's partly a result of the kind of step that not only I took, but others took.' (Hobbs, 1997, p.165)

John McLure described it as '*The pivotal composition of the century*' (*Revill, 1992, p.166*). This maybe suggests the crucial importance of 4'33" as a new starting point in our approach to music. An approach of numerous possibilities towards notions of music without boundaries or structures, relating directly to the natural characteristics of the raw material of music, sound.



# CONCLUSION



# **CONCLUSION**

The performance of the silent piece, 4'33" was very courageous and a composition of major achievement for John Cage. Such an idea could easily, and sometimes was, dismissed as a joke due to its total disregard for fundamental aspects of music. Cage was extremely serious about his intent. Such a piece may seem like an obviously simple idea, but it took Cage four years in which he constantly re-evaluated his ideas with regards to the concept of silence. He reached a point in which he concluded that absolute silence does not exist, that it is actually a combination of the constant sounds that occur within our bodies and the unintentional sounds in the surrounding environment. As Cage had an openness to all sound, these discoveries made the notion of a silent work possible.

4'33" could not have happened without Cage's allegiance to Zen Buddhism, which gave him direction and encouragement in his musical investigations. Zen was far removed from western ideals, but it had extreme importance as a philosophical basis for Cage and gave him justifiable reasons for his working methods. Zen concepts of 'Emptiness' and 'Nothingness' and the ancient text of the 'I Ching' helped to give substance to 4'33" which became more than just silence, it was a serious listening experience. 'Emptiness' and 'Nothingness' outlined the importance of space and negation as important aspects of art that should not be overlooked for they are filled with subtle activity. The 'I Ching' was used as a chance operation in order to remove Cage's personal taste from composition allowing sounds to convey their natural character rather than being controlled and manipulated by the composer. This put emphasis on the irrational which is an inherent characteristic of Zen thought rather than the desire for logic and understanding which is a very western ideal. 4'33" is the ultimate in chance for its entire content is determined by the unintentional sounds of the immediate environment.

Cage's influence continues for there is an involvement with environmental sounds in my own work. The use of chance operations determine specific areas that are to be recorded within a certain environment. If areas were chosen as a result of personal preference there could be a danger that the results would be a somewhat contrived audio representation denying certain characteristics of the sound environment. The use of

32



chance as a method of decision making helps to overcome this problem. Employing such a method means that the particular areas are chosen with a randomness that complements the fortuitous nature of the sonic environment. The result would be a more appropriate and honest representation of unintentional sound for the methods used would reflect the irrationality of nature itself.

To establish whether 4'33" is a musical composition or not is difficult due to the subjective nature of musical definition. There can be no absolute answer due to varying degrees of openness and acceptance. A particular friend talked of his intention to record the sounds that occurred on the main road outside his house. He outlined the musical qualities that he hears in mechanical sounds, from sirens and horns to the rhythmic qualities in the constant drone and ticking of car engines. A pattern occurred, for this road was a main route for commuters. This pattern was determined by factors such as rush hour traffic. This created a structure that he regarded as compositional. It was as if the commuters were involved in an unintended musical performance in which their vehicles were huge musical instruments creating a pattern of intensity and rhythm over time. He felt that this was enough to constitute a piece of music for there was a human element that was responsible for these definite structural patterns and also he regarded the sounds themselves as musical. I immediately thought of the sound experiments of the futurists and the unintentional sound environment of 4'33" which this particular friend also regarded as musica.

This is a very open minded opinion with regards to musical values, but still I feel that 4'33" is not a piece of music. To call 4'33" a musical composition would mean that all unorganised sound of any nature has the potential to be called music, it cannot be this way. 4'33" does not comply with axioms towards a definition of western music. It is void of most of the elements that make a musical composition. There are no distinctive tones, melodies or structural arrangements that have been determined by the composer, these elements are integral to music. But 4'33" does deal with the most important element that music relies on, time. Music reveals itself over a movement that occurs in time. It is not like painting in which everything is evident at once. Time is its essence,

33



but music requires more than just the element of time, Intensity, tone and timbre are also qualities that need to be addressed.

Although 4'33" cannot, strictly speaking, be called music, it still has an importance in terms of musical notions and attitudes. It has no real purpose in the sense that it does not try to establish a particular idea and in the context of Zen, it does not have to. It points the avid listener in a new direction from which the entire field of sound shares equal importance in the experience of listening. This piece brings ambient sounds to the forefront, encouraging a different approach in the way we listen to music.

There is a version of 4'33" by the American musician, Frank Zappa. It appears on a double compact disc called, 'A John Cage tribute' which features other Cagean works and original material performed by artists like Yoko Ono, Laurie Anderson and Meredith Monk. Zappa's version seems to have been recorded in a studio rather than in a live situation with a listening audience, which is the way Cage normally worked. As a result of this, the silence appears to have very little activity. Occasionally there is a very quiet crackle or thud that occurs over the constant hiss of the speakers. What results is quite an intense listening experience. The listeners find themselves concentrating on the piece trying to discover subtleties within the silence in an attempt to receive clues about the immediate environment that the recording is from.

The importance of this is that a different kind of listening experience is created that goes beyond the silent activity of 4'33" and into other realms of music. What seems to be the central achievement of 4'33" is that it heightens our awareness of sound and the uniqueness of the musical event. On listening to any other piece of music, in a live situation or recording, the ear becomes more aware of the ambient unintentional sound, which becomes integral to the experience of music. A person could listen to a particular recording and become aware of minor subtleties that occur unintentionally in the background. Maybe a screwdriver fell off a shelf during the recording or someone lit a cigarette. The listener can feel the uniqueness of the musical experience through the presence of these subtleties and may even become fascinated by them. This is because 4'33" has helped them approach the experience of listening in a new way. These



ordinary things help to shape the musical event into something that belongs to a particular time and can never be repeated.

4'33" is a unique piece that helps to create a new approach to music and other art forms. Self- expression becomes no longer a necessity. There is no longer an obligation to reach a conclusive end to a particular project that is manifest in a physical art object or musical composition. An ongoing investigation or activity becomes legitimate in which our concepts and sensuous experiences can be challenged and redefined.

Cage's influence encourages a more acute awareness in which even the most mundane things can be seen in a fresh, new light and suddenly have significance. The aim of Cage's work seems to point towards what he sees as a more positive approach to life, which is not dictated by our likes and dislikes. An attitude of tolerance in which 'pleasure will be more universal... both constant and spacious.' (Revill, 1992, p.116)



# **BIBLIOGRAPHY**



# **BIBLIOGRAPHY**

CAMPBELL, Mark John, "John Cage's 4'33"; Using Aesthetic Theory to understand a Musical Notion", Journal of Aesthetic Education, Vol. No. 26, Spring 1992, pp. 83-91.

DUBERMAN, Martin, <u>Black Mountain - An Exploration in Community</u>, London, Wildwood House, 1974.

FEINSTEIN, Roni, "The early work of Robert Rauschenberg: The White Paintings, The Black Paintings, and The Elemental Sculptures", <u>Arts Magazine</u>, Vol. 61, September 1986, pp. 75-81.

GENA, Peter., & BRENT (Eds.), <u>A John Cage Reader</u>, New York, C.F Peters Corporation, 1982.

HERWITZ, Daniel, <u>Making Theory Constructing Art</u>, London, University of Chicago Press, 1993.

HOBBS, Stuart, D., <u>The End of the American Avant Garde</u>, New York, University Press, 1997.

KIVY, P., <u>Essays on the History of Aesthetics</u>, New York, University of Rochester Press, 1992..

KOSTELANETZ, Richard, <u>Conversing with Cage</u>, New York, Limelight Editions, 1987.

KOSTELANETZ, Richard, <u>Writings about John Cage</u>, Michigan, University Press, 1993.

LANDER, D., & LEXIER, Sound by Artists, Toronto, Walter Phillip Gallery, 1990.

Mc EVILLEY, Thomas, "In the Form of a Thistle", <u>Art Forum</u>, Vol. No. 31, October 1992, pp. 97-101.

RAHULA, Walpola, Zen and the Taming of the Bull, London, Frazer, 1978.

REICH, S., Writings about Music, New York, Nova Scotia Press, 1974.

REVILL, David, The Roaring Silence - John Cage -a life, London, Bloomsbury, 1992.

RICHARDS, Sam, John Cage as..., Oxford, Amber Lane Press, 1996.

SPIEGEL, Judith, "Chaos and Order - A Skeletal History of Experimental Music", <u>High</u> <u>Performance</u>, Vol. No. 8, No. 3, 1985, pp. 20-26.



STILES, Kristine., & SELZ, <u>Theories and Documents of Contemporary Art</u>, Los Angeles, University of California Press, 1996.

TOMKINS, Calvin, <u>The Bride and the Bachelors</u>, London, Weidenfield and Nicolson, 1965.

WESTGEEST, Helen, Zen in the Fifties, Amsterdam, Waanders Publishers, 1996.

