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VISUAL IMPAIRMENT
ITS IMPACT UPON AND IMPLICATIONS FOR
AESTHETIC EXPERIENCE

A thesis submitted to Middlesex University
In partial fulfilment of the requirements for the degree of
Doctor of Philosophy

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**SCHOOL OF LIFELONG LEARNING
AND EDUCATION**

MIDDLESEX UNIVERSITY

JULY 2006

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ANY OFFENCE OR EMBARRASSMENT TO ANY VISUALLY IMPAIRED PEOPLE WOULD BE DEEPLY REGRETTEED.

CONTENTS.

SETTING THE SCENE.

3.

CHAPTER ONE. RAISING THE QUESTION.

INTRODUCTION.	4.
ARTWORK AND THE PRODUCTION OF ARTWORK.	21.
THE RESEARCH PROGRAMME.	24.
CLASSIFICATION OF BLINDNESS.	26.
DEFINITION OF BLINDNESS.	28.
VISUAL IMPAIRMENT AND DISABILITY.	29.
VISION AND SEEING.	32.

CHAPTER TWO. DEVELOPING THE PARAMETERS.

LITERATURE SEARCH.	54.
PILOT STUDY.	62.
METHODOLOGY.	68.
EDUCATIONAL FRAME OF REFERENCE.	79.
ETHICAL ISSUES	80.

CHAPTER THREE. THE RESEARCH.

THE MAIN STUDY.	85.
JOHN PYM.	89.
ROSEMARY CARTER.	106.
ELIZABETH PRICE SIMMONS.	122.
CY. FOLLINGTON.	138.
JOY WILKINSON.	155.
OBSERVATION SHEETS.	168.
SPECULATION.	233.
SUPPLEMENTARY OBSERVATION SHEETS.	235.

CHAPTER FOUR. REALISATION.	244.
INDIVIDUALITY OF AESTHETICS.	249.
THE INTERPLAY OF SENSATION.	257.
CONTROL OVER THE SPATIAL.	263.
APPENDIX.	272.
GLOSSARY.	273.
BIBLIOGRAPHY AND ARTICLES.	279.
PAPERS PRINTED ON THE INTERNET.	288.
AN OVERVIEW OF CHILDREN'S EYE CONDITIONS/INSIDE SIGHT.	
QUESTIONNAIRES/CONSENT FORMS/STOCK QUESTIONS.	

ABSTRACT.

SETTING THE SCENE.

With this research programme, I will be looking at how visually impaired people interpret the sensory inputs that artwork evokes together with the spatial environment that visually impaired people engage with.

The study intertwines concepts of aesthetics that have specific relevance for visually impaired people, together with the processes and concepts associated with vision. The study refers to some common beliefs regarding blindness and provides some evidence of links between art and blindness.

The study reflects upon how human cognitive processes are different for blind people, the use of verbal description used by visually impaired people and comments upon the logical reasoning processes developed by people with sight loss.

Finally the study teases out methods of media manipulation, the interplay of different sensory stimulus and the control that visually impaired people endeavour to exert over an unseen environment.

The nature of this research will be developed into a programme which explores and revisits the central themes of study using a system of concentric evolution. (See methodology section.) As a result, this 'intertwining study' will examine the values of each strand of research and will provide data regarding the aesthetic understanding and creative processes used by people with visual impairment, together with an appreciation of the methods blind people engage with to understand and use spatial properties.

CHAPTER ONE.

RAISING THE QUESTION.

INTRODUCTION.

What is the nature of aesthetic experience for people with sight loss?

Assumptions are made about blindness (1) which raise critical questions concerning the difference between a 'seen' and 'unseen' world. To the sighted person, blindness is often regarded as a lifelong human handicap, devoid of interaction with a visual world. These assumptions often create a barrier of understanding between sighted and unsighted people. Yet these impressions about sight loss have been historically formed from limited knowledge and understanding of what constitutes 'blindness.' In the light of contemporary research developments (Millar 1994. Scholl,1986) there now exists a more informed basis for recognising a wide classification of sight disabilities suggesting that many blind people are capable of responding positively to visual stimuli.

Scholl (1986.pg 23) examines the condition of blindness by exploring influences and relationships, attitudes and beliefs of sighted people towards blind people. Equally she considers the beliefs and attitudes of blind people towards people with sight.

1. The term 'blindness' is used as a general term for visual impairment, sight loss and real or metaphorical forms of 'not seeing' in the early part of this report. Once the terms of blindness have been established, specific referencing will be used. See page 24.

She examines the reactions of blind people towards blindness and towards themselves as blind people. In challenging the popular conceptions that blind people are exempt from forms of visual perception, Scholl (1986, pg 23.) makes the point that in reality only about.

10% of all persons labelled as blind are totally without sight and only about 20% of school age children labelled as visually handicapped. Most persons considered blind do respond to some visual stimulation e.g. light and dark shadows; or moving objects; and do not live in a world of total darkness.

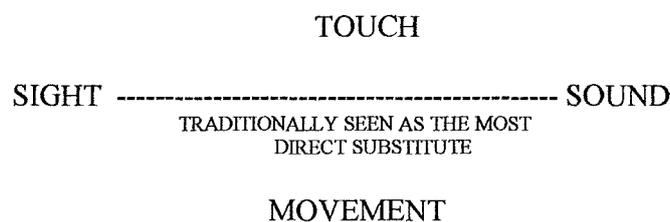
(Scholl, 1986 p23.)

Scholl has qualified a parameter for the term 'blindness, which ascribes to a more continuum based definition of blindness. Millar (1994), who is interested in the spatial understanding of the blind and wishes to contribute to the question of how visual experience relates to spatial knowledge, asks, 'Is visual experience crucial?' and develops her introduction with this observation.

To understand the role of vision, I am asking what, if any, information is missing in its absence and, if so, how can it be substituted. Furthermore, sound, as the main other distance sense we have is often regarded as the only substitute for vision. But investigating information from touch and movement is equally, if not more, important because, as I hope to show, it can yield knowledge about relations between extended surfaces in a way that hearing alone cannot do.

(Millar, 1994)

Millar wants to see where on the continuum one can be and its effect on spatial awareness, with her central question being, if one is at the furthest end of the continuum (totally blind) what, if any information is missing which cannot be substituted. If one puts her ideas into a notional model as illustrated,



One begins to wonder if the combination of movement/touch can assist in knowledge/experience whenever sight is missing!

Richard Gregory (1995.pg15) examines the links between vision, perception and knowledge of the visual world and makes this point,

The underlying philosophy is that perceptions are but indirectly related to stimulus inputs from the senses, and that perception involves betting on what they may mean. So knowledge is very important. As perception has to work very fast to be useful it can only use limited knowledge, mainly of the interactive properties of objects; while conceptual understanding which is slow and can be much deeper, develops more abstract knowledge.
(Gregory,1995)

Gregory's notional model can be viewed as follows;

IMPACT OF
SOUND

IMPACT OF
VISION

PERCEPTION

IMPACT OF
TOUCH

IMPACT OF
SMELL

If you look at this model as transitory and its contents change based upon the strength of the individual sensation, one can appreciate that the model used by Millar is fixed rather like a pendulum whilst Gregory's model is cyclic in format. One's perception is expanded and formed by visiting and revisiting each particular sense dependent upon the intensity of input. Each model uses knowledge as the driving force, while Millar is concerned with the perception of space, Gregory is concerned with links between visual/perception and knowledge of a visual world.

It is clear that the physical act of seeing, the interpretation of what is seen and the understanding of what is seen, is a series of individualistic sensory processes, yet any

study into these processes of visual impairment is chronologically recent.

By consulting the historical selective time line (fig. 1.) we can see how recently problems regarding blindness have been addressed and indeed how blind people have featured in the contribution to the world's social development. Roberts (1985. Pg 1.) offers the following observation on the significant contributions of blind people against a background of relatively undeveloped support programmes.

Homer is perhaps the first name that comes to mind: the Iliad and the Odyssey were known before 700 B.C. More recent illustrious blind persons are Nicholas Saunderson (1682-1739), a noted professor of mathematics at Cambridge University, whose sponsor was Isaac Newton; Francois Huber (1750-1831) a Swiss naturalist who studied the life of bees; and Maria Theresia von Paradis (1759-1824), a Viennese pianist and music teacher for whom Mozart wrote the Concerto for Piano and Orchestra in B-Flat.

(Roberts, 1985.)

From an historical perspective, the communications section of the time line (fig.1) reveals that in 1834, the Braille literacy code was perfected, yet it took until 1898 for the first day school for the blind to be established in England. We can also note that before 1784, all blind people were accommodated into society without any benefits of a specialised education programme and without the facility of a communications system specifically for the blind until the beginning of the nineteenth century. We can therefore appreciate some of the difficulties for blind people in becoming socially and educationally worthy.

In considering the deeper inner potential for aesthetic experience for blind people, we can see that, if it was considered at all, then it would have been attained through the medium of music or recited poetry. Napier (1973) makes an important case for musical experience by stating that self-expression can be encouraged through music by drawing out ideas about sound, rather than imposing them. She suggests that a teacher might say 'Listen to the music, and then make your feet do what the music

GENERAL

1749
to
1850

1749 Diderot writes "Letter of Blind for the Use of Those Who See."

1765 British Parliament passes Stamp Act taxing American colc

1773 "Boston Tea Party."

1775-1783 American Revolution

1787 Constitution of the United States signed.

1789 First U.S. Congress meets New York.

1791 U.S. Bill of Rights ratified

1829 First U.S. patent for a typewriter.

1842 Dickens describes visit to Perkins in "American Notes."

1851
to
1899

1860-ca. Campbell experiment with long cane for "foot travel" Perkins.

1861-1865 American War Between the States (Civil War).

1876 Bell invents telephone.

1877 Edison invents phonograph.

1882 Federal immigration legislation excludes certain groups including handicapped.

1898 Bell states, "Handicapped children have a right to an education in the public schools."

1900
to
1934

1906 First U.S. radio program broadcast.

1908 Crusade to eliminate ophthalmia neonatorum by putting silver nitrate drops in newborns' eyes begins.

1908 First class for high myopia begins in London.

1914-1918 World War I.

1918-1925 Dog guides trained blinded World War I veterans in France and Germany.

1928 Dog guides introduced in U.S.

1929 Great Depression begins.

1930 White House Conference on Child Health and Protection advocates services for "blind feeble minded."

1930 National Society for the Prevention of Blindness (NSPB) and American Foundation for the Blind (AFB) cooperate on standard eye examination report.

1934 American Medical Association (AMA) defines legal blindness

seems to say rather than 'Pretend you are a bear and walk like one.' She completed her argument for using music as a medium for the blind with the comment 'A visually handicapped or blind child may never have seen a bear walk.'

The relationship between art and blindness does not suggest an obvious or even a comprehensible link for the sighted person and may even be strongly challenged.

It was not until the 1950s that substantial progress was made to discount these judgemental ideas. Shaw (1986. Pg 386) catalogues the debate regarding creative arts and the blind by urging us to adopt an educational curriculum to encompass the achievements of blind people when they undertake visual art activity.

As recently as 1959, however, Von Fieandt (1959) suggested that the quality of art work by those born blind was rather poor. Similarly Revesz (1950) concluded that blind persons are incapable of aesthetic appreciation. Lisenco (1971) reiterated that a difficulty in achieving success at creative efforts was the demeaning attitude of many sighted persons who perceive blind persons as limited in this area. Cutsforth (1951) argued that blind people produce art work reflective of a different aesthetic environment from sighted people, and that only in the recognition of that non-visual environment can a work be judged appropriately?
(Shaw, 1986.)

I have quoted at length Shaw's list of contributors to the debate regarding the creation of artwork by blind people and it is apparent the debate is judged using visual criteria. Cutsforth (1951) provided an enlightened opinion, but these strong views owe little to any concrete evidence from any research programme. Indeed, these views have evolved through supposed construction by sighted people, into a diversity of expectation of any unsighted person who engages with visual media.

In consulting the historical timeline I have arrived at an overview of the experiences of sight impaired people in the recent modern world. This time line highlights and helps isolate problems faced by blind people and illustrates society's response to those problems.

Traditionally, blind people have been treated as 'people apart'. Blind seers and

magicians sprinkle social history and folklore with examples of their extraordinary abilities, and, ironically have been attributed with more developed perceptual powers than those of their sighted peers. Yet often those skills of perception accredited to the 'blind wise men' are based on the discipline of listening carefully to the spoken word and the vocal inflections and method of delivery. For example, the national symbol of justice at the Old Bailey, court of justice, is defined in terms of a blindfolded woman balancing a set of scales in her hand. Without the distractions of sight, an accurate, alternative sensory interpretation has been conveyed.

In the field of visual art, the image created by Sir John Millais, in his painting, *The Blind Girl* (1856) exemplifies a popularised late nineteenth century conceptualisation of blindness, symbolic through sentimentalised references to blindness, far removed from reality. The painting (fig.2.) shows a blind beggar girl and her companion sitting, paradoxically, against an idealised, (see glossary) setting, infused with symbolic content. The rainbow might traditionally be interpreted as a metaphor for hope of better things to come, and references to flight and freedom in the butterfly depicted on the blind girl's shawl seem beyond her grasp and realisation. Her companion is the only witness to these so called 'wonders of nature' and is quite possibly interpreting the 'seen' and 'heard' world to the blind girl. In the same symbolic vein we might further suppose that the blind girl's contact with the outside world is represented through music, for on her lap is a concertina. Adams (1992 pg123.) advances a slightly modified interpretation within a social context:

The picture is concerned with a contemporary preoccupation with vagrancy among the young and disabled; in this instance Millais has dramatically contrasted the blindness of the young girl with the ravishing beauty of the minutely detailed landscape that surrounds her. (Adams, 1992.)



The Blind Girl (1856) Millais. Birmingham City Museum and Art Gallery.

This image expresses sentimentality for the viewer (based on human emotion rather than reason) which is far from the intention of the artist. In reality, Millais' painting was meant as a comment upon the social concerns for vagrancy rather than any concern for blindness (as noted above). Wood (1992 pg12) explains some of the concerns Millais, as part of the Pre-Raphaelite brotherhood, may have held about the social situation at that time.

The Pre-Raphaelites were extremely conscious of the social evils and injustices of the age. The 'hungry forties' was a turbulent and unsettled period, culminating in the great Chartist demonstrations of 1848 which both Millais and Hunt witnessed. Although they were both patriotic, they found much to criticise in contemporary life, and were infected by the revolutionary spirit of the times. As a result, the Pre-Raphaelites were to paint a number of pictures on social themes, particularly that of the position of women in Victorian society. (Wood, 1992.)

The allegorical content and imagery in Millais' painting mirrors the complexities and problems in defining the relationship of the visual world to both the sighted and to the blind person. It also raises the question of creativity (see glossary) and crucially, the extent to which blind people are able to engage emotionally with the outside world (2) and, represent it through visual forms. Other artists have used images of blindness to portray and explain social and/or contemporary issues. These images also indicate the way in which the blind people of the time were regarded. Pieter Bruegel the Elder (1525-1569) for example, produced a number of paintings which portrayed contemporary life and also comment upon the social and political situation of the sixteenth century. His picture '*The Parable of the Blind*' shows from a rather fatalistic

2. For a person who has been totally blind from birth, every sensory input can be considered to be 'from the outside' Blind people develop any input, through a method of internalisation which builds their concepts of the immediate environment. The 'outside world' can refer to this immediate environment and can also refer to the larger global environment.



The Blind Leading the Blind. (1568) Bruegel. Museo di Capodimonte. Naples.

perspective a succession of blind people holding onto one another, clutching at cloaks and staffs in an attempt to traverse an unfavourable landscape. The leading blind person has lost total control and lies flat on his back, head flung back, arms outstretched, in a ditch. The next person in this unfortunate procession is on the point of tumbling on top of the first person but his pose has been captured at the point of no return. His face is turned towards the onlooker and a suggestion of realisation crosses his face. (Exactly why this figure is seemingly facing his audience may be the artists intention to engage the onlooker or it may be the observation that blind people, indeed many people, perceive an onlookers gaze and turn enquiringly towards that appraisal) The portrait also seems to show a slyness that invokes little pity for his predicament. The rest of the group appear totally unaware of the unfolding drama and walk unknowingly and calmly towards a seemingly unavoidable fate. The individual portraits of the blind people seem to exaggerate some blind characteristics, one person stares unseeingly into space, another walks with his mouth wide open suggesting stupidity as well as blindness. Yet another blind person has his hood pulled over his face apparently denying vision even if he had any sight the whole picture suggests a ridiculousness and offers little sympathy for the shabby entourage. In the distance a church spire points heavenward and appears distant and apart from the human suffering portrayed in the picture. Whether Bruegel was indicating a personal opinion or a consensus of opinion regarding blindness, prevalent at the time is unknown but the picture certainly alludes to more than the allegorical proverbs, of the subject matter. This extract from www.afaweb.org/education/bruegel2 indicates a moralistic stance Bruegel is thought to have taken.

Many of Bruegel's paintings have been interpreted as disguised criticism of the harsh Spanish control of the Netherlands. Bruegel was patronised, however by Cardinal Antoine Perrenot de Granville advisor to Phillip II and about 1563 he moved from Antwerp to

Brussels, the seat of the Spanish government in the Netherlands. Given the sparse and contradictory evidence, Bruegel's political convictions remain unknown. Modern scholars are also unable to determine his religious beliefs. Bruegel probably viewed organised religion as an obstacle between man and God; his 'Parable of the Blind', may be interpreted as illustrating this idea.

(www.afaweb.org/education/bruegel2.)

This apparent lack of sympathy for the blind may also be reflected in impatience towards a blind person attempting to work creatively in an area considered by others to hold no significance for them. This erroneous consideration upheld by some educationalists, lay people and indeed by some visually impaired people, is that, creativity for blind people can only be achieved through the medium of music, poetry or creative writing, and the world of visual arts, by its nature, lacks any interest or relevance for blind people. The visual world cannot, however, be separated from the environment we live in regardless of whether we conventionally engage with it through sight and vision, and so visually impaired people must have experience and some degree of understanding of visual phenomena.

Furthermore, the image created by Bruegel, shows blind people struggling with a hostile environment and their failure to cope with it. I would argue that in reality, blind people would not be this disadvantaged. Their perceptions built up from experience together with their training to deal with unseen encounters, would have alerted them to the possible dangers of the journey.

From an educational perspective, a 1992 a government working party focused upon the interim report for the National Curriculum for art and design, (D.E.S.1992) and recognised that there was much more to learning in art than the acquiring of skills. It was considered that art provided for an informed understanding of things seen, felt and experienced. It provided an essential grounding for the development of imagination and for the powers of expression. Learning in and through art also

provided people with a unique way of perceiving themselves and the world, which cannot be experienced anywhere else outside the collective umbrella of the creative arts. It was believed that in a world that relies increasingly upon direct visual communication, the ability to experience aesthetic experience was important. Equally important was the development of aesthetic responsiveness. This was considered to be the fundamental responsibility of the subject that dealt with visual appreciation and this responsibility does not exclude pupils with a visual impairment.

From this standpoint, the links between conventional notions of aesthetic understanding, visual art and blindness may at first seem tenuous but, if one was to minimise the significance of the visual experience, for blind people and to deny the value of artwork produced by blind people, we would be ignoring a potentially unique and valuable field of creative processing. Furthermore, sighted people arguably, might also gain much from artworks produced by people who are blind.

If we are to assume that full vision is fundamental in the production of artworks then it might be concluded logically that the nature of aesthetic understanding (see glossary) for the blind is not a major concern of these people. My contention in this thesis, is that, just as there is a wide and varied understanding of what is meant by aesthetic experience for sighted people, there is equally a wide range of visual experience (3) available to blind people. It is important therefore, to investigate

3. See Case Study 002. Rosemary Carter. On page E. there is an example of Rosemary using a logical reasoning method, which appears to be flawed to a sighted person, but provides an insight into a blind person's ability to understand a visual quality, which cannot be seen.

in greater depth the dynamic relationship between art and blindness, in order to gain a deeper understanding of aesthetic experience and visual impairment. (see glossary)

For any visually impaired person, the production and appreciation of art does present some difficulties, if a conventional method of working is employed or a traditional aesthetic response is expected. If a visually impaired person wishes to engage aesthetically with works of art or sensory stimuli, they will presumably need to develop unique skills to help them overcome the disparity between a world of instant visual stimulus, and their world where visual information is not processable in the same way. Huebner (1986 Pg392) has questioned the validity of visually impaired people engaging creatively with materials they cannot see and makes the following observation;

Questions arise concerning the use of media that usually requires sight to be 'appreciated,' like drawing, painting, and the use of colour. Opinions vary as to whether or not the blind child should be asked to participate in creating something, which he may not be able to appreciate as a finished product, like painting and drawing. Kurzahls (1961) writes that 'often for the blind child the fun is not the end product, but in the process.

(Huebner, 1986.)

This raises the question of whether the process rather than the product embodies the creative act. If this is so, then we need to consider whether the process can be an aesthetic act in itself, and whether the process can be assumed to embody aesthetic understanding. There is definitely knowledge of procedure and an expected result, there is a logical ordering and manipulation of media whenever a visually impaired person creates an artwork. There is a clear intention of communication and there is a conscious desire to present the product in a manner that that conveys the message in a pleasing way. Many of the criteria for an aesthetic act are present, the visual qualities of the product seems to be the deciding factor. Many would argue (possibly

educationalists and critics) that the visual quality of the product falls short of an acceptable aesthetic standard, but perhaps this value judgement, which must surely be of a subjective nature, does not reflect the aesthetic understanding of the person producing the artwork, but only their competence in manipulating media. It might be worth mentioning at this point that the relationship between aesthetic understanding and manipulation is not fixed but will always reflect the circumstances of an individual.

A form of sensory substitution might therefore be considered necessary to overcome specific sensory loss whenever a visually impaired person wishes to create an artwork. By using a range of 'multi-modal' material, not only is a visually impaired person able to manipulate these materials with a lessened reliance upon a visual protocol, they position themselves at the forefront of current artistic practice.

Attempts can be made to explain certain visual properties such as colour, proportion and perspective by using the remaining senses. However, touch cannot explain colour fully and sound cannot explain perspective (4) but, a quality of differentiation (see glossary) can be established and a concept of a visual value can be explored as an abstract medium. Haupt (1968.pg.387) lists six points which she feels are necessary to enable totally blind children achieve success in art experiences.

I have quoted fully at the end of the chapter the six points that Haupt feels are important for totally blind children to achieve success in art experiences, believing them to reveal much about the processes employed by blind people when they explore their environment. These points show a strict logical building procedure and

4. By using a system of sensory substitution, an aesthetic value may be attributed to whatever image is perceived, mentally, by a blind person. These perceptions may indicate a process where blind people equate a seen phenomenon into an unseen understanding.

demonstrate a sequencing of events and they indicate a development of language in a specific manner (perhaps as a creative tool in its own right).

Yet again, however, through this method of investigation blind children are expected to develop some degree of competence in the manipulation of visual imagery, before any of their personal responses may be judged to have aesthetic merit.

Certainly the points raised by Haupt show the amount of preparation and thought necessary to provide a sound basis of experience for totally blind people. They also show the amount of preparation needed before visually impaired people are able to manipulate visual media in a traditional manner that can be appreciated by sighted peers. However, this method of work does little to prepare for any understanding of personal, instinctive expressions that blind people may make if they are totally untutored in these aspects of the visual world and if they wish to manipulate visual media in their own personal, unique and original way.

Some developments in the use of different media, have taken place (for example the use of computer graphics, CCTV and recycling of industrial waste into 'ready made' artefacts) shows how alternative materials manipulated by visually impaired people can extend the field of art experience. Huebner (1986 pg.392) notes the following;

Feld and Hall (1980) describes an art programme for visually handicapped students using a closed circuit television system (CCTV). They found that artistically talented low vision students can benefit from drawing from life objects using a CCTV. Not only did the students' drawing skills improve, but visual efficiency was trained because the students had to attend to details in common objects they may have not noticed before.

(Huebner, 1986.)

An important feature for all people attempting to understand new information, is the ability to 'visualise' the ideas generated by the information, the possible developments of those ideas and the projected outcome of those speculations. In fact,

the ability to arrange thoughts and ideas in terms other than through pure abstract thought is a valuable aid to everyone's memory.

How people understand and comprehend new ideas has been the concern of psychologists for many years and has champions in both Phenomenal and Non-Phenomenal groups. These diverse groups have debated the properties of mental representation to differing conclusions.

Sensory experiences and perhaps images are considered to be the 'phenomenal' method by which new ideas are transferred. Whilst the 'non-phenomenal' transfer of ideas are considered to be through the medium of concept and thought. The Stanford Encyclopaedia of Philosophy (Pg.6), adds to this debate with the following passage.

If a sensation is the mere having of a qualitative experience (a quale: a pain or tickle, an experience of blue or smoothness), while perception is sensory experience of something (in the external world) then, if perceptions are constituted in part by sensations—that is, if they have sensory phenomenal properties—a crucial question is what, if anything, such properties have to do with their representational content.
<http://plato.stanford.edu/entries/mental-representation>.

Another important consideration for this study is whether totally blind people, (people who have never seen) have mental visualisation facilities, whether these facilities are a generic facility or if it is a product of learning.

Stephen Kosslyn (1994. Pg 3) describes a number of experiments, which demonstrate conclusively that people can mentally rotate objects in image form. He further describes experiments which show that people can 'mentally unfold' these images and can transform them without having a three dimensional tangible model. Through these experiments, the idea was developed where images were considered to be 'internal representations', which stood for the corresponding object.

Kosslyn goes on to clarify these ideas by explaining that there are two main ways of identifying visuality with the external object.

1. Propositional representation—where the use of language describes the particular event or object.
2. Depictive representation—where a type of picture represents the event or object.

What Kosslyn does not develop are his ideas regarding whether these representations exist for people who have never seen.

I agree that sighted people use both of these concepts in varying degrees whenever they are presented with a situation that requires experiential development. Some people find the facility to organise their ideas into pictorial representations, helpful, in the development of a particular understanding, whilst others prefer a predominantly linguistic explanation, involving verbalisation. However, for the visually impaired we need to consider to what extent, if any, there may be a facility of visualisation. We need to consider the impact this may have on concept development and we need to think about the effect it may have on the imagining process.

John McCrone, (2000) in his Internet article *A Bifold approach to Art and Aesthetics* speaks about the processing facilities of the brain.

The brain- even the animal brain- feels something about what is happening, whatever is passing through the eye of attention. So there is an evolutionary-polished engine of psycho physiological response for art to tap into. The reason why we can have feelings about a painting or even a clever idea (the aha response) is not in itself mysterious, just very complicated to explain in terms of the maze of brain pathways and the assessment processes that are involved.

http://www.btinternet.com/neuroart/webtwo_features_art.htm

It is clear that a visual impairment involves more than just the loss of sight, it also

reduces an understanding of the immediate environment and a relative loss of mobility. Equally, an examination into the effects that a loss of sight has on the development of a creative process and on the ability to produce artwork that is understood and appreciated by sighted peers, needs to be made, to see how this affects the aesthetic understanding of visually impaired people.

According to Hill and Blasch (1979.pg.131) visually impaired people experience three basic losses:

- the loss of the environment and self-relationship to that environment.
- the loss of mobility.
- the limitation of the range and variety of concepts.

This loss concerning the limitation of the range and variety of concepts seems to be extremely important, and raises the question, how does the limitation of concept affect aesthetic understanding? If human development involves the use of 'mental imagery' to aid the processing of available information, by arranging this information into a pattern or structure that is recognisable to both user and receiver, then this mental ordering is a fundamental communication technique, and is a vital link between human correspondents. Further investigation needs to be undertaken to see how this imagery is processed, what aesthetic ordering is produced by people with sight loss (who have received no formal artistic training), and finally, how this aesthetic ordering is recognised and altered.

This research is designed to explore the nature of aesthetic understanding for people with sight loss. It also seeks to explore how, the making of art and the creative processes are altered, if the creator is visually impaired, it also includes the special importance the environment plays. From this base, the research aims have evolved to

include;

- A study of the interrelationship of sensory information. (see glossary.)
- An investigation into the visual imagery and symbolism used by blind people when they create an artwork.
- A study into the role of sequencing (see glossary) and the ordering of imagery, blind people engage with, when creating an artwork.
- A study of the learning responses (see glossary) developed by blind people, when engaging with artwork.
- A study of the special spatial concerns of the visually impaired.

ARTWORK AND THE PRODUCTION OF ARTWORK.

A great many scholars have provided definitions for what they consider art to be and have also proposed a schema for what they believe aesthetics to be concerned with. I offer the following two quotations as examples of traditional thinking about this subject. The first claiming aesthetics to be a basic condition of human responsiveness (Abbs, 1996 pg 47)

The aesthetic, far from being 'esoteric' is the most basic mode of human response. The tiny child, the newborn baby begins to mediate its world aesthetically: through touch, taste, smell, sound and vision. Nearly all the early shaping responses of human life are aesthetic in character, bringing through pleasure or pain or a diffuse sense of well being imitations of the nature of our common world.

(Abbs, 1996.)

The next quotation, by Nairne (1987, pg14.) places art and aesthetics centrally in a mix of cultural and intellectual influence upon current society.

Art may be a minority interest (so are theatre, literature and dance) but its influence extends more widely than merely to those who have direct contact with painting or sculpture. Art provides one of the languages of our culture, a language in which the philosophical, the moral, the political and the aesthetic are mixed together, a language which may principally demand contemplation, but can also incorporate the polemic. Contemporary art is part of the continual exchange of images in our society, image that becomes part of an understanding of the world.

(Nairne 1987)

These two quotations give a special focus to aesthetics, which indicates that, the value of aesthetics for people is much more than an 'artistic preserve.' Aesthetics is bound up with ordinary events and feature in the normal pursuits of every day life. If this is the case then aesthetics feature, equally, in the normal 'every day life' of visually impaired people. Therefore, for the purposes of this research programme I would like to focus upon what I consider aesthetics to include for all people whether they have a visual impairment or not. This 'definition' of aesthetics is not meant to be a fixed statement but purely a catalyst for this research.

'Aesthetics is an understanding regarding the performance, either active or passive, of those things, which function within a given situation, in a manner, which is judged by

to have a value of completeness.’

This definition was created after using a pilot study with visually impaired people which asked them what they considered art to be concerned with? The opinions gathered centred upon traditional concepts of beauty, traditional ideas of formal landscape and idealised concepts of the world we live in. Their opinion also reflected the reactions of current society taken from popular newspapers and television programmes. (In fact, the opinions gathered were no different from the opinions held by fully sighted people.)

Whilst the information gathered provided for a working definition for the research programme, it did not address the issue of conflict between a visual object and the unseen reaction towards this visual object, by an unseeing person. Many visually impaired people commented upon the importance of touch and how, through touch, one could ‘tell’ if something was finished, ‘right’ or ‘complete.’ This notion of ‘rightness’ or ‘completeness’ appears to be important to the idea of an ‘unseen aesthetic’ and is reflected in my definition.

Art is about making sense of what is seen, it is also involved with interpretation of the environment. It is concerned with beauty, and it is concerned with all of our senses gathering information for an interpretation of the world we live in. It is the arrangement of this sensorial gathering into a format that we judge to be ‘right’ or ‘complete’ which forms our concept of aesthetic.

These judgements are more than a reaction to ‘things perceived.’ It is concerned with understanding and any appreciation relies upon a multi-sensory interaction with whatever is being experienced? A visual memory or recollection provides an instant impression, but often this ‘instant impression’ needs extra data to develop and

understand what has actually occurred. Often the visual impression is inconclusive and by engaging multi-sensory exploration techniques, a fuller and more complete concept is developed. With sight loss, there is a need to develop strategies to overcome the problems of not physically seeing and the use of a multi- sensorial approach provides towards redressing a balance.

The investigation of these other 'multi sensorial' methods of gathering information include intuition, the unconscious, the imagination and use of verbal language together with smell, touch, sound and taste.

Whilst not seeing could be considered a problem, when attempts are made to respond to visual artistic stimulus, it could equally present a unique method of aesthetic exploration for both sighted and unsighted people. Many visually impaired people do respond and respond in depth, to visual artwork, and further to this response they produce artwork using 'visual' materials.

Not seeing can provide a positive alternative and an illuminating insight into the understanding and appreciation of artwork for both sighted and unsighted people.

THE RESEARCH PROGRAMME.

It is appreciated that this programme will not provide a basic comparison between sighted and blind people and it will not produce a scale or measure of competence in the manipulation of media by blind people. It may, however, indicate judgments concerning degrees of logical reasoning (5) and concept building strategies used by blind people when they engage with the environment, and with objects present within that environment. (6)

Up to this point several terms have been used to describe the visual condition of the subjects of this study and it is important, to qualify the terms I have used for blindness. Many people who have a sight loss feel strongly that any reference to their impairment should be referred to in a specific way. Some find the term 'visually impaired' to be patronising and non-specific. Others find the term 'people with sight loss' to be equally offensive as it tends to modify and nullify the eye condition. To refer to people as being 'blind' can also cause offence, for not only does it serve to exclude people from participation, if you cannot see well enough, you cannot possibly take part; it can be used as a derogatory term based upon the outmoded clinical belief that the condition is a consequence of self-abuse or as a result of wrong doing by parents. This point is illustrated by Scholl (1986. Pg 23)

5. See observation sheet No. 010, Inspector Gadget's Head. On page AA and BB there is an example of describing a visual viewpoint to an unseeing pupil.
6. For visually impaired people, the environment can mean either the immediate location in which the blind person is situated in, or it can represent the global environment which consists of all the natural phenomena a blind person needs to address in a specific manner in order to understand and appreciate the world they live in.

Another erroneous belief is that visual impairment is punishment for sins, either of one's own or one's ancestors. This view was frequently found in ancient times but persists sadly, even amongst some persons in present day society. Instances of this point can be found in both classical and modern literature. There is, of course no evidence for this negative and profoundly harmful attitude. A related myth holds that blindness is the result of venereal disease. Some venereal disease can result in visual impairment, but with Modern medicine such cases are relatively rare.

(Scholl, 1986.pg.23.)

To be registered as being blind does not mean the person has no sight. (see Ref.3.)

Also, blindness is not always a constant state; (see Ref. 4.) It has many forms ranging from a limited field of vision, a limited range of vision, restriction of vision, limited colour range, the inability to recognise shape and form, to being congenitally blind from birth. (see appendix)Equally, sight does not solely depend upon the physical qualities of vision. Much of what is seen, is determined by mental activity and therefore, any mental aberrations (sometimes caused by injury) will also affect what is 'seen'.

Understanding 'what is seen and understood' by the brain through both mental and physical interactions, has undergone much progress in recent years and to emphasise this point I offer the following extract from Pinker (1997. Pg19)

When the visual areas of the brain are damaged, for example, the visual world is not simply blurred or riddled with holes. Selected aspects of visual experience are removed while others are left intact. Some patients see a complete world but pay attention only to half of it. They eat food from the right side of the plate, shave only the right cheek and draw a clock with twelve digits squashed into the right half. Other patients lose their sensation of colour, but they do not see the world as an arty black and white movie. Surfaces look grimy and rat-coloured to them, killing their appetite and their libido. Still others can see objects change their position but cannot see them move—a syndrome that a philosopher once tried to convince me was logically impossible! The steam from a teapot does not flow but looks like an icicle; the cup does not gradually fill with tea but is empty and then suddenly full. Other patients cannot recognise the objects they see: They copy a bird faithfully but identify it as a tree stump. A cigarette lighter is a mystery until it is lit. When they try to weed the garden they pull out the roses. Some patients can recognise inanimate objects but cannot recognise faces. The patient

Table 2.1 Definitions of visual impairments

<i>Legal</i>		<i>Educational</i>			<i>Office of Rehabilitation Services</i>			<i>World Health Organization (Colebrander, 1977)</i>			
<i>Blind</i>	<i>Partially Seeing</i>	<i>Visually Handicapped</i>			<i>Visually Impaired RSA Code</i>			<i>Low Vision</i>		<i>Blind</i>	
		<i>Blind</i>	<i>Low Vision</i>	<i>Limited Vision</i>	<i>100-109</i>	<i>110-119</i>	<i>120-124</i>	<i>Severe</i>	<i>Profound</i>	<i>Near Blind</i>	<i>Blind</i>
Visual acuity of 20/200 or less in the better eye with correction or restriction in the visual field of less than 20 degrees (Koestler, 1976, p. 45)	Visual acuity better than 20/200 but less than 20/70 in the better eye with correction (Hathaway, 1979, p.17)	Learns through tactile or auditory materials (Caton, 1981, p. 219)	Severely visually impaired after correction but can increase visual functions (Corn, 1980, p. 3)	Use of vision limited under average circumstances (Barraga, 1983, p.23)	Blindness, both eyes, no light perception.	Blindness, both eyes (with correction not more than 20/200 in better eye or limitation of field less than 20 degrees)	Blindness, one eye, other eye defective (better eye with correction less than 20/60, but better than 20/200 or corresponding loss in visual field)	Performs visual tasks at a reduced level	Difficulty with gross visual tasks	Vision unreliable	Totally without sight

Figure Four

CHART SHOWING VARIABILITY OF SIGHT FOR INDIVIDUALS AT ANY GIVEN TIME (del Tufo 2000)

Vision is a facility that can fluctuate during the cycle of seeing. Often it is a deteriorating process but there is no rigid scale that applies to a general condition. It is an independent and individual process.

	IMPROVING SIGHT	SOME USEFUL SIGHT	ECCENTRIC BUT STABLE VISION	DETERIORATING SIGHT	NOW NO SIGHT	NEVER ANY SIGHT
PAST						
PRESENT						
FUTURE						

deduces that the visage in the mirror must be his, but does not viscerally recognise himself. (Pinker 1997. Pg 19.)

Pinker has highlighted yet another issue. We need at this juncture to add to the mix of sight and vision, the consideration of disability.

Whilst I have already discussed that vision is affected by mental conditioning, the physical conditions which shape sight are more varied than those only affecting the visual receptors. It is generally accepted that with the advances of medicine many people survive otherwise terminal illnesses but have resultant complex disabilities.

These disabilities may affect both vision and other senses and organs and consequently these diverse issues must also impact upon this research as people with multiple disabilities may also feature under the umbrella of people with a visual impairment. It must therefore be appreciated that all of these issues add to the complex nature of the research.

However, in order to clarify some of these categories regarding the terms used in this research to classify 'blindness' I have listed the major causes of blindness as registered by the National Federation of the Blind (1995)

<http://www.nfb-texas.org/legal.html>

It is interesting to note that many of these conditions are usually accompanied with additional physical disabilities.

Cataracts: Opacities and clouding of the eye's lens. May block the passage of light through the eye. The only symptom is blurred dimmed or double vision.

Diabetic Retinopathy: The increased lifespan of diabetics has increased incidence of this disorder. Changes in the tiny blood vessels of the diabetic's retina can cause blindness.

Glaucoma: This is where the transparent fluid inside the forward part of the eye does not drain normally and excess pressure is built up within the eye. Early symptoms

may include blurred vision, a narrowed field of sight, and eventually total blindness.

Macular degeneration: as the inner surface at the back of the eye, the retina functions a little like the film in a camera. The macula is the part of the retina which forms the centre of the 'picture' and the sharpest image. Sometimes known as 'pinhole vision'.

Retinitis Pigmentosa: Frequently beginning with what is called 'night blindness,' this condition brings degeneration. At approximately age ten or twelve the youngster begins to experience some difficulty in seeing at night and in poorly lighted areas. Their visual field begins to narrow frequently resulting in what is known as 'tunnel vision.' Visual loss is progressive. Many adults with retinitis pigmentosa have a very tiny field of vision in which they see well under a good light but which is so small as to be of little use. Total blindness often results.

There are many other causes of blindness and conditions of visual impairment and I would like to explore the complexity of the problem a little further.

It is apparent that the qualification for 'blindness' is charged with a much greater responsibility than a definition found in a dictionary or a personal preference of a person with a visual impairment. This qualification is subject to international law and specific medical interpretation. It is also a concern of educationalists who note the responsibility of teaching pupils with a visual impairment. The following passage is taken from a check list issued to teachers who may have a visually impaired pupil in their class.

There is much confusion as to the distinction between **sight** and **vision**. Professionals from both the medical and educational world who have worked and studied in the areas of the sense of sight for many years, still have a tendency to interchange the two terms. Most people tend to use vision when they mean both sight and vision. The two terms

actually mean two different things.

Sight is limited to the response to light and is measured in degrees of acuity e.g. 6/6 in other words, the ability to see.

Vision on the other hand is the ability to interpret and understand the information that reaches the brain through the eyes, in other words the process of interpreting what is seen. It involves the entire person and relates to all sorts of stimuli including the environment and experience, which takes place during a child's development over a number of years.

(Getman 1992)

This study into visual impairment and aesthetic understanding must include some aspect of the wider issue of disability but before I engage in focusing on this larger concern, I would like to examine further qualifications for 'blindness'.

Some Specific Definitions of Blindness

The legal definition of blindness is as follows:

Blindness is defined in sections 216(i) and 1614(a)(2) of the Social Security Act as central visual acuity of 20/200 or less in the better eye with the use of a correcting lens. An eye which has a limitation in the field of vision such that the widest diameter of the visual field subtends an angle no greater than 20 degrees shall be considered as having a central visual acuity of 20/200 or less.

This means that a person can only see at 20 metres what a fully sighted person can see at 200 metres. This also means that this terminology is a scientific measurement and does not take into account any other criteria. Jernigan in his article, A Definition of Blindness. (2002) persuades us that 'blindness' can best be defined not physically or Medically, but functionally or sociologically.

Using the following descriptions of visual problems it is easy to understand that the terminology of types and degrees of blindness can cause confusion. Added to this mix, there must be racial, social and cultural classification. Jernigan (2002) comes to my aid with the following statement

What, then, in the light of these seeming contradictions is the definition of 'blindness' In my way of thinking it is this: One is blind to the extent that he must devise alternate techniques to do efficiently those things which he would do with sight if he had normal vision.

Jernican (2002)

Having considered the range and differences implied with the variety of terminology, this research programme will use the two terms 'visually impaired' and 'people with sight losses from this point onwards as general qualifying terms. Any other specific sight loss condition will be referred to whenever it is appropriate. This will occur when the issue is specific to people who have never seen or to people who are now totally blind but have some visual memory of 'what things looked like', before they lost their sight. In these instances specific terminology will be referred to.

Visual Impairment and Disability

Whilst I have progressed to some degree with the terms of qualification of 'not seeing' I would now like to address the larger issue of disability. Throughout the research programme I had never considered the labelling of the children and adults to be significant except for the classification of their achievement. The 'person' is always the most important feature and I would claim that I never regarded anyone as disabled. However, I realise that by not documenting specific disability I could be accused of marginalising achievement. To address this concern I wish to offer this quotation from Allan Sutherland from his *Chronology of Disability Arts* (2003) as a defining context

By building upon the achievements of the past, as disability arts practitioners and the broader disability arts community we can ensure that we are creating something solid that we hand down to those who come after us

Sutherland (2003)

However, the term 'Disability' is a very contentious and I would like to offer a quote from the paper 'Effecting change, Disability , Culture and Art. (Barnes, 2003) where Barnes is responding to the classification of disabled people. He states:

This holistic approach is based on the insight that in a society geared almost exclusively to the needs of the mythical non-disabled ideal, physical, sensory and cognitive impairments are inevitably interrelated. Also labels have little meaning beyond the need for appropriate medical treatments and social support; they are also socially and politically divisive.

(Barnes 2003)

Barnes goes on to explain that in his view, the creation of a 'social model' of disability creates two major issues, firstly it includes all disabilities together in to one large generalised body, and secondly, by labelling all disabilities together it somehow denigrates disability into symbolic grouping of shame rather than any recognition of the significance and value of a disabled lifestyle.

By labelling individuals as either 'disabled' or 'able bodied', creates a term of qualification for the work produced and for the level of competence by which the work is judged. This labelling influences the perceived quality of the artwork. The interview with Araniello (Sept/Oct 2004 Dail Magazine) explains the difficulty;

I like the idea of art made by disabled people, of course I do, but what is disability art? (laughs) Is it saying that this work is only about disability and for other disabled people and interested parties in disability-related issues? Should we be using that term in the first place? I don't go round calling myself a disabled artist in the same way that I don't go round saying I'm a gay artist or a woman artist. I am an artist full stop.

(Araniello 2004)

A further issue concerning disability is the portrayal of people with a disability in film or video. Whether people with the specific disability should enact disability or whether an able bodied actor should be used to represent the disability presents a thorny problem. Certainly a competent actor could, empathically represent disability

and the problem of finding a disabled actor who has the specific disability may be large. Yet the issue of portrayal needs to be carefully considered.

My final comment on art and disability is taken from an interview with Alison Lapper. (Dail Magazine March 2004.)

As a disabled artist, I find it frustrating to be given a platform via the back door of an able bodied artist who is dealing with the issue of disability. I am not slating the guy (Mark Quinn) because his intentions were good, but I do just feel that if I had done that, would it be in the Tate Liverpool? I think not.

(Lapper 2004)

In some small way I would hope that this study applauds the contribution of the visually impaired section of what may be classified as a disability and is separate from any model of disability which attempts to demonstrate 'apartness'.

My aim with categorising the visual condition of the people used in this study is to gather insights into to process of seeing and understanding what is seen together with an aesthetic understanding of what is seen rather than patronising any section of society.

VISION AND SEEING

In this section, I shall look at different aspects of visual impairment, together with the implications of seeing. I will start by considering the physiological conditions of sight and will develop ideas concerning the visual dimension of artwork. I will finally touch on some of the psychological processes of vision and seeing.

From a physiological standpoint, vision is a complex process where light stimulus is gathered by the eye and is processed by the brain into meaningful information. This process is itself a complicated relationship between the physical activity of using ones eyes and the mental activity of processing the electronic signals that have been stimulated by light onto the retina and then transferred to the brain through the optic nerve fibres. Ernst (1992pg. 12.) provides an explanation of the intricate function of the eye by likening it to the mechanism of a camera.

The camera lens projects a reversed, reduced image of the outside world onto the retina - a network of photosensitive cells, lying opposite the pupil, which occupies more than half the interior of the eyeball. As an optical instrument, it has long been recognised as a small miracle. Whereas a camera is focused by moving the lens either closer to or away from the photosensitive layer, in the eye it is the refractive power of the lens itself which is adjusted during the accommodation.

(Ernst, 1992 pg 12.)

The above quotation gives an explanation as to how an eye functions mechanically but it does not supply us with any information as to how we understand, what we see and how we process and interpret the information received. Ernst (1992 pg.13) again takes us one step further into understanding vision with this additional explanation.

Within the brain, there is an area which specialises in vision; it is here that the retinal image is composed, albeit in brain cells. The more light that falls on a retinal cell, the more intense is the activity of its corresponding brain cell, so that the activity of the brain cell in our visual centre corresponds to the distribution of light upon the retina

(Ernst. 1992, pg. 13)

It is apparent that this physiological analysis of vision is based on a complex biological science, which is not a main feature of this particular study however, I wish to acknowledge the physiological process of seeing as instrumental in the understanding of what has been experienced visually and how the image is interpreted objectively. I will, through this study, develop ideas concerning conditions for seeing, in a way that specifically contributes to the theme of this study.

The quotations from Ernst in 1992 provide a traditional interpretation of the mechanical process of seeing. In 1996, Jaynes compared human sight with that of computer vision;

The importance of computer vision to the field of AI is fairly obvious intelligent agents need to acquire knowledge of the world through a set of sensors. What is not so obvious is the importance that AI has to the field of computer vision. Indeed, I believe that the study of perception and of intelligence are necessarily intertwined.

(Jaynes 1996. Pg 1)

www.acm.org/crossroads/xrds3-1/vision.html

Jaynes notes the importance that knowledge, context and reasoning hold, for the process of seeing and more importantly he notes that seeing is more than a physical process. (even for AI.)

Block (1998) talks about the eye's functions in his article 'Seeing Science' and states that for astronomy, 'the eye is both a poor and an excellent tool'. He claims that the eye is not suited for observing very faint sources (planets) but equally, are remarkable light detectors. However, the most interesting observation that Block makes in this article concerning sight is his claim for the eye to detect noise!

The other effect is even subtler. Guests will often describe how the 'blackness' of space in the telescope field of view seems to somehow shimmer or look spotted. This is actually noise in the signal from our eyes to our brain! Under very low levels it can look as if the background (not just in the telescope) is a dim version of static on television, rather than appearing completely black. The neurons that are connected to the cells on the retina can 'fire,' indicating a detection of light without any light

actually entering the eye. This level of noise is very low, but easily seen, and perhaps startlingly so, when you are in the dark.

(Block 1998, pg 3.)

www.noao.edu/outreach/nop/nophigh/eye.html

It would appear that the eye functions in other ways than only seeing and that seeing is more complex than the purely physical process of recording visual information.

Interesting as these issues are, they are not the main concern of this study and so after noting these disparate points. I return to the focus of the research programme.

There is a common misconception that blind people do not see visually. Many of the people, who are registered as blind, may have seen for some part of their lives. Others retain some residual vision, (although this will be obscured and distorted in some fashion) and even those people who are categorised as congenitally blind from birth may be aware of shadows, colour or light perception. The idea that people who are 'totally blind', 'see' a total blackness maybe completely false. As a congenitally blind person does not have any visual facility, the concept of seeing is as bizarre as asking a sighted person to 'see out of their elbows' (quoted from a congenitally blind person, see Observation sheet No.1). Congenitally blind people develop their involvement with their environment using their other senses, they evolve concepts, information and understanding without any visual reference and so visual references are devoid of practical meaning for congenitally blind people and only function as something that happens for others. The use of sight shows that although a large number of sighted people share the common visual stimulus of colour, shape identification, perspective, movement and tracking facilities and the understanding of spatial concepts, the intellectual processes used to identify and to understand what has been seen is varied and diverse.

It may prove useful to explore some of these common visual stimuli so that a fuller understanding of both seeing and not seeing may be revealed.

Colour and colour blindness.

Colour blindness is a frequent occurrence, it does not mean that people with colour blindness only see in black and white, but it does restrict the range of colours that may be seen. Some people with colour blindness may have difficulty distinguishing between reds and greens, other people may see their world in a range of 'muddy greys' whilst others may not be able to discern different tones of specific colours. Hobbs (1985. Pg.16) makes this observation regarding colour,

If we accept the idea of black and white and grey as being part of colour then we must say that colour is basic to all things. Not only that: colour is basic to other visual elements. It is through variations of colour that we distinguish shapes, lines textures and space.

(Hobbs, 1985 pg 16)

This scientific definition of colour does little to explain what their properties are, yet it claims an immense importance for colour within a sighted world. Colour can be described as the sensation produced on the eye by rays of light when resolved as by a prism. This again provides a description into the properties of seeing colour and also provides some conceptual understanding for a person blind from birth, but does little to explain the values of colour.

Hobbs (1985. Pg.16) adds to his explanation of the properties of colour with the following;

Words like red and green refer to hues, the qualities that differentiate one colour from another. Our perception of them is affected by the frequency of the light waves reflected to our eyes from the surface of an object, whether it be a green leaf, a poster printed with red ink or particles in the atmosphere that deflect the sun's rays and make the sky seem blue. Hue can be established with great precision by measuring light waves with scientific instruments, but for everyday purposes this is certainly not necessary. Three of these hues—yellow, red and blue

are called primary colours because they can be combined to create any of the others except black and white. (Hobbs 1985 pg 16.)

If we cannot see colour or are blind, we can appreciate a scientific explanation and through verbal descriptions, might arrive at a form of related sensory equivalent or substitution for colour. Also, by using a negotiated sensory substitution system, a representation of colour could be established, for an individual where colours could be connected with sensation, smell or texture. For some totally blind people an understanding of colour is not important, but for many totally blind people a knowledge of colour is important. (It has occurred during art lessons with visually impaired children, that some of the pupils have questioned the necessity of learning about colour as they are totally blind and will never see colour. Usually, pupils are content to learn about sensory stimulus that is denied to them because it is one of the characteristics of the physical world and although unseen is something to be aware of and know about.

Shape and shape identification.

Whilst the identification of shape and form can be an exclusively visual experience for the sighted person, it can also be defined as the tactile interpretation of a particular form or object for visually impaired people. Yet shape does present difficulties for blind people. Shape defines the contours of a form and in a diagrammatic illustration is usually defined by an outline. Hobbs (1985 pg.35) attributes the following importance to shape identification.

It was pointed out earlier that technically we cannot perceive shapes or anything else without colour, but we certainly can conceive of shape independently of their colour and we tend to see ourselves and the objects we live with in terms of their characteristic shapes. Indeed in our everyday commerce, shape may be more important than colour. (Hobbs. 1985 pg 35)

Shape is universally described as external appearance, guise, arrangement or proper condition. These aspects of shape have a special significance for people who cannot see, because the identification of appearance and condition is not so readily accessible. Shapes that are larger than two hand spaces in width tend to lose their value for blind people and whilst regular geometric shapes can be 'learnt' by regular reaffirmation of contour, organic shape cannot be fixed using this method. For sighted people, shape identification can be used to quickly establish the placing of an object, the recognition of an object and their own place in an environment, yet for a person who does not have sight; shape can present a somewhat nebulous confusion of soft and hard spatial areas. Sighted people can understand large shapes, which are reduced in scale, as representations of the larger shape, but again for a blind person, a shape can only be established dependant upon the external reach of the person and a scale representation has only the value of concept.

Perspective.

As a visual theory, perspective is an illusion of space experienced by sighted people to read and understand the environment in which they are situated. By ordering the images received by the brain through the eye, a sense of near, far away, high, low, up and down is established. Perspective is primarily a visual convention used in drawing which produces a two dimensional illusion of the size and relative position of visible objects. Yet even within this visual world, representations of space and perspective is dependent upon other issues such as culture. In Japan and China, objects are assumed nearer to the viewer if they are placed at the top of the picture plane, whereas in western countries objects are drawn smaller to indicate depth and distance from the viewer. Hobbs (1985 pg.43.) explains some of the methods employed to demonstrate the way artists have used some of the conventions of

perspective, which might have some bearings on how blind people can experience distance and proximity in relation to space.

One of the most obvious methods is the placement of things higher or lower in the picture because we tend to think of the things that are higher as being further away. Another is overlapping, one thing set in front of another, which also strengthens the impression of nearness or farness. A further set of cues is provided by the artist's use of ariel perspective a method that stimulates the effect of colour in the atmosphere. The most traditional system of spatial representation is linear perspective which dictates the relative size of things according to their distance from the viewer.

(Hobbs, 1985 Pg 43.)

For congenitally blind people, many of the visual clues such as overlapping, size and placement, need further explanation regarding these properties, and perhaps, as a result they have a value as being something that features in a visual world.

For visually impaired people, a sensory substitution system involving 'sound' could be used to provide a method of gaining a sensory impression of distance (and perhaps perspective). By using loud sounds to symbolise nearness and fainter sounds to represent objects further away, a concept of distances could be realised in a practical way perhaps more effectively than through verbal description.

Space and Spatial Concepts.

The concept of space is problematic for the visually impaired person, especially if blindness has been experienced since birth. If 'position' within an environment, functions as an abstract concept, (as it may do for the congenitally blind from birth) then, concepts such as up, down, above, below, sideways, left and right need to be discussed, described and understood in order for the physical qualities of space to be appreciated. This concept of one's place in relation to space provides much scope for speculation. People who have been totally blind from birth receive much from what is considered 'the outside'. As children, their requests for most things appear in their

hands, unseen and disembodied. Any sequencing of events to account for the sudden realisation of these request, are unavailable. Any manufacturing processes need to be explained and described, as clues to the procedure are absent. If food is required, it materialises as if by magic, different rooms or places are established after a period of time and after being guided in unknown directions. Sounds happen suddenly without warning. Smells suddenly become apparent and temperature changes materialise without explanation. The environment for visually impaired people can appear to be a very unpredictable and confusing place for which Hobbs. (1985 Pg.37) offers a visual explanation relating to boundaries:

Space is really seen by its boundaries, where it touches objects and other solid shapes. For example the space of a room is defined by the ceiling, floor, walls and other things in the room. By looking at these things we can see the space well enough to describe it. (interior space is sometimes referred to as volume). Outdoor space is defined by the land, trees and buildings it touches (while its outer limits may be the horizon and the dome of the sky)

(Hobbs, 1985 Pg 37.)

Space impacts upon blind people in an insidious manner. Although every visually impaired person is involved with space, (by being physically present in space) unless it is described, explored and understood by the blind person, it completely confuses them. If a blind person is suddenly left in an unfamiliar area, they will in all probability, be seen by a bystander, at their most vulnerable. Through orientation and mobility a blind person can learn to manoeuvre safely within any strange environment, yet it can often be a painful and confidence sapping experience. In adapting to new environments any secondary aesthetic values that may be attached to a space can only be explored once the blind person is at ease with the space and is confident to explore the qualities and features enclosed within the defined area.

The relationship between blindness and the environment is a fundamental conflict. Unless the blind person is totally passive their engagement with their immediate environment is one that generates confrontation. From the initial stages of avoiding injury and moving around safely, a visually impaired person will develop a range of strategies to understand, negotiate with, and control that environment using 'other than sight' techniques. These 'techniques, (explored within this study) will shape and form any aesthetic understanding developed by visually impaired people.

Arguably, the main sense engaged with aesthetic understanding is that of sight. Through sight we receive images, which are transferred to our brain. This image is registered, interpreted, recognised and understood. These images are then offered and matched with any residual memories which have already been assimilated and stored from a previous encounter. This 'previous encounter' is both a mental interpretation of the physical sensation produced by the external stimulus and/or is an intuitive impression, based on conceptual knowledge. When the eye is stimulated, the brain interprets the messages depending upon 'what is already known'. If some knowledge is already present then the received image reinforces that impression. If the message received is a new experience, and then the new information is examined, registered and recorded along with any physical sensations and other subliminal subjective impressions gathered at the time. What we see depends on how we see, on the form of the visual information, past experience and the social/environmental content. What we see also depends upon the 'moment' of seeing. This being the position of the seer in relation to time (the persons point in time), the place, and the moment of intellectual development of the person when they actually see the object. It can depend upon whether there are any emotional triggers attached to the object and

what we see can also depend upon how others interpret what they think we see.

Initially every sighted person must register first visual impressions and any incidental sensory input gathered at this time will shape and form that impression. If no sight is present first impressions rely on other sensory inputs yet any reference to a singular sensory input will trigger a collective response.

By looking at the images made by children we may be able to reveal some insight into a direct visual response to external stimulus. This in turn may offer insights into non-visual responses to external stimulus and may provide information regarding the use of a 'non visual ordering.'

Rhoda Kellog, in her book *Analysing Children's Art* (1970) has made several important observations regarding the mental and physical development of drawings made by children at various chronological points in their development. This information is important as Kellog considers these 'scribbling' to be a child's earliest form of aesthetic ordering, which appears to parallel the blind person's attempts to define boundaries and space in new situations. Even though Kellog's ideas have been questioned in recent years, in my opinion, it is still of value to consider her findings and to compare them with the imagery made by visually impaired people

Kellog examined thousands of children's drawings to see if there were any shapes or designs that were repeated by the children. Kellog (1970.pgs.14-43) has collated the resultant information as follows;

1. Basic scribbles, including the placement of these scribbles.
(Up to two years.)
2. Single type scribbles. (one per page.) Two to four years.
3. Diagrams, with single lines to form crosses, circles and triangles. Three years onwards.
4. Combined diagrams. Three years onward.
5. Pictorial stage. Four years onward.
6. By five years children are taught to copy schemes favoured

by society and by eight years of age most children stop all
spontaneous art activity. (Kellog, 1970. Pgs. 14-43.)

The children's patterns and placement of scribbles were catalogued into seventeen different categories, (the dot, the vertical line, the horizontal line, the multiple diagonal line, the multiple curved lines, the roving line, the zigzag line, the looped line, the spiral line, the overlaid circle, the multiple circle, the circular line and the single circle.) The diagrams were ordered into six different types, five being regular shapes, the rectangle, (including the square.) the oval, (including the circle.) the triangle, the Greek cross and the diagonal cross, the sixth, the odd shape was any deliberate line formation that enclosed an irregular area.

In the children's pictorial stage, apart from drawing humans, the groupings of pictorial imagery was as follows, animals, buildings, vegetation and transportation. Although her views are contested, Kellog offers us one insight into the types of images we might expect from children as they experiment with mark making and with their basic ordering processes of line and shape. Kellog's explorations also provide us with an insight into what may be a visual expectation by any other person viewing the basic drawings and by the child themselves with this early experimentation. Any viewer of a child's earliest drawings may encourage or discourage the child by making comments. Equally, the child's own early image making may be a response to an 'inner' aesthetic ordering process that is reinforced by the physical act of mark making.

Colwyn Trevarthen, in his article *Mother and Baby* (1995. Pgs. 170-171) provides us with some further information on how children see;

The earliest art productions of children are not representations; They are active and conversational inventions, dramatic or historic icons, full of feelings which seek affirmation and fear disapproval. Toddlers use simple stereotypes to evoke meanings and they distort representations to convey the relative importance or vitality of the things that hold their interest. They are not trying to recreate things as seen, caring little for realistic resemblance. Portrayal of reality with the aid of graphic conventions is learnt inside the energetic line of an intuitive communicative movement, part of a whole dramatic statement.

(Trevarthen. 1995. Pgs. 170-171)

Trevarthen talks about youngsters using stereotypes as symbols for representation in their artwork. These stereotypes are the children's earliest attempts at recording their basic aesthetic model, as apart from the representation, the children use a flourish or embellishment, a gesture or posture, which is a personal mark or movement.

However, whether this indicates that these personal statements are dependent upon a personal ergonomic is questionable. If this is so, then, any aesthetic judgement may rely upon this human proportion and the resultant mark making that are physically bound. Perhaps our sub conscious links into this and offers these symbolic mark making representations to a generally accepted pattern and if it falls within an acknowledged criteria, then it is accepted as aesthetically pleasing and as such, the personal mark making becomes an aesthetic act.

In the times when mankind was developing from its primitive state into one of 'settled agriculturist', the recognition, identification and manipulation of objects and images were an empowering facility. (7) Recognising edible berries, identifying medicinal plants and being able to distinguish safe and dangerous animals ensures safety, yet this use of vision were purely a reactive impulse. As society developed, seeing became a tool of power. The 'all seeing eye' of a God figure established not

7. 'The artist of the Palaeolithic period apparently did not distinguish between the images he created on the walls of the caves and the reality or fact that was pictured. To him the image was reality, not a symbol or spiritual essence.'

(Myers, 1967. Pg. 8)

only the registration of religion, it also gave power to the people who affirmed 'His will'. The all seeing eye of the God cowed believers into obedience, the confrontational glare of the righteous, subjugated the vanquished and even a stern visage could make a less confident observer, unsure. World religions harnessed the power of vision and imagery as an instrument of propaganda, where the initiated could see the images and understand the symbols and inherent messages. They became safe within the family of their faith.

In 1529, Albrecht Altdorfer painted his Battle of Issus (Alte Pinakothek Munich.) this shows Alexander the Great defeating Darius III of Persia in 333.B.C. The viewpoint of this painting is elevated so that the viewer is looking down upon the battle. The massed armies are small and seemingly insignificant and it could be interpreted that this is God's viewpoint as He looks down upon the ambitions of mankind.

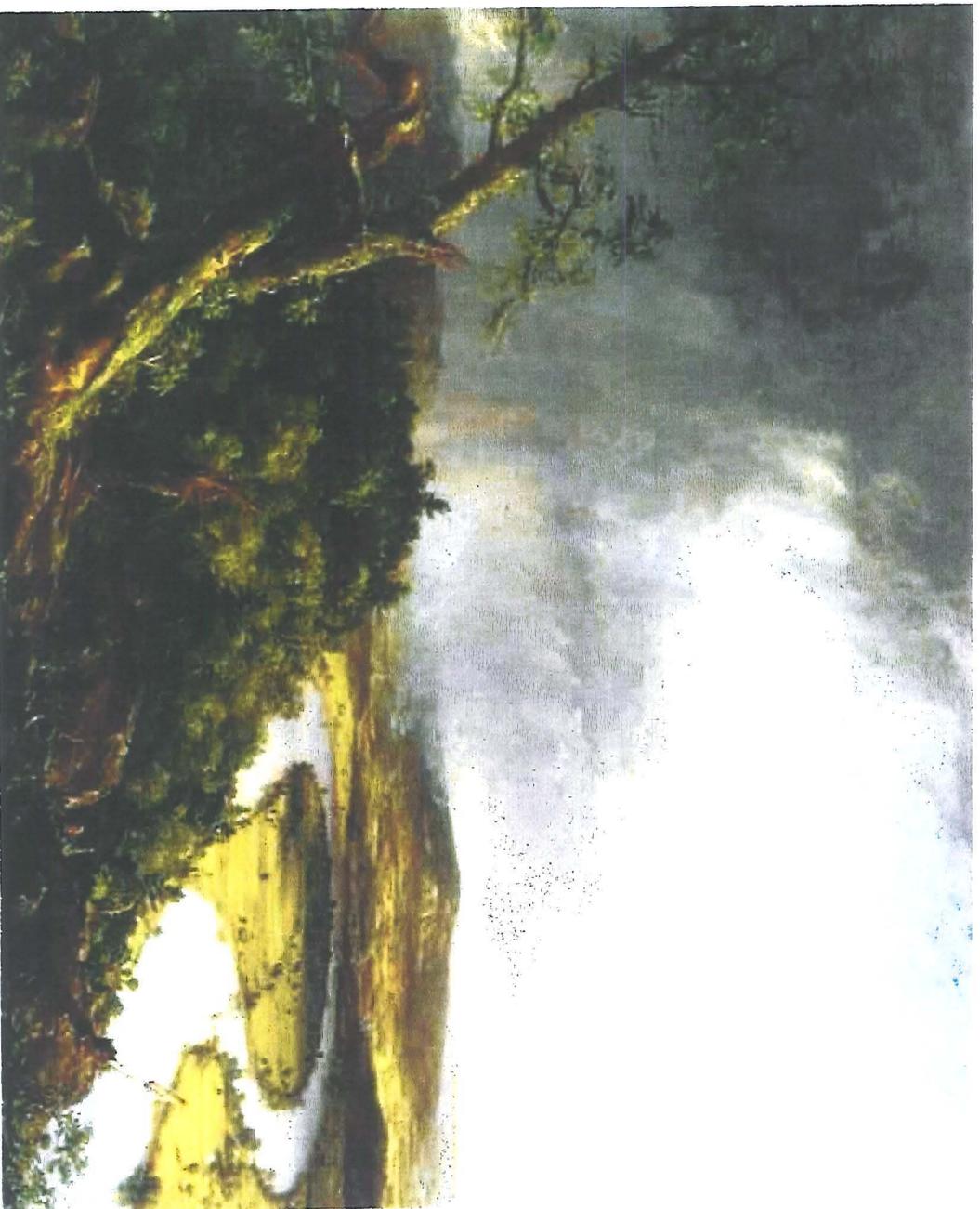
This elevated viewpoint was developed further by the artist Thomas Cole (1801-1848) in his painting The Oxbow (1836) (Metropolitan Museum of Art, New York) Alan Wallach noted this 'new perspective' with this observation;

the 'panoptic sublime drew its energy from prevailing ideologies in which the exercise of power and the maintenance of social order required vision and supervision words equally applicable to panoramic views and to the operation of the reformed social institutions of the period.

(From the Panoptic Sublime and the Formation of the American Citezen, in Cooper's Wing and Wing and Cole's Mount Etna from Taormina, Sicily.

(Brigitte Bailey <http://www.oneonta.edu/~cooper/articles/suny/1997>)

Visual imagery has developed into a very sophisticated method of relaying messages either overtly or covertly between people. The use of sight has also been developed to give power to being either seen or unseen. Counter to the power of having sight, there



The Oxbow, (1836), Thomas Cole. The Metropolitan Museum of Art, New York.

is the power of 'nonsight'. Supposed magical powers were bestowed upon those who did not see and even today, in Africa and some Middle Eastern countries, people who have no sight are considered to be special or marked by God. The artist, Skapski (2000) has exploited the effects of vision in his Light Works exhibition. One particular exhibit 'Enlightenment Device NDO-1 provoked this explanation from the artist.

This easy to use device allows the user to cross the barrier of darkness and to take a long lasting look inside reality. This is the good news, however, is that this device can be used only once and has serious side effects including lasting blindness; damage to the cornea; damage to the eyeball, eye foundation and retina; and other damage.

(Sapski, 2000. Pg 25.)

The article continues with the following reflection;

Is Skapski being ironic? Or is he being deadly serious/ Is his point that we simple mortals cannot attain the highest level of spirituality, and even to attempt to do so a sacrifice must be made. In this case it is our sight. Only through physical blindness can we see the true light.

(Shapski, 2000. Pg 25.)

Shapski infers that our ability to perceive physical reality blinds us to an inner spiritual beauty. Apart from the 'magical or spiritual qualities of being able to see what others cannot, there is the physical power of seeing better than most. This ability to see further than anyone else is the athlete's power of superior strength, which in turn is attributed to the qualities of a superior being. The modern day comic strip hero, Superman has been empowered with X-ray vision and heat vision to help him overcome the enemies of good, surely a propagation of the power of sight? To develop the idea of a Superman and to link it with the concerns of visual impairment, we may consider the reasoning of Nietzsche. Nietzsche was a nineteenth century poet and philosopher who questioned the conventional opinions of his day, because these opinions (in his opinion) served as so many barriers to a fuller and

richer human experience. The History guide web site explains some of Nietzsche's views as follows;

Against the tendencies of bourgeois society, Nietzsche stressed that man ought to recognise the dark and mysterious world of instinct—the true life force. Nietzsche wrote 'You must become who you are. Excessive rationality, an over reliance on human reason does little more than smother the spontaneity necessary for creativity.' For man to realise his potential, he must sever his dependence on reason and intellect and instead, develop his instincts, drive and will.

<http://www.historyguide.org/eurpoe/lecture3>.

How does this reflect upon people with a visual impairment? Certainly, visually impaired people have to develop strategies for human experience differently than fully sighted peers and perhaps the use of instinct, supposition and impression is used to a greater degree. If this is the case, then Nietzsche may have found a visually impaired person close to his 'superman' ideal. However, Nietzsche warns against 'excessive rationality' and for many visually impaired, the primary way to develop an understanding of something is through careful and painstaking exploration. This method of concept development would surely run counter to Nietzsche's views. If we next consider the relationship of visual impairment together with the visual concepts of beauty, we may gain some further insight into the processes of vision and seeing.

One of the basic criteria for the establishment of aesthetic understanding is the qualification of beauty. Beauty, according to **Dictionary.com**, is the quality that gives pleasure to the mind or senses, and is associated with such properties as harmony of form or colour, excellence of artistry, truthfulness and originality. It is also a quality in a person or thing that gives pleasure to the senses and pleasure is qualified as being a sensual gratification and a source of delight or joy. With a visual impairment there is a major concern regarding any aesthetic understanding and the

problem of not being able to see those things considered having aesthetic merit.

Although the dictionary term qualifies a 'sensual gratification' and this could be argued to be involved with more than visual stimulus, the understanding of beauty as a visual commodity needs to be examined.

When we examine aesthetic understanding, we are concerned with concepts of truth, order and symmetry, which are believed to be fundamental to the conditions of beauty. Appelbaum, in his book, *The Vision of Kant* (1995. Pg 165.) explained Kant's ideas of beauty quoting from his *Critique of Aesthetic Judgement*.

If we wish to discern whether anything is beautiful or not we do not refer the representation of it to the object by means of understanding with a view to cognition, but by means of the imagination, (acting perhaps in conjunction with understanding) we refer the representation to the subject and its feeling of pleasure. The judgement of taste, therefore is not a cognitive judgement, and so not logical, but is aesthetic—which means that it is one who's determining ground cannot be other than subjective.
Appelbaum, 1995. Pg 165.)

On asking some visually impaired people on their understanding of beauty, they informed me that the question did not make any sense to them as they judged other people by their personality. Personality was determined by the liveliness and sense of fun the person in question held. My question was countered by a returning question as to whether a 'sense of fun' could be considered to be beautiful. (See observation Sheet No.001.)

Subjectivity, as a condition arising from the mind, does not present any difficulties for visual impairment, but there is a problem with how and what information is received by a mind that does not have the benefit of sight. In order to develop this idea Kant's (1995. Pgs. 164-166) theory concerning representation and the building of cognitive facilities could be helpful. Appelbaum states;

To apprehend a regular and appropriate building with one's

cognitive facilities, be the mode of representation clear or confused, is quite a different thing from being conscious of this representation with an accompanying sensation of delight. Here the representation is referred wholly to the subject, and what is more to its feeling of life-under the name of the feeling of pleasure or displeasure- and this forms the basis of a quite separate faculty of discrimination and estimating, that contributes nothing to knowledge. All it does is to compare the given representation in the subject with the entire faculty of representations of which the mind is conscious in the feeling of its state. Given representations in a judgement may not be empirical and so aesthetic; but the judgement which is pronounced by their means is logical, provided it refers to the object. Conversely be the given representations even rational but referred in a judgement solely to the subject (to its feeling) they are always to that extent aesthetic. (Appelbaum, 1995. Pg 164-166.)

Kant offers us a model for the appreciation of beauty yet he qualifies that appreciation by stating that in order to fully understand the diverse aspects of beauty we must also be indifferent to it. If you cannot see beauty, but can understand the concept of beauty, then a visually impaired person may be considered by Kant to be an ideal person to fully appreciate the aesthetic qualities of beauty. Gombrich, (1994 pg.17) re-inforces the dangers that the contemplation of beauty may hold for an onlooker;

Ornament is dangerous precisely because it dazzles us and tempts the mind to submit without proper reflection. The attractions of richness and splendour are for the childish; a grown up person should resist the blandishments and opt for the sober and rational. (Gombrich, 1994. Pg 17.)

Gombrich (1994. Pgs.18-19) further develops the theme of this discussion with the following comment;

If we believe Plato, it was Socrates who constantly urged his disciples to be on their guard against the attractions of fine speech precisely because he was aware of their powers of seduction. The tricks and ornaments of sophistic oratory could easily deflect the hearer from the argument in hand. (Gombrich, 1994. Pg 18.)

In some ways, the sense of sight takes away as much as it gives. Seeing offers a person a more instantaneous way of perceiving something within the environment, but in order to fully understand this 'thing', an engagement with all the senses will

provide a more comprehensive knowledge. A visually impaired person may listen far more attentively to what is being said whilst a sighted listener may be distracted by the visual appearance of the speaker, or by something else within the area of the conversation. The touch of textile will inform a person of much more than simply seeing it. Smells can summon up an atmosphere of a place (musty, claustrophobic) which sight alone cannot fully appreciate? A complete sensory input leads to a more complete knowledge of the object, but this does not mean that without a sensory input you can have no knowledge, it means, only, that the knowledge is altered and thereby different. It could be argued that by excluding the whole or part of one sensory input, the other senses react and compensate in a manner, which defines the object of study to a point where the difference in understanding is impossible to gauge.

Out of all our senses, though, vision is considered to be our major sense. Certainly from the eighteenth century, 'image' has been regarded as the major vehicle for the representation for ideas. Classen (1993. Pg.5) notes that the transition from a hearing culture to a sight dominated culture began much earlier, at the 'dawn of civilisation'.

The invention of the alphabet marked the beginning of a transformation from a hearing dominated to a sight dominated culture.

(Classen, 1993. Pg 5)

Jay (1998.pg.3) develops this idea with his claim that sight is the dominant sense in Western culture and he further develops this idea to include his perception that 'physical vision' is the dominant sense.

It is difficult to deny that the visual has been dominant in the Western culture in a wide variety of ways. Whether we focus on 'the mirror of nature' metaphor in philosophy with Richard Rorty or emphasise the prevalence of surveillance with M. Foucault or bemoan the society of spectacle with G. Debord, we confront again and again the ubiquity of vision as the master sense of the modern era.

(Jay, 1998. Pg 3.)

Slolerdijk, (1987.pg 145.) with the following statement suggests that vision is

dominant even in physiological areas.

The eyes are the organic prototype of philosophy. Their enigma is that they not only can see but are also able to see themselves seeing. This gives them a prominence among the body's cognitive organs.
(Slolerdijk.1987.pg 145.)

It is apparent that vision is much more than mentally recording what is visible. What we see leads directly to the consideration and the questioning of 'What do we think we see?', and by developing further, this strand of exploration we are led to the further speculations of;

What do others see?

What do we **think** others see?

What do **others** think they see?

In many cases seeing is also subject to the same conditioning procedures as intellectual development. Hobbs (1985 pg 45.) again helps with the development of this strand of thought on the process of seeing. He states,

What we see depends in large on 'how' we see. Our perception of even such an ordinary object as a hamburger is affected not only by the visual data of its shape and colour but also our knowledge of hamburgers-which includes such things as their taste, smell, feel and ability to satisfy hunger.

(Hobbs, 1985. Pg45.)

The original question, (concerned with aesthetic understanding and visual impairment) asks that an investigation be made regarding the relationship between what an artist has made and what the viewer (visually impaired person) understands by looking at the artwork. Sometimes the person, who is regarding the artwork, will imbue the work with a different interpretation than was intended. Without sight, it is equally possible to understand unseen information in a different way from the intentions of the maker of the artwork. By not seeing the artwork, a different emphasis may be placed on a tactile influence or a sound or smell which will create an

alternative impression. Other ways in which 'unseen' information is received, is through descriptions from others, personal interpretations dependent upon earlier experience, personal cognitive reasoning and individual imagination. (interestingly none of these facilities is dependent on sight or non-sight).

The processing of any of the information received adds to the various 'forms of seeing' (8) that is engaged by everyone, (sighted or non-sighted) during the process of concept building.

Due to several supporting issues being important, integral parts of this study, investigations will be made into the following areas;

- **the use of language used by visually impaired people.**
- **cognitive development and visually impaired people.**
- **the development of imaginative processes used by visually impaired people.**

These issues will be integrated and compared with the information revealed by the main study into vision and seeing.

8. The way in which people see can be classified into a range of physical and mental stances, confrontational staring, wistful gazing, voyeurism, compassionate looking and furtive glances, all of which imbue the 'owner' of the particular method of seeing with some sort of power. Berger (1977) provides some useful insights into the way we see.

NOTES TO CHAPTER ONE.

1. Know how to help the child use his hands and fingers for their maximum efficiency. By standing (or sitting) behind the child the teacher can facilitate exploration of objects by placing his hands over the child's and showing the child the various aspects of different objects. With the teachers fingers as a guide, the child can examine the whole object and analyse its component parts.

2. Understand that it takes time and intense handling to explore objects in depth if clear concepts are to be formed. In the absence, or limitation, of sight, the teacher must be aware that extra time may be necessary to understand objects being examined. The child may need to explore objects several times before a clear understanding of it takes place.

3. Use generative questions in order to provoke the spirit of inquiry and stimulate imagination. Ask the child questions that will elicit from the child his thoughts and ideas. For example, as a child examines an object, ask him to Describe it, to tell whether it looks like anything else He's seen, to tell whether or not he likes it, and why, etc. Avoid questions which result in a yes-no type of response.

4. Use vocabulary that is rich in descriptive terminology and that describes qualities in the 'experience realm of his remaining senses.' Be conscious of using words which relate to the sound, smell, touch and if appropriate taste of an object. These sensory experiences have a real and rich meaning for the child and will enhance creative ability. Use of visual words, such as colour, do not have the same richness of meaning for the totally blind child and will stifle his ability to express himself. For the youngster with limited vision, use of visual words is appropriate, if consideration is given to the child's specific visual needs, that is, the degree of description necessary will reflect the child's field of vision, near and distance vision colour vision, overall blur etc.

5. Understand the importance of first hand experiences with all objects used in daily life as well as basic geometric forms and their names so that one has the basis for describing newly experienced objects. The importance of interacting with objects cannot be minimised; the child must feel and actively handle, listen, smell and taste (if appropriate) in order to know. Building in a rich descriptive vocabulary provides the child with the verbal tools he will need to incorporate new and complex objects into his repertoire of experiences.

6. Be aware that many things that sighted people know, blind people can only come to know by the skillful use of analogy (e.g. sky shadow). There are many experiences which totally blind children cannot enjoy by virtue of their lack of sight. Rather than avoid the words totally (e.g. sky) the teacher should try to convey the concept to the child in

terms of what already exists in his world. Thus, for a young child, perhaps picking him up in an outdoor environment and having his arms up and reaching, coupled with an explanation that as far up as anyone could reach, it would feel like that, might start to convey a sense of what the sky is.

CHAPTER TWO

LITERATURE SEARCH.

The principal focus has been on literature concerned with aesthetics, visual impairment, the development of human understanding and on orientation and mobility training for the visually impaired. Additional attention has been given to the specialist materials and publications dealing with general disabilities. Whilst the main thrust of this research is with visual impairment, much general information can be gathered from publications such as Disability Arts in London (DAIL) and Disability and Society.

The specialist library at the Royal National Institute for the Blind has been a major source of information.

This library holds the largest collection of information and materials concerned with blindness and partial sight in the United Kingdom and apart from loaning out books, will provide bibliographies listing articles regarding specific aspects of visual impairments and will provide a photocopying service for any of the articles required.

For the purposes of this particular research, the main areas of concentration have been in four specific areas. These being;

- **Psycho/social Aspects of Visual Impairment.**
- **Spatial Perception in Visually Impaired People**
- **Art Appreciation by Visually Impaired People.**
- **Orientation and mobility.**

These specific areas are featured in the R.N.I.B. cataloguing scheme and each of these sections are supported by a bibliography which references all known national and international information currently available.

Many of the articles on aesthetics, visual impairment and the associated subjects are available through the use of the R.N.I.B. library web site.

<http://www.rnib.org.uk/library/research>

There are several specialist journals dealing with all aspects of visual impairment.

The most prominent ones are;

- **New Beacon.**

This journal is published by the R.N.I.B., it is a monthly journal dealing with all aspects of visual impairment.

The November 2000/V 84 No. 991. presented the 'Shaping the Future' report on the needs and aspirations of blind and partially sighted young people. This report focused upon the educational opportunities, social and leisure activities available to the visually impaired and looked into the problems visually impaired people have with 'getting out and about.'

- **Positive Vision.**

This is a quarterly magazine published by a 'self help' group of visually impaired people. The group specialise in the creative arts and the magazine features poetry, creative writing, artwork and information of current issues pertinent to visually impaired artists. For example, the summer 1999. issue has information about the British Blind Sports Archery group alongside some very accomplished pen and ink drawings by Rosemary Carter, (Rosemary is a subject of one of the main study

interviews) and a whimsical article concerning the King's German Legion at Bexhill.

- **The British Journal of Visual Impairment.**

This is for all professionals concerned with children and adults who have a visual impairment and provides a national forum for all views on related subjects. Some of the issues examined range from looking at Queen Alexandra's College, where the article discusses the changes in philosophy and curriculum that have taken place over the last three years, to an article on face recognition by visually impaired children.

- **Visibility.**

This journal is published by the R.N.I.B. and is for parents and professionals concerned with the education of children with impaired vision. This journal focuses upon specific aspects of visual impairment, such as Early Childhood, (Spring 2000), Numeracy, (Summer 2000) and Mobility (Summer 2000).

- **Eye Contact.**

This journal attempts to meet the needs of children with impaired vision and additional learning difficulties. The journal is published termly by the R.N.I.B. and is similar to the Visibility journal, the issues addressed have been, Holidays and Leisure, (Spring 2000), Disability and the Family (Summer 2000) and Technology (Autumn 2000)

- **Look.**

This is a monthly magazine produced by the National Federation of Families with Visually Impaired Children. The magazine (Autumn 2000) supplies information

regarding self help groups and articles on massage therapy to help with the bonding between parent and baby.

- **Focus.**

This is a monthly newsletter for all staff dealing with people with visual and learning difficulties. In these newsletters, fact sheets are regularly supplied to help and inform.

The current fact sheets are;

Hints on teaching skills to people with visual and learning difficulties.

Looking for eye problems in people with learning difficulties.

Access to eye care for adults with learning difficulties.

How to get the best out of sight testing of adults with learning difficulties and/or no obvious means of communication.

- **DAIL (Disability Arts in London.)**

DAIL publishes news, views, previews and reviews of the work of disabled artists in London and beyond. It provides a forum where people can express different views about all aspects of disability arts.

Each of these publications concentrates upon specific issues concerning visual impairment, multi- handicaps, education and learning difficulties. They provide information about current scientific developments, social events, conference reports, services for the families and for visually impaired people, current debates and general information for and about the world of visual impairment and about disabilities in general. Often the articles provide little specific information concerning aesthetic understanding and visual impairment but the information adds to a general fund of information that helps to build a more complete understanding of sight loss.

The R.N.I.B. has produced a number of videos for both parents and professionals dealing with the conditions of visual impairment. The most important titles are:

- My Baby is Blind. (Parents talking.)
- Moving On. (Children actively exploring their environment.)
- Sounds Important. (Making sense of the world through sound and music.)
- Clap your Hands and Stamp your Feet. (Babies and young children learning through play.)
- Its Me. (Demonstrating language and communication skills with developing independence.)

The internet has become an increasingly useful feature for this research and a list of the main sources have been included in the appendix.

Correspondence and dialogue with teachers of the visually impaired and other professionals who work with and for the visually impaired has been encouraged and is ongoing.

Current associations have been with;

1. The Chelsea College of Art, where a student undertaking an M.A. in multi-sensory educational environment/equipment design, is investigating how visually impaired children perceive their surroundings.
2. The Helen Hunt Research Centre. (Royal College of Art.) where some of the pupils from the Dorton House School mounted a joint exhibition with the Korean Association for Blind Artists. (the Korean blind artist do not have a tradition of two dimensional work created by blind artists and were very interested in the artworks produced by the pupils from the Dorton House School.)

Further Professional Bodies used and consulted in the process of the research.

Art Through Touch: Is an expanding London based art organisation which aims to promote and provide access to art for visually impaired people. Activities include talks and seminars, art workshops, visits to museums and galleries working to secure equality of access and provision of art related information in accessible formats.

The October Gallery.

The October Gallery is an art gallery dedicated to the appreciation of art from all cultures around the world. The gallery exhibits and promotes art of the 'transvanguard' - or trans-cultural-avant-garde- that is to say, the work of artists who, while working at the forefront of their own respective cultures, assimilate into their work elements from other cultures as well.

Many of the exhibiting artists offer workshops to children from all schools where the children can learn about the artists, their inspirations and can produce artworks under the guidance of the artist.

Towards the end of my study programme I became aware of the publication *Art Beyond Sight*. (2003) Axel E.S. & Levent N.S.. This book is a compilation by a number of people who have investigated diverse aspects of visual impairment. Each person offers information, insights and practical advice for anyone who is interested in working with people who have a visual impairment.

Literature Search Conclusion.

A major concern for this research question has been the balancing of several areas of investigation through the literature search. The focus of these investigations being, the relationship between artwork and the blind, those of establishing what is meant by the term 'blindness', together with the developing awareness of psychological influences concerned with the act of both seeing and not seeing. The research has also considered the impact that physical disability may hold over someone who experiences both visual impairment and physical disability.

In order to progress the research, it has been necessary to 'straddle' these specialist disciplines and to weave together ideas, philosophies and theories from these separate areas.

This research has developed into a hybrid, which raises issues for art, psychology, disability and for visual impairment.

For this reason there has been no specific area for empirical research, but I have borrowed freely from the diverse specialisms of art, theories on aesthetics, papers written on psychology and philosophy and from books concerned with the understanding of the implications of sight loss.

Despite the disparate nature of these studies, I have drawn inspiration from the following authors.

- Dennett. D. (1991) *Consciousness Explained*.
- Gregory. R. (1995) *The Artful Eye*.
- Pinker S. (1994) *The Language Instinct*.
- Solso. R.L. (1994) *Cognition and the Visual Arts*.

Whilst working with the visually impaired between 1991 and 2002, I was able to absorb much incidental information regarding the blind through the circulars and the

magazines I have listed. Whilst this information had little direct relevance for the research it provided a sound basis for the research programme to progress.

THE PILOT STUDY.

Before embarking upon a main study, certain trials took place to establish the parameters of the research. By using a pilot study, questions could be refined in preparation for the main study. A clearer understanding of the information required could be established and the precise tool for gathering information could be perfected. The original method for the collection of data was through the use of a questionnaire. (see appendix). At this stage, it was considered pertinent to divide the categories of the questionnaire into four groups, blind children, blind adults, blind artists and adults who worked with blind children. By using these separate groups I hoped to explore and gather opinion from a wide and substantial group of people. With the first two categories, I hoped to establish if there were any common sensory links for blind people, with shape, smell, colour and texture that differed from the links that sighted people held. I also wanted to see if there were any special linking between language and pictorial imaging. Finally I wanted to see if links were made by blind people through these sensory and verbal stimulus and their immediate environment which might reflect upon the research question. No specific patterns emerged from the questionnaire, yet it was clear that the appreciation of art and the understanding of those things considered artistic was important to people who could not see visual artwork. Each contributor held positive and reasoned opinion concerning colour, shape, texture and the use of language as a vehicle to describe those things concerned with artwork. The last two categories were abandoned almost immediately, the 'blind artists' category was included with the revised questionnaire for adults and was developed further into a dialogue scenario. The fourth category was never developed. I recognised that, adults working with blind children, can influence and develop the children's opinion and values regarding the understanding and appreciation of

artwork, but any decisions regarding the level of this influence could not be measured accurately and therefore would not help this research. As a result of these questionnaires, ideas regarding colour and any associations colour held for people who cannot see colour, were explored. Any sensory substitutions, visually impaired people found useful whenever they needed to understand something they could not see, associations of words with shapes, the appreciation of artwork and the recording of any instinctive aesthetic behaviour, completed the pilot study.

As specific visual impairments influenced the responses to the questionnaire, each participant was banded into one of the following categories;

Blind from birth. These people would never have seen and would have no visual experience. It was hoped that this category would provide some interesting insights into how people who had never seen considered visual phenomena.

Had sight but are now totally blind. (Having some visual memory.)

This group of people have some visual understanding, they also have some visual memory. However, these visual memories may be different due to the specific impairment of the person. For example, if the residual vision was of a quality where the definition of objects was impossible yet a perception of light was present, then the visual memory will be of light perception and of colour. The visual memory can only be based upon those things actually experienced.

Still have some sight but are registered as blind.

Each member of this category will have some form of eccentric or flawed vision. Their resultant visual experience may influence their aesthetic understanding in some way, but an appreciation of the methods they employ in order to gain knowledge of

visual information may help this research.

This third category is extremely broad but any attempt to separate this category further would not add to the quality of the information gathered and does not degrade the quality of the data received.

The subjects chosen for the pilot study were gathered from three target groups.

Secondary pupils attending the Dorton House School.

Each of the secondary pupils study art as a compulsory subject from the age of 11 to 14 and can opt to study art for a further two years, either as an examination subject at G.C.S.E or Cert. Of Ed., or as a leisure activity. Most year groups produce a 30% to 60% take up on the option.

It was considered that by using this particular age range of pupil as a target area, a balanced response to the questionnaire would be produced. Not only would information be gathered from pupils who were interested in art, but, opinions and impressions would be obtained from pupils who were less supportive of artistic endeavour. (These impressions could comply with the 'disinterested evaluation' that Kant considered important with the understanding of aesthetic appreciation.)

The main disadvantage of this subject group may be that the information offered by them, could be unoriginal. Pupils might respond by providing the type of information they felt was required and by being in a classroom situation, they might consider that the data should be linked into a lesson format that was taught in school. (This in fact proved to be the case and although a little subjective material was revealed, the questionnaire reflected some of the learning processes used in primary education, where shapes and colour are often learnt by rote.)

Primary pupils at the Dorton House School.

By using a simplified questionnaire with a group of primary pupils, an attempt was made to see if any raw instinctive data could be gathered. If any information was revealed, it could be compared with the data gathered from the other two categories. However, from this particular sample, further reiteration of teaching processes became apparent. For example the colour yellow was associated and linked with a round sun shape. The letter 'O' was described as a 'round' sound and the letter 'W' was explained as looking like a 'wiggly worm'. I had hoped that some of the random mark making displayed by the primary pupils would indicate some preference for either geometric shapes or organic shapes. I had hoped that some pupils may link shape with specific colour and perhaps word meanings may provoke verbal images that could be described by the pupils and offered for comparison with other verbal images gathered from other sources, unfortunately at this stage, this did not happen. Whether at this point the expectations were too simplistic or whether the search for data was not focused correctly it became apparent that further reflection was necessary.

From this sample questionnaire, it was decided that a different method of data collection was needed, further reflection upon the questions asked and consideration upon the choice of a subject group was extremely important.

Whilst the pilot study provided an insight into how visually impaired children learnt and understood their immediate environment and provided an insight into visualisation techniques used by visually impaired children, it did not produce data into instinctive aesthetic ordering. Neither did the information gathered produce insights into instinctive aesthetic responsiveness that may be present within us.

Visually impaired adults.

The subjects for this category were chosen in two ways, either from responses to an advertisement placed in a magazine issued by the Kent Association for the Blind, or from a recommendation from Professor M. Tobin. (Principal of the Research Centre for the Education of the Visually Handicapped, at the Birmingham University.)

These subjects polarised into two sub-groups:

Visually impaired people who were interested in art. (and the processes needed by visually impaired people to produce artwork.)

Visually impaired people who had become visually impaired and wished to discuss the problems of 'not seeing'. (art was of secondary importance to them.)

Following on from the 'initial questionnaire' used with the 'blind children' category, a revised questionnaire was used with the 'blind adults'. This questionnaire asked about their artistic knowledge, visual stimulus, ordering facilities, visual imaging and the use of their imagination. If anyone provided provocative responses, a further questionnaire was used and a 'case study' dialogue developed.

These results reinforced the belief that blind people are interested in visual art, hold an opinion and understanding of visual art and an appreciation of those things which may be considered to have aesthetic qualities. (proportion, position, beauty and shape.)

The Pilot Study Breakdown.

Fifteen secondary pupils were interviewed using a standard questionnaire between January and July 1996. Further clarification was sought from individuals depending upon their responses. A group of six primary pupils were also interviewed at this time using a modified interview technique. Again further clarification was sought

whenever appropriate. The work with the visually impaired adults began in 1997, with a sample group of eight people. A questionnaire of ten standardised questions was completed by each of the people as a basis to establish a consensus of opinion and as a method for exploring a range of material that dealt with questions concerned with art and artwork. Themes and ideas could be developed on an individual basis using a semi-formalised interview schedule.

The pilot study proved to be valuable. Initial ideas at this stage, were broad and unformed, but through the process of examining a number of strategies for the collection of data and through the process of using a pilot study, the research became focussed. The points that were established were;

1. Had the relevant information been gathered?
2. What were the specific areas that needed to be investigated?
3. What methods of data collection were most pertinent for the delivery of information?
4. What issues were important to the pilot study and what issues would be important to the main study?
5. What would be an appropriate target group for the research?
6. What was actually revealed through the pilot study, and what amendments would be needed for the main study?

Before embarking upon a main study each of these point was considered in depth, consultations were made and clarifications of particular issues sought.

After each point has been addressed to a satisfactory solution, the main study could begin.

METHODOLOGY.

So the question is, 'What is the nature of aesthetic understanding for visually impaired people?' and an appropriate way of finding out how to answer this question is important. A number of factors, which have a direct bearing on this subject, have already been established through the pilot study and it has become apparent that a unique yet specific method of investigation is required.

The pilot study established that types of blindness need to be specified and examined, the research needs to be conducted using a specified target group and standardised questions need to be asked of the groups involved. It also became clear that the research question was not a quantitative question nor was it dependent upon an answer regarding proportion or measurement. There will not be any definitive answer to the question but there will be an insight into the general condition of blindness and into the aesthetic understanding of visually impaired people.

Through this research, there will be opinion, subjective reasoning, (a reasoning based on the perceptions and mental imaging, demonstrated by the interviewees, see observation sheets) and instinctive suppositions. (opinions and conjectures based on the guesswork of visually impaired people, who indicate certain conclusions drawn from the information they have combined with the presumptions, they have made. see case studies.)

The information revealed should provide a greater understanding of the concept building strategies used by visually impaired people and an understanding regarding the importance that aesthetic understanding holds for visually impaired people. In order to develop the 'specialist tool' needed to answer this research question, I have used Walker (1985), Bell (1993) and Faulkner, Swann, Baker, Bird and Carty (1993)

as my main source. The internet provides useful reading on the subject of Research Methodology where articles such as 'An Introduction to Concept Mapping for Planning and Evaluation' (Trochim) and 'An overview of the Methodological Approach to Action Research' by O'Brien, have provided useful information.

Each of these sources provided information regarding alternative methods of data collection and by comparing and trialling some of the methods explained, a refinement of the requirements for this research programme has been established. An account of each of the methods considered is listed below.

DATA GATHERING.

QUESTIONNAIRES.

Questionnaires produce a body of work and will provide some uniformity of opinion. They will also provide an opportunity for the interviewee to express an opinion and to address specific issues concerned with the subject of the questionnaire. Walker (1985, pg 90.) provides the following information;

The questionnaire may be considered as a formalised and stylised interview, or interview by proxy. The form is the same as it would be in a face to face interview, but in order to remove the interviewer the subject is presented with what essentially is a structured transcript with the responses missing. The questionnaire is like interviewing by numbers and like painting by numbers it suffers the same problems of mass production and lack of interpretive opportunity. On the other hand it offers considerable advantages of administration—it presents an even stimulus, potentially to large numbers of people simultaneously, and provides the investigator with an easy (relatively easy) accumulation of data.

However, a questionnaire is only as useful as the validity of the questions asked, and can appear prescriptive. If the researcher knows exactly, the type of information required, specific questions can be asked. If, however, the answers sought depend on further probing and clarification on an individual level, then a standardised list of

questions are not helpful. To administer a questionnaire to visually impaired people knowledge of Braille would be useful and also, to be able to provide the questionnaire in a range of print sizes and on different coloured questionnaire paper. Each of these considerations mean that this process could become unwieldy to administer and may rely on the researcher being the only one able to deliver. The possible advantage of being able to offer the questionnaire to a large number of people is not appropriate to this study and importantly, a major disadvantage of a questionnaire format is the lack of interpretive opportunity. During the pilot study, each questionnaire was administered by one person and it took around twenty minutes for each secondary pupil and around fifteen minutes for each primary pupil. This was unpractical. Although it provided raw data, it did not provide the facility for further questions and for any elaboration upon unusual responses.

Interviews.

At their simplest, an interview is a conversation between two people, where one asks questions of the other and are generally formally (using pre-planned enquiries) or informally structured. Walker (1985.pg90-91) again provides a description of interview methods;

In essence the interview relies on the fact that people are able to offer accounts of their behaviour practice and actions to those who ask the questions. The interview is, in this sense, a method or group of techniques specific to the social and human sciences. It includes a wide range of techniques from the structured questionnaire through to the 'unstructured' conversation, but all hinges on the assumption that people are, to some degree reflective about their own actions or can be put in a position where they can become so. Implied in the notion of interviewing is the notion of the subject as a researcher, that someone is able to offer reflective accounts and to test these against experience.

Whilst interviews take a long time to administer, an instant response to the information is available. This information can be interpreted and processed

immediately. The direction of the interview can be controlled and altered so that the interviewer can pursue pertinent lines of enquiry. The interviewer can tease out further information to a greater degree as the interview unfolds. However, this can only be achieved if the interviewer is experienced. If the interviewer encourages or directs responses, the data is flawed, as it would reflect the opinion the interviewer has directly or indirectly provoked. If the interviewer related poorly to the interviewee this would reflect upon the responses gathered and a lack of uniformity of the data received could be a consequence. Interviews are conducted at a specific period in time and those impressions and opinions gathered at the interview are 'flavoured' by that specific moment. Those impressions and opinions could change at another time when the responses of either the interviewer or interviewee are exposed to other subjective influences.

(If it was possible to repeat an interview without the interviewee having any memory of any previous questioning, it would prove to be very interesting to compare the constancy of the replies. I believe that opinion, aesthetic or otherwise, is of a fluctuating nature, where subjective influences interact with the physical presence of the moment and situation, evoking a response that will alter accordingly. An opinion of a moment does not constitute a rigid belief and as such any responses gathered for this study need to take account of this.)

For some researchers, a structured interview is a method of research that attempts to 'second guess' the interviewees response. Hopefully those answers would support the theory put forward by the researcher and the interviewee may be chosen to provide the information the researcher wishes to gather. This would be unacceptable as valid research, the purpose of any line of enquiry must be to develop an understanding of

the process in question rather than attempting to justify opinion regarding the process. With unstructured or informal interviews, questions can be far more wide ranging and the interviewee could be allowed more time to develop their responses, opinions and experiences. This type of approach is flexible as the interviewer can develop lines of enquiry and can pursue new ideas that were not initially considered at the inception of the interview. Care needs to be exercised with this method of enquiry as whilst much interesting data could be gathered, a difficulty may arise when this data is compared with the original question and with responses from other people. The information gathered could become a collection of anecdotal rambling rather than a precise tool of enquiry.

Unstructured interviews have a place in this research but formal guidelines are important as correlation of information is required.

Interviews hold merit when used with people who have a visual impairment. Verbal discourse does not disadvantage people with sight loss. A researcher is able to conduct an interview completely and the interviewee needs only to respond to the prompting of the interviewer. A final concern must be regarding the ability of the interviewee to reflect upon those things discussed. By carefully choosing people from a wide range of experiences and by using the categories of visual impairment decided upon earlier, this method of investigation still holds merit as a tool for this research. A selection of people who have a range of reflective ability would add to this research as both conscious and unconscious responses have value for this research.

Observation Techniques.

Observation of a number of artworks created by visually impaired people and the observation of those people engaged in the making of the artworks would provide data towards the answering of this research question. Yet observation presents

some problems regarding the level of involvement of the observer. If people know they are being observed, they may perform differently because of the observation, but if an observation takes place without the person's knowledge, then questions regarding unscrupulous recording practice and the taking of unfair advantage could be levelled against the observer. Problems regarding ethics then become an issue. If the observer becomes actively involved with the process, valuable data could be missed as the observer's attention was distracted. The observer could influence the outcome of the project by encouraging the direction of the work. Problems may also occur with the recording of events if the recording is made after the event has finished, memories of incidents become less reliable than the instant recording of the happenings as they unfold. Bell (1993. Pg.109) confirms these difficulties;

Any one who has carried out an observation study will no doubt agree with Nisbet that observation is not an easy option. Careful planning and piloting are essential and it takes practice to get the most out of this technique. However, once mastered, it is a technique that can often reveal characteristics of groups or individuals which would have been impossible to discover by other means.

For a teacher, participant observation is a constant and natural process, the pupils do not react to being observed and may provide relaxed and honest responses to any stimulus presented to them. Analytical observation together with reflection is an important part of research into aesthetic response yet for this particular research question, a further blending of the information gathering process is necessary.

Case Studies.

Case studies provide us with yet another method of gathering information and offer much to this particular area of study. Bell (1993. Pg. 8.) provides the following information.

The great strength of the case study method is that it allows the researcher to concentrate on a specific instance or situation to identify, or attempt to identify, the various interactive processes at work. These processes may remain hidden in a large scale survey but may be crucial to the success or failure of systems or organisations. Case studies may be carried out to

follow up and to put flesh on the bones of a survey. They can precede a survey and be used as a means of identifying key issues which merit further investigation, but the majority of case studies are carried out as free standing exercises.

By looking closer at the various methods of investigation used with case studies other ways of gathering source material are revealed.

- Documentation—letters, administrative memos, progress reports and formal evaluations.
- Archival records—organisational records, lists of names, diaries, and personal records.
- Interviews.
- Direct observation.
- Participant observation.
- Physical artefacts.

Much of the information gathering techniques offered by the case study method is of value to this specific area of research and whilst I have quoted at great length from a variety of sources, it is because of the need for a precise tool for data collection. The need for a detailed examination of data collection methods is important if the correct system is to be found.

The nature of this particular study is anthropomorphic in so far that it is a study relating to a cultural/social characteristic apparent in human beings. However, the results of such a study are not measurable in terms of quantity, but deals with the appreciation of things considered beautiful, and deals with judgements concerning taste, proportion, culture and civilisation. The study also deals with opinion and impressions gathered by sighted and visually impaired people concerning those things that relate to the world of art and to aesthetic experience.

If it was stated that 98% of the people interviewed, who were totally blind from birth, preferred sculpture to painting, it may provide a statistic, but it would not provide any insight into aesthetic judgement, or any understanding towards aesthetic experience. The research question is concerned with the elusive qualities of enlightenment and taste acquired by intellectual and aesthetic preference that is bound to vary across the sample taking part in the research programme.

Practitioner Research.

The final 'tool' considered for the gathering of information for this research programme was practitioner research. Faulkner, Swann, Baker, Bird and Carty (1993, Pg 7.) explain the basic thinking for this method of data collection;

Like other forms of research, action research involves identification of problems, collection of evidence, analysis and diagnosis, interpretation using theory, and the communication of findings to audiences outside of the researcher's immediate working context. It is unlike more conventional research in that most problems usually arise directly from practice rather than from published theory. Its main purpose is to identify appropriate forms of action or intervention which may help to solve those problems.

This particular study relies heavily upon dialogue and involvement with visually impaired people and their creation of artwork. It is involved with visually impaired people talking about their own artwork and the artwork of others. It is also concerned with the modification, improvement and development of an aesthetic model which satisfies criteria for visually impaired people.

A teacher of art would be in a situation where the possibilities for gathering data are large. The potential difficulties of observation and participant observation will be lessened by the 'teacher-pupil' relationship. Clarification of information could be easily obtained from the pupils and the possibilities of elaborating and developing particular strands of information are readily available. Any spontaneous incidental

aesthetic experiences could be noted and casual comments that are pertinent could be gathered and recorded whenever an incident occurred.

Balanced against this are the following concerns:

The classroom practices of the teacher need to be carefully considered. Awareness of the values, preconceptions and theories held by the teacher need to be examined as these values may be reflected in the information offered by the pupils. Care needs to be taken to eliminate prejudice and influence that could be imparted either unintentionally or sub-consciously to the students. Care must be taken to reflect honestly and critically the behaviour, actions and results of any observations regarding the interaction between teacher and students.

Whilst comparing the various methods of gathering information, it has become apparent that whichever method used, specific data needs to be collected and consequently the research tool will need to provide for the following;

- The facility to tease out information in specific areas, dependant upon an individual's personal knowledge and feelings.
- Certain uniformity in some basic areas in order to establish a basis of consensus.
- A method of observation whereby the interviewer can make certain judgements independently of the interviewee.
- A system where the interviewee can initiate proposals which can be correlated into the data collection system.
- The facility to return to the interviewee at a later date to clarify data or to re-examine particular responses.
- A situation where artwork could be presented for exploration and reaction. (either in a familiar or unfamiliar setting.)

- A situation where artwork could be made and the study of the artwork and the study of the methods of manufacture together with the possible dialogue concerning the making of the artwork, is available.
- The possibility to establish historical, social, medical and cultural background information if deemed necessary.
- A data collecting system that allows the data to be understood and referred to in an efficient way.

For all research programmes it is important to consider the ways of understanding the data gathered. Presentation of the data in a form where it can be analysed and reproduced will add to the efficiency of the research programme. In the article 'An introduction to concept mapping for planning and evaluation,'

(<http://trochim.human.cornell.edu/research/epp1epp1.html>)

Trochim explores hierarchical clusters and multi-dimensional scaling as preferable methods of weighting the value of responses. However, for this research all the responses have an equal value and so a hierarchical cluster will not add to the quality of the research but it may provide a tool for data retrieval. The first part of the description for the production of a cluster map may be of use for this research programme, Trochim provides the following information.

First we have the two dimensional point or statement map which locates each of the brainstormed statements as a point. Next to each point we place the number of the statement so that participants can identify each point as a statement. Second, we have a cluster map which shows how the cluster analysis grouped the points. Third, we have the point rating map which shows the average rating for each statement on the point map. Finally, we also have the cluster rating map which shows the average rating for each cluster on the cluster map.

The detail of this system is far too intricate for this study but the idea of having a three dimensional cluster of statements where each statement adds and builds towards a fuller understanding of the research programme holds favour.

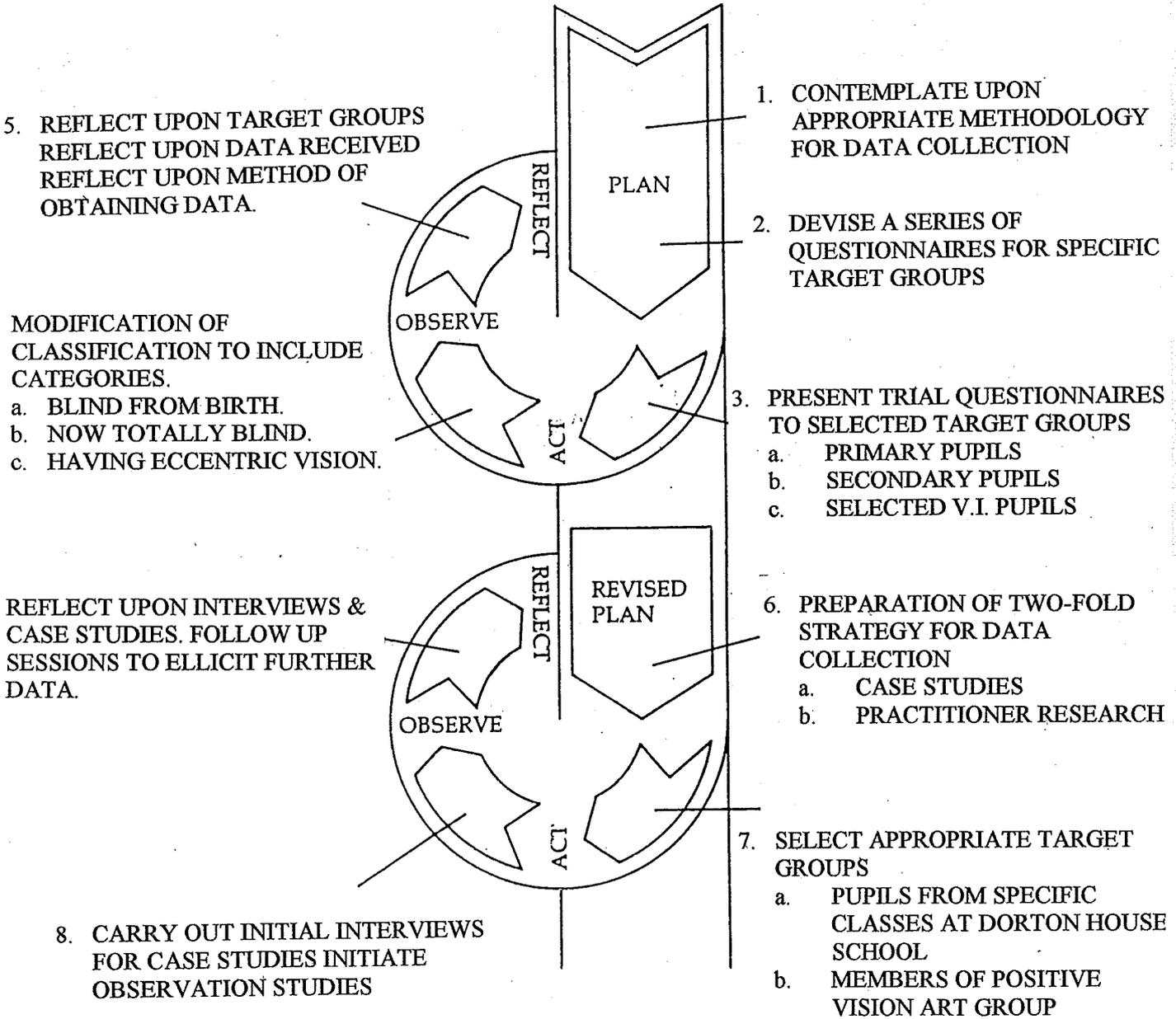
The diagram, (fig. 5) taken from the Methodology Handbook by Faulkner, Swann, Baker, Bird and Carty, (1993, Pg. 8) and modified for the purposes of this research, provides an illustration of how this particular research tool has been blended. In this form it provides for the gathering of information, the opportunity to re-visit sources if necessary the facility to observe proceedings and the time to reflect upon the information gathered. Whilst the cyclic imagery is taken exactly from the handbook, the stages of development have been altered to suit this programme of study. The method of revisiting, reflecting and refining is of particular benefit to this study, as it ensures that data received from diverse sources can be added to the research at any time and will contribute to the study fully without the research programme having to restart because of this new data being added.

O'Brien, (<http://www.web.net/~robrien/papers/arfinal.html>)

quotes six key principles for action research (1) which reflect the type of information required by this research and the methods which need to be employed for the collection of the data.

As this question is concerned with aesthetic understanding engaged with and displayed by visually impaired people, it is necessary to establish what will be considered as artwork. Any debate concerning the qualities of art is unnecessary at this point and is better suited for an art critic rather than for the purposes of this research. The reason for defining the qualification is purely to establish what will be considered for the purposes of the research. It is apparent that works shown in galleries and museums will be useful as a starting point for a dialogue as these works usually reflect a focus upon an aesthetic opinion, but recognition of folk art, ethnic art, religious iconography, weaving, gardening and needlework will be also considered as having a form of aesthetic merit. A difficulty may occur if we argue

**DIAGRAM MODIFIED FROM METHODOLOGY HANDBOOK SHOWING
ACTION RESEARCH MODEL FOR COLLECTION OF DATA**



that, if we include gardening, why not cookery? Or if we include needlework why not knitting? The answer has to be, that these categories may well be included, as well as any other diverse and individualistic samples of aesthetic expression. Providing each separate example contains some element that is sought by this research, then it will be included.

The pilot study enabled several trials to take place, which helped to develop the nature of the research, the vehicle for delivery and the facility for reflection.

The research question and the requirements for the research programme have been established and the appropriate method for gathering the data had been devised. For this research programme, a combination of case study research and the strengths of practitioner research should collectively provide the relevant data to answer the question of aesthetic understanding and visual impairment.

The Educational Frame of Reference.

The pupils used for the Main Study attended The Dorton House School between 1994 and 2000. These pupils were separate and distinct from the pupils used in the Pilot study as I did not wish any influences from the pilot Study to be transferred into the Main Study.

Classification of Pupils.

Five pupils were chosen from seven to nine year groups. These pupils attended art classes as part of their balanced curriculum programme of study and had not chosen to develop their skills in art and design. Their observations and practical achievements could truly be described as 'a disinterested opinion.' However these observations provide some valuable and interesting insights into aesthetic understanding and visual impairment. Observation sheet No.3. describes how a totally blind pupil develops a

logical sequencing to help her understand new and unseen objects. I have described how she constructs and expands her world of 'known stimulus' using a development of shape, texture and language.

Eleven pupils were chosen from those who expressed an interest in art and were taking their GCSE examination in Art and Design. These pupils demonstrate a further thoughtful approach towards their artwork and illustrate a confident schema, which shows an ability to juggle language with shape, colour with sound and the assimilation of new tactual sensation into their creative world. See 'Main Features of Observation Sheets.'

Ethical Issues.

Before any research began I consulted the document on Research Ethics compiled by the University of Washington, School of Medicine

<http://depts.washington.edu/bioethx/topics/resrch.html> In this report they list the important areas for consideration. These being:

- The safety of the research participant.
- Obtaining informed consent from each participant
- Enumerate how privacy and confidentiality will be approached.
- How adverse events will be handled.
- The investigation should be genuinely uncertain regarding the outcome of the research. (a null hypothesis)

A consent form was completed by all participants of the study. Each pupil was asked if they would be prepared to contribute and the method of collecting data was explained to them. Parents were also contacted and the programme of work was discussed with them and the object of the study was outlined. Any parent or pupil

who was unsure of the proposed project was not included and care was taken to avoid any feeling that they were being excluded. The delivery of the programme of study was exactly the same for all pupils.

All the data was gathered using a tape recorder, formal interview, observation and group discussion.

Whenever further elaboration or work was required further detailed methods of data collection was used. This could be in the form of the production of artwork or further specific consultation with individuals.

Each pupil was allocated a symbol letter to preserve their anonymity for the purposes of this study.

I attempted to remain impartial throughout the research programme and I was surprised with some of the responses which made the research dynamic and compliant with the objective of a 'null hypothesis.

NOTES TO CHAPTER TWO.

1. Principles of Action Research.

Winter (1989) provides a comprehensive overview of six key principles.

(a) Reflexive Critique.

An account of a situation, such as notes transcripts or official documents, will make implicit claims to be authoritative, i.e. it implies that it is factual and true. Truth in a social setting, however, is relative to the teller. The principle of reflective critique ensures people reflect on issues and processes and make explicit the interpretations, biases, assumptions and concerns upon which judgements are made. In this way, practical accounts can give rise to theoretical considerations.

(b) Dialectical Critique.

Reality, particularly social reality, is consensually validated, which is to say it is shared through language. Phenomena are conceptualised in dialogue, therefore a dialectical critique is required to understand the set of relationships both between the phenomenon and its context, and between the elements constituting the phenomenon. The key element to focus attention on are those constituent elements that are unstable, or in opposition to one another. These are the ones that are most likely to create changes.

(c) Collaborative Resource.

Participants in an action research project are co-researchers. The principle of collaborative resource presupposes that each person's ideas are equally significant as potential resources for creating interpretive categories of analysis, negotiated among the participants. It strives to avoid the skewing of creditability stemming from the prior status of an idea-holder. It especially makes possible the insights gleaned from

noting the contradictions both between many viewpoints and within a single viewpoint.

(d) Risk.

The change process potentially threatens all previously established ways of doing things, thus creating psychic fears among the practitioners. One of the more prominent fears comes from the risk to ego stemming from open discussion of one's interpretations, ideas and judgements. Initiators of action research will use this principle to allay others' fears and invite participation by pointing out that they, too, will be subject to the same process, and that whatever the outcome, learning will take place.

(e) Plural Structure.

The nature of the research embodies a multiplicity of views, commentaries and critiques, leading to multiple possible actions and interactions. This plural structure of enquiry requires a plural text for reporting. This means that there will be many accounts made explicit, with commentaries on their contradictions, and a range of options for action presented. A report, therefore, acts as a support for ongoing discussion among collaborators, rather than a final conclusion of fact.

(f) Theory, Practice, transformation.

For action researchers, theory informs practice, practice refines theory, in a continuous transformation. In any setting, people's actions are based on implicitly held assumptions, theories and hypotheses, and with every observed result, theoretical knowledge is enhanced. The two are intertwined aspects of a single change process. It is up to the researchers to make explicit the theoretical justifications for the actions and to question the bases of those justifications. The ensuing practical applications

that follow are subjected to further analysis, in a transformative cycle that continuously alternates emphasis between theory and practice.

CHAPTER THREE

THE MAIN STUDY.

I intend to answer the research question by using a combination of case studies and Practitioner research. The case studies will be focussed upon the members of the Positive Vision art group and the practitioner research programme will concentrate upon pupils from the Dorton House School for the Blind.

(The defining of this proposed method of study is explained in the methodology section where several methods of data collection were examined and the precise process was established for this particular research programme.)

The Dorton House School for the Blind.

The following information has been taken from an introduction folder available at the Dorton House School and provides background information about the school's basic Philosophy. (The full extract is shown in the notes at the end of Chapter Three.)

Education is more than academic achievement however, particularly for blind and partially sighted children. Mobility, social skills, enjoyment of life and one's surroundings are equally important to enable our pupils to leave Dorton and take an independent place in society outside.

As a teacher of art with the pupils of the Dorton House School for over ten years, I was keenly interested in what was taught in art and what was understood about art by the pupils. Over the years definite procedures were established where dialogue, elaboration, tactual (1) example and examination of materials, shapes and visual information was established before the creative realisation of a project could be embarked upon. Often there was no specific finish for a set project and sometimes the

1. Tactual. Connected with the sense of touch, producing or concerning the effect of three dimensional solidity. (C.O.D.) For many of the totally blind pupils, the sense of touch was underdeveloped and it was my concern to teach these pupils about touch sensation and what these feelings related to.

'internal 'realisation of the concept was far more important to the blind child, than a physical end product. Sometimes this physical product appeared rough and unfinished but if the tangible object has been 'worked' by the blind child it may be considered tactually complete and not subject to the visual appraisal that may be levelled by a sighted onlooker. In other cases a blind pupil might have attempted to combine sensory and literary information together, which a sighted person may considered unusual. This might be considered to be a unique strength of artwork produced by unsighted people, it certainly offers much speculative evidence for this research.

The Positive Vision Art Group. (See Appendix.)

The Positive Vision Art Group is a group of people with sight loss who meet together to increase awareness and to promote understanding of people with sight loss amongst the whole community. Positive Vision aims to promote a positive image for people with sight loss through their creative skills, social skills and talents.

I first became aware of the Positive Vision group through their involvement in the Artwaves Festival (see appendix.) in Lewes, East Sussex, in 1998. I attended some of their exhibitions and felt that their endeavours would provide useful data for my research.

Through my pilot study, it became apparent that this research would benefit by collating information from two main source areas, the Dorton House source would provide information regarding artwork, opinion, impressions and responses. (I found, through the pilot study, that many children with sight loss were unable to articulate fully about their artistic concepts, but provided interesting insights and speculations

into a visually impaired world.) This source will provide some raw intuitive data in many instances. Yet, for the main part, the pupils from the Dorton house school will be presented with a pre-determined package of art stimulus where responses can be evaluated for the research programme. This package will consist of;

- Formal art lessons where the exchange will take place known artwork will be explored material will be manipulated and experimented with impressions and expressions gathered and developed results reflected upon.
- Informal conversations regarding artwork and art activity
- Informal conversations regarding aspects of sight loss and blindness
- Trips to art galleries and museums
- The recording of reaction to new sensory stimulation

Details regarding the exact nature of the tasks presented to the pupils will be recorded on 'observation sheets.' (See appendix.) A facility for further speculation has been included at the end of each sheet and the opportunity to develop specific strands of research has been possible whenever this is appropriate. The method of recording information has been determined by the nature of the activity and has included audio tape, video tape, photographic record, written evidence together with paintings, drawings and three-dimensional work. The data gathered will provide information for the 'practitioner research' area of study.

The data gathered from the members of the Positive Vision art group will provide the case study component of this research programme. Each of the contributors for this part of the research were chosen after a questionnaire had been completed and if a further dialogue was pertinent further dialogue took place. These dialogues form the basis of the main study. The combination of the practitioner research information and

the case studies data, provides an interlocking cross reference for the aesthetic understanding of visually impaired people.

With each case study, I developed a dialogue with each person, where I could return to them and develop ideas and suggestions that have been presented during previous conversations. In this way I could pick up on issues that need to be explained further and upon comments that I failed to react to during the initial meeting. By cultivating an understanding with each person in the case study categories I was able to develop an empathy towards people with sight loss and also an appreciation into the possibilities and problems of aesthetic understanding and visual impairment.

THE CASE STUDIES.

John Pym No.001.

Background Information.

John is sixty years of age, was at school during the Second World War, where he didn't enjoy his school life and his period of National Service provided for his academic and working life. On leaving the services, John worked in the hotel management trade and became a chef. John remembers his time in the forces with fondness, he was in the Middlesex regiment in the army and was seconded to the Navy Reserves.

John has always held a passion for photography after, at the age of three, he was given a 'box brownie' by his father and a Kodak 127 by a maiden aunt, followed by the 'Johnson's Home Dark Room' for Christmas. John has taken photographs ever since these early days, developing his own film, teaching photography and has been a member of numerous photographic societies both in England and on the continent. John has had a 'sight loss' for around ten years due to diabetes. The sight in his right eye is very poor, his overall vision provides him with loss of colour definition and fine detail. John sees basic shapes at around eight metres but the outlines at this distance is extremely blurred. After the initial shock of losing his sight, John has continued to take photographs, he considers that 'a good lens is better than a pair of glasses.'

Context.

Regarding any artistic or aesthetic experiences encountered at school, John felt that he had received very little experience or influence. In fact he felt that he had received

very little from school at all. Through his interest in photography, he started to make his own prints at this time and this interest continued during his time in the Forces and is a main interest today. For John, photography is not just a hobby, he feels that is an aid to almost anything else he does.

The only change John has made with his photography has been the acquisition of equipment which is easier to use with his failing vision. Since his eyesight has diminished, John still recognises the possibilities of artwork in the objects around him, but he tends to leave out fast moving objects and tonally similar objects as he has problems with light on light and dark on dark objects.

John enjoys the creative photography processes, where he can superimpose objects onto different backgrounds. (Sunsets placed behind an image of Stonehenge and aeroplanes placed against different skylines.) John can still see well enough to process his own black and white films without too much difficulty and together with the inexpensive costs of film processing in general, he finds photography a very satisfying leisure activity.

Specific creative/aesthetic information.

I asked John how he developed his ideas in order to satisfy himself that they were all that he imagined and how he could eliminate any errors he could not see.

John considered himself to be very critical of his own work and studied it over a period of time. He felt that there was always room for improvement with any artwork and was rarely satisfied.

John did not feel that his loss of sight enhanced any of his other senses, he has always had good hearing, he supposed that he had already used his sense of hearing and smell more than many people. He was finding that as his diabetes developed, he was also losing some of his sense of touch.

Shape and colour are very important to John even though he has some difficulty in distinguishing colours that are close tonally. Distant shapes are also difficult for John to see, yet with his failing vision he appreciates what he can see and is attempting to store up visual information.

Texture for John is not so important, due to his loss of sensation but he feels that for other people with sight loss, it could provide some compensation and would add an extra dimension to their everyday environment.

When I asked John about his aspirations for his creative outlets he found it difficult to answer with a specific point or focus as he had been interested in doing what he did for so long. His recurring themes were, the recording of historical events, capturing a moment in time and capturing a particular atmosphere. In fact, John felt that his interest in history provided for much of his source of inspiration.

My next question for John was concerned with the purpose of art and whether it mattered whether we expressed ourselves creatively or not. His response was that our place in the universe was unique and it was our purpose to express ourselves.

Do other inhabited planets have religion, art, a sense of humour? As mammals we have to procreate and evolve and to develop our intelligence. As we have evolved we have lost the need to hunt and grow yet we have a facility to do things but we don't have a reason, art is part of the reason for our evolution and the making of artwork helps us fulfil our role in life. On a basic level we make art for historical record. It is fulfilling our need to belong and to add to our sense of continuity.

Further Questions.

I asked John his opinion of abstract art (see glossary) as I felt that his opinion regarding the 'role of art' might provide further enlightenment, John said that he did not understand it, but he felt he did not like it, it was rather like pop music, and he didn't like that either. I prompted John further by asking if he considered that trees and clouds, rivers and mountains might also be abstract terms for people who had never

seen. He felt that as he himself had some useful sight, he couldn't comment, but he did feel that these terms could only function as describing words that held no particular meaning to people who had never seen.

My next question for John was concerned with the ideal of beauty, (see glossary.) his immediate comment was that in his opinion, beauty goes further back into the brain than a visual image, or indeed further than any of the sense organs. He did agree that beauty might have something to do with the concept of a 'wholeness' or 'completeness' that people bestowed upon an artwork, another person or any situation that engendered aesthetic merit. (see glossary.)

John felt that most people have a need to engage in some form of creative (see glossary.) or aesthetic experience during their lifetime.

If you look at children, they are often playing with mud or banging stones
Its part of a basic need to be creative and I think it's linked to our sex drive
I don't know how or why but I think the two issues are interlinked.

John enjoys music very much and dancing but feels he has two left feet. He considers that many people with sight loss could appreciate old time dancing, various ethnic forms of dancing such as Scottish, Irish or Caribbean dancing as an art form or as a means of personal expression which would be the development of an aesthetic act in itself.

I next asked John if he thought he could tell if a piece of sculpture was complete, purely from touch. John thought that it would depend on whether it was figurative or not, if it was abstract then probably not but if it was a visually recognisable shape he thought he might. (In this instance I felt that John's response was a sighted person's response as he was employing a visual memory to appreciate a shape rather than other tactile appraisal methods.)

Following this I asked John if he thought that a totally blind person from birth, could

fully understand something visual, purely from a verbal description. His answer was that he felt it depended upon the description given but he did feel that it was impossible for a person who had been blind from birth to appreciate a sunset, from a verbal description. However, he did concede that a totally blind person may appreciate the verbal description in itself.

We pursued the ideas of sound substitutions where it may be considered that Tchykovsky's 1812 overture may represent a thunderstorm or whether Swan Lake could portray a sound equivalent for the splendours of a sunset. John thought that there was some emotional overlap but if there was no colour concept (see glossary.) there could be no equivalent for an image. My final question for John, at this session, was whether he held any pre-conceived ideas of 'what things should look like'? visually and whether he considered that our unconscious (see glossary.) contributed to our understanding of the world we live in. John felt that we all had some pre-conceptions and we sometimes get ideas that prove to be wrong but also we cannot always accept the reality of things as they are.

Sometimes, not being able to see heightens our perceptions
We all have an 'inner eye' which can sometimes see things
that bare no relation to whatever you are thinking of. Sometimes
there is no visual relationship to anything at all, it can only be
a feeling.

Initial Reflection.

John's initial responses were quite revealing, whilst through my prompting I suppose I had hoped for some kind of formula that all blind people used and recognised when they dealt with visual phenomena, John tactfully indicated to me that all people (sighted and otherwise) are unique. Each individual has different experiences, likes, physical attributes, culture and interests and responds equally to exterior stimulus in wide and varied ways. What is important to one person, is a matter of complete

indifference to another. It is clear that what I will gather through these case studies is not a list of what blind people collectively believe but what blind individuals understand and what methods they employ to understand about visual phenomena

With John's first conversation several issues need to be developed;

John talks about 'possibilities' when he is contemplating taking a photograph.

What elements add towards these 'possibilities'? What are John's criteria for the making of a photograph?

John's ideas about a link between a need to be creative and our sex drive is interesting. Gombrich (1991,pg 55) in his book Art and Illusion describes how the artist Richer and his friends approached a drawing exercise,

They selected the hardest, best-pointed pencils, which could render the motif firmly and minutely to the finest detail, and each bent down over his small piece of paper, trying to transcribe what he saw with the utmost fidelity. 'We fell in love with every blade of grass, every tiny twig, and refused to let anything escape us. Every one tried to render the motif as objectively as possible.'

Gombich 1991.

It is debatable whether love can be objective, but I do consider that the involvement attached to the creation of an artwork includes many of the emotions linked with the feeling of love (see glossary.). It is also worth considering the relationship between love and one's sex drive, but not at this point! It is also interesting to note that each person had emphasised aspects of the subject which corresponded to their own particular demeanour.

John makes a point about art being a part of evolution, again Gombrich (1991pg 53) can be used to develop this point. He states that, 'All culture and all communication depend on the interplay between expectation and observation, the waves of fulfilment, disappointment, right guesses and wrong moves that make up

our daily lives.' Much art is dependent upon culture and communication and in line with Gombrich, John recognises a link between art and everyday life.

John makes a very interesting point about 'making art helps to fulfil our role in life.' This can only hold true for people who are concerned with art and the making of artwork. It may be true to say that whenever people engage with a job of work, the subliminal creative component could be the completion of the task using the most efficient, precise or complete method available. If we develop this line of reasoning to encompass this particular study, we could claim that all work may be of an aesthetic nature and all completed work could be subjected to an aesthetic appraisal. Certainly the criteria of completeness is a component part of my definition for aesthetic evaluation.

John's next statement, was his claim that 'beauty goes further back into the brain than a visual image.' Again, I would argue that all our influences concerning beauty, and indeed, with our artistic appreciation, and with our acceptances and tolerances of our environment develop from our involvement with that environment. The understanding we have of our environment and the understanding others have of that environment all held together within a parameter of generally accepted values by most people Yet again Gombrich (1991 pg 134.) has this point covered;

The perfect painter is endowed with the gift of seeing the universal in the particular, of looking across the dross of the matter at the 'essential form' which-in Aristotelian rather than Platonic terms-shaped the resisting clay from within.

We need not doubt that painters experienced this very thrill. And yet one suspects that the pattern they found behind the visible world was not the one laid up in heaven but the remembered shapes they had learned in their youth.

Gombrich (1991)

The final point I wish to consider at this stage is John's thoughts about any relationships between perception and creative triggers. John talked about

'getting ideas that proved to be wrong' and that we could not always accept the 'reality' of things. He suggested that sometimes our perceptions and our creativity worked together, outside of our rational ordered responses to new stimulus. This idea has been explored by the philosopher Carl Jung.(1875-1961). In the book, Man and his Symbols, (1978, pg.72) Jung makes this observation.

What we call civilised consciousness has steadily separated itself from the basic instincts. But these instincts have not disappeared. They have merely lost their contact with our consciousness and are thus forced to assert themselves in an indirect fashion. This may be by means of physical symptoms in the case of a neurosis, or by means of incidents of various kinds, like unaccountable moods, unexpected forgetfulness or mistakes in speech.

Jung (1978.)

Whilst both John and Jung intimate that our perceptions are subjected to memories, instinct and our unconscious, Powers.(1974), make this claim;

Behaviour is an integral part of the feedback loop by which we affect changes in the world so that the experiences we desire occur and the experiences we want to avoid go away. Behaviour thus produces negative and positive feedback which operates to attain and then perpetuate the object of perception and to control responses to disturbances that might otherwise detract from that object. Behaviour is thus a phase of intentionality and is an exercise of motor control over the state of consciousness. I turn my head and body so that I see what I want to see. And I maintain the muscle tone, orientation, posture and activity required to keep what I want in my sensorium happening.

Powers (1974)

This is a much bolder claim where Powers feels that everyone is master of their emotions, perceptions and of their conscious and sub-conscious actions. I would argue that the belief that one can totally control the input of perceptions by allowing or rejecting sensorial input through choice, is a limiting process. We should be open to influence and impression whether we desire them or otherwise. However, these speculations form the basis for a second interview with John where further information will add to the understanding of John as a person and to our understanding of his aesthetic values and creative outlet.

John Pym. Second Interview.

The second conversation with John was conducted over the telephone as a further visit was not possible. I pre-arranged with John to conduct this conversation over the telephone. I did not offer John any clues as to what my further questions would be. The reason for this was that I wanted to record John's initial reactions rather than any considered opinion.

In our first conversation, John had talked about photographing subjects that held 'possibilities', so my first question was about what he considered to be the possibilities of a photograph.

There are three main 'possibilities' with photographs, commercial possibilities technical possibilities and artistic possibilities. If you think about the subject matter on the lids of chocolate boxes. On postcards and on calendars, you usually think of kittens, thatched cottages, babies, spectacular sunsets or old castles, these make nice photographs and are commercial. Its not necessarily good art but these images have commercial 'possibilities.' If a photograph has technical possibilities it's usually of something like aeroplanes or steam trains. They are usually taken for a specialist market, for an enthusiast or for a magazine cover, and they would show minute detail. These photographs may look good but they are not particularly artistic, they are for information mainly although an enthusiast would consider them to be beautiful. Artistic possibilities are much more difficult to explain. I suppose the easiest way is to say that if you photograph things purely for your own pleasure, then I suppose it might be an artistic photograph. It's something that appeals mainly to you, other people might like the photograph, but , basically you have taken the photograph because it appeals to you. It strikes a chord or feeling in you and you respond by photographing it.

John had previously told me that he was uncomfortable with modern art and modern music (pop music).I thought that it might be advantageous to develop these ideas through questions concerning his use of imagery and how these ideas of 'satisfactory' imagery could be balanced with more general themes in art.

My own particular pleasures are with superimposing images against unlikely or unusual backgrounds. I have taken particular pleasure out of placing Second World War bombers, (usually Lancasters) within a photograph of a sunrise or sunset taken at least fifty years after the aircraft had ceased flying. As well as creating an image you are juggling with time. These pictures may have some commercial and technical possibilities, but for me they are artistic. I like my art to be about something, Picasso to me is a joke, he was having people on. I like combining images to create a new image. There is so much you can do; you can blur images by creating a soft focus, you can make close ups of flowers and drops of water. You can't define what is a satisfactory image until you see it, then you get a feeling when you know its right.

I recently took two photographs of my grandson with our dog. The photographs were almost identical, to me, one was satisfactory and the other was not. I couldn't say what the real difference was, perhaps there was a hair out of place or a slight difference in position, but one 'worked' the other did not. Something was right and something was wrong. It's just a feeling inside.

I was pleased John had mentioned this feeling of 'rightness' in his attempt to define his ideas concerning 'satisfactory' imagery and to press these ideas further, I asked John about his preferences for colour or shape. I wondered whether any subconscious preference might indicate John's formulation of 'rightness' for his artwork.

I suppose I like streamlined shapes, ships and aircraft, but I like my aircraft to have a propeller on the front. If it has some sort of historical content, then I usually like it. If you think of war, it's not a very nice subject I know, but I would have loved to photograph some scenes from a Napoleonic battle and a scene from the Second World War, taken on the same site. The landscape would be the same but the shapes and images could be combined and mixed together. The soldier's uniforms would be different colours and the shapes of the different guns and equipment would provide both technical and artistic information.

Composition is very important in a picture, almost as important as the colours and the shapes I usually compose my pictures through my viewfinder, I think of having three vertical lines and three horizontal lines across my viewfinder and I place my interesting parts away from the middle. A lot of the interest depends upon the subject. Other people's children do not interest me at all, but if it's mechanical and dealing with transport, then I'm usually interested.

John is also interested in words and enjoys the play on words that arises when a word has several meanings. It was with glee that John was able to question my meaning with my next question, which was concerned with the role that decoration (see glossary) held with the making of artwork. I was interested with John's placing of images into backgrounds and wondered about any decorative elements John might consider using, in order to develop his ideas of creating an 'artistic' image.

It depends on what you mean by decoration. An army general could have decorations on his uniform. If I was photographing him, the decorations would be very important. It would make the picture more interesting for both reasons, the decorations would decorate the picture. The medals would be part of the picture because the general had earned the medals and they are part of him; they show us what he is. The medals also help to create the image of the general. But with decoration, if it fits, then, it's usually right. Whatever decoration there is in a room usually helps provide clues to what is going on. If there are charts and graphs on a wall it could be an office, if there are flowers it could be a sitting room. Basically, photography is about things as they are, painting is about what things might be?

The final statement by John is extremely important and I will consider this together

with other issues raised during the second speculation section, however in order to develop John's thoughts concerning artworks, I asked John about the importance of colour.

Colour is extremely difficult but extremely important; you have to get it right. Even if you were photographing a brick wall, the right colour of brick red is required, not crimson or scarlet you wouldn't feel comfortable with the wrong colour.

I sometimes use filters to get the 'right' colour but you have to be careful, what is the 'right' colour for one person is not always the right colour. For example, everyone has heard the joke, What's red and lies in the gutter?, well all Londoners would get that joke but if you came from Lincolnshire you wouldn't know what they were talking about. Their buses are green. If I used a red filter on an ambulance it wouldn't work. Its like sound, I like Glen Miller and classical music but I don't like Heavy Metal, but it's a personal choice. With colour a pretty good guide in photography is, would it make a painting? If you can transfer it to another medium, then it is a successful thing.

I wanted to develop some ideas about notions of beauty with John, so I asked him to tell me what he considered constituted beauty in his photographs.

I suppose if I could superimpose a modern tractor into the painting of The Haywain, by Constable, I would consider it to be beautiful. A common idea of beauty can only be a generalisation. There are some accepted rules that most people believes in but in reality no one completely accepts them. For example, The Princess of Wales is generally accepted to be a beautiful person, but I prefer Fergie. Who is right and who is wrong? If I am in the minority then I suppose I am but my ideas about beauty work for me. I can't see anything attractive in Cubism or Art Deco but I can in Winnie the Pooh. Beauty can not be a constant. Another example would be, if I photographed someone peeing against a wall well it would be dirty and disgusting, but how do you explain the nudity of Michelangelo's David? How can you have a constant ideal for beauty?

John breaks of from his train of thought to describe a reflection of Christmas tree lights in his window. He says that whilst he has been speaking to me, he has become increasingly aware of his reflection and although he is perfectly aware of the cause of the reflection, his imagination is triggered to consider the different possible 'realities' of this image. John says that the reflections form a 'sort of sideways 'S'', which suggests to him an archway. He goes on to speculate as to where this archway could lead and to wonder why he is thinking about archways. What has triggered this process of imagining and why have certain possibilities presented themselves to John, when he is perfectly aware of the rational explanation of the reflected image? Following this demonstration of his imaginative processes, John develops his theme on creativity by explaining how much satisfaction he derives from creative writing.

John is dyslexic (see glossary), yet through the development of his ideas through a multi-media approach, he is able to present work for the Positive Vision magazine and to produce other work for his own satisfaction. Combining his love of mechanical toys with his love of history, John has produced a model railway system based in his fictitious 'Vale of Avalon'. He has chronicled this 'history', developing a regimental history of the (again fictitious) Lymeswold Regiment and produces a local paper, The Avalon Chronicle. John has invented a number of local firms and cottage industries which all combine to complete his fantasy. He has interwoven some of the Arthurian legends together with his knowledge of regimental procedure and with his own particular interests.

My wife says it's all a load of rubbish, or she will pick out spelling errors. I suppose fault finding is her particular art! Until I became diabetic, I wouldn't write, so I think the illness has given me the time to follow up these imaginations. What use it all is, I haven't a clue but its important to me and other people seem interested, so I suppose I'll carry on. I've been thinking of writing, Star Trek the Opera, but we will see what happens.

Further Reflection.

John had given me a lot of further ideas to consider and yet throughout the whole of the conversations, three re-occurring themes presented themselves.

John regularly referred to his feeling of 'rightness', with his work. When I was considering my initial definition for aesthetic understanding, I had used the term of 'rightness' as part of the qualification, but I had altered this term to 'completeness'. I had done this because I feel that completeness is a better describing word and the word 'rightness' needed to be compared against whatever 'wrongness' might be. John felt quite comfortable with what was right and what was wrong with his images, he talked of things 'striking a chord' and of 'feelings inside' all of which are of interest

to this research. I think a key point to John's philosophy with his artwork was summed up when he talked about his ideas of beauty. He stated; 'how can you have a constant, there are so many relative issues?' Budd (1996, pgs. 43-44) confirms this belief in his statement,

The species of artistic value that are open to the different art forms in virtue of their distinctive natures are highly various and open ended, and no exhaustive specification of these values is possible.

Budd (1996)

John answers this question with his 'feeling of rightness', and I consider this to hold true for any measure of aesthetic value. Gombrich, (1991, pg 264) provides the following quote which helps with this strand of thought. He says;

To read the artist's picture is to mobilise our memories and our experience of the visible world and to test his image through tentative projections. To read the visible world as art we must do the opposite. We mobilise our memories and experience of pictures we have seen and test the motif again by projecting them tentatively onto a framed view.

Gombrich (1991)

So, in order to gauge this 'feeling of rightness' with artworks we need to test the images against our experiences. These experiences in turn are based upon what Berger (1977, pg.11) describes as 'learnt assumptions'.

Yet when an image is presented as a work of art, the way people look at it is affected by a whole series of learnt assumptions about art. Assumptions concerning: Beauty, Truth, Genius, Civilisation, Form, Status, Taste, etc.

Berger (1977)

Using each of these conditions to form our ideas concerning artwork and our 'feeling of rightness', it is of no surprise that there is a difficulty with having a constant or standardisation for an aesthetic model, yet this conflict with visual imagery equally indicates the dichotomy within an unsighted world. Whilst an unsighted person can relate to their own assumptions regarding beauty, truth, and genius etc, each of these conditions is dependent upon the individual experience of the person and their relationship with the artwork perceived.

Another strand of thought that John presented, was that he considered

photography to be 'about things' and paintings to be 'about what things might be'.

This is a very large statement to make and would be interesting to develop fully, however, in relation to this particular research programme, I would like to develop a small part of this dialogue. If painting does depend upon a sub-conscious interpretation of things perceived, and upon a physical portrayal of that interpretation, then a question could be, What are we actually seeing and what do we think we are painting? If we include the visual impairment issue within this conundrum we have quite a complex issue to think about. It is certainly true that painting can be about what we think we see and are about what we want other people to see and are also about what we think other people ought to see. However, a painting may not only be a response to something seen, as paintings are often interpretations of complex stimulation and evoke impressions gathered from many physically sensory and unconscious interpretations, bound together in the plastic form of a painting. Berger (1977, pg 9-10) complicates the issue further with this statement,

An image is a sight which has been recreated or reproduced. It is an appearance, or set of appearances, which has been detached from the place and time in which it first made its appearance and preserved—for a few moments or a few centuries. Every image embodies a way of seeing. Even a photograph. For photographs are not, as is often assumed, a mechanical record. Every time we look at a photograph we are aware, however slightly, of the photographer selecting that sight from an infinity of other possible sights. This is true even in the most casual family snapshot. The photographer's way of seeing is reflected in his choice of subject. The painter's way of seeing is reconstituted by the marks he makes on the canvas or paper. Yet, although every image embodies a way of seeing, our perception or appreciation of an image depends also upon our way of seeing.

Berger (1977)

If our perception or appreciation of an image depends upon our way of seeing, how does this affect people with a visual impairment? The creation of an artwork is always more than the physical making of the object and the physical presence of the finished piece. The artwork is imbued with the artist's influences, impressions, beliefs and intentions and a visually impaired person can receive information and

impressions regarding the artwork in other ways than visual. Obviously the information received by a visually impaired person is altered and different but a specific message is received. Trevarthan, (1995 pg 170) provides a valuable clue towards a resolution of this issue;

Human beings everywhere appreciate art to share their intuitive evaluations about life experiences. They create works of art that they hope will move other people strongly. A two year old child can show us a proto-art in his or her first attempts to paint or draw. The earliest art production of children are not representations; they are active and conversational inventions, dramatic or histrionic icons, full of feelings which seek affirmation and fear disapproval. Toddlers use simple stereotypes to evoke meanings and they distort representation to convey the relative importance or vitality of the things that hold their interest. They are not trying to recreate things as seen, caring little for realistic resemblance.

Trevarthan (1995)

It could be argued that much art seeks to evoke meaning and visual ambiguity is a tool that is used by artists, to convey certain visual impressions in their composition. If this is accepted, then artworks produced by visually impaired people and the appreciation of conventional art by visually impaired people is simply a part of the larger picture of creative endeavour. The way of seeing is more a way of interpreting and visually impaired people can interpret information in their own unique way as any other person would do. The only difference being less dependency upon visual information.

Another point raised by John, was his belief that by transferring creative processes into another medium, somehow proved the validity of the artwork. Certainly with some art movements, (Art Nouveau, the influences of African tribal art on Cubism and the influences of Japanese art on Impressionism) the transference of cultural themes has enriched a particular movement in art, although for many these influences were merely the visual impressions of these 'new creations' rather than the beliefs that the images symbolised. . This cross cultural enrichment may be at the core of John's belief but I feel that the cross fertilisation of creativity goes much further into

the fundamental expression of ideas, where a multi modal response provides a more complete understanding of the creative investigation. In Performance Art, (1997, pg 3) Guzkowski described a performance piece directed by Mitolo, called Giro in Popono.

Multimodal performance does not privilege separate and distinct media or disciplines in the manner of multi-disciplinary or multi-media shows. Instead, Mitolo clarifies, the main emphasis is on telling stories and inviting people to interpret a story in different ways.

Guzkowsky (1997)

If interpretation of ideas is the base for creativity then any measure of aesthetic understanding must take account of the individual responses evoked by the original idea. Guzkowsky, (1997 pg 3) develops this idea further, in his article Performance art goes multimodal;

Mitolo craves a more collaborative method and describes his preferred work process in this way. 'I invite people to collaborate. Each bring their own ingredients to the soup. The genius is not in the initial idea. The genius is in the invitation.' What has emerged is a style which he calls 'multimodal' which combines theatre, dance, music, film, video and slide. It allows the audience to piece together its own version of the story.

Guzkowsky.(1997)

This type of active involvement does not disallow visually impaired people to participate and to contribute and allows for the unique qualities that may be used by visually impaired people, when they respond to stimulus. For people with sight loss, the transference of ideas from a visual medium to a partially non-visual medium (sculpture, dance, music or theatre) has long been practised. The transference of responses between media has enriched and evoked not only the world of the visually impaired but provides for a new way of seeing for sighted people. Artists are experimenting with 'other than visual' materials to portray ideas. One such artist is Lukasz Skapski, who in 2000 produced a series of sculptures for his Light Works exhibition. Skapski was not content to use traditional materials but used

a wide range of media to include sound, taped stories, personal space, photography and scientific instruments. In the catalogue for the Light works exhibition, (pg 24)

Swenson 2000, describes Skapski ;

Skapski is an artist who wears many different hats. He is a shaman and a showman; a mechanic and a magician; an inventor and a trickster; a philosopher and a comedian a craftsman and a scientist. But above all, Skapski plays both God and devil's advocate
Swenson 2000.

Perhaps any search for aesthetic understanding should allow for the diversity of the artist's approach as well as the diversity of responses from all types of audiences.

(Certainly for my search for aesthetic understanding this is the case.)

Rosemary Carter. No.002

Initial interview Saturday 12th September 1998.

Background information.

Rosemary has no left eye and the sight in her right eye is very poor. She has nystagmus, photophobia, tunnel vision, myopia and has colour blindness seeing only greys. (See in appendix, An overview of Children's Eye Conditions) Rosemary has an enquiring mind and as a child endured much deprivation at school where she was left to her own devices as it was considered that as a visually impaired child, she was unteachable. As a small child, Rosemary realised that she had a sight problem, but thought it was 'something she was doing that was wrong' and as a result, never informed her mother who did not realise Rosemary had a visual impairment.

Rosemary's sight defects were discovered when she was around six years old. Her left eye was removed after a bout of measles and Rosemary remembers that her underlying thoughts as a child were, 'to get back to normal.'

Rosemary was a sickly child who was nursed for long periods by her mother. She missed a lot of schooling but was always interested in books and pictures. Letters and numbers were initially a problem for her as she had little formal teaching and until a retired teacher made letters out of sandpaper for her to feel and recognise Rosemary was unable to read. Rosemary was always interested in practical things, (things she could do for herself) Latin, algebra and geometry bored her stiff but she enjoyed history, biology (where she could practice on her pets) and French.

Rosemary applied herself to mastering reading, where by sheer concentration and with the use of a large magnifying glass, she could manage around three pages of classical literature before giving herself a severe headache. Rosemary has now read

most of the popular classic books. When Rosemary was able to attend school she had no individual support, was not allowed any physical exercise, (as jumping up and down was considered dangerous for her) and as a result found herself marginalized for long periods of time. As a result, Rosemary entertained herself by drawing, copying shapes, inventing letters and by keeping quiet and not making a fuss.

As her mother was always extremely busy, an old Scottie dog would take her to school. It was tied to the fence at school and later would bring her home again.

Rosemary had this dog from the age of fourteen and it was a constant companion until she was twenty-one, she feels it was a form of 'self help' guide dog.

Rosemary says she didn't know what art was, what she did was just a way of making pictures and copies of the world she lived in, 'a strategy to entertain herself and to learn about the world.' Whilst others did their homework, Rosemary kept quiet by playing with buttons, seeing how many different stalks and leaves she could find in the garden, seeing what types of textures she could discover and what patterns she could find in nature.

When Rosemary was forty years old, she realised she could register as a blind person after listening to a radio programme on radio four. In many ways, Rosemary's whole philosophy reflects this attitude of not complaining, doing things for herself and making things happen for her by sheer application. For Rosemary, everyday activities and art activities mesh together into her normal everyday endeavours.

Artistic Information.

Sounds, picture making, texture exploration, shape exploration are all part of everything I do. Art is an incredible luxury I haven't got time for, yet I feel I have to make time to understand all the things that are happening.

Everything Rosemary has learnt has been through her own exhaustive application of touch, examination, comparison and finally understanding. Even the drawing of a six pointed star (demonstrated) was perfected after long periods of time were spent by rigorously tracing the outline of the shape again and again until her hand recognised the movement and her brain recognised the symbol. Rosemary informed me that she didn't take the pen off the paper because she didn't want to lose her place and it was like drawing with string, 'she unravelled the shape.'

Rosemary spent some time doodling whilst we talked and by watching her work, I began to understand her process of learning. Rosemary seemed to focus her drawings together with her thoughts and ideas into a form of interlinked doodling. The process was rather like an embroidery using pencil, ideas, shape, letters, words and impressions in order to create a new multi-faceted whole.

Rosemary suddenly informed me that as a child she used to hate some people and she would think of all the different ways she could hate them, usually starting with how many different ways she could embellish the word 'hate' with decorations.

For Rosemary, artwork was a way of not being bored. As a child, she would occupy herself by inspecting conkers, green beans and sweet peas.

I learnt everything by feel; I just drew what was there. If you got really bored you could see how many different stems you could find in the garden. You could compare the lengths, thicknesses, where the buds came out, the shapes of the stems and what shades were visible to me. Sweet peas were one of my favourites, they are quite interesting, and you can peel them to see how they are made.

I next asked Rosemary about her pottery. For a while Rosemary had worked at her own studio pottery business.

To begin with, I hated the idea of pottery; it was for disabled people or for middle class people. I faked my way into an art college to learn about pottery but once they found out I was colour blind they said I couldn't take any examinations and again I was left to my own devices.

Rosemary attended the Guildford Art College between 1958-1962. During this time

Rosemary managed to persuade the college to let her stay where they devised a course loosely based upon art, architecture and pottery. However, Rosemary thought that they didn't really know what to do with her as she was the only one on this particular course and she concentrated upon things that she wanted to do rather than on any set programme. To begin with Rosemary found she could not throw pots, she could model, but this was not good enough. After six weeks of intensive throwing she felt she had not mastered the process and so she devised a method of thinking of at least twenty-five different ways of throwing a pot and after attempting them all she felt she had improved. Towards the end of her third year at Guildford, Rosemary decided to build herself a pottery kiln. She went to an old aeroplane scrap yard and purchased some dexion shelving and some aluminium sheeting and together with concrete, vermiculite, electrical elements and dowel rods she managed to make a fully working kiln. Rosemary made some copies of old Staffordshire figures, which she sold easily and suspects they have subsequently been sold on as originals. Yet for Rosemary the process of enquiry is just as important as the finished work and is all a procedure of keeping herself occupied, finding out about the world she lives in and not complaining. Rosemary's independence is quite extra ordinary, she informed me that she managed to repair her washing machine after it had 'eaten' an under wired bra.

I could tell what was wrong by touch. I knew where the heating element was and where the outer casing was and I could feel between them to see if anything was loose. By methodically inspecting all the parts you can tell what is wrong. It's like nature, by comparing all the bits you can see what doesn't fit. Rats have long tails which they use for balance, I'm rather like a rat where everything I do has to balance. It's a way of expressing myself within nature, its being me.

I asked Rosemary what she thought her role in life was and how this affected her artwork. Rosemary thought it important not to waste time as time was quickly used up with finding out about things. Rosemary mentioned that she was a Christian and unfortunately it brainwashed you into thinking about things in a particular way.

I'm interested in youth clubs, teaching in prisons, dyslexic children and pet rescue. My own family life has focused me onto lots of life's problems, my grandmother had chronic motor disability, my husband suffers from depression and bouts of violence, my son has Turrets Syndrome and diabetes, I am partially sighted and all these peculiarities have moulded the way I think about things. Being artistic, whatever that means, is like being pretty, it's just a physical trait it's what you are or rather; it's what people think you are.

Initial Reflection.

Rosemary is a very intense person, possibly a perfectionist. She has very well considered opinions yet often feels that people do not like her. Rosemary's daughter informed me that she felt that Rosemary could misread other peoples reactions towards herself. Due to her time at art college, Rosemary's knowledge about art and artworks are well developed. Her drawings show a good level of draughtsmanship and her pottery is developed to a level of saleability. Rosemary's home life has been one of constant illness and disability both with her own ill health and with the poor health (both physical and mental) of her immediate family. I must admit that I find Rosemary extremely difficult to assess. Her aesthetic contribution is obvious and her sight loss makes her an extremely suitable candidate for a case study, yet her extreme originality and her forceful interpretation of life render her so unique that any parallels with other case studies may prove to be too tenuous. What is apparent is the lack of understanding the sighted world held for Rosemary and her specific problems

One particular thought at this stage is that Rosemary's situation demonstrates the isolation that a number of visually impaired people feel about their impairment. The fact that they do not see as well as other people, does mean that they can not interpret visual clues, they miss visual communication aids and they cannot pick up gestures. However, this extreme case does provide towards defining some of the parameters for any aesthetic inclusions into this study. A further meeting will prove extremely interesting, where careful questioning will be extremely important. I will need to tease

out information regarding specific visual interpretations and of Rosemary's understanding of her environment. As Rosemary is colour blind, it may prove interesting to find out about Rosemary's thoughts on colour. I would like to develop some ideas regarding Rosemary's use of language and her thoughts on visual impairment. I would like to ask Rosemary about the ideas John had about his feelings of 'completeness' in order to see if there is any common ground between these two people. Finally, it will be interesting to see if Rosemary's ideas concerning abstract art are close to the ideas she was taught in art college or whether she has a particular interpretation of this area of art. (At the time Rosemary was at college, Cubism was considered to be the most usual example of contemporary art and the Abstract Expressionists were considered to be an example of extreme artwork.)

Rosemary Carter. Second Conversation.

In the speculation, following our first meeting I had mentioned that I found Rosemary to be a puzzling 'client' and due to this I wanted to prepare carefully for the next meeting. I wanted to develop ideas concerning shape, as Rosemary had stated that in her childhood she had spent many hours feeling leaves, seeds, stalks, bark and the various other items found within her garden. This definite input of stimulus must reflect upon her subsequent concepts regarding shape and proportion and I wish to pursue this. I would like to see if any patterning or reoccurring shapes are used by Rosemary in her artwork and although Rosemary is and has always been colour blind, I wish to investigate any strategies she has developed for this problem.

I consider Rosemary to be an intelligent and inquisitive person and I want to consider the importance Rosemary placed upon the use of language as a vehicle for sharing information, ideas and for the development of one's imagination.

With this second 'conversation', my final questions would be concerned with abstract representation. I had been hoping to uncover some form of 'instinctive imaging' that visually impaired people used and with Rosemary's assistance, I hoped to demonstrate some evidence of sub conscious preference that may fit into a scheme of inter relationship between shape, colour and form.

Recurring shapes.

To begin this session of information gathering, I asked Rosemary about what she had learnt from her time in her garden as a child.

I learnt a lot from my time in the garden. I was often alone and very lonely and so for me, the garden was a voyage of discovery. I learnt all the different shapes of the leaves, I learnt that holly leaves have beautiful dips between the sharp spikes. I learnt about the different seasons and when to go to different parts of the garden to find special flowers and plants. You can tell the seasons by the different smells of the plants and by the weight of the berries. Horse chestnut seeds have a texture inside which is very like human skin and when I split them open to see the conker inside, it felt as if I was looking at new born babies. I felt very privileged.

I experimented with stinging nettles to see if there was a way I could pick them without being stung. I examined the way fern leaves unrolled and I learnt about the way dandelion seeds fitted into the top of the stem to make the round fluffy shape.

Gardens get you down to earth after being out and you can invent games in the garden when you haven't anyone to play with. For example, I discovered that ladybirds like lilac plants and if you place an umbrella upside down under a lilac bush and shake it, you can guess how ladybirds fall out and you can guess how many different types there are. You can count the spots and you can watch them to see how they move around and how they fly. Gardens are an inspiration; in fact, my daughter took up ballet after learning about seeds and plants in the garden.

I purposely did not pursue this statement at this time; it seemed to be a very large statement and I did not wish to become side tracked this early on, but an interesting observation by Mc Fee (1994) pgs. 117-118, helps to focus this point when he discusses the difficulties for the dance/language analogy. Initially McFee sees little compatibility;

The first difficulty concerns the fact that, it seems, the unit of meaning in language is the word, but in dance there is no equivalent unit. There is no independently meaningful element of a dance. We find the meaningfulness of particular segments of the dance in terms of the meaning of the whole dance. The second difficulty concerns translation, for we can typically translate a passage of language into another language, or (and this is paraphrase) into another set of words in the same language. But it is widely agreed, it makes no sense to speak of constructing an exact equivalent for some work of art.

McFee (1994)

I am interested with this idea of transferring creative responses through different media because I consider that visually impaired people can achieve some measure of aesthetic enjoyment by employing a method of transferral. Luckily McFee (1994, pg 119.) softens his argument with this qualifying statement;

For dance-critical purposes, the explanation functions not instead of the movements as it would if we thought of the dance as translatable into words, but rather (at the least) as an adjunct to the movement. One may even think of that explanation as part of the movement. For seeing it as dance is seeing it as the sort of thing that can be explained in these sorts of ways.

McFee (1994)

This area of research, concerning the transfer of creativity through different media was first raised by John when he was explaining his ideas with photography, Rosemary has spoken of transferring garden stimulus into dance, it will be interesting to see if any one else mentions this phenomena. My next question for Rosemary was to reflect upon her involvement with gardens and what beneficial qualities she thought gardens held.

Nature feels so nice, its friendship really. It has the promise of new life every year and it has the promise of old friends revisiting you with the changing seasons.

The next issue I wanted to develop with Rosemary was her interpretation and understanding of colour. Rosemary has always been colour blind and describes her vision as seeing shades of grey. I asked Rosemary what coloured clothing she thought I was wearing and I was intrigued by her logical reasoning. Firstly, after gathering an overall impression of tone, she commented that as I was wearing jeans, they were probably dark blue and as I seemed to be a tidy sort of person my jumper would probably be colour co-ordinated. The jumper seemed lighter and so it would probably be blue or green as these seemed to be lighter colours. It was in fact a lighter blue!

If you have never seen, you have to learn so much. It means that I might wear socks that does not match, so you have to learn about texture and shape to help you. If you don't have colour you have to learn what colours people usually wear. Old ladies usually wear purple and children usually wear red and blue anoraks at the moment. You can tell different ages by the colours people wear, business men are usually

in dark blue and school girls wear bottle green. You have to learn about colour instinctively otherwise you could quite easily get mixed up. Looking only at shapes means that you can't tell the difference between puddles and concrete, so you have to get your colours in order. In fact, you can tell history by its colours, the 40's was khaki, the 60's was red and black and the 50's were green. Willow pattern is always blue and I know that my cups are probably green because the old ones are blue and these ones are not quite so old and look lighter, so they are probably green.

They were in fact green but she could have been told this at some point. However, the point that impressed me was Rosemary's demonstration of logical reasoning where she showed that even though she had no colour vision and had never had colour vision, Rosemary enjoyed the notion of colour in her everyday life. Rosemary had developed a process of establishing colour values for the objects in her environment and she used this large colour range as part of her everyday experience.

Rosemary next turned to her old Springer spaniel and explained about its colouring. She felt that it was probably dark brown or black and as she had been told that it had 'liver markings' she supposed the lighter patches were red. Rosemary knew that her dog had cataracts and claimed that this colour was green. (the colour of putrefaction?) I prompted Rosemary further by asking her about the colours she found in nature and I asked her to consider those elements in nature that people with sight loss may not readily understand, such as clouds, reflections water and rainbows.

Fluffy clouds are a lie, it's just water, cold fog. You could never sit on one. As soon as I got the chance, I went up in a plane and it's just cold and wet. It's worse than telling children about gooseberry bushes. You need colour to see what the weather is going to be, I've never seen a sunset or a red sky at night, I'd never seen rivers until I was six years old and that was a disappointment! I was surprised to see that it was all the same colour and I can remember thinking 'why isn't it deep? It was dark and looked just like a concrete runway, it didn't seem to flow anywhere like rivers are supposed to. It was like a trap because you can't see it go down. I was terrified of water.

Rosemary had begun to touch upon the very interesting issue concerning the reliance upon verbal description some visually impaired people have. If a sighted person uses language to define 'things' in the environment, to a visually impaired person, they empower those things with impression and value that are attributed by both describers and receiver. These impressions need to be matched with an actual physical

experience and often that experience is less than the imagining of the visually impaired receiver expected. The impression of clouds that Rosemary received through flying, was more of a reaction to wind, speed and altitude rather than an impression of cumulus nimbus on a sunny afternoon. The important point is that any input provided by a sighted person for an unsighted person must be very carefully explained.

My next question for Rosemary was concerned with the use of language and the development of the imagination. It helped to develop this point.

Language is trust, if you can't believe people you don't rely on them. You have to find out for yourself. I always thought that if I could find out for myself without being told about things, then I wasn't really blind. Experience was always more important to me than talking about things. I have always striven to ridiculous levels but experience is everything to me. The doing usually ends up disappointing though and I loathe meeting new people.

Language is a very important tool to help visually impaired people understand more about their environment but I would develop this further by adding that the use of voice is even more important. Visually impaired people cannot react to gesture or facial expression but they can listen very acutely to what is being said and how it is being said. Without the distraction of visual contradiction a visually impaired person can focus upon the voice and can discern more than the language describes.

Often these things revealed pertain to the describer rather than the object being described, but the process provides a unique experience for the unsighted recipient.

Rosemary indicated that trust was needed between sighted and unsighted people in order to overcome perceived differences between both parties. I asked her if she thought that blind people could develop their ideas without sharing with sighted people.

Once you have learnt to read, you can get thousands of ideas from books and other people are not so important. For me, well written books like the Bible and fairy stories give me lots of ideas. Books transfer ideas and playing games can develop these ideas even further. As children we always played games like, Simon Says, Grandmothers

Footsteps, the Farmer and his Wife, even musical chairs. You could develop your own ideas with the stories you had read by giving different endings to Cinderella or Jack and the beanstalk. We used to act out Charades. Do people still do things like that any more? Poetry was another very important way of imagining things. My mother and I would read poetry together, we learnt a poem a week. When you have read a poem or a story, it makes you want to go out and find things out for yourself. You could forget you couldn't see and if you never talked about being blind, it might go away.

My next question was about Rosemary's own art, about her reaction to abstract art and why we should be concerned about making artwork.

Art for me is part of why I'm here. It's about making my mark. It's about not wasting my day, it's a reason for being. As I've been given a life and the senses to experience things, then I've got a responsibility to try and understand them. Making pictures helps me not to worry because I'm learning about where I am. Art is like carving your name on a school desk, someone's been there before but you are making your mark and you become part of it all. It's attractive and it's ugly but it's all nature and all art. It's like duck's feet, they are beautiful but they have vicious little hooks. Art is like listening at doors to find out what people are talking about. Art is like being blind in the playground and walking in front of the swings because you can't judge distances. Art is space and time and pieces of string.

Rosemary's thoughts on abstract art.

With abstract art you need to learn. Some abstract art like Henry Moore's work, you can understand but with most you need to ask, why? why? why? You either challenge it or dismiss it. It's subjective. It definitely appeals to our primitiveness but you do need to look at it in a special way and not only with your eyes. Perhaps all people should try to look at art in different forms. What about tractors and dustbins? You could set up an artificial dustbin and by examining the contents you could discover a whole range of new information. Did you know you can clean shoes with banana skins? If you rub your shoe with the inside part of a banana skin, it makes them shine. All art should be from nature. A lot of abstract art is taken from nature and it all fits together like a jig saw puzzle. You can learn about art from galleries but you need to go to six or seven different ones, but for me I only need to go to one garden. It has the most art, abstract and representational.

My final question was concerned with any associations Rosemary might have between shapes and ideas.

Shapes can trigger memories and new ideas and I ideas make you think of shapes. Whenever I am out I look to find new shapes and experiences, sometimes a shape makes me remember things I had forgotten. The other day I went to a funeral and I discovered what pom pom chrysanthemums and stripy lilies looked like. I remembered that I used to eat flowers when I was a child, the smell of lavender was so much better than the taste though. I learnt that at crematoriums curtains swish and you can measure how tall the person might have been by the number of clicks the coffin makes as it passes by. You can look for different patterns with shapes and sounds and smells and you can link up lots of new and different things. Its like Happy Families, I suppose its genetics and its nature and its art!

Further Reflections.

As a child, Rosemary channelled all her unhappiness and loneliness into discovering

things in the garden. When her mind was diverted by shape, form and texture, she was not thinking about her sight problems. Rosemary's method of listing and categorising leaf shapes, stem types, smells and textures combined with her methodical nature of attempting to understand how these things 'worked' and is an attempt to exert some control over an environment which was confusing and hostile. If she could understand how fern leaves unfurled or how seeds were arranged in pods then some degree of control could be established in her world. Not only was she occupying her mind away from the torment of her sight difficulties she was exerting some influence over her benign environment.

Listing of objects is a common practise amongst visually impaired people and whilst it is a good ordering method and an aid to memory development, for visually impaired people, in Rosemary's case it could indicate a form of obsessive behaviour. There are links between the behavioural patterns of visually impaired people and of people who are judged to be on the autistic spectrum. Bee (1985,pg 505) explains about some of the mannerisms of autistic children, all of these can demonstrated by visually impaired children although the use of language is usually very well developed

Autism. Autistic children are generally unresponsive to the people around them, do not cuddle or respond to affection as do normal infants do not make eye contact regularly, and show significant retardations of language Some do not develop language at all; others develop vocabularies and may even use two word sentences, but they do not adapt their language to the person they are talking to and may develop their own words for common objects. They also typically show resistance to new events and to any changes in their environment and often show ritualistic or repetitive behaviour (twirling finger movements, or the like.)

Bee 1985.

Rosemary's method of deciding about colour is extremely interesting. Her method of logical reasoning demonstrates a very good example of how visually impaired people can understand about things they cannot see. Rosemary shows an

understanding and use of a medium she cannot see well, yet, is prepared to manipulate its qualities. In some instances Rosemary was correct in some of her assumptions but more realistically, her demonstration showed that a literal understanding of colour together with the substitution of sensory stimulus can not fully compensate for sight loss. In many cases her logical deductions led to an understanding of those things unseen but her final conclusion appeared to be flawed as her inability to see colour often led her to inaccurate conclusions.

The ideas Rosemary holds regarding the links between colour and time offers much to the speculation of aesthetic understanding and visual impairment, Rosemary understands a certain rhythm and balance with her colour assumptions that could be construed as contributing to an aesthetic appreciation of colour. Pinker, (1994, pg 62) offers us this insight into the phenomena of colour;

Languages differ in their inventory of colour words. Latin lacks generic 'grey' and 'brown'; Navajo collapses blue and green into one word; Russian has distinct words for 'dark blue' and 'sky blue'; Shona speakers use one word for the 'yellower greens' and the 'greener yellows', and a different one for the 'bluer greens' and the 'nonpurplish blues.

Pinker (1994.)

and equally interestingly an opinion regarding time;

The fundamentally different Hopi concept of time is one of the more startling claims about how minds can vary. Whorf wrote that the Hopi language contains no words grammatical forms, constructions or expressions that refer directly to what we call 'time', or to past or future or to enduring or lasting. He suggested too, that the Hopi had no general notion or intuition of time as a smooth flowing continuum in which everything in the universe proceeds at an equal rate, out of a future, through a present into a past. According to Whorf, they did not conceptualise events as being like points or lengths of time like days as countable things. Rather, they seemed to focus on change and process itself and on psychological distinctions between presently known, mythical and conjecturally distant.

Pinker (1994)

These statements place Rosemary's views into a context where much of what is seen is not what is actually there but reliant upon basic concepts believed by the person who is perceiving the event.

Rosemary's statement that 'language is trust' is again revealing. If one cannot

see, then any description or explanation takes on a more significant importance. Her endeavours to experience her environment 'first hand' demonstrates how that environment is less accessible and more challenging. Time needs to be spent examining almost every aspect of any particular incident before a perception and evaluation can take place. Many blind people feel that sight is the ability to 'feel at a distance' or a 'short cut' to understanding. Language is an important tool for blind people in their pursuit of knowledge and a trust in the information delivered through verbal language is vital. However language is much more than a vehicle for the transferral of information. Pinker (1994) pg 18, develops this argument with these thoughts;

Language is not a cultural artefact that we learn the way we learn to tell the time or how the federal government works. Instead, it is a distinct piece of the biological makeup of our brains. Language is a complex specialised skill which develops in the child spontaneously, without conscious effort or formal instruction, is deployed without awareness of its underlying logic, is qualitatively the same in every individual, and is distinct from more general abilities to process information or behave intelligently. For these reasons some cognitive scientists have described language as a psychological faculty, a mental organ. A neural system and a computational model. But I prefer the admittedly quaint term 'instinct.'

Pinker 1994.

Both for Rosemary and for other blind people, language can function as a computational model and as an instinct together with the medium for transferring ideas. The use of language is very important for visually impaired people as part of a process used to deliver any creative response. Language enables visually impaired people to verbally 'doodle' with description and to mentally negotiate image for practical interpretation. (See observation sheet number 002) Equally through the ideas Rosemary has, regarding her imagination, we are able to see how she has interlinked ideas, language, observation and instinct into a creative and aesthetic understanding of her environment.

Dennett, (1993), pg 60 offers us an interesting observation on the imagination which

may help to develop ideas regarding an aesthetic understanding and the use of imagination;

Imagined sensations (if we may call these phenomenological items that) are suitable objects for aesthetic appreciation and judgement, but why, then, do the real sensations matter so much more? Why shouldn't one be willing to settle for recollected sunsets, merely anticipated spaghetti al pesto? Much of the pleasures and pain we associate with events in our lives is, after all, tied up in anticipation and recollection. The bare moments of sensation are a tiny part of what matters to us.

(Dennett, 1993)

For a visually impaired person, the facility to anticipate is closely linked with their abilities to construct a concept. By working with those things learnt and known, a visually impaired person will logically anticipate an outcome.

Rosemary is not interested in competitive games but through her interests in poetry and reading, she felt that she was able to act out and develop ideas generated through this literary input. Rosemary considers the information, explores the qualities of experience and extends it into a 'play reality.'

This is a very interesting proposition as it demonstrates how visually impaired people combine different sensory qualities together into their act of creativity. Where sighted people deal with a combination of tactile material or a combination of colours, visually impaired people will attempt to combine language together with shape, texture together with smell and sound together with density. The fact that some of these combinations seem unlikely is because the sense of sight tends to override the other senses and creates a visual order. Without sight this order is different yet has an aesthetic merit that can add to a general aesthetic understanding appreciated by both sighted and unsighted people.

Rosemary's art, at times seems to be a type of therapy, where she uses the 'things' she finds in the environment to firstly explore and understand, and then to combine into her world of art. It has become a way of life for her but it is also the creation of a safe environment. When she was a child, Rosemary subjugated her fears of everyday life

by conquering her known environment, the garden. In later years, Rosemary constantly demonstrates this process through her artworks, where she produces 'logical' drawings developed by her knowledge of 'what goes where' and 'this must be this, because that was something else'.

As a strategy for overcoming visual impairment, Rosemary has developed a successful model and if we apply this model to a developing understanding of an aesthetic order, used by visually impaired people, there is much to be learnt.

(Rosemary's model is itself extremely aesthetic as are her statements.)

The ordering process, the use of logical reasoning and the methods of qualifying an unknown by using a series of known things, present an insight into how people with a sight loss function in a sighted environment. Rosemary's methods of developing her perceptions also indicate a value that aesthetics may hold for visually impaired people. The facility used by visually impaired people, to take (extract) known information for themselves, (to internalise) through different routes other than vision, is an extremely valuable facility. The possible creative output of this process is a little difficult to evaluate, there could be a definite aesthetic process and a physical artwork, yet this evaluation tends to provoke a visual response rather than an unsighted appraisal. (I'm not sure how an unsighted appraisal of a physical entity could be communicated, perhaps through language?)

Elizabeth Price Simmons No.003

Background Information.

Elizabeth felt she was never meant to survive. She was a Rhesus negative baby and after a blood transfusion at birth and against all odds she lived. Elizabeth was a clumsy child who lacked balance and also suffered from infantile paralysis. Her sight has always been impaired and she has had corrective surgery in the form of a lens implant and has had cataracts removed. Elizabeth's sight dramatically deteriorated further when she was in her forties and can only see 'close up.'

Elizabeth has always been interested in art, her father was an antiques collector and some of Elizabeth's earliest memories are of her father's collected curios. She recalls images of stuffed brown bears, armadillos and Japanese suits of armour as regular items of interest placed around her childhood home. Her father was also interested in the 'Dutch Masters' and Elizabeth's early years consisted of regular visits to museums and art galleries, she has always hated loud noises and counts a museum atmosphere as a favourite environment.

Elizabeth worked as a journalist until her increasing failing sight forced her to give up her work. Elizabeth can no longer drive a car but has thrown herself into the Positive Vision cause with enthusiasm.

The occasion of our first meeting was through an invitation from Elizabeth for me to attend the unveiling of a collective artwork that had been produced for the Lewes Art Festival by members of a disabled art group, of which Elizabeth was a driving force.

The artwork was a totem pole where each composite feature had been sculpted/painted/shaped by the different members of the art group. This particular sculpture workshop had been funded by Artability and the project had been completed over three intensive days.

Specific creative/aesthetic information.

On asking Elizabeth about her interests in the creative processes, Elizabeth began by making an illuminating observation;

When you can no longer see outward, you tend to focus on things that are inward. You have to look and feel more. Not only with the visual things but with those things that you don't need sight to see. As I no longer see the world as sighted people see it I have to focus on other things. I have to make my own reasons for the world.

As a response to this, I asked Elizabeth about any specific strategies she employed when she attempted to make sense of her world and what methods she relied upon when she focused upon those things she could no longer see. Elizabeth informed me that she made judgements based upon the sounds she heard, the way the sounds were made and based upon the 'intensity' of the sounds. This audible stimulus provoked 'spontaneous visualisations.' As an illustration for this Elizabeth recounted incidents of people reacting to her white cane in railway stations. Dependant upon how Elizabeth was received or how she perceived she was being received, Elizabeth's imagination was triggered with strong visual images of those people around her. Elizabeth felt that even after speaking with someone on a telephone, the verbal clues were sufficient for her to build a strong visual image of the person. Elizabeth admitted that this was possible because she had a visual memory and when she had seen more fully she had been able to gather a large memory bank of images. Elizabeth thought that if sighted people practised this exercise of visualising people over a telephone they might get some idea of what being visually impaired was like. Elizabeth felt that as her detailed sight had diminished, bright colour had become much more important to her. As she saw less, pure, vibrant colour provided rich visual sensation for her. The colours became more important and Elizabeth believed that the physical properties of colour gave her much more than a purely

visual sensation. Colour symbolism has become increasingly important to Elizabeth and she felt that she could interpret mood, feelings and emotion from different colours. Her particular affinities were with reds and yellows, she felt that pastel shades were not 'real colours,' they are anaemic and not pure, insipid and not restful. Elizabeth defined her belief by stating that in her opinion it was 'not an accident that the sky was blue and the grass was green, it's all part of a greater plan.'

Elizabeth felt a particular affinity with curved shapes; she claimed that they were 'non-threatening.' As she was now visually impaired this was very important to her as 'curved shapes had no sharp edges.' From an aesthetic point of view Elizabeth qualified this by stating that 'an archway is better than a doorway.'

Elizabeth felt that with bright colours and curved shapes, you were encouraged and stimulated to respond in a positive manner. These qualities inspired people to achieve things they would not normally attempt. Elizabeth thought that the shapes and colours worked upon people physically, to help overcome repressed feelings. These colours and shapes could affect health, ideas and they could motivate sub consciously.

As Elizabeth was speaking at length about feelings, I asked her if she felt it was important for people to express their feelings. Elizabeth thought that it was important for our emotional well being and that it was a fundamental requirement for people to make contact and communicate with each other.

People live in fear and through communication and through art we have a peaceful way of introducing ourselves. Each of us is a separate contemporary history, we each have a truth or a story to tell. This can be distorted and altered by time and the future but through our influences and through art we can tell people and remove some of the fear. This fear is based on the unknown or unseen. If you cannot see, you have more to be afraid of. Colours and shapes can help you to understand about the world.

Following on from this statement, I asked Elizabeth about her thoughts on our unconscious and what she thought our unconscious mind contributed to our

understanding of the environment.

Our unconscious is like a magnet that calls to the environment. We are attracted to certain elements and repelled by others. Our sub-conscious knows what is best for each individual and it acts as a guide. Our unconscious is a primitive irresistible instinct.

My final question for Elizabeth at this meeting was regarding her thoughts on beauty.

I wondered whether her ideas concerning our sub conscious covered what she considered to be aspects of beauty.

Beauty is like art as it can be anything that makes you feel better about yourself. It is uplifting, it shines. Beauty and art in fact could and should affect the world in every way to make it more harmonious. Beauty is like a favourite colour that shines and inspires you. Each of us has a particular affinity with a colour and each of us has a special feeling for our ideal beauty. You don't need to see beauty because it becomes a feeling rather than a seen thing.

This interview was sandwiched between the unveiling of the totem pole and Elizabeth meeting and greeting her fellow artists. It provided an interesting insight into the person who was overcoming her problems with an increasing sight loss, who is dedicated into a pursuit of a creative release and is very able to articulate her feelings and perceptions regarding a 'non seeing' aesthetic.

Initial Reflection.

Elizabeth has a rich visual background and has had the benefit of a very broad visual stimulation as a child. Her father's antiques and curios have provided Elizabeth with an abundance of shape and colour associations. Therefore it is not surprising that Elizabeth places significance upon colour and shape and her references to her 'inner visions' must derive from these vast influences.

Elizabeth's belief that all colours have a meaning which is more than a colour identification is very interesting and has been the subject of speculation throughout history. Feisner (2000) pg.118 in her book on colour provides several pointers showing the developing concepts regarding colour.

Some colours seem to convey universal truths, and have been codified by organisations such as the Occupational Safety and Health Administration (OSHA) of the US Department of Labour. Yellow, for example is a very visible colour, which is used on school buses. OSHA regulations designate yellow for caution and for marking (usually with a yellow and black chevron) physical hazards you might trip over. Red, for danger, is the colour for identifying fire protection equipment and emergency stop buttons on dangerous machinery (though in some states yellow is replacing red for these functions) In many Middle Eastern countries, blue is viewed as a protective colour: front doors are painted blue to ward off evil spirits. In some communities of the Southeast, (USA) front porch ceilings are painted blue to keep ghosts at bay; in the Southwest (USA) many native Americans also paint their doors blue to keep the bad spirits away.

Feisner (2000)

The notion of 'universal truths' for colour is very interesting and I suppose Elizabeth is relating to this when she hints that the sky is blue for a specific reason. The idea that the sky is blue in order to blanket the world with a benign reassurance is quite comforting. Feisner (pg 126) develops her ideas regarding the power of colour with the next statement.

Colour has been shown to affect human moods, physiological responses and perceptions of temperature, size and ambience. Coloured light is used to treat some illnesses and to soothe patients in hospitals and institutions. Warm colours (particularly red) increase human attraction to external stimuli, induce states excitement, produce higher arousal levels, quicken muscular responses, and increase grip strength. In contrast, cool colours (particularly green) reduces anxiety states, and are associated with extremely calm and tranquilizing moods.

Feisner (2000)

If as Feisner states, colour can affects human responses, the affect on people who can see colours is profound. It must shape much of our initial responses to whatever we see. Conversely if someone cannot see colour they must be equally deprived of these responses to our everyday environment. Feisner (pg 127) confirms this thought with her final statement.

Colour has a significant effect on both our minds and bodies. Young children are attracted more by colour than shape. As we mature, we will often become more form dominant; however, creative people often remain colour dominant throughout their lives. Eye tracking studies of infants indicate that, regardless of sex, red and blue are the most preferred colours. Some psychologists believe that analysing an individual's use and response to

colour can reveal information about his or her physiological and psychological condition. It has even been suggested that specific colours can have a therapeutic effect on physical and mental disabilities.

Feisner (2000)

Elizabeth's increasing reliance upon the things her diminishing sight can see has unearthed a method of visualisation that blind people may use for gathering information about an unseen environment. If one cannot see the particular wavelengths that attribute colour to an environment, it may be possible to gather input from those unseen wavelengths that correspond to those colours. In much the same way that a person responds to the colour therapies dependant upon strong colour, a visually impaired person may benefit from the connotations that specific colour imbues upon individuals. In the same way that all people respond to the benefits of ultra violet light (in medical uses) all people may respond to the unseen wave lengths attributed to specific colour bands. I suspect that these benefits of colour therapy may initially be through the medium of sight, but logically there is no evidence to rule out the hypothesis. The final thoughts I have on this issue at this particular moment are shaped by the thoughts of Ryle (1990) pg.14 in his book the Concept of mind, he says;

Even when 'inner' and 'outer' are construed as metaphors, the problem how a person's mind and body influence one another is notoriously charged with theoretical difficulties. What the mind wills, the legs, arms and the tongue execute; what affects the ear and the eye has something to do with what the mind perceives; grimaces and smiles betray the mind's mood and bodily castigations lead, it is hoped to moral improvement. But the actual transactions between the episodes of the private history and those of the public history remain mysterious.....

Ryle (1990)

Elizabeth Price Simmons. Second conversation.

The second 'interview' with Elizabeth proved quite difficult to arrange, I had chosen to conduct the interview over the telephone, but attempts to track her down were quite problematic. My first attempts were postponed due to her holiday in Cyprus, my

second attempt found her in Hong Kong where she was combining another holiday with generating interest for the Positive Vision art group by means of an art exhibition featuring artworks made by visually impaired people. My successful attempt at contacting Elizabeth found her in Cambridge; her son had furnished me with several phone numbers scattered around the country of likely places where she might be.

Elizabeth was full of enthusiasm after her successful trip to Hong Kong, she had generated further interest for the exhibition and thought that venues in both France and Spain was possible.

After this preliminary exchange of news, I reminded Elizabeth of some of her earlier comments and asked her if she would expand upon some of her initial thoughts.

My first interest was based upon Elizabeth's ideas regarding her 'inner world', the place where she sought some kind of refuge from the 'outer world' where her sight was diminishing. I wondered what sort of things she might 'see.'

I suppose I 'see' a form of chaos. A swirl of fragmented shapes and images which come into a kind of focus when someone says something that triggers my mind to concentrate upon a specific thing. I dust off a particular idea and analyse it. These ideas are my creations; they haven't been named yet, but when I concentrate on them I develop a viewpoint or perspective. I crystallize my thoughts. Everything in my mind is moving around all the time and altering, my sub conscious is working all the time just waiting for some spark to set it off. I suppose I have some sort of theme to these ideas and these are influenced by what I have seen or heard in the past. Then if something happens, my imagination takes over and ideas are formed and shapes and images fill my mind.

Following on from this statement, I wanted to expand on what these shapes and ideas might be. I wanted Elizabeth to tell me about these symbols and colours she found and used from her sub conscious. I wondered if there were any re occurring shapes or colours.

I think that these sorts of things are attuned to one's body. They are dependant upon moods, the type of things you eat or drink and they become an almost organic part of what you are. It's all linked together. Sometimes you feel confident and the shapes are light and floating, other times you feel differently and the colours

are darker and the shapes are much more fragmented and rugged. Emotions and feelings can shine through your being rather like the feeling of the sun's rays on the top of your head. I'm sure you can feel colours without seeing them, rather like wavelengths. Using eyesight is like taking a shortcut or like knowing a particular language, there are lots of other languages for colours and shapes, it's just that we use eyesight because it's the easiest one if you have some useful vision. With my sight, I can see things as they appear, but I can also wonder and visualise how these things might become or how they could be altered. If you don't have to rely on sight you can experiment a lot more.

The ideas that Elizabeth has regarding these 'swirling fragmented shapes' awaiting the catalyst of sensory stimulus is not as fanciful as a first impression may suggest, Pinker (1995) in his book, *The Language Instinct*, (pg. 71) provides this insight;

Another creative scientist, the cognitive psychologist Roger Shepard, had his own moment of sudden visual inspiration, and it led to a classic laboratory demonstration of mental imagery in mere mortals. Early one morning, suspended between sleep and awakening in a state of lucid consciousness, Shepard experienced 'a spontaneous kinetic image of three dimensional structures majestically turning in space.'

Pinker. (1995)

It would appear that this 'mental visualisation' process is quite a common occurrence. My next question was concerned with the use and importance of language for people who have a sight loss. I wondered whether a description of something, (i.e. a sunset) could ever be fully described through words to create an equivalent of the visual phenomenon. I added the proviso that if someone had seen a sunset and was now totally blind then the description would act as a memory stimulus but if they had never ever seen, I wondered whether verbal language could fully describe the visual impact.

If you have never seen, I should imagine that it would be most difficult to develop an equivalent through language of a sunset, probably impossible. A lot depends upon the quality of the description and on the experiences of the visually impaired person. If you are visually impaired, you cannot 'see' all in one go. You need to fill in the gaps using your other senses. Ideas can be put across that's what communication is all about. You have to build up your knowledge and experiences. For example, with water, you can start off by putting your hands in a bowl of water and you can make ripples and waves. You could then, paddle in streams and the sea you would build up a 'picture' or experience. You would add to this using other senses like sound and smell. You may never fully understand about the sea and things like the horizon but you would have an understanding of what it meant.

It would also be important to know the person who was describing the things to you. In many cases, people with sight loss build up a sort of intuition with the person who regularly describes things to them, you can sort of understand things from their viewpoint and you get a fuller understanding of what they are describing.

The use of language is more than the use of words and the transferring of ideas, Pinker (1995, pg. 151.) describes it as an 'instinct' and I think that Elizabeth is suggesting this 'instinct', when she speaks of building up an 'intuition' with the person who is describing things to a blind person. Pinker explains this when he considers words to have 'power.'

A word is the quintessential symbol. Its power comes from the fact that every member of a linguistic community uses it interchangeably in speaking and understanding. If you use a word, then as long as it is not too obscure I can take it for granted that if I later utter it to a third party, he will understand my use of it in the same way I understood yours.

Pinker (1995)

In our previous conversation, Elizabeth had explained that she felt that certain people held affinities with specific shapes. Some people were drawn to curved shapes. Others found merit in straight lines. I wanted Elizabeth to expand these thoughts and so I asked why she preferred 'archways to doorways.'

You can't bang your head on an archway so easily, but I think it's much more to do with touching. If you are visually impaired, you need to feel and touch much more to understand what is going on. If you feel an archway, it is much nicer than a doorway. You can follow it with a sweep of your arm. It's comfortable. With an arch, you have a nice smooth curve. With a doorway, you have a movement upwards, then across, then downwards. They feel like three sharp movements. An archway has a smooth curve upwards and a smooth curve downwards, it feels much calmer. When you feel things, they are either 'feminine-rounded' or 'regular-male.' Depending on what type of person you are and on your personal preferences, choices regarding shape and colour follow on from this.

Gombrich, (1982, pg 273.) provides the following thought regarding 'standards of truth' which fits well with Elizabeth's ideas of having an 'instinct for shape.'

I believe that some degree of what used to be called empathy, the automatic reaction to another person's physical state, is built into our perceptions..... But surely man is a strange creature. His ability to assimilate, to learn to respond to symbols and to novel situations, suggests a degree of plasticity of the moving mind which defies analysis and confounds prediction.

Gombrich (1982)

Much work has been done over the last forty years which explains how man responds to sub conscious imagery, Dennett (1993pg 55) is possibly one of the most forward

thinking philosophers in this field, who offers this thought;

Our sense organs are bombarded with physical energy in various forms, where it is 'transduced' at the point of contact into nerve impulses that then travel inward to the brain. Nothing but information passes from the outside to inside.....

Dennett (1993)

I think that all of these 'nerve impulses' mesh together and combine into an instinctive belief that is triggered whenever the person is subjected to a further sensory stimulation. This form of 'mental processing' attributes specific qualities to whatever has been perceived. These 'specific qualities' may be manifested into different sensory areas. Sight, being the principal sense, tends to rationalise the other senses. When feeling a rough surface, one can affirm the roughness of the surface by sight, if you smell a particular smell, again you can determine the source of the smell by sight. If sight is not used, then one's reaction to a primary stimulus cannot be proved so easily and the information received by the brain is not regulated so vigorously. Consequently the impulses received by the brain could have emphasises that has a more subjective interpretation. This could account for Elizabeth's belief that 'shapes have meanings.'

Current art also take notice of the need to involve much more than a visual appreciation of displayed artwork. Pipilotti Rist, who is best known for her double video projection, *Ever is Over All* (1997) has been quoted as saying;

We are all trying to build images that people can experience with their whole bodies, because virtual worlds cannot replace the need for sensual perceptions.

Rist (1997)

I contend that people with sight loss, in their attempt to understand elements within their environment (and artworks), demonstrate the ability to engage their 'whole bodies' in the process of gathering information.

I asked Elizabeth if she felt that instinct played any part in the relationship between touch, preference and understanding. I wondered why she associated curved shapes

with calm feelings and why regular shapes with sharpness.

I think that our instincts and our sub-conscious ideas are based on practical considerations. Sometimes we do not realise what is happening but our automatic preservation instincts take over and instruct us. Sometimes this automatic instinct is triggered by things like shape and colour and we react. We may not need to react so forcibly in these modern times, but we are still ruled by these primitive instincts. I think that although modern people respond to a modern world, we are still stimulated by our basic sub-conscious feelings. In Hong Kong they build things on a smaller scale and although to begin with, I couldn't see this difference, I felt uncomfortable. As I am quite tall I didn't like using their sub ways, I felt closed in and claustrophobic. When I realised how much smaller their sub ways were I understood why I instinctively didn't feel comfortable. My preservation instinct didn't want me banging my head and so my sub conscious had been triggered to dislike the sensation. To use one's sub conscious is another way to feel and I suppose if you cannot see, then it's another sense to develop and use. It's another way to see.

In our earlier conversation, Elizabeth had mentioned that she felt that we were all a part of contemporary history and that the truth could be distorted in the future. At the time I wasn't sure how this fitted into my research but I thought it was worth exploring a little further to see what information emerged. Thinking about Elizabeth's ideas concerning instinctive behaviour and the sense of 'now', which I consider to be important if you cannot see, I wondered how Elizabeth could develop these ideas.

Politics and fashion dictates what is acceptable at any given time. Whatever you say or believe is subjected to the fashions and times you live in. If you speak right now, it is the truth as you know it, but later it could be wrong because something else has happened and the truth has altered. Your original statement has been distorted and is now out of context.

A good example of this was when we looked at some photographs of my mother. They were of her at the beach and she was wearing short skirts and you could see a lot of her legs. In the Fifties my brother had found these photos and he had thought they were disgusting and had torn them up. Ten years later, in the Sixties, you could have had your photograph taken completely naked and no one would have thought it so bad. It is time and fashion. Its the same with dancing, at one time, it was daring to hold your partner close and if you touched a bare back, it was shocking. Think about when the Tango first came out, now we all dance apart, in isolation. We have put a distance between ourselves on the dance floor and a distance between ourselves and our instincts. This is a concern between our basic beliefs and the fashion of the times, you can build and alter things to fit the times you live in but there are always basic truths or instincts that will always modify us. I suppose you will always alter things to suit the feelings of the moment but our sub conscious will always obey our first primitive understanding. These primary instincts are not subject to fashion.

Elizabeth's belief in the influence of our sub conscious and the possibilities that visually impaired people could 'tap into' this source of information gathering is extremely interesting. Often a claim is made that visually impaired people use a sort of 'sixth sense' to overcome their disability, I wonder if the development of one's

instinctive behaviour could explain this phenomenon? Dennett, (1993,pg.55)

notes the British Empiricists as believing the following;

the senses are the entry portals for the mind's furnishings; once safely inside, these materials, may be manipulated and combined ad lib to create an inner world of imagined objects.

Dennett, (1993)

I suspect that Elizabeth's world of subjective imagery, devolved from her core of chaotic shapes together with her symbolism and her primitive/instinctive responses to her environment owes much to the interplay of her sensory input.

Further Reflections.

The second conversation with Elizabeth developed many ideas regarding visual impairment, but the particular strengths that Elizabeth displayed were her methods of perceiving her environment. Whilst Rosemary had chosen nature as a vehicle for understanding her larger environment, Elizabeth has combined a more spiritual/instinctive approach to completing her understanding of those things she can no longer see. Her explanations as to how visually impaired people use a disciplined approach to developing an understanding of unseen objects, offers an illumination as to how visually impaired people might respond to an aesthetic experience. Other than visual stimuli is combined together with intuition, instinct and the unconscious to provide an understanding of a perceived object. Without the controlling (and perhaps limiting) rein of vision, a more subjective concept of the environment is established.

Elizabeth's description of her imagination as some sort of unfocused chaotic maelstrom of shape and colour awaiting a catalyst to focus and form this energy of creativity into a tangible product is quite poetic and is an extremely visual explanation. This could be due to Elizabeth's literary background, or it could be her own personal method of juggling with different sensory descriptions based on visual

memory. Before Elizabeth became visually impaired, her visual library was very rich and her gradual loss of sight was supplemented with increasing stimulus from literature and an increased dependence upon her other senses.

As with other visually impaired people, Elizabeth considers sight as a 'short cut' and explains it as 'the easiest way of seeing.' Her comment that eyes can see things as they are, but by using all of our senses, one can see how things might be, is profound. John Pym had, in his interview, mentioned that by transferring something from one medium to another, somehow transformed it into a more substantial object. In his conversation he considered that by transferring an image from a photograph to a painting somehow created an artwork, yet he may have been describing a system that visually impaired people employ, in order to gather the maximum amount of information about specific objects. By attempting to completely understand an object by examining it by several different sensory scrutinies, a more complete understanding is arrived at and perhaps an understanding of what the object may become is more defined. Dennett (1993, pg 31) explains his thoughts on the conscious mind as follows;

So the conscious mind is not just a place where the witnessed colours and smells are, and not just the thinking thing. It is where the appreciating happens
It is the ultimate arbiter of why anything matters

Dennett, (1993)

This explanation of the mind's role could also describe a reason why visual art is important for visually impaired people and why it matters that people with sight loss wish to engage in a visually pre-occupied world.

Through Elizabeth's explanations of how she builds up images of her environment we are led to understand how unseen things 'matter' to those people who cannot see them.

Elizabeth has described how people with sight loss, could build up an understanding

of rivers and oceans by developing their understanding. By engaging in a lengthy process of using water in bowls, feeling water running from taps, visiting streams and seas, listening to sounds of water and verbal descriptions about water, some sort of understanding concerning rivers and seas is evolved.

Perhaps this methodological approach used to build an understanding of a particular phenomenon provides for a fuller understanding from that of an arbitrary glance at a seascape. Whilst this glance confirms that the particular features necessary in a seascape are present, further unconscious appraisals instinctively take place. The sensation of sea breezes on one's cheek, the smell of salt air and the call of sea birds combine with the visual impression to confirm the imagery into that of a seascape. Without the visual confirmation of the image, a visually impaired person, together with a verbal description would still experience much of the specific stimulus of a sea front. Sight, then, may be considered to be an easy way of perceiving an immediate environment and a speculation on what sight is really for becomes a pertinent question.

The nature of our sub conscious is also worthy of further investigation, where Elizabeth's description of her use of instinctive behaviour provides a useful insight into her methods of investigating her environment. This description offers a suggestion that people respond instinctively to shape and colour and that our aesthetic appreciation of our environment is dependant upon a sub conscious patterning or unconscious imprinting on our individual personality. Dennet (1993, pg.45) places importance upon those internal developments of the mind when he describes the functioning mind.

Our phenom (stream of consciousness) is divided into three parts: (1) experiences of the 'external' such as sights, sounds, smells, slippery and scratchy feelings, feelings of heat and cold, and of the position of our limbs; (2) experiences of the purely 'internal' world, such as fantasy images, the inner sights and sounds of day

dreaming and talking to yourself, recollections, bright ideas, and sudden hunches and (3) experiences of emotion of 'affect' ranging from bodily pains, tickles and sensations of hunger and thirst, through intermediate emotional storms of anger, joy, hatred, embarrassment, lust, astonishment, to the least corporeal visitations of pride, anxiety, regret, ironic detachment, rue, awe, icy calm.

Dennett. (1993)

By acknowledging all of these varying influences upon our judgement, Dennett has confirmed that our visual impressions are modified by mental processes and that what we see is dependent upon what we wish to see.

Finally, Elizabeth's thoughts regarding the influence of time and fashion upon thoughts and impressions demands further investigation. If you cannot see fashion, then any coercive influence is negated. Perhaps the process of change under the guise of fashion may be an attempt to 'prove' the validity of the object, in much the same way that John Pym wished to 'prove' the value of an artwork, by changing its medium. At a fixed point of time, fashion is considered to be 'right' or correct in the same way that an artwork is considered to be 'right' upon its moment of completion. Time will modify the 'rightness' of the object whilst this may be an exercise engaged by our sub conscious minds to 'prove' the reality of the object by subjecting the modified object to an 'inner blueprint.'

Time offers a further interesting dimension. The measurement and usage of time appears to be different for people who cannot see. If seeing is a 'short cut' for knowing, then it must have an element of time attached to the process. If understanding can be achieved 'quicker' by seeing, but more time is needed to completely understand through the necessity of employing other senses then time must alter the perception of any new experience. Equally, if you cannot physically see the sun move across the sky then the length of a day is an internal understanding which is governed by a mechanical process. Night could become a period of time that is qualified after a period of work. When you are tired you sleep, this must be night.

How do our instincts deal with the passage of time if you do not have any visual clues to assist you? Dennett (1993, pg 144.) again comes to our rescue with the following observation regarding the brain's function.

The brain's task is to guide the body it controls through a world of shifting conditions and sudden surprises, so it must gather information from the world and use it swiftly to 'produce future.'

Dennett. (1993)

Dennett explains that the brains function is not to mark the passage of time but to forecast what is about to happen. This can be difficult for people who cannot see as the most immediate forecasting facility is absent. However to 'forecast', appreciate or anticipate an artwork there needs to be more than a beginning and an end to the experience. Dennett saves the day with this final observation regarding time and the brain;

What matters is not the temporal properties of the representings, but the temporal properties represented, something determined by how they are 'taken' by subsequent processes of the brain.

Dennett. (1993)

People with sight loss definitely 'take' information in a different way from their sighted peers, yet their other sensory inputs are processed in the same way as everyone else. Once the information is transferred into electrical brain impulses the responses are unique to the individual but universal in availability.

Cy Follington No. 004.

Background Information.

At the age of eight Cy managed to blow himself up tampering with a Mills bomb he had found. He lost an eye, an arm, punctured a lung, broke a leg and was pronounced totally blind. At first he and his family were told there was no chance of any sight being regained but after time, and several operations at Moorfields Eye Hospital, some little sight was returned. Cy had no lens in his eye and a damaged retina but was able to see a small amount and was able to lead a fairly normal life. He worked as a local manager of a motor company and around twenty years ago he began to draw again as a leisure activity. Four years ago Cy experienced further problems with his sight where, as a result of his childhood accident, pressure began to build in his eye causing Glaucoma and a detached retina. After a further operation where silicone oil was pumped into his eye and laser treatment was undertaken his eyesight was stabilised.

At present, Cy is very short sighted and needs watchmaker's spectacles to see, otherwise images are blurred and indistinct.

Cy was quite keen on art at school but after leaving school at sixteen he concentrated on other things until around twenty years ago when he re discovered his liking for art and pursued it as a hobby. He joined the Siddely art group which was an 'art for pleasure' amateur group run by a succession of different people and eventually by Cy himself after becoming the longest serving member.

The group meets most Monday mornings and caters for retired people, many of which have some sight loss.

Cy also runs another art group on Wednesdays which caters for similar people.

Basic artistic information.

At the moment Cy works in pencil and water colour, but is interested in developing acrylics as a medium. Through his teaching, Cy has found that his interests have widened as he needs to cater for the needs of the group. As a result, he finds that his appreciation of the various art expressions much more informed.

All of Cy's classmates have some form of visual impairment and Cy needs to prepare carefully in order to cater for their needs. Cy found that attempts at still life were unsuccessful and asking them to compose a picture for themselves was too difficult. Many of the group simply did not understand how to make a picture or did not have enough vision to do so. Cy found that teamwork was his way forward. By developing a strategy of description, negotiation and observation within the group, they became more confident and often collaborated on each others work to produce finished artworks.

Cy had developed two main aids for his classes, the first being the framing of his pieces of paper. By drawing a black felt tip edge on the edges of the pieces of paper before the group actually started to work, he found that this actually made the group consider what went inside the frame. Secondly, if he placed some parts of the major components in the pictures, it enabled members of the group to fix and complete the remainder of the pictures.

Once the group members had completed all of the outlines, he then discussed shading, shape, reflection, light ,dark and proportion with them. Cy felt that he needed something tangible for the group members to focus upon, as a large blank surface was too much for them to deal with. In fact, Cy's method of 'providing a few lines to get them going' was extremely successful. The confidence it provided enabled the group members to develop their own images using the basic positioning framework. It also

gave 'ownership' to those class members who did not have the ability or understanding to organise a picture surface on their own.

I asked Cy if he ever had any problems with knowing when an artwork was complete. He felt that everyone had this problem and was not an issue that only visually impaired people had. In his case, he placed the artwork in a prominent place and scrutinised it several times over a number of days. He also thought that some of his group would consider an artwork to be complete when they could not think of anything else to put in the picture. Often, when they had completed a particular task in their work, they would consider it finished even though they had completed only one aspect of their artwork. On other occasions they would be of the opinion that their work was 'progressing well' when in fact there was nothing else to do. Cy thought that the group members took their cues from whether he was working on a picture or not rather than attempting to judge the image for themselves. He did feel that as the classes progressed, group members were becoming more confident and were slowly making decisions for themselves.

Cy's work with his group seemed to be focused upon traditional painting and drawing techniques so I questioned him about using textured materials as a substitute for the paints and colouring pencils he was using. Cy informed me that the group had experimented with different texture as a group activity, the result had been the completion of a large collage which was currently displayed at the Conquest Hospital Eye Department in Hastings. However the group were more interested in learning about those visual things that had previously been denied to them. The group was interested in learning about perspective, composition, proportion, shape and shading.

My next question for Cy was concerned with the idea of using artworks to express feelings as I felt that Cy was focusing heavily upon representation and the processes

necessary to create representation.

I think I wouldn't know how to start to express my feelings through the medium of painting. I suppose it would be using subjective imagery, I suppose I'm very literal with my painting. If a pools winner and someone whose mother had just died, painted the same scene they would be totally different pictures, but the things would be the same, I think it would be the colouring that would show the differences.

Cy went on to explain how a member of his group wanted to experiment with Abstract art. To begin with Cy was completely flummoxed, however, he remembered that the ladies husband had taken some photographs of the raising of the Mary Rose and he hoped they might help him. These photographs showed the large yellowy-orange claws of the crane holding the fragile skeleton of the ship and Cy used this image to help him create an abstract picture. Using the strong architectural structures as a background and by highlighting some of the girders Cy and his pupil created a powerful image that they both considered to be 'abstract.'

At this point I would like to speculate on what Cy had enacted with the creation of this artwork. Abstract art is generally considered to have begun after Cezanne's paintings had been appreciated by Picasso and the so called Cubists. Their experiments with light and shape completely changed ideas about representation Ozenfant, commented in his book Foundations of Modern art (1952, pg 76.)

Cubism is painting conceived as related forms which are not determined by any reality external to those related forms. To hope to imitate sunlight with splodgy colours or translate into actual colour the vibration of light was inevitably to come to grief.The cubist painter no longer sought to imitate. His object was to evoke emotions by the exhibition of coloured forms,.....

Ozenfant (1952)

It would appear that Cy had re-invented Cubism in his search for abstraction!

I next asked Cy whether he thought it mattered if we made artworks, whether it was important to re-create images or to express our own ideas through the medium of painting or drawing.

It does matter because we are creating our own environment. We are modifying it to suit our moods and feelings. Art is an extension of creating a friendly, extra special environment. It makes us feel good, it gives us a sense of awe. We can appreciate that humanity is good enough to create something and you can lose yourself in the creating.

It is interesting to note that Cy has talked about creating an environment as many people who have sight loss are interested with notions of their environment. Perhaps, because visually impaired people cannot instantly see their environment, they feel that their control over it is tenuous. Through art, people with sight loss are able to experiment with and examine different features of the environment and as a result, are more able to appreciate the concepts and realities, of the different places in their world.

My penultimate question for Cy was whether he regarded it important for people to make statements through their art. Cy felt it was important for people to get involved.

If we attempt to make a picture, we realise the difficulties involved and we can appreciate what other artists are trying to say. We are placing ourselves in a better position to understand things in our world. We must all have a bit of artist in us because we all want to understand more.

My final question was, 'What else could art be like? I asked this as Cy appears to enjoy representational imagery and I wanted to see how flexible his approach to art could be.

Art covers everything, whatever subject, whether it's a gardener digging or someone baking or icing a cake. Nature is a work of art, even if you believe in God, art comes in to it. Things do not just happen, art is involved somewhere. What else could art be like? It could only be a creation of something, all artwork is a creation, it's the opposite of destruction, although I suppose there is art in both creation and destruction.

Reflection.

Cy presented as a very committed teacher. The amount of preparation and forethought he put into each of his classes demonstrated his concerns for both art as a subject and providing for the needs of his classmates. His ideas of providing a

skeleton structure for those in his class who did not have either the confidence or understanding of formal artwork is interesting. Whilst Cy initially held complete control over each of his classmates, he did provide access to composition and he did relinquish ownership of the artwork as soon as they began to embellish the work for themselves. Cy was open to any initiatives his classmates suggested and in many ways his classes were a 'voyage of discovery for Cy as well as his colleagues

Another feature of Cy's work was that most of his work was representational, he seemed to have some difficulty with emotional and abstracted imagery. Over the eleven years working with visually impaired children, this has been noticeable in their artwork. Even though the visually impaired pupils could not see what they wished to draw, they wanted to know what it looked like and how to make the marks in order to represent the object. As people with sight loss need to have a disciplined approach to their everyday life, (with the placing and organisation of the things they use, need, etc) it would appear that they need to have firm order when they produce artwork. Cy's linking of his artwork with the environment is another interesting feature, I have mentioned earlier that people with sight loss have a noticeable interest in their environment and Cy demonstrates this pre occupation with his imagery and with his verbal examples.

Cy is working towards mounting an exhibition of work produced by his group, and whilst he is basically against the idea of labelling the group as 'Blind artists', he is prepared to go along with it for the group's benefit.

Cy Follington. Second Interview.

I arranged to meet Cy at the place where he took charge of his group of visually impaired artists. The arrangement was that whilst I gathered information, I was also going to assist Cy with the teaching of the group. The room was a large well lit multi-

purpose room. The tables were arranged in a large rectangle and each table had a set of eight acrylic colours, (black, white, green, yellow, red, purple and brown.) a selection of hog's hair brushes, water, paper towels and a selection of large magnifying glasses, arranged for each person.

Cy had prepared for the lesson by marking out borders and details for the individual members of the group. Each person had a particular task set, depending upon their sight capabilities and of their interest. Cy informed me that he did set homework for the group, but as yet only two people in the group were doing it. At this particular session, Cy had ten painters, nine had some limited vision and one had been totally blind for the last eighteen years. All of the group were of pensionable age with one exception, a helper who was taking advantage of the time to pursue a leisure activity. The group arrived by mini bus at around ten fifteen and initially two of the group were studying some painted sketches of trees that one of the group had attempted to paint earlier. This was of particular interest as I have found that it is unusual for visually impaired people to instigate for themselves any exploration of visual material.

Cy introduced me to the group, I explained what I hoped to do and the class settled quickly to work. I observed the whole class for a few minutes whilst they concentrated on their work and whilst Cy explained any points he wanted to make. My first involvement with the group was with the helper who was anxious to mix the correct shade of watery blue for his picture. He wanted an exact copy of the colour on his picture and was unsure how to mix colours. After helping him with this, my next 'client' was a gentleman called John.

John was the only totally blind person in the group and was working on a tactile picture of a formula one racing car. John listened to formula one racing on television

and was interested in car racing. Cy had drawn and explained the outline shape to John who was now attempting to fill in the shape using cork, margarine tubs and other household containers, to make a tactile picture. John needed total support as his tactile skills, his fine motor skills and his positioning skills were very poor. Cy felt that he had little tactile skills himself but was happy to start filing the cork for John and to show him how to continue. Cy would place the items onto the picture surface and ask John to examine the placing to see if they made any sense or if John could measure the differences. John claimed that he could understand what Cy was doing for him but I doubt that he did. On talking with John, I found that he enjoyed being involved with the art group for social reasons rather than for any creative reasons. He did enjoy working on his picture and although it was almost completely instigated and driven by Cy, John considered it to be 'his work' as he was putting in some work of his own.

Cy considered John to be the least successful member of the group.

My next conversation was with a gentleman called Wilf. Wilf had been one of the people I had observed discussing a painting of trees earlier. Wilf informed me that when he was sixteen, he had attended art college but had only managed three sessions when he had been forced to give it up in order to concentrate on his full time job of work. Now, in his eighties, Wilf felt able to continue with this unfinished business. Wilf's particular interest are landscapes and was currently working on producing a desert scene. The picture he was making was based on a picture he had found in a magazine and he was interested in copying exactly the shapes and colours of the magazine picture. Wilf's sight was poor, but by peering closely at the magazine picture he could see enough to work independently. He was interested in how to make a range of brush strokes, how to create the impression of leaves and how to mix

colours correctly. Wilf's particular difficulty was when he took his paint brush off his paper as he could not find the place again when he had loaded his brush with fresh paint. Wilf is a very enthusiastic member of the group and practises at home with shape making and composition. He particularly enjoys the social contact within the group and as he is retired and alone he finds his artwork to be a main interest.

The next person I talked with was a lady called Phyllis. Phyllis was the other person Wilf had been discussing his work with at the beginning of the class and both of them seemed to be very enthusiastic about their art. Phyllis had been a teacher before retiring and had previously made Chinese style paintings as a leisure activity. Phyllis is still coming to terms with her loss of sight and often becomes frustrated with her inability to see as much as she used to. Phyllis can no longer drive and finds this loss of independence frustrating.

Phyllis was attempting to paint a landscape scene and Wilf had made some drawings of trees for her to copy. These drawings were basically roughly drawn tree trunks with unattached branches arranged at the top of the paper. They followed a basic formula of tree shapes, i.e. the base was wider than the top, the lines were irregular, the branches were narrower than the trunk and the leaves were at the end of the branches and were oval in shape. Phyllis studied the drawings carefully but I was not sure what could be actually gained from these unattached images.

I've never drawn trees before, but I'll keep trying. It's to do with balance and practise. You have to practise don't you? Otherwise you will never get it right. I'll keep trying.

Phyllis enjoys the art group very much, she has only been attending since October (eight months) but has become one of the foremost members. Phyllis enjoys talking about her work and how she tackles the different problems with creating the effects she wants. She is also interested in the work of other artists and has started to read

about famous artists of the past. The whole process is very much of a new exciting development in her life.

I have included a small abstract of an ongoing conversation she held with Cy regarding her landscape painting. It is interesting to note that although they were both talking together, they seemed to be focusing on two diverse issues. I'm not sure they actually heard what each other said.

Cy--- 'This area needs to be darker, think about where the light is coming from.'

Ph--- 'You have to try out your ideas, sometimes they work, other times they don't but you know for the next time. I can't make my trees look three-dimensional.'

Cy--- 'A tree is not a flat shape, it's rounded, think of a football with light on one side, it gradually gets darker as you move around it. That's what you have to think about when you paint your trees. It's the logic of light!'

Ph--- 'I never know whether to do the leaves first or whether to put in the branches, What do you think Cy?'

Cy--- 'It's probably best to place in your branches first, then you can fix in your lighter leaves and your darker leaves. Then have a look at the overall effect then you can add more details when they are needed.'

Ph--- 'It's difficult when all you can really see is a dark outline against a blue sky but I want to get it right.'

Without the unifying visual image of the painting, both Cy and Phyllis were concentrating upon slightly different aspects of the painting. Cy had focussed upon a method of portraying light, Phyllis upon the basic shapes. Both had an idea of the overall image, but each were relying upon their 'inner visions' of the landscape and each was seeing something different. This is common with every individual sighted or otherwise whenever any image is appraised, but when each person has a sight loss, there is no unifying visual image to focus upon.

Moving on from Phyllis, my next conversation was with Jack. Jack is a sprightly eighty eight year old gentleman. As a younger man, Jack had belonged to an amateur art group that had met regularly and had exhibited work around three times a year at

libraries and town halls. Jack's sight was now extremely poor and Cy had assisted Jack by placing a black border around the paper so he could register on a place to start, and by drawing around some of the prominent shapes to help Jack with his overall composition. As well as being unable to see detail, Jack could now only see bright primary colours but was adamant that he wanted exact shades of colour and so through negotiation, Cy mixed the exact shade of colour Jack demanded. I asked Jack what he gained from the art group.

It makes me feel happy. I used to like painting my favourite subjects, such as boats, but I've come off them to widen my scope a bit. I'm working on blending colours at the moment. I'm contrasting colours and working the colours into a landscape I enjoy the company here and I get satisfaction from achieving something. I also get frustrated. The white of the paper frightens me, I suppose it's the prospect of starting something and the worry that you will get it wrong. Cy helps me to bring my ideas to life. He describes what's there tells me how to achieve the effects I want and lets me do it. I'll never hang in the Royal Academy, but I'll get a lot of enjoyment out of it.

Two interesting points came out of this brief conversation, firstly the desire of Jack's to create an exact shade of colour he could no longer see and secondly the trust he placed upon Cy in the execution of these duties.

Firstly, why should it be so important to create something you cannot see? I would suggest that it demonstrates a control over your environment and over the artwork you are working upon and it also creates a dialogue with someone. Often if you cannot see, contact with others is dependent upon conversation, you can prolong that conversation by asking questions and you can prolong the conversation by developing specific requirements of the other person.

Secondly, the developing trust that Jack placed upon Cy not only to create the exact colour that Jack held in his mind, but also to 'bring his ideas to life', is something that Elizabeth had touched upon when she had talked about the trust needed by a visually impaired person, when things were described to them.

Once this trust is established, it provides a confidence in the visually impaired person

to 'visualise' and focus upon any common element being described. Once a 'common language link' is forged, it would appear that it releases the blind person to engage with a visualisation process.

The next person I spoke with was a lady called Lilly, Lilly has double vision and is the only member of the group to work independently of Cy. To begin with she had presented Cy with some problems as the images she wished to paint were images she held in her head and her descriptions for Cy never exactly matched what he attempted to produce for her. Their first few sessions were attempts to build a dialogue and drawings, which were acceptable to both parties. Lilly had been attending the class since last May (six months) and has become independent with both colour and basic drawing techniques. Cy still prepares Lilly's ideas for her by using a black felt tip marker to draw around the major features in her pictures. Together they have arrived at a working system where Lilly's descriptions are interpreted by Cy to produce basic shapes positioned in an acceptable composition for Lilly to embellish. Lilly can interpret the basic shapes and develop them to express her own personal memories. These memories are of Lilly and her husband. She and her husband used to fish together and they used to fly kites together and after she had described these images for Cy to outline them for her, she added her own personal features of her remembered outing.

For Lilly, her artwork was a personal journey of remembrance, the artwork in itself was not too important to her but provided a vehicle to remember incidents and events from the past. Lilly was not too concerned with any 'photo realistic' imagery but through the process of elaborately remembering a particular event, her precious memories were re enacted and became a tangible link with her past.

Bill had been attending the art group since October, (two months) after his wife had

died. For Bill the art group was a means of rebuilding his life and attempting to find new interests and friends. His subject matter was of old pastoral farm scenes taken from a set of table mats he had at home.

I always wanted to paint but I didn't know where to go. It was after my wife died when the social came round. They found it all out for me. It doesn't matter if it isn't any good, so long as I get something out of it. It's a personal satisfaction that's important to me.

Bill had been working vigorously the first time I had walked around the group and I had not disturbed him, but on the second time around, it seemed as if he was relieved I had wanted to speak with him. He appeared to have rehearsed what he wished to say and a flood of explanations were offered. He had been painting a sky and had turned his paper upside down in order to make it more accessible. After turning the paper around, Bill had lost his point of reference and had struggled to establish the position he wanted to continue with. This procedure is a sighted person's way of painting a sky as most visually impaired people will not move their paper precisely for the reason Bill had demonstrated when he had lost his place. Bill finally and reluctantly turned his paper the 'right' way up and began to enthusiastically paint the green field at the bottom of his picture.

Bill had sufficient sight for him to attempt many 'visual,' methods of manipulating paint and paper and used his visual memory to good effect.

Ann was the last person in the group that I worked with. The time had passed very quickly and unfortunately I had been unable to work with all of the members of the group, but I had made a point of speaking with everyone. Ann was working on a painting of a landscape taken from a calendar she had at home. The subject was a waterfall and there were branches of a willow tree in the foreground providing a view of the water through the leaves. There were a lot of reflections on the water, a lot of

white spray and foam against the rocks. The whole composition was extremely busy and the overall effect was of fragmented images and distortions. In my opinion it was quite a confusing image for a visually impaired person as there was no distinct focus for the composition. However Ann was persevering with the painting although she was becoming a little confused and frustrated.

Sometimes you have to walk away from it otherwise you do too much. When I come back to the work, I can see what I need to do next. People with eyesight see pictures in a different light, we see one thing, and they see another.

Again we have this observation where people with sight loss perceive that other people (people with sight) 'see things differently.' I consider that if we were to analyse all people, sighted or otherwise, each person would see most things differently, yet only people with a sight loss actually consider this point.

By around eleven thirty, the group had exhausted their creativity and spent the next thirty minutes inspecting each others work, discussing their achievements and finding out about what they were going to tackle at their next session.

I thanked the group for their help and support.

Reflection.

Cy is an inspiration for the group, his forethought and planning, his supply of visual material and his ability to generate dialogue, provides a very stimulating platform for creative experiment. Cy is also registered as blind and so his methods of enabling his group member's access to painting is extremely interesting. His method of using a black marker pen to provide a layout or outline for group members provides a guide or safety net for the people who lack the confidence to work independently, it provides a matrix of a basic composition and it gives some limited flexibility to the group members for the development of individuality within the framework. I liked the amount of dialogue Cy used with each person, this not only stimulated interest, gave

ownership to each individual by providing the facility for decision making, it built a trust between Cy and the group member through the medium of verbal language.

The amount of source material supplied by the individuals in the group varied due to sight and interest levels but each group member had brought in some familiar object from home. These items were not examples of 'great art' and in some cases were poorly drawn but they provided a starting point for the group members. Discussion and dialogue catered for most of the aspirations of the group and each of them settled to a specific task.

It is interesting to note that all of the artwork being tackled at this juncture was of representational imagery. The group was wrestling with the formal construction of landscape images and even though they all had sight loss, they were interested in such subtleties as perspective, foreshortening and shadow. They had discussed each of these qualities and were keen to use these 'realities' in their work. The blending and mixing of colour was also a main interest and some of the group had mentioned that when they had first joined the group they had been content to use colour straight from the palette, but now they wanted to mix the exact colour of their source material. Ann had made an interesting statement at the end of our conversation when she had claimed that people with eyesight see pictures in a different light. What I feel she meant was, that people with sight usually see what is before them, this being a visual image. What people with sight loss see is what they think is there combined with all the imaginings and speculations that a verbal description together with their own experiences, provides. Sight loss also offers all other sensory speculations which, for a sighted person, sight has subjugated. By seeing an image we are often content to accept an amount of conceptual baggage attached with our impression of that image. If you cannot see the image, then you need to investigate a number of different

possibilities of the initial stimulus, in order to establish what has actually happened.

The next issue I would like to consider at this juncture, is why people with sight loss wish to create visual artwork, which they cannot see. Why would someone wish to work in a medium that is unseen by them and difficult to manipulate? Why are they concerned with the visual elements of perspective and foreshortening, when such procedures are purely a mathematical equivalent for a visual phenomenon?

Perhaps this is part of the reason why any one wishes to either conquer mountains or undertake undersea exploration. Mountains are there to climb and oceans are aspects of a world we need to explore. It may also be an attempt by people with sight loss to demonstrate that they can perform these tasks in the same way that their sighted peers can. Many of the art group talked about a 'personal satisfaction,' about 'getting it right' and of 'having to do it' as if the whole process was a compelling and compulsive act. For many of us, whether we are visually impaired or otherwise, there is a compulsion to create artwork and this is an example of this creative act. Many of the group had always been interested in art and now that they had the time to devote to the subject, they did so. The fact that they could no longer see is not a condition of exclusion. The group members 'saw' their memories and 'saw' through description, explanation and experience. J.D. Barrow (1997, pg 5) offers this thought on human creativity, which helps develop our ideas on creativity;

Imagination—the making of images—lies at the root of all human creativity and directs our conscious experience of the world. From early childhood, we are constantly making pictures of things, of people, and of places. As we grow older, we learn new ways of doing it. Photography, painting, descriptive writing, sculpture, poetry: all are means of capturing images in permanent form, so that we can savour and re-experience the fruits of our imagination.

Barrow (1997)

For Barrow, human creativity is a method of understanding and examining our past experiences. Certainly this holds true for Lilly as much of her artwork is the recording

and remembering of 'things past', but for, other group members it is much more a process of being involved with the environment and having some control over the world they live in. The lack of sight is only a difficulty to overcome in their pursuit of recreating some aspect of the known world. Barrow (1997 pg 246) finally concludes that creativity owes something to 'an internal, sub conscious compulsion' with this statement at the end of his book *The Artful Universe*.

The history of the human race has selected for the development of specific forms of analysis and response. Many features of our environment in the widest sense of the world, have become internalised in our mental picture of the world. Our responses to those features have been sifted by natural selection. We sometimes respond to indicators, or symbols, that provide only partial clues about a potentially vital aspect of the environment.

Barrow (1997)

It would appear that through the artworks of visually impaired people we have a demonstration of humanity responding to a shared memory that one's sub consciousness has access to .

Joy Wilkinson. No 005

Background Information.

Joy was a deputy headmistress at the Dorton House School and had been involved with the teaching of visually impaired children for over twenty years. Joy has sight loss, (coloboma, nystagmus, myopia, microphalus (keyhole pupil), sight only in her left eye, a reduced field of vision (110 degree angle), reduced field in her upper vision, no vision above head height, and a limited distance vision. Joy has good near vision, full colour vision and feels that with her particular visual limitations she should have a depth impairment but considers that she can use 3D effects with little difficulty.

By including Joy in the case study section, she provides information regarding the teaching of visually impaired children along with any strategies she has employed for herself to overcome visual difficulties. Joy should be able to articulate responses concerned with visual impairment and issues connected with aesthetic understanding from a personal perspective and she should be able to provide an informed view, through her teaching of children with sight loss.

In order to gauge Joy's own artistic understanding and her opinion regarding art for children with a visual impairment, our opening conversation was concerned with Joy's own particular artistic achievement. Joy informed me that whilst she had been at school she had enjoyed art but she had not been encouraged to continue with art as she did find it difficult. These early experiences were at primary school where she was encouraged to work with needlework rather than still life or painting. Joy 'failed' her mock 'O' level examination at art but she paid for her own entry and passed. (Joy is a determined lady, who rises to a challenge, the fact that she had been told she

could not pass this examination had provided the impetus for her to achieve.)

Whilst in the sixth form, Joy had continued to work in the art room but this was because she had some free time and was preferable to games which was the other option. During this time Joy experimented with water colour and collage but was not allowed to use 'proper' paints, (oils) as they were saved for the 'A' level students. Still life was not experimented with, by Joy, as she was only able to see fuzzy outlines, Joy developed her artistic skills using other media.

I next asked Joy if she considered her lack of sight to be restricting for her whenever she attempted to create an artwork. Joy stated that she felt that her personality was such that she had always done whatever she wished to, regardless of sight problems. Joy had attended evening classes to work on etching, she had experimented with fabric dyeing, decorating match box covers and had worked with scraper board images. Joy has sold some of her finished artwork in craft shops and at fetes.

I asked Joy if she had a favourite artist and she mentioned Bruegel's painting of a schoolyard with the busy children engaged in their diverse activities. (Children's Games ,1559)

Specific Aesthetic Information.

Joy has never linked colour, shape or words together, but had developed a personal scheme of sensory substitution linked to her own specific sight limitation. Joy felt that this was her own 'personal shorthand' and did not transfer to other people. She had never tried to give this method of work to any of her pupils and was rather evasive when I pressed her to reveal what this method was. (I feel that it was a 'naming' system where Joy gave a particular name to any unseen impression, this form of cataloguing does become highly personal but I have found that people with sight loss

may use this system to codify unseen conceptions.)

Colour is very important to Joy and by using her limited vision she feels she has developed a 'keen sense of colour and colour relationships.' Joy made the observation that blind and visually impaired children all had a favourite colour and this 'favourite colour' was usually a very specific shade.

My next question for Joy was concerning abstract art. I elaborated on this by informing Joy that I was interested in the subjective qualities of abstraction and I wondered if there were any similarities with a sighted person's understanding of abstract art and a blind person's understanding of clouds, rivers and reflections. Joy felt that all concepts and impressions varied according to the specific understanding of the individual.

Any person, sighted or otherwise builds up a perception of 'things in the environment' through a range of experiences, as these experiences vary, then understanding varies. There are links between abstract art and perceived colours and shapes as there are between imagined colours for clouds. I always imagine clouds to be pink even though I know its only fog.

In order to pursue this line of thinking, I asked Joy about any notions of beauty she held.

I don't know about beauty, for me it would probably be symmetry. If it was a building it would be a Georgian house, beauty would have to be something that fits. Something that blends in well with its surroundings and creates a complete picture. Beauty is balance, a regular shape, something that you know is right and fits together.

For further development I asked Joy about music to see if, by applying her ideas of symmetry to another art form, I could unravel any information regarding subjective imagery.

Music deals directly with human expression. It deals with emotion and can transform people's ideas. You don't have to see to feel the intensity of music. I suppose sight can help to develop those feelings but then if you see something that you link to the music then everyone who sees the image, links it to a particular piece of music. If you don't need to see then you are not forced to conform. With music you can express your emotions. You can get frustrated and angry from time to time and it is important to let these feelings out. In fact, it's nice to have the opportunity to do so. The world wouldn't care if you do or do not but it is important for the individual to do so. Music can be a release

for feelings. It's innate within all people to express themselves, its part of the human condition. If you can't see you still need to express your feelings and if you can't do it through drawing or painting, then you can do it through writing or even just through listening to music. I think that if blind people cannot use art as a medium for expression then language and poetry is the way that most visually impaired people create things. It's like playing with language and like playing with form and colour.

This is a very interesting observation as it points to a process visually impaired people use whenever they create an artwork. They will combine sensory information from several different sensory bases, combining sound, touch and language together to provide an alternative impression of a visual image. This prompted my next question, which asked whether, in Joy's opinion, totally blind people could fully understand about things, only from a verbal description. Joy was of the opinion that this could not happen. I asked Joy if she felt that one's unconscious might help formulate an interpretation of the environment using only language as thought stimulation.

Yes, we all have a memory, but most often we are unaware of it working on us. I think we all share a common memory and a common unconscious rather like a common language. Its common knowledge that the sky is blue and the grass is green. This is known and understood by everyone, visually impaired and fully sighted. Its one of the common things we all know about. There must be lots of common things we understand but take for granted, even if you cannot see them. This is our common unconscious. I suppose if we were clever enough to be able to describe or draw these instinctively known things we would see that they were similar. But if you don't know shapes and colours then language is what you need to use.

In the book, *Man and his Symbols* (1978, pg 41-42.) by J. Freeman, edited by Carl Jung, we have this observation by Jung;

There are many symbols, however that are not individual but collective in their nature and origin. These are chiefly religious images. The believer assumes that they are of divine origin—that they have been revealed to man. The sceptic says flatly that they have been invented. Both are wrong. It is true, as the sceptic notes, that religious symbols and concepts have for centuries been the object of careful and quite conscious elaboration. It is equally true, as the believer implies, that their origin is so far buried in the mystery of the past that they seem to have no human source. But they are in fact 'collective representations' emanating from primeval dreams and creative fantasies.

Freeman (1978)

Joy has indicated that people with sight loss may utilise a facility of 'unconscious imaging' to overcome a visual disability. If this is true, then, not only do visually impaired people use a multi-sensory method of perceiving those things they cannot see, they also utilise both sub-conscious and unconscious perceptions to add to their

sensory impressions.

Joy Wilkinson. Second conversation.

The second interview with Joy took place after several weeks and I initially returned to Joy's own creative exploits. Joy had mentioned that she enjoyed art at school and had continued to create artworks throughout her teaching career. I asked Joy why she continued to work in an area which she had admitted was difficult for her, when possibly writing or poetry might cater for her creativity.

I get a great deal of personal satisfaction and a release of my creative energy when I work on some creative venture. When I was younger, my parents discouraged me as I was visually impaired. They thought I had more important things to think about. I suppose I suffer from repressed creativity! I want to develop my individual expression. My painting is impressionistic rather than realistic, but that's me. I just like to work that way. How good it is, is purely about how I feel about it. For me colour is very important, I just like it. I love mixing and playing with colour, you can get fantastic feedback from colour, placing one colour next to another, it produces different effects that are more than just one colour next to another, it becomes vitally important and is like creating history. It assumes epic proportion.

Painting is personal, it doesn't matter whether its good art or not, or whether its a photographic representation. You are looking beyond that, painting becomes a feeling of being good or of making you feel good.

This feeling is about rightness or completeness.

With visually impaired pupils, even totally blind pupils, they enjoy using colour.

They want to know what colour they are using if they are finger painting. They even get pleasure from the texture and feel of the different colours. The pupils will choose their favourite colours even if they cannot see them.

Joy is obviously a committed practitioner of painting and I think that the physical act of painting adds to her enjoyment of this creative process. Many visually impaired people engage in very little physical activity simply because they cannot see well and consequently it could be dangerous to leap in an unseen environment. With painting there is a physical component where you have to mix paint, clean brushes and manipulate paint yet, it could provide for gentle exercise and for a creative outlet.

My next question was concerned with the types of imagery she had observed her pupils using. I wanted to see whether visually impaired pupils required factual representations of everyday objects or whether imaginary images such as dragons

were of value to totally blind children.

You are on safe ground with fantasy, most pupils will like to hear about these things and you can describe and invent any number of different creatures. Fairy stories are a favourite source for everyone's imagination. Teapots and other functional objects are important in a different way. These objects must have certain features for them to be whatever they are and for visually impaired people to know about these objects and to be able to feel these special features helps them to understand the position of the object in the environment. It helps visually impaired people to understand about the environment and how it works. Its the same for things like fire, water and sunsets. They are part of everyone's environment even if you cannot see it. Therefore its important to know about these things.

In our earlier conversation Joy had talked about the importance of language and how, if she was unable to paint, she would experiment with poetry. I think that language holds a special importance for visually impaired people for two main reasons;

Firstly, it is the main form of communication of ideas and information. It is the major method of exchanging knowledge and of describing everything that happens.

Secondly, it is a major medium of creative release for people who cannot see. (creative

writing, poetry, imaginative writing explanatory writing.) Joy considered that although visually impaired people were impeded with their understanding of the function of objects through not being able to see them, she also thought that sight sometimes restricted 'the possibilities' of creativity. Sometimes by seeing an object, that person was restricted into the formal shape and contour of the object whereas, by 'seeing the object, mentally' it could be formed in a number of different ways.

Mayen (1996), in his book, *Exceptional Children in Today's Schools*, (pgs 351-398) claims that visually impaired pupils are impeded and affected in all aspects of their educational development, these being, motor, concept, language and social. He notes that in language development there are four specific impediments.

1. Lack of ability to see facial expression, gesture.
2. Lack of ability to gaze at a described object.
3. Lack of ability to develop vocabulary and linguistic Concepts by not being able to see objects of discussion.
4. Parents tend to supply only the names of the objects or requests for objects, without any additional information

because they receive little feedback or indication that the child understands or is even interested.

5. Visually able children ask more questions, change topics.

Mayen, (1996)

Mayen also discussed the practice known as 'Verbalism', which some visually impaired people use. 'Verbalism' is the inappropriate overuse of verbal description and is often based on the visual impressions of sighted people. These sighted descriptions have been adopted by visually impaired people and together with an over-elaborate verbal description show an attempt by a visually impaired person, to describe things they could not possibly see. These descriptions could not be based on any concrete experience and a question arises about exactly what concept, the visually impaired person understands. Mayen (1996) provides two verbal descriptions, used by totally blind people, which illustrate the point he wishes to make, these being, 'sun shining on the blanket of snow' and 'squirrels flying through the trees.'

Joy felt that language was the main medium for getting over ideas and her thoughts regarding Verbalism were that totally blind people may not have a complete concept of whatever they are talking about, but they did have the vocabulary and were prepared to engage in a dialogue with a sighted person concerning the issue. The blind person may not have a visual interpretation of a squirrel flying through trees, but they had an understanding of a squirrel and an understanding of flying and a knowledge of trees. Joy developed this argument, with the following explanation.

Totally blind people cannot understand the concept of a river. They have the vocabulary and a description, but in order to provide a greater understanding of what rivers are and what rivers do, you need to build up the blind person's experience in stages. First, you could use a bowl of water to find out what

properties water has, how to make waves, how to create a current and to understand what 'wet' is. Next, you need to stand in a river and walk in water. Together with the sounds and sensations of the river, the totally blind person arrives at a concept of a river. I doubt if the blind person has the same understanding of a river as a sighted person but they will have an understanding of the concept. A description of a stream starting in the mountains and flowing down to the sea provides further information and is the best you can do but a totally blind person would never be able to compose a picture of a meandering river with overhanging willow trees. Concepts without seeing is a very difficult proposition for the totally blind.

Another point to consider is voice tone versus facial expression, especially in conversations. Visually impaired people usually listen much more carefully to what is being said and are not distracted by movements. They are distracted by sounds though, and conversations can be difficult. Usually in a conversation, sighted people watch each other's faces to see when to speak or whether the other person is becoming bored and to check the other person's attitude or emotion. If you cannot see, this becomes difficult and in extreme cases, a blind person can continue to talk when the other person has actually walked away! Many blind people will use a question at the end of a sentence in order to prolong the conversation and also to control the situation. It is a strategy to encourage the other person to speak, but it also is a method of controlling the direction of the conversation.

Throughout many of the conversations with the various visually impaired people in the case studies, reference has been made to exerting some form of control over the environment, a conversation or even the actions of other people. This notion of a totally blind person functioning in a hostile, unseen and to some extent an unknown world, and functioning in a manner which demonstrated confidence and control is remarkable. It also indicates that totally blind people could also function in an aesthetic world where again the totally blind could manipulate unseen media to create something. Regardless of sight, a tangible expression could be produced using verbal description, an understanding of physical properties, manipulation of materials and a determined outcome. As well as demonstrating an understanding of the environment they live in, the creation of artwork by visually impaired people shows that not only do they understand an unseen world, they can utilise the concepts, experiences and material properties to create something unique.

The final question I wanted to consider with Joy, at this conversation, were thoughts about the unconscious. In our earlier conversation, Joy has stated that she thought we all shared a common unconscious rather like a common language, regardless of whether we could see or not. I wanted to develop this line of enquiry and I asked Joy how she thought our unconscious worked.

I think our unconscious works by being taught things. Either through language or experience. This gives us clues and pointers and provides a basis for our ideas. The unconscious is a series of mental jigsaws, each piece being a tactile impression or a smell, a sound, a sight of something, everything is interlinked. All of this subliminal information can be triggered through language, or anything. Any sort of impression or stimulation. It has to be something that you can respond to, it has to imprint on your conscious mind and then your unconscious mind develops the impression into something else. Our existing perceptions and concepts develop from these new impressions and our knowledge grows. Instinctive behaviour is fashioned very early on, but I do believe that initially it was learnt. Our reactions to water and fire where we are cautious are instincts, but they were first learnt as a reaction to an unpleasant incident. I once taught a group of deaf/blind children and on a visit to a zoo, the pupils showed no instinctive fear of snakes whatsoever, whilst sighted children are usually more cautious. They had not learnt to be afraid whilst a visual sighting would have triggered an instinctive reaction. The zoo keeper handled the snakes and so the pupils handled the snakes. What did concern them was the speed of the snake's tongue flicking out so quickly. The pupils instinctively disliked the quickness of the actions but were not instinctively frightened by a potentially dangerous creature. I think that our earliest and our most fundamental learning becomes instinct. We all have a preservation instinct and this is developed by our experiences and by our exposure to the things we find in our environment. These early experiences shape and fashion our fears and concerns in later life.

In the book *Man and his Symbols* (1978, pg. 36) Jung makes this statement.

Primitive man was much more governed by his instincts than are his 'rational' modern descendants, who have learned to 'control' themselves. In this civilising process we have increasingly divided our consciousness from the deeper instinctive strata of the human psyche..... Fortunately we have not lost these basic instinctive strata; they remain part of the unconscious.....

(Jung 1978)

It would appear, that if this claim were true, visually impaired people are accessing, both their instincts and their unconscious to aid them in their understanding and exploration of the world they live in. If they cannot access a visual world, visually,

they use other facilities that help them. Perhaps because sight is so dominant and instant, the working of these more peripheral sensory guides are subjugated into a shadowy and insubstantial impression and are disregarded by the instant visual overloaded world of the twenty first century.

Reflection.

With Joy's explanations regarding the appreciation of artwork, it was interesting to note that, along with other accounts by visually impaired people, she uses criteria of 'feeling complete' or of 'rightness.' Her qualification for the success of an artwork is the evocation of a sensation gained regarding colour, accuracy of representation, sensation, smell, sound and subliminal feeling of a perceived object. The implications for visually impaired people to be able to share in this feeling of 'rightness' is that they are able to derive similar feelings from these sensory stimulations (other than sight). If an artwork, feels 'right' or sounds 'complete' then we must accept that the artwork performs in a manner that is similar throughout a variety of stimulus so that a uniform impression is gathered by both sighted and unsighted people. If we were to attempt to listen to paintings or to hear a sculpture it may offer a new perspective of appreciation, in fact it might heighten our more usual senses to a greater degree. However I consider this to be an unknowable pursuit and I think at this point, it is enough to raise this issue. It appears plausible that to conclude that visually impaired people are able to appreciate and understand visual artwork and by using alternative sensory exploration techniques, they gather stimulation that can be considered aesthetic.

What needs to be explored further, is whether a touch sensation or a sound sensation provides a quantifiable gauge of appreciation that is comparable to a visual sensation.

The use of verbal language would appear to be a catalyst for this speculation.

Language is a very important issue for visually impaired people. The use of description together with an actual physical experience seems to provide the best alternative to sight. Conversely, description plus experience could overcome other sensory losses. Without the sense of touch, a visual impression together with a verbal description could provide an understanding of a textured surface and a visual act together with a description may lead a deaf person to build a concept of a sound or rhythm. By having full access to all of the sensory input sensations people are able to place each 'jigsaw piece' of perception into their understanding and knowledge is gained. Yet if we are able to access most or some of the sensory input sensations, we can still provide for that feeling of 'rightness' that appears to be necessary for concept development.

To build an understanding of the environment through the process of description and experience is a lengthy and time consuming process, but is vital; if there is a visual disfunction. For a sighted person to appreciate an apple, it may be enough to see it ,but to understand the qualities of the particular fruit, touch, taste, smell, a visit to the orchard at various times to see the flowering tree, the bud and the growing apple provides for a more complete understanding. For a sighted person this process can be developed over a space of time as the concept does not need to be a logical progression. For a blind person the sequence of events needs to be ordered so that the process can be developmentally understood. For both sighted and unsighted people, the full understanding of an apple relies upon all of the different sensory stimulation being gathered and the final understanding will be similar for each person. The difficulty arises when one is attempting to gather stimulus from intangible phenomenon such as sunsets. These atmospheric experiences can be described but are

impossible for a large number of other sensory exploration. It would appear that we can overcome one sensory deprivation and still gather a large amount of information to build our 'jigsaw' of perception, but if several senses are disengaged, then it would appear that concept development is too fragmented for any uniform understanding to take place.

Language needs the input of the majority of senses to provide meaning and understanding to whatever phenomena is being presented. Equally sensory sensation needs to have a common communicative form of relating those experiences in order to demonstrate an understanding of the sensation received. Language and cognition need to work together so that any experience can be gathered, articulated and communicated.

It is worth noting at this juncture that many human experiences are only through the development of a concept. Whilst some people have the actual experience of climbing mountains, deep sea diving and walking on the moon, most of us understand the concept and through descriptions and images we can imagine the actual sensations. If, for most people, these experiences are purely an empathic realisation, then this 'empathic realisation' functions for blind people regarding visual things. The understanding sighted people have of climbing a mountain and of other extreme acts is no less than the understanding, blind people develop regarding visual stimulus. The ability to perceive 'phantom' experiences is available to both sighted and unsighted people, if a sighted person can appreciate a walk on the moon, it should be no more incredible for a blind person to appreciate a painting by van Gogh.

Finally, we need to consider the input of our unconscious mind into the understanding and appreciation of our environment. If as Joy believes, all unconscious reactions are a result of fundamental learning and a subsequent instinctive response to this

experience, then a full aesthetic understanding is denied to visually impaired people. If, however knowledge and understanding is the result of a process of developing experience, then our unconscious must be subject to sensory development and any aesthetic understanding for totally blind people can be gathered through other sensory channels. We need to consider to what extent aesthetic understanding is taught through visual example and through dialogue. If we apply the idea of a sensory 'jig saw', network of experience combining to provide for all our cognition, then visually impaired people can appreciate a partial aesthetic stimulus, yet how it is partial is difficult to establish. If all the senses combine to create a 'whole' then how can you have less than a whole. You either have an aesthetic understanding or you do not! I believe that the development of an aesthetic understanding is a cumulative experience and is the result of dialogue, impression, experiences, one's unconscious, and one's sub conscious and the interplay of multi-sensory sensation. If one sense is not available, an aesthetic experience is not forfeit, it is merely modified to account for the sensations present.

OBSERVATION SHEETS.

These sheets have been gathered over a period of time whilst the teaching of visually impaired children has taken place and the information has been collected through different teaching situations ranging from formal art lessons, casual conversations and art workshops. The information gathered from these sources was regularly compared with the data gathered from the case studies of the visually impaired adults.

I initially hoped to find links between the 'raw instinctive imagery' of the visually impaired children with the more considered and articulate observations of those visually impaired adults who practise their artwork with the Positive Vision art group, but I actually found much more! I found a rich source of data which demonstrated how visually impaired children used their imagination. I found forms of 'mental doodling' which could be compared with Pinker's 'Mentalese' and I found methods of assimilating new information. I found a system where unrelated sensory information is grouped together in a charming and unexpected way and I found how limiting, applying the rules of visual and physical logic can be when a sighted person views artwork constructed by imaginative yet totally blind pupils.

For the benefit of a reader I have provided the following matrix which highlights some of the major findings of the observation sheets.

OBSERVATION SHEETS.

MAIN FEATURES.

01. Notions of Beauty.
A conversation highlighting the pointlessness of a visual world for people who are totally blind from birth---seeing out of your elbow!
- 02 Artist's Garden.
Garden of Terror. V.I. pupil's ability to use others to develop their ideas through generalisations. Transferring unpleasant sensory sensations—sandpaper stinging nettles.
- 03 Artist's Garden(ii)
V.I. pupil's ability to construct an understanding of things unknown by using known tactile and described information. (triangly squirrels)
- 04 Figure Images.
How drawings evolve and have a contribution to the finished image. Commentary on work in progress, use of symbolism.
- 05 Monster Pots.
The combination of new information together with personal imagination. (building a reservoir of experience.)
- 06 Shield Design.
Further examples of relating new experiences with known information.
07. Abstract Art.(i)
The combination of shapes, words and sounds.
08. Abstract Art (ii)
The use of pictorial symbolism.

09. Abstract Art (iii)
The use of colour to represent mood.
10. Inspector Gadget's Head.
Internalisation versus external fact.
How blind children fashion things.
11. Recycling material into new artwork.
How new and different materials are assimilated into the world of the V.I. child.
12. Tactile Colour Workshop.
Music, tactile paper and imagination.
13. Interlocking Shapes.
Mental juggling and how the football pitch evolved.
14. Looking at Tactile Skills.
How V.I. pupils investigate new material. (feeling, tapping, moving)
15. Multi-choice examination.
How totally blind people apply a type of logic to things they cannot know about.
16. Transport.
Combining bears and spaceships.
Using imagination that defies a physical space and the limits of a sighted world.

I apologise for some of the obscure and tantalising brief descriptions of the information found in the following observation sheets but I wish to project a feeling of anticipation and affection for the forthcoming passages.

I felt privileged to be included into these fascinating explorations.

This conversation was between me and five pupils, all totally blind with the exception of Adam who is visually impaired. Kojeer has a strong memory of seeing and can remember what things look like.

The conversation started with me asking what notions of beauty the pupils held and the consensus of opinion was that looks didn't actually mean anything to them. They tended to judge people on personality, kindness and what they did.

This raised the question of beauty versus personality and whether you would rather be with someone who had a "good personality" or whether they just "looked good." Scott asked whether fun could be beautiful!

I next asked them if there was any importance in distinguishing "things in the world" for example how do you tell the difference between dogs and cats. The pupils generally held some sort of standard size recognition based on what they had been told and by reaffirmation by touch.

"Things are based on what you feel and on certain atmospheres that surround events." D.C.

The next stage of the conversation was interesting as the pupils asked me a very important question, being,

"What do you think we see?"

The standard concept of blindness is to see black and I answered that I didn't know and they seemed relieved that I hadn't said black. Scott made the point that if you don't have any facility to see and never had, then sight was as ridiculous to them as asking someone to see out of their elbow. I was particularly impressed by this observation as the pointlessness of the visual world to a totally blind person from birth became a little clearer to me.

My next point was regarding their views on the lack of sight or whether sensory substitution offered any apparent insights into a visual world.

Scott felt that there was no point in swapping senses; he felt he functioned extremely well, by using echo location he could tell where walls, lamp-post and people were and in fact he felt that his hearing was so accurate it in fact was better to him than his idea of sight. (Which was the ability to feel at a distance)

Kojeer, (who had seen) felt that if he got his sight back he would only be able to see more clearly, he felt that he already had the skills and strategies to move around in the environment and to know what was occurring around him.

William said that when he was walking, he could tell if there were any obstacles around as there was, “a closing off of air, a sort of build up of pressure.”

My next observation was regarding any value art might hold for them if visual concepts were not important.

Danielle, Scott and William all felt that looks of things were unimportant but the feel and the atmosphere was extremely important. Kojeer and Adam held no opinion of this point of view and offered no opinion regarding the things they had seen and remembered.

With the making of artworks all the pupils preferred to make artworks that related to something tangible, either an emotion or an animal or a building. (Something real)

The final point we dealt with during this session was the importance of language with visual impairment. The pupils relied heavily on sighted people describing and explaining things to them in the first instance. After that they built up and reinforced their understanding of “things in the environment” by repeated touch, repeated descriptions and by repeated encounters with the variety of “things”. Extra time was needed to “understand” the various things but once you had “understood” a particular thing; you could recognise the same thing again and you could also recognise something that was “nearly like” the original thing.

Kojeer offered the opinion that you could be totally lost if you didn't speak a language and you couldn't see.

The Artist's Garden.

As a topic in art and design we decided to offer the youngsters the topic of thinking of a famous person and deciding what type of garden they might like and what things they may choose to put into their gardens.

Initially we described a number of different types of gardens, (wildlife gardens, gardens with water features, gardens for the disabled, gardens for children, gardens for older people) and we developed the ideas into a more abstracted form of garden with questions such as, "What could a sound garden be like?" and "What sort of smell garden could we choose if we wanted more than the scent of flowers in it?" and finally, "What other types of emotion or sensations could we provide in our gardens?"

As a final development we allowed the pupils to design a garden for themselves if they thought that a garden for a famous person was too limiting.

A----'s Garden of Terror!

A--- is a totally blind boy of fourteen years of age, quite lazy, not particularly interested in art,

or indeed work in general, he is physically small for his years and is quite manipulative.

(The dialogue is as follows---)

"What's going to happen in your garden?"

A "Well. You know it's going to have trees that are like big stinging nettles."

"How could we make those?"

A "What about really coarse sand paper?"

"Good, but what shape could we make?"

A "A cylinder shape for the tree. We could have an insect house with creepy crawlies and

buggy things.”

“Good idea, tell me more about them.”

A “The insect house is just an ordinary house but it’s got insects in rather than people.”

“What shape and size shall we make the house?”

At this point I was attempting to draw more specific information out of A---, as he has a fantastic ability to be rather vague, offering generalisations hoping you will develop his ideas. This assumption or ability to fire the participant’s enthusiasm and to offer a “taster” of the concept yet leaving the participant to provide the real constructs of the idea is a feature of A---’s creative ability and to this end I was quite hard on him by attempting to make A--- qualify all his statements.

A. “An ordinary shape, if I had some matchsticks I could show you.”

Matchsticks were provided (to A----’s disappointment) and no construction was created.

A. “I need larger sticks.”

Larger sticks were provided, and much to my surprise and pleasure a simple house shape was arranged. On questioning A--- further he had been taught the basic house shape in infant school.

What is apparent from this conversation is that A---’s descriptive and imaginative powers are very good. His concepts are original thoughtful and subscribe to a definite creative ability.

What is not apparent is an aesthetic ordering, what A--- provides is a mechanical construct which has been taught to him and acts as a symbolic bridge between his creative reasoning to his three dimensional expression. A---, has in fact offered a reality to his imagination but only on request. His ideas are much stronger; his explanations offer much to creativity but little to an aesthetic order. However he has drawn on his external world to provide shapes and tangibility and has sorted out good substitutes and equivalents to give form to his ideas and we should recognise these as aesthetic. Sandpaper stinging nettles offer a very strong

aesthetic perception. What I need to consider is whether this perception is truly an aesthetic judgement by A---, or whether I am bestowing an aesthetic merit upon it through my own judgement.

Another example of a pupils ideas concerning the topic of "An Artist's Garden." This pupil is totally blind, is quite an anxious child and has need of special help within the Special School situation. L---- sees very little point in mobility and prefers to be led about, she enjoys discussions and particularly likes the idea of woodwork although her skills are quite limited. (By that I mean that her manipulative skills are less than other totally blind children of comparable age.)

L---'s Wildlife Garden.

L. "In my garden I am going to have a squirrel, a hedgehog, bears birds and a fox."

"Tell me about your squirrel, what size is it?"

L "It's smaller than a horse."

"What does it look like?"

L "It eats monkey nuts and is white with whiskers."

"What shape has it got and what does it feel like?"

L "It's a kind of triangle shape and it feels furry rather like natural fur fabric. I've chosen a squirrel because it looks best."

"Where shall we put the squirrel?"

L "In a tree."

I then offered L--- a piece of square cork as a possible tree shape. I did this because I knew L- had a limited knowledge of where to look for materials and much preferred to be offered alternatives to give form to her inner vision.

L "Wow! I think this is the goodest one!"

L--- was extremely pleased with the first texture offered to her, it seemed to fit her concept of a tree exactly and she didn't want to modify the shape at all, the texture was correct therefore

it became the tree!”

“Where shall we put the squirrel?”

L “Up the tree, so it can get down and roam about a bit.”

L--- has no vision at all and so her use of the concepts of up and down will have been taught to her, therefore the reasoning of placing the squirrel up a tree is a remembered fact and L--- has decided to incorporate it into her aesthetic ordering.

“What about the hedgehog?”

Silence.

“What does a hedgehog look like?”

L “Prickly.”

“What sort of shape is a hedgehog?”

L “Square? A circle shape. Like this” L--- points to her curved finger nail.

“How are we going to make him prickly?”

L “Put some spikes on him.”

I then offered L--- a choice between pipe cleaners and match stick and on considering both (by touch), L--- chose the pipe cleaners.

L “I like this best as they are sharper than the others.”

“How can we make a hedgehog?”

L. “Well, you could stick them together with copydex, you make it into a hedge hog.”

L--- bent the pipe cleaners into a scrunched up shape.

L. “Horse chestnuts feel like a hedgehog.”

“Let’s see if you can make it spikier.” Some more arbitrary squeezing with her right hand and twisting with the left hand. No apparent moulding or shaping so I decided to continue the picture construction.

“Where is the hedgehog going in the picture?”

L “Not by the squirrel, over here.”

A rather vague wave of the hand over the surface of the paper.

“Over where?”

L “What do you think? Is it by the tree, by the squirrel’s tree, as they get on together, no not in the air, at the bottom of the tree, right that will do it.” L--- places the hedgehog at the bottom of her tree and satisfied with locating a place ,offers, “Hedgehogs hibernate in winter.”

“Should we put any colours in our picture?”

L “I think we should put a blue colour for the sky. Maybe we could put it on when the glues dry.

“What else shall we do, do you remember we talked about bears, birds and foxes.”

L “Oh yes foxes, do you know what a young fox is called, A fox cub.”

“Shall we make a fox cub?”

L “Yes we could.”

“What will it be like?”

L. “He’ll have a nice tail and it will live in a little hole. We could make a black fox cub. It would have a good scent. If the wind was blowing towards the hole the fox could smell a man.”

“Well shall we make a black fox cub?”

L “Yes.”

“What do we need to start?”

L “Some fur, some little claws, sharp claws.”

I then offered L--- some black fur fabric. “Is this any use L---?”

L. “Yes, foxes can have long fur to keep them warm in winter. Do you remember I made a

snake?

“Yes it was a good snake, what shape shall we make our fox?”

L “A triangle shape, it has three corners.”

“Do foxes have corners?”

L “Not really.”

“Do you want to cut out the shape?”

L. “I’ll try.”

“Let’s see what you can do.” L--- held the scissors upside down.

L “I’m trying to cut the corners, I’ve cut this strip.”

“Look at the other animals and see if they help you sort out the size and shape of the fox.”

L. “He needs to be medium sized and a bit like the squirrel.”

“So, how can I help you?”

L “Actually, the hedgehog could be smaller and the squirrel can be bigger, then the squirrel can run around the tree.”

“What about the fox?”

L “It needs to be smaller, shall I cut it in half?”

L--- fails to cut the fur fabric in half, I cut it for her and offer it to her for inspection, L--- wants the edges “rounded off”

“Are you happy with this?”

L. “Yes”

“What about a tail.”

L “I’m thinking it could be a very long tail.”

A piece of material is chosen by L--- and I ask L--- to compare it with the body of the animal as she is quite prepared to use the material as she has found it without tailoring it to the rest of the picture. L--- does not consider anything like proportion but is quite content to have

rudimentary shapes placed within a framework. L--- takes time with her selection of textures.

L---'s creativity deals with defining "what goes where" and piecing together a logical "story like" scenario.

L "This looks really good, it's enough for the animal. You don't want it too big."

"Where shall we put the tail?"

L "You place it for me."

I put the tail at the end of the body and invite L--- to comment.

L "Wow, that looks really good, that looks absolutely fine, one of the bestest animals I could make. Wow!"

"What's next L--- ."

L "Could we make a bear now please?"

"Okay, what's a bear like?"

L "Soft nice fur, he's got big paws and a big head and a big body and he growls."

"Does he have any colour?" I thought I would ask about colour as L--- seems quite definite in providing colours for her creations.

L "Can he be blue?"

"Yes I've got some nice blue fur fabric."

I provided L--- with an off cut of blue fur fabric and it was instantly accepted as "perfect!"

A long straggly bit was pronounced as the tail.

"Where shall we put the bear L---?"

Her hand wandered over the picture surface and the fur fabric was placed in the top right hand corner, half off the paper.

"How can we make the bear look good, L?"

L "I'll tell you what, we can put the tail right past the squirrel's tree."

L--- having composed the picture in her mind made no attempt to alter the picture herself and was content to let me maneuver the fur fabric for her until it fitted in with her idea. I wonder if this procedure was purely a demonstration by L--- to show that she was making considered judgements or whether in fact it did comply with her "inner vision".

"Are you happy with this bear L---, feel where it is and see what you think."

L "It's nice, it's a long tail and it's in the right place. Shall we put a bird in the picture now? a nice pheasant?"

"What's a pheasant like, L---?"

L. "They've got wings, they live in the country, they live in a tree in a nest and they fly around a lot."

"What do they feel like?"

L "I'm not sure, I think soft fur."

"What about feathers? Might they have feathers, L---?"

L "Oh yes feathers."

Feathers were produced, L--- felt them, voiced her approval and informed me that you got feathers in pillows. Each feather was taken out of the packet individually, was inspected. The label was also taken out of the packet and was pronounced as being suitable for the pheasant's shape.

"What would be the best shape for the pheasant L---?"

L "We could make it as small as the hedgehog."

"Will it be rounded or spiky?"

L "It could be a sharp pheasant. We could cut it out and use the rest for the nest."

After the ambiguous description (a feature of L--- style of composing) I cut out a rounded shape and offered it to L--- for her opinion.

L "I'm happy with that." the rounded shape was placed "In the middle"

“Where do you want the nest, L---?”

L “Past that bit, (the pheasant) at the top of the picture. We are going to make the nest out of the feathers.”

“What about the pheasant, does he have any feathers?”

L “Yes he gets to have feathers, perhaps to keep him warm.”

“Shall I glue on the feathers, L---?” The feathers were glued onto the picture with more attention being paid to the feathers in the nest than on the bird itself. Finally I asked if we could put in anything like leaves and grass in order to “complete” the picture. Purely as a consideration to me rather than any wish for further items to be placed into the picture, L--- chose an area below her bear shape for grass and the tree area was chosen for leaves.

L--- was happy to demonstrate her knowledge about animals and made definite decisions regarding composition, if unsure she would ask the teacher but would also construct little logical concepts where she would reason through her choices. L--- often used unrelated facts to qualify her reasons.

L---was definitely using her imagination and was using information to compose her picture, there does seem to be an ordering process with L---’s work but it is difficult to tease out any aesthetic processes. When given an “either or” situation L--- will make subjective choices but left to her own devices she seems unable to construct a representation. However as L--- cannot see anything I do not find this too surprising, and it certainly does not exclude an aesthetic process. With L---’s reluctance to move easily within her environment I feel that she is content to use whatever is to hand as symbols for her imagination and providing the texture and shape is approximately in accordance with her idea, then it is acceptable to her as a representation. To this end I feel that there is an “abstracted” aesthetic ordering with L---’s work as she has definite ideas, definite form and places for those ideas and the whole concept was fitted into a considered situation.

Charlotte is a totally blind, fourteen year old pupil at Dorton House School. She has never seen but has felt outlines drawings of a wide range of different objects and has built up an understanding of “how things appear” in a sighted world.

The topic that Charlotte was working on with these drawings was an introductory lesson on figures. We had discussed basic human proportion and had demonstrated this by feeling our own bodies and estimating sizes and lengths of limbs by touch. We had felt the distances between eyes, we had felt where our ears were in relation to our eyes, we had felt the way our noses grew out of our faces and what sort of shapes they might make.

After spending some time on describing and realising our human proportion, we then talked about perspective and how foreshortening worked when we attempted to reproduce a figure shape onto a two dimensional surface. Without seeing this proved to be very difficult but by thinking about how sounds diminished along a distance we found a sensory substitution that helped explain the formula of perspective.

The next task for the pupils was to develop some “figure images”. The dialogue below is Charlotte’s descriptions of her drawings.

Charlotte’s Policeman.

“Tell me about your policeman.”

C “His ears are at the side, he’s got a bit of hair on top and his helmet is on top of that. That’s his forehead, (pointed to) and his eyes are below that, one’s bigger than the other, it seems like.”

“What else can you tell me about your policeman?”

C “His nose is below his eyes and he has a smiley mouth below that.”

“Tell me about his helmet, what sort of shape have you given him?”

C "Well, it's a tall dome shape."

"That's really good, Charlotte, are you thinking of any textures for the policeman's face?"

C "Not at the moment, we can choose those later."

Charlotte's Clown.

C "I'm making a clown now, a very peculiar clown, ah. I can do freckles!"

Tell me about what you have decided so far, Charlotte."

C "I have done curly hair like the last one and I've made him frown on his forehead by making a curly shape on his forehead. I know about shapes from some stuff I have at home. I feel different pictures of faces and I then know what different faces are like. And then in this one, one of his ears is quite big and the other is quite small."

"Did you plan it like that?"

C "Yes."

"What else?"

C "And then I did his eyes under his forehead and then in between his eyes I have made some freckles."

"Why freckles?"

C "I just like them."

"Will it help make him funny?"

C. "Yes, I hope so, and under his freckles, I have done his nose."

"How have you done that?"

C. "By making a circle shape. Then under his nose, I have made a big smile to make him funny. I've done that by making a curved line go upwards, that's a smile shape. Well I've now made a policeman and a clown, I could make up a story about them later."

"That would be a great idea."

Charlotte's Father Christmas.

C. "This is a Father Christmas impression. He's got one of those hats on his head with a bell on the end. He's got quite a bit of curly hair and then he's got a smaller forehead than the others but I was planning that. He's got these two eyes and below them is his nose and below that is his smiley mouth. At the bottom of his face he has got a rather small curly beard."

Each of the drawings made and described by Charlotte were made using German Film as the drawing medium. This is a type of plastic paper which is placed onto a rubber mat and drawn on using a ball point pen, knitting needle or other dull pointed tool. The effect of this type of drawing raises the line of the marks made so that the user can feel the drawn lines and marks. The person in effect draws the picture and then feels it to see if it corresponds with the idea and image the person imagined.

Area of Speculation.

Charlotte's method of drawing is remembering a range of tactile impressions that represent formal situations. This bank of "ideals" are then imposed into situations that Charlotte feels are appropriate. Charlotte also has a strict logical sequencing with her drawings where there is a formal process and order. Each drawing is a "step by step" process, culminating in a finished picture with all the specified parts strictly placed down in an order that starts at the top and finishes at the bottom.

In Charlotte's first picture, (the Policeman) when she was re-examining it to see if it complied

with her "inner image", she speaks as if she has no control over the varying size of the policeman's eyes. ---"one's bigger than the other it seems like---".

Charlotte has created the drawing, but the image, once drawn becomes a separate entity.

Whether the medium of German Film restricts alteration, or whether the transferal of the image from brain and memory into a touch reality creates this response needs further

investigation.

Later, with her clown image, Charlotte makes reference to the different size ears she has purposely drawn. This appears to be a specific design requirement for Charlotte and is perhaps a feature of an unseen drawing. Whilst a sighted person would usually make ears the same size, because they are constantly aware of ears and know that generally, ears are the same size and would automatically draw them so, it may be that for a person who has never seen this could be a negotiable design feature. It certainly seems so in Charlotte's description. Again this will be something the monitor at a later opportunity.

Finally, it is extremely interesting to compare the felt image along with the visual images that Charlotte has made. The felt image seems much fuller than the visual one, and there is a balance and "touch symmetry", again it may prove useful to transfer some visual images into touch pictures to see what comparisons are apparent.

(On some images transferred, the detail became too "fussy" and detracted from the shapes and proportions of the original drawing. It would appear that shape and position can be readily transferred between the senses but colour, tone intensity and textures are rather more difficult to illustrate.

At fourteen, Charlotte's choice of image may be rather immature compared with that of a fully sighted peer. Yet the use of a stereotypical image which has been learnt, memorised and reproduced as one of a range of remembered images is the product of a very sophisticated and ordered mind. One further investigation that may provide an insight into Charlotte's creative processes will be the offering back to Charlotte, of her drawings to see if she can remember her shapes and images.

Hopefully this would demonstrate that there was some constancy to Charlotte's imagery and that it was not a transitory drawing, given life by an accompanying dialogue.

A final speculation may be concerned with the choice of identifying features used by

Charlotte. How do they compare with a range of identifying features a fully sighted person might choose? Certainly there is no reference to colour, but the use of freckles, which are not a tactile feature is quite interesting. Charlotte has provided us with the component parts of a portrait, but these are purely 'the regulation requirements.'

The Monster Pot.

The pupils had designed and made their first plywood containers. They had been asked to consider an outside surface decoration that reflected the shape and function of the container they had made. I asked them to think about what they wished to keep in their containers and how they could make their pots attractive to both sighted and non-sighted people

D---- is a totally blind, eleven year old pupil. This topic was his first in the secondary department and was used as a method of finding out what his capabilities were as regards, imagination, attitude, motor skills, knowledge of materials, knowledge of tools and responsiveness to artistic stimulus.

The following conversation unfolded as D--- described his decoration

D--- , tell me about your design. (D--- had been working on German Film as he has no sight.)

“It’s a monster decoration that wraps around all the sides of the pot. It’s got two chins, one has a circle on the end.

Which one--- this was a strategy to see if D--- could remember and register the drawing he had made earlier.

“I think it’s this one.”(D--- pointed to a specific part of the dragon)

“One’s got a circle wart thing, the others smaller with a pointing down bit. Let me see, I’ve got a flattish egg-shaped head. It’s got circular arms, lots of toes and I think it’s got long fingers.”

Where are the fingers?

“It’s hard to tell really,” (at this point, D---’s fingers are roaming over the drawing, retracing promising areas.) “It’s got bits all over the place.”

Is there anything else you can tell me about the monster?

“Let me think, oh yes! It’s got horns going this way and that way on top of its head, I think I’ll make them a little longer so it stretches to the edge of the paper.

D--- extends the shape of the horns accordingly.

Anything else you would like to tell me about your design, has it got a name?

(At this point I was increasingly aware that D--- had developed the drawing from a surface decoration into an entity of its own, I started asking about the design but then developed the identity of the creation by asking about personal details.)

“No, I haven’t thought of one yet, maybe I’ll think of one over the day.”

Is it fierce?

“Very Fierce!”

What does it eat?

“Oh it doesn’t live on food. Oh yes I’ve thought of its name, it’s BOROGS.

Is there anything else you want to tell me about the Monster?

“Yes, it can change its shape and form into half dinosaur and half fish. It swims underwater and then it’s a super villain. One more thing, it kills everything, it smashes things.

D--- then decided to draw another monster design so that he could choose the best one for his container.

Monster Number Two.

“This is a four headed dragon; it’s got scales all over its body.”

Can you show me the scales?

“It’s got scales here and here, (D--- indicated an area on the drawing that had several patches of texture.) “And on its four heads it’s got fangs.”

What else?

“It has moon shaped gums, its scales are very sharp and it has two big wings”

Can you show me?

“Okay, all the scales are on the body, oh yes, the wings are up at the top. Did I put in its long tail?” (At this point, D--- scans the drawing with his fingers attempting to find an area of texture that he has made to represent the tail.)

“The tails right here, (an indication of the appropriate area of texture) “It’s got scales on it as well. Oh yes, it’s got two big horns right at the top of its first head.”

Has it only got horns on one of its heads?

“Yes, only on it’s first head. Thinking about it, it’s got long toes on its two feet and I think that’s the description of this dragon.”

D---, you haven’t mentioned any colours, I know you cannot see but do you imagine any of your monsters to have any colour?

“It’s black. I can’t actually see colours but I can see if it’s light or dark but not what colours are. Black ones are more evil than light ones.”

Is there any reason why you want a black dragon?

“I just really like the colour black, I’ve just thought, it’s black and green.”

Why green?

“Well sometimes monsters are black and green.”

Speculation.

D--- provides a fascinating insight into his way of combining information he has received with his own personal imagination. The scribbled images D___ places onto the German film appear to be accurate symbols of his imagination as he can refer to the specific parts of the drawing, yet, in other instances, he describes parts of the drawings as if he is discovering the shapes for the first time. When he is exploring the marks he has made, he comments, “It’s hard to tell really, it’s got bits all over the place.” rather as if D--- has imbued the drawing

with a life of its own and he (D---) is purely relating what is there. He seems to be distancing himself from being the creator of the image to being someone who translates what is there. This aspect of recalling an image was also a feature of a drawing description by Ch-----, in the observation sheet No. 004. And may be worth further investigation.

Again there is the interesting jumble of imagery which seems to be another feature of artworks created by people with no vision. Particularly the mixture of geometric shapes that become part of physical attributes. ("One's got a circle wart thing.) And the importance placed on things that to a sighted person may not consider worthy of specific mention, "It has moon shaped gums."

As D--- is able to recall the images he has made and to place these marks together with specific identified mental images; it suggests that mental imaging for those people who have had no sight does exist. Whether this form of imaging is the result of D--- having felt the shape of something he remembers as being "dragon shaped" and he can reproduce this sort of shape mechanically is the next stage in this investigation, but the observation still provides much interesting information.

D-----'s information regarding colour may also be "learnt knowledge" but this area can also be developed as there must be some perceptions that D--- holds regarding colour.

The Shield Design.

For this topic, I introduced the idea of “Knights in Armor”. I had several motives for this topic.

1. I wanted to increase the awareness of body shapes and body proportions to pupils who
2. had never seen.
3. I wished to develop the understanding of pupils with sight loss to an aspect of our history that most people know about.
4. I wanted to develop tactile skills.
5. I wanted to develop the use of materials and the use of hand tools for the pupils.
6. I wanted to see how the visually pupils demonstrated their understanding of the concept of wrapping one’s body in a protective layer of steel.
7. I wanted to compare the results of the visually impaired children’s work with that of similar children without a sight loss.

To begin with the whole group talked at length about knights and suits of armor and of the various types and the various functions of armor. By the end of the discussion, three main reasons were developed for the use of armor and for the use of shield designs.

1. To protect the wearer.
2. To frighten the opposition.
3. To identify the wearer to his colleagues.

D---- Shield Design.

D--- has a love of monsters and so not unnaturally, his shield design demonstrated this affection. (D--- attempts to include aspects of monsters in all of his creative work and he quickly latched upon the aspect of frightening off one's opposition.)

"My shield design will have half ant, half gunge monster, half octopus and half duck monster with webbed feet. That should really frighten off the enemies!

On its webbed feet it has got long toes, its got saucer shaped shoulders--no, flat shaped shoulders."

Are flat shapes more frightening than saucer shapes?

"Oh yes! Flat shapes are sharper. It's got long fingers and it's got horns on top of its head and it's got gunge in lots of places.

Are long fingers and long toes frightening?

"On my shield they are really frightening!"

I was a little dissatisfied with D---'s description as I felt that he had purely reused a "tried and trusted formula", where he had not really developed his ideas any further from the designs he made for his "monster pot". This was just another example of an infinite number of imagined monsters. In an attempt to understand a little more about this preference of imagery, I opened out the discussion.

Why do you like monsters?

"Well, I really just like them; I like everything to do with aliens and space monsters.

Do you think it might be because you can imagine so many different types of monster?

"No, not really, it's just that they are my favorite, I look at monster programmes on the television and I have some figures at home. I like the look of them. I'm looking forward to clay work so I can make some more. I want to try and make a fishy sort of gunge monster but

I will think of all different types. I wonder how many I can think of, I've lots of ideas."

Speculation.

It is becoming apparent that whenever you introduce new ideas to totally blind youngsters, they relate the new experience to something they already know about. This creates a point of reference for them. In this way D--- has learnt about pot making and about suits of armor, yet both new experiences have been through the medium of "monsters". Visually impaired people depend upon "points of reference", for moving around their environment and I believe that this method of starting from a "known situation" to develop knowledge about an unknown situation is a logical process of learning about new concepts.

Much creative work with visually impaired children is through the creation of a practical artifact. Once you can relate an artwork to a specific entity, then visually impaired pupils are quite capable of developing quite sophisticated concepts regarding the original programme of work.

D--- again demonstrated a strange symbolism with his descriptions.(saucer shaped shoulders and flat shaped shoulders--and the reasoning that flat shapes are more aggressive than rounded shapes.) There is a seductive logic to D---'s reasoning and I will investigate this further.

Finally, it is interesting that through the medium of television and by the touch of his figures, D--- has a full understanding of these monsters and his concepts are developed enough so that he can reproduce his own 'original' creatures. Certainly within D---'s imagination he has developed a "full image" of these creatures and through his perceptions, it again makes us think of how tactile images and verbal descriptions work together to produce mental 'imagery'

Abstract Art.

I decided to present a topic on abstract representation to the group as I thought by stripping away any constraint of visual representation some interesting imagery may be revealed. The idea of developing non-representational art to pupils who did not see representational objects anyway also intrigued me as to what I might expect!

In the initial presentation of Abstract art the group shared ideas about non-representational art by talking about emotions and feelings. We talked about how we could use symbols to represent things and significantly we mentioned Braille. We talked about the use of colour and shapes and sounds. I illustrated our developing understanding by showing the group works by Miro and by Mondrian. I spoke a little about the Surrealist's use of dream imagery but stressed that any representation of recognisable imagery at these initial stages was to be discouraged. The group of pupils grasped the concepts of abstraction quite easily (perhaps much more easily than their fully sighted peers) and the preliminary development of ideas began with enthusiasm

Ch--- Abstract Ideas

“What I was thinking about was making different versions of words that are not real words but describe some sort of shape.”

Such as?

“I don't know yet, but words like Takiti and Malooma. I thought I would start off with these two words in the same picture. The Takiti is a sharp, spiky word and the malooma is smooth and long and it's got straight smooth edges. The Takiti is sharp and jagged probably made out of sandpaper. I'm going to start with these two words and I'm going to put other words all around them.”

What might your other words be and what might they look like?

Long Pause. I prompted Ch--- with, what about a soft squeeze sort of word, Ch---?

“Yes that’s a good idea; the new word could be a --- jamongo!”

That’s a lovely word, what does it look like?

“What does it make you think of, sir?”

I considered this to be an attempt to get me to provide some clues as to a different type of shape so I was deliberately ambiguous with my answer, although I hoped to spark off further inspiration. Well, I think it’s a kind of word that has joins in it.

The following constructed “word shape” was negotiated.

Ja---is sharp

Mong---is a long shape but a bit like a bell ringing.

Go--- is rounded and finishes in a point.

At this point another pupil who was sitting close by joined in the debate and offered us some new words. These words were derived from some Chinese she had heard.

Guan.

What does a Guan look like?

“It’s a sort of flowing word, its soft and it is probably a bright colour. I don’t know which one but it could be a light bright colour.”

Chai Jing.

“Chai is a roundy moon shape and it goes into a star shape for the Jing. It’s probably a rough sort of texture when it’s the Jing bit and velvety for the Chai part. The Ching part is a bright red and the Chai is a pale pink.”

At this point I thought it useful to start making these “word shapes” and we decided to use collage as our medium. Material was inspected and sorted by Ch--- who used the comment

that she wanted to find some long, soft, flowing material for the Guan. A piece of pre-cut material was chosen and considered for its roundness and after passing scrutiny the fabric was clued onto a piece of card. The fabric had a rough texture that appealed to Ch---

“This reminds me of a long crocodile, I suppose the Guan is a bit like a crocodile.”

“Right, let’s work on the Chai jing! Yes, I think I’ll use sand paper for the Chai mooney shape, but if it’s wrong I’ll put something else over the sandpaper to make it right.”

The first shape Ch--- cut out was similar to the Guan shape and Ch— wanted to improve it. She decided it was too long and needed to be rounder. Ch--- cut out two similar shapes and compared them choosing the rounder of the two for her Chai shape. This was then placed and clued into place. For the “Jing” shape Ch— chose a bright green textured shiny paper and continued to cut shapes in a seemingly random way until she could choose one from out of them. This became the “Jing” part of the letter and was placed and then clued and replaced next to the “Chai “ shape.

In Ch--- original description of her word shapes she provides definite descriptions of shapes, colours and the positioning of the shapes, yet when Ch--- starts to actually make her word shapes the whole concept evolves. The carefully chosen shapes become different carefully chosen shapes and the placing is still very carefully considered but does not correspond with her earlier ideas. I do not think that this is due to Ch---’s inability to organise her shapes to her previous requirements but is due to an evolution of Ch--- ‘s creativity. Ch--- responds to an internal ordering which is modified by the shapes she creates. Sometimes she will alter the shapes because they are wrong but on other occasions it is as if the shapes can dictate to Ch— what they need to become. Ch--- will often use the phrase, “It seems to be bigger than” or “It has become like.” This is a very interesting feature of Ch--- creative process and I will develop this further.

During the next lesson Ch--- decided that she wanted to develop shapes and musical sounds

and that she was going to make “the whole thing stand up on its own.”

Well, what sort of shapes do you want to use in your musical shapes?

“Well, maybe some more star shapes, they could represent sharp, loud sounds and then we could have, maybe, some round shapes for soft, quiet sounds.”

Yes, how could we arrange these shapes?

“I’m thinking that we could place the star shape first and have the roundish shapes leading off from the star as the notes get quieter. For the loud sound we could have large stars and some smaller stars depending on the loudness of the sound.”

So, if the star sound is sharp and loud, and the round shapes are soft and quiet, how does the size work?

“The size refers to the sound tailing away as it becomes quiet.”

Okay, let’s make some star shapes. Ch--- decided to draw out a variety of different star shapes

onto German film paper which raises a line when you draw onto it. In this way Ch--- can trace the outline of any image she draws. After making several star shapes Ch--- was ready to choose the “correct” thickness of wood for us to cut out the shapes she had drawn. On returning to Ch--- ‘s drawings I asked her to tell me about them and how she knew about star shapes in the first place.

“My brother taught me about stars, he drew some for me and I learnt about their shape.”

Star Shape No. One.

“This is my favourite because it’s the biggest and the sharpest and it sort of feels right. It will make a loudish hollow sound.”

What sort of sound would that be, give me a demonstration?

Ch--- made a sharp knock upon the desk.

Star Shape No. Two.

“This one makes me feel slightly confused as it has a lot of turns. It’s got a busy sort of sound.”

What would that be like, Ch---?

The band saw was being used in the next classroom and Ch--- felt that this busy sound was exactly the sort of sound her “confusing” star would make.

Star Shape No. Three.

After comparing all of her star shapes Ch--- offers the following observation.

“This one, compared with the last one makes me feel calmer. A bit more on track or in control as it were. It sounds like”---Ch--- made another knock on the table but it was a lot quieter and was actually quite a calm sound!

Star Shape No. Four.

“This one makes me feel relaxed and I suppose slightly sleepy.”

What’s a sleepy sound?

Ch— flicked the edge of the rubber mat onto the table and the soft slapping noise satisfied Ch--- that the correct sound had been made for star shape number four.

The next stage was to cut out these shapes for Ch--- so she could compare them and arrange them. Ch--- enjoyed holding the shapes and assimilated the information that these new shapes could provide. Whilst Ch--- became familiar with her star shapes through touch, I cut out the round shapes that Ch--- had drawn earlier. These in turn were offered for inspection to Ch--- yet this time Ch--- was more concerned with the sounds of the shapes rather than confirming the shapes were those which she had originally drawn.

Round Shape No. One.

“Ah yes, this round shape makes a sort of knock sound but it is a bit more muffled.”

Wouldn’t it make a different sound to the star shapes?

“Yes, it might, perhaps we could stick things onto the round shape so that its sound was a little more rustley. We could do that by sticking on string and tissue paper.”

So, in fact, the shape sounds will make sounds as well as represent sounds? (This was a further development in the evolution of Ch---’s concept of sound shapes.)

Round Shape No. Two.

Ch--- felt her next round shape and decided that she would get a “tiny tube and put rice inside it and fix it to the round shape, so when we knocked it, it would make a funny sound.”

Round Shape No. Three.

“I don’t know what to do with this one, ummm, I’m not sure” (All this time Ch--- is feeling the round shape.) “I don’t know if it’s possible or practical, but what I was thinking was of a metal sort of sound that when you knocked it, it made a sound like a chime.”

Round Shape No. Four.

“I’m beginning to wish I didn’t have so many circle sounds, ummm,

Ch--- seemed to be getting a little lost so I interjected a further observation.

Isn’t it interesting that your star shapes represent sounds but your round shapes make sounds?

“Yes, it’s as if the sounds have influenced the shapes to make sounds.”

Perhaps we could strike the shapes to see if we get any new sounds?

“Yes, that’s a good idea.”

Would we make some of the round shapes out of different materials if we want to play the shapes like a musical instrument?

“We could make it out of metal; metal makes some nice sounds when you strike it. We could connect metal circles to it.”

Round Shape No. Five.

Ch--- sat with her hands on round shape number five for around five minutes thinking hard.

“Sir, with number five, I thought maybe we could make a circle out of wood and we could

stick fur onto one side and we could leave the other side plain wood and we could have two hammer type structures tied loosely and if we knocked it we would have two sound coming from one circle.”

Speculation.

Ch--- is a very imaginative pupil who develops her ideas in a logical progression. Each idea grows from her previous idea where any information gathered, is processed and refined and further developed into the next idea. Her experiences with a range of stimulus, fur, sandpaper, star shapes, round shapes metal and wood are all carefully considered and reproduced for inclusion into her developing ideas. Ch---’s metamorphic progression with shape and sound and the sounds of shapes into the sounds shapes make is a very good example of the interplay that visually impaired children engage in when they superimpose one sensory experience with another. In fact they have the ability to use different sensory experiences together, shapes become sounds and vice versa.

K--- is a visually impaired pupil who has two other brothers who each have visual impairments. K--- is a rather large pupil, who acts inappropriately at times and whose behaviour could be construed as lazy, yet his artworks often show sensitivity and forethought.

Another example of a pupils work using the Abstract Art lesson as the focus of their imagination. This pupil was interested in using symbols to represent different moods. His imagery developed into creating either “good” or “bad” symbols. For this particular part of his Abstract art topic, K--- produced five separate drawings, each one being an example of either “bad” or “good” aspects of the human condition. K--- hopes to make these symbols into 3D sculptures but may lose interest in the forms before he realises this part of his work.

Symbol No.1.

This is K---’s first symbol and it looks like a tick mark one receives for a correct answer. K--- calls it his “Goodness mark”. ---. “a good mark for good things”

Symbol No. 2.

This symbol appears as a series of squashed concentric circles, K--- calls them his “sunniness symbol”. He feels that it looks like a mixture between a sun shape and an ice lolly shape.

Symbol No.3.

This is K---’s “Ugliness Symbol.

On first appearances this symbol looks like a simple umbrella drawing. K--- explains that this image holds two features;

1. The umbrella shields you from rain and weather.
2. The shape itself shields you from ugliness.

K--- says that this ugliness symbol shows that ugliness can be how people talk or act as well as just looking horrible.

Symbol No.4.

This is K---'s "Sadness Symbol"

On first looking at this symbol, it appears as a cloud shape, with a smaller cloud within it and above the cloud there are rain drops. K---'s explanation is that rain and tears are the same and the cloud is also a mouth which is shaped to look sad.

Symbol No.5.

This is K---'s "Happiness Symbol."

This drawing appears as a rather angular plant in a plant pot. The centre of the "flower" is a well drawn ellipse and the "petals" seem to be a cloud like shape around the ellipse. The "stem" is two parallel lines from the cloud shape and there are two "leaves" set one above the other. The stem is joined onto a square. There is some shading at the bottom of the "flowerpot"

K---'s explanation for this is, "This is an insect eating shape, and it eats all unhappiness."

Speculation.

K--- has shown some very imaginative symbolism with these drawings. He has demonstrated that he can quite easily transfer ideas into shapes and that he can juggle language and imagery to fit into a logical sequencing. It will be interesting to see if he demonstrates a similar ability with the use of colour.

Each of the symbols were of similar size, indicating that each of the "emotions" displayed were of a similar power at this point. Again it will be interesting to see if K--- emphasises any of the symbols to show an order or priority for these shapes.

K---'s use of symbols seem to be quite literal transferences, this may be due to the fact that

he has better vision than some of his peer group and therefore has greater access to a usual visual language.

S----- is a visually impaired pupil who has suffered a significant decrease in her sight over the last few weeks. S----- has been receiving counseling and has shown an improvement in her behaviour, for several months, S--- has been demonstrating some very peculiar behaviour. This observation was taken from the Abstract art topic which the whole of the group were experimenting with. S---- decided to concentrate on arranging symbolic shapes on black card. The shapes, their position, their colours and their positions on the card were to illustrate certain moods that S---- felt. S---- explained that at different times of day, her moods were different and that her moods could suddenly change, she had considered reflecting this in her pictures but as it was a very difficult proposal S--- has concentrated on picture making.

Picture No. One.

“This is a positive picture, so I’ve used bright colours to show that I’m in a bright bouncy mood. The shapes are sort of triangular as they feel positive and fit my mood. There are a few circle shapes and all of the shapes show all of the different types of happiness you can feel.

The colours are bright and loud and make you feel cheerful just looking at them.

Picture No. Two.

This picture starts off feeling really happy, nothing can go wrong for you and has lots of bright colours and the shapes are all made up and different. Then as you move across the picture there is an explosion and things go wrong and you end up really annoyed, angry and depressed. It’s like when things go wrong in the middle of the day.

The colours of the depressed part are pinks, purples, black and green. The shapes are closer

together because you feel clamped and you feel closed in.

Picture No. Three.

I don't like this picture. It's meant to show calm. I've tried to balance all the shapes and put a lot of spaces in it to show calm and floating. It's supposed to flow in lots of different directions. I don't like the middle bit it's too boring, I could improve it, some of the shapes are too pointed. The colours are calm, light, dainty colours which seem calm to me. I chose a landscape background of blue and green as I thought it might show calmness and order.

Everyone seems to like No. One best, I think it just looks good. The blended in background makes the whole picture content. When you are happy it's a complete feeling."

Speculation.

S--- has produced three very interesting pictures, I am very impressed with S--- mature handling of shapes and positioning to symbolise a range of emotions.

As with most of the visually impaired pupils, S--- seems quite confident transferring shapes, colours and the positions of those shapes into feelings. S--- also demonstrates an ability to empower her images with their own feelings. (The shapes are sort of triangular as they feel positive, This starts off feeling really happy) This ability to transfer emotions and to engender images with their own power of decision seems to be an example of children with sight loss. As they uncover and discover facets of imagery, they embark upon a type of narrative where the subject of the artwork becomes a main character in the understanding and explanation of the artwork. Perhaps the reason for this is that much of the information received by children with a sight loss, is in the form of literature, either in large print, Braille or on audio tape, and so it could be that the children are presenting their own artworks in a format that is familiar to themselves.

Some of the ideas used by S--- must be pure imagining, as due to her sight loss, first hand

experience is unavailable to her, yet the confidence with which she manipulates colours and shapes shows how little her disadvantage with sight loss has affected her.

Inspector Gadget's Head.

A topic that is being explored by a year ten art group is the production of Tactile books.

These books illustrate simple stories using a range of tactile materials so that other youngsters with low vision or no vision can receive a tactile image of the story. The tactile image is not meant to be an exact reproduction of the particular instance portrayed, but rather an "artist's impression". Each youngster is responsible for one page, but extensive discussions regarding the complete story have taken place, each youngster knows about the pages before and after their particular page and all youngsters have had some input into the book as a whole.

Each youngster is themselves visually impaired.

Each page demonstrates a personal interpretation of an instance from the story and reproduces the particular image the youngster wishes to portray. Often, the particular picture indicates a rather obscure viewpoint, it can portray a scene that the youngster may have never seen or perhaps never will, it can often deal with objects that the youngsters have no visual experience of (i.e. traffic lights) but have verbal understanding of, and each picture contributes and builds up into a whole story that can be enjoyed by other children with sight loss.

W----'s Page.

W----'s page deals with the part of the story where Inspector Gadget is sitting down for breakfast and opening his mail. One of the letters he receives is a death threat and this is the part of the story, W---- wishes to illustrate.

After several discussions and descriptions, W---- decided upon a viewpoint that looked over Inspector Gadget's shoulder onto the breakfast table, showing the letter being opened. W---

wanted to make a letter that could be opened by participants of the story and he evolved a “wooden envelope” which was basically a rectangular base of plywood with four hinged triangular pieces of plywood attached along their bases so that closed the triangles formed the envelope shape, yet when unfolded a message was revealed on the opened out plywood.

W---- also wished to show a shape of Inspector Gadget in his picture so that the reader could feel the Inspector, feel the breakfast table, discover the envelope on the table and open the letter to reveal the message.

The table was made out of a rectangular piece of wood and W---- was satisfied that he (and others) could establish the shape of the table.

The envelope was made as described above and W---- was again satisfied with the result.

A problem occurred with the portrayal of the Inspector. W----- had no ideas as to how he could portray this image. He could describe it but had no idea what shapes he should use.

The first attempt at finding a satisfactory tactile image was to sit W---- down and “showing” W---- by tracing the shapes on W---’s head and shoulders from behind. We established the areas of body we were dealing with.

The next attempt was to make W--- feel the same area on another pupil in order for him to develop a touch memory of the particular viewpoint and to get some type of positional sense.

After this, we provided W---- with a rectangular piece of wood, roughly the correct proportions to a head shape, confirmed that W--- knew what he was going to do (shape the block of wood into a more realistic head shape), and established that W--- knew how to accomplish the shaping. We then left W--- to complete the task.

Shortly after, W---- called me over claiming to have completed the task. He had made rudimentary attempts at rounding the block of wood but it in no way resembled the felt (and agreed) shape of a head and around the edges there were some deep grooves where W--- had

enthusiastically filed the wood.

On questioning W--- about this he was a little puzzled that I did not recognise the roughly filed block of wood as Gadget's head.

By working on the external surface of the wooden block, W--- had internalised the fashioning into his reality and as this is one of the ways that a totally blind person functions within a visual world he genuinely believed that his actions had completed the task. In fact he had completed a symbol to represent Gadget and any further shaping or fashioning of the wooden block would be totally superfluous to the completion of this task.

Sighted people need to have a close visual comparison in order to distinguish the particular character or point of reference. The visual world is cluttered with visual stimulus that can easily confuse an onlooker purely due to the fact that there is so much information around.

For people with sight loss, much of this incidental information is automatically screened out and the point of reference need only be the object that they immediately concentrate upon.

In this way W--- has provided us with a clue as to how people with sight loss use symbols to represent objects within their environment. These symbols do not need exact visual similarity or even tactile similarity, they need only to function as real symbols that provoke one's memory. The function of them appearing in "the real world" proves to a visually impaired person that the idea exists for others as well as for themselves, any actual realistic representation is unnecessary to them.

As visually impaired people often have difficulty with manual dexterity, it is worth considering whether W--- actually lacked the skills or strength to develop the carving and shaping further. Possibly, but I do feel that the time W--- took working on his original shaping served to convince W--- that the task was complete.

This raises the interesting concern regarding the measurement of time and the lack of sight.

When you are working on completing an artwork, there is constant visual feedback whilst the

fashioning is taking place. You can gauge the progress by the development of the idea.

Without referring to a clock, time is measured in the progress of the artwork. Often an artist can become so engrossed in their work that time seemingly passes extremely quickly until the task is completed to the artist's satisfaction. That satisfaction is determined by how the artwork looks or feels.

If we apply the same rules to a person with sight loss, then the time taken to complete a task cannot rely on any visual measuring and so after a space of time whilst a fashioning function takes place the task is complete. This space of time does not rely on any usual measuring device, (watch, visual measuring of progress) but on an actual execution of the task. Once this task has taken place, it is impossible to measure the time span and so the task is complete when the person undertaking the task judges it to be complete.

With W---, I consider that he considered the task of shaping the head to be complete when he felt that the job was done. It was purely a part of the process of making, possibly a symbol of making, as much a symbol of the process as the actual head shape was within the creation of a vehicle for his idea.

After conceiving the idea for his page in the "Inspector Gadget" saga, the rest of the making process is creating a tangible set of symbols to communicate the idea to a wider audience. W- does not differentiate between the process of making and the made object, they are both stages in the realisation of his idea and the fact that both he and anyone else can see and feel the results of his imaginings proves that his symbols do in fact represent what he wants to describe.

By observing a group of visually impaired youngsters participating in a sculpture workshop, I hoped to obtain some further information regarding aesthetic understanding and people with sight loss.

This particular group of youngsters are year ten pupils (aged around 14-15), who are in their first year of a two year G.C.S.E. art course. They are all familiar with working in a range of different materials (collage, wood, fabric, clay and some minimal painting and drawing.) and are all used to discussing and developing their ideas.

There are six pupils taking part in this workshop, one pupil is totally blind and has been so since birth. (Ch)

One pupil is now totally blind but has seen (K)

One pupil can see but has very little useful vision. (D)

One pupil only has some central vision, and this is deteriorating. (C.G.)

Two pupils have limited vision, but are registered blind. (S & Ki)

This particular sculpture workshop was provided by Anne Carrington, a practicing artist who is currently employed by The October Gallery to run the education programme for the Gallery. At this time they were able to provide the workshop at the school. Anne sent beforehand some contemporary African sculptures made by children, some examples of her own work and a large amount of materials from her own studio for the visually impaired youngsters to use.

Anne has traveled to Africa to see children making toys from scrap material in 1983 and in 1985 and was so impressed that she brought the skills and ideas back into the U.K., where she has been offering workshops to pupils in schools.

Setting the Scene.

Anne introduced the theme of the workshop by developing her feelings about the recycling of materials. She instantly captured the imagination of the pupils by describing a work of hers, a crocodile made out of old leather shoes, handbags and belts. The idea that leather came from a creature and was in time returned to form a sculpture of another creature was quite appealing. Her next description was about a work she had made called "Dancing Horses", which Anne had made completely out of Coconut shells. Asking the pupils why they thought she may have chosen such a medium, provoked two instant responses;

"Because coconut shells are brown and hairy like horses."(S)

"Because when you bang them, they make a sound like galloping." (D)

Anne's next illustration of "a map of America made from old pairs of jeans"

very quickly pressed home her advantage and her final explanation of her theme, recycling to art, illustrated by another of her works, old tuna and sardine cans fashioned to create shiny metallic shrimps, provided a firm base to showing the artworks of the African children.

Anne had two very different artworks by African children, her first, was a quite traditional carved wooden figure of a man, except the feet were extremely large. The figure was clothed in modern clothes, shorts and an old ragged tee-shirt that was printed with the Freedom Charter of South Africa and was around life size.

The second artwork was a model of Concorde, made out of wire that had been wrapped by telephone wire, giving the appearance of a plastic unifying surface. The construction was built as a wire framework where one could see and feel inside the plane where seats and tables were carefully constructed in the same way as the rest of the artwork. Where the engines of the plane had been made, uncovered wire had been crushed up to symbolise the smoke or combustion of the engines.

The pupils eagerly felt all of the exhibits, ranging from the sharp and uncomfortable “tin shrimps” to the life size figure. They instantly “understood” and “recognised” the Concorde model and were delighted by the fact they could feel inside the plane and could feel the rows of seats and tables. They easily understood the difference between the wire of the frame and the wire of the smoke.

Having established the sort of work shop activities and having provided a good source of inspiration the pupils were keen to start making artworks for themselves.

Initially the pupils were a little hesitant as they didn’t know what to make, where to start and what to use. Anne quickly provided basic ideas of animals and nature and offered the basic materials of telephone wire and a roll of pewter sheet that could be easily cut, shaped and drawn upon.

These materials were ideal for visually impaired pupils as they were already familiar with German film, (a type of plastic paper that raised a line when drawn upon with a biro,) and the skills needed to wind telephone wire around thicker wire, to produce a pleasing sculptural medium, provided for a simple, repetitious, making method that the pupils easily learnt. It also provided for the using of the creative energy that had been engendered through the descriptions and examples of work.

The Artworks.

Ch. (Totally blind from birth.)

Ch— found it quite difficult to make a start, she had understood the examples she had been shown and was very interested but the task of transferring all of the new information into making something else and new and for herself was difficult. After a short time and with some discussion, Ch— chose to make a picture of a dolphin onto a piece of pewter sheet. Ch— uses German Film regularly and dolphins are a favourite subject of hers. With some

assistance, Ch— made a line drawing of a leaping dolphin and after further discussion, decided to make a series of holes through the pewter and around the drawing of the dolphin, so she could thread some telephone wire through the pewter sheet in loose loops to show the dolphin leaping through the waves. Ch— needed some help with this but some of the help was due to the fact that it was a new departure for Ch— and the support was to some extent a need for confidence rather than help with making. Ch— had no difficulty with the process of deciding how to use a new material and was able to “internalise” the possibilities that the new materials held. Ch— was able to transfer the uses of the materials into the idea she wanted to illustrate. Without ever seeing pewter sheet before and without ever seeing telephone wire before, Ch— was able to conceive the possibilities of constructing an image of a leaping dolphin. Finally, Ch— chose some buttons to provide the impression of stones and shells, which were laced onto telephone wire and nailed to the bottom of the picture and some cut up outer casing of the telephone wire was used for seaweed.

The overall effect of this picture was of a traditional pupil’s idea of a dolphin leaping out of the waves. The fact that a totally blind pupil had created the image using unfamiliar materials and without much time to experiment with the materials, indicates the vast amount of conceptual processing that must have taken place.

K--’s Artwork. (Now totally blind.)

Throughout the whole of the talk and demonstrations, K--- had been extremely positive. He had greedily felt all of the artworks and accepted the ideas put forward. He had easily understood the shapes of the Concorde, the shrimps and the figure and had questioned the shapes he felt until he was satisfied they felt “right”. The winding technique that Moses had used on his model of the Concorde had particularly inspired K--- and he almost immediately decided that he wished to make a model plane for himself.

After a very quick practice, K--- had mastered the winding technique and was every bit as

neat and competent as the originator. With some small help with the bending of the wire to fit into K---'s idea of the basic plane shape, K— spent the rest of the session demanding specific coloured wire so he could furiously wind the telephone wire around his plane shape. It is interesting that K— had a very definite idea of what he considered the shapes to be, although in some cases he had never seen or felt those shapes before. K— 's first language is Kurdish and he is having special English lessons as his mastery of English is patchy, therefore his understanding of possible descriptions cannot be too helpful to K— if descriptions were to be considered as a possible method, K---uses to facilitate his understanding of previously unseen objects.

D--'s Artwork (Very poor vision and deteriorating.)

D— has always been interested in art and his parents have taken him to a range of galleries and museums over the years and so D--- was quite familiar with the process of experiencing new and strange artworks. Again, D— was very interested in all the exhibits and explanations that were presented to him and was very keen to start making an artwork of his own. D— chose to make a model of a crocodile, which is a favourite subject of his. He started by bending wire to make a basic “crocodile shape” and then he cut a piece of pewter sheet and created a skin texture by hitting and denting the pewter with a hammer. Once he was satisfied with the feel of the beaten pewter, D--- folded and molded the pewter around the wire frame.

D— worked quickly and efficiently on this project but once it had been resolved to an almost complete state, D— tired of it and wished to try something new. It seemed that once he had resolved the problems of creating the crocodile, then the work was complete. Perhaps the point that D— uses crocodiles regularly in his works provides the reason for the rapid loss of

interest. Once he had experimented with a new material and had used it sufficiently to satisfy himself that he could “re-invent” his crocodile shape, then D— was satisfied with the artwork. His familiarity with the crocodile shape rendered it to purely a symbol and the method of making and the use of material was the artistic adventure.

C.G. Artwork. (Central vision only)

C.G. is a very quiet pupil who is interested in art but has limited knowledge and experience.

She lacks confidence within the group and often chooses not to experiment too much but likes to work within a small range of familiar subjects.

C.G. was interested in the presentation, examined the artworks carefully and quietly absorbed the new information into her repertoire.

When it was time for the group to make their own artworks, she was a little lost for a while as she was unable to make rapid links with the new materials and methods of work and her own field of interest. With a little encouragement C.G. chose to use a sheet of pewter and to develop a picture of flowers using traditional drawing methods and fixing buttons and other found pieces onto her basic drawing to make the finished artwork more tactile.

The variety of petal shapes and the arrangement of her composition was quite traditional but varied and interesting. Her use of detail was quite explicit and the whole image that C.G. created indicated that she had understood about the new materials and had quietly assimilated their usage into her own design.

S--'s Artwork. (Limited Vision)

S— has limited vision, which is deteriorating, but by placing her work close to her face she can create artworks that lack fine detail. S— has a good grasp of shape and positional sense and can see a wide range of colour. S— has been interested in using portraits as a vehicle for her creativity and after enthusiastically taking part in the discussions quickly chose to make a

head shape out of the telephone wire and to use knotted wire for hair.

S— chose to make a three dimensional head and began by making a simple ball shape out of wire. Eyes, nose and a mouth were fixed by winding a vertical hoop into the existing globe framework of her head shape. Buttons were used for eyes and the whole head shape appeared similar to the see through effect of the Concorde model. The wire frame defined the outside shape of the head but allowed the viewer to see through the head and to see anything that was inside the head. At this point, S— chose to make a feature of the hair and spent a considerable length of time knotting and winding telephone wire and fixing it to the top of the head shape. The features and proportions of the head were realistic and placed in the correct places.

S— had absorbed the information given at the earlier part of the workshop easily. She had inspected the artworks and had experimented with the new materials, but, as with others within the group, S— had chosen to use these new materials on one of her favourite subjects. After assimilating the new information and the new materials, S— had “proved” or “tested” this new stimulus by using it on something she was familiar with. By transferring the information through another medium, S— was demonstrating a method of establishing the parameters of the new information gathered. As it could be used to re create something S— was sure about, then the new medium could be fixed within her range of experience and as it had been successful, then it was a worthwhile artistic experience.

Ki--'s Artwork. (Limited vision)

Ki— has some useful vision but lacks a lot of confidence. All of his work is accompanied by a constant dialogue stating what he intends to do, asking for reassurance and constantly asking for confirmation about whether what he proposes, is acceptable. At the same time he wishes to use as many different materials as possible and often wants to change his ideas to

pursue yet another one. Ki— was possibly the quietest member of the group and was the least adventurous, with his experimentation. Ki was reluctant to make any judgements and was unsure about handling the new materials. Ki— did not ask any questions and when the practical session unfolded was possibly the most resistant to any of the new materials or ideas.

Ki— finally chose to draw a picture of a wolf onto a sheet of pewter, it was a realistic image and was copied out of a book Ki— had used on several occasions previously. No new techniques were attempted, but he chose to knock nails around the drawn outline and to infill the wolf shape by cutting up coconut cord and sticking it down.

The nail knocking process was something Ki— would have practiced in a lesson, three years earlier in the school and was one Ki— had not used since.

I doubt the experience was so traumatic for him that he had regressed but possibly the new experience had made him think quite hard and had resulted in Ki— re discovering a method of work that he had learnt previously.

A new experience for Ki— had provoked a new method of behaviour and whilst he was not confident enough to experiment with the new materials, Ki— felt suitably inspired to implement some change.

Tactile Colour Workshop ---The use of sound to inspire artworks.

Tactile Colour is a company that produces sheets of brightly coloured tactile paper for use with visually impaired pupils. They are in the process of developing this range of materials and are quite anxious to make sure their product caters for the requirements of their visually impaired clients. To this end they have been employing artists to work with classes of visually impaired pupils and by using the tactile paper as a main medium they are able to evaluate the material. The tactile paper has a sticky, peel off backing and is easily cut with scissors. It has a plastic feel and each colour has a different texture. (Orange has an "orange peel" texture, green has a sand paper texture, red feels soft and rubbery, and blue feels similar to

green but is not so coarse, pink feels soft and furry.) There are twelve colours and textures.

The ranges of materials are meant to stick to wood, glass, metals, in fact most surfaces.

By taking the opportunity of using this workshop facility, I felt that it could provide another situation where I could observe pupils with sight loss undertaking creative pursuits.

When organising the workshop, I asked if the focus of the workshop could be delivered through an experiment with sound. I wanted to see if by playing specific music to the group, any specific shapes, textures or colours, were used as a response to those sounds. I wanted to see what sorts of compositions the group of youngsters developed and I wanted to see whether there were any preferences regarding representational imagery or if the chosen compositions were purely abstract. I was interested to see how those responses to music changed with a change in the rhythm, melody and tunes of the music. I wanted to see how the images developed over a period of time and I wanted to see how the pupils adapted the tactile

papers to fit in with any of their ideas.

The group of youngsters I chose to take part in this workshop was from a year eight form. (Twelve to thirteen years of age). The pupils were in fact youngsters who volunteered to take part and although some were interested in art and music, others opted to take part, as I suspect, they felt that by avoiding some usual lessons they were getting an easier days work. As an "all day" workshop, I wondered if by late afternoon, the group would lose interest, but I thought this may in turn provoke some positive artwork.

As an introduction to the workshop, I had spoken to the group of pupils and had explained in general terms what the workshop was concerned with. (The linking of shapes and colours to a variety of sounds. Some being musical others being more random.) I asked them to think about the ways they might choose to make shapes and I asked them to think about where they might place these shapes. I did not provide any further information as I wanted the artist who was taking the workshop to develop her own ideas with the group of pupils.

The artist who took this particular workshop was called Tertia Longmire and introduced herself by telling the pupils a little about herself and asked each pupil to do the same. Next, Tertia produced the range of materials the pupils were going to work with and each different sheet of tactile paper was examined thoroughly. Any references the pupils found regarding the colours or textures was discussed and described within the whole group. Each pupil made a reference sheet containing a small square of each texture for themselves so they could feel, compare and consider whatever shape or colour they wished to add to their artworks. After that, Tertia, explained to the group that she was going to play several passages of sounds or music and the pupils were to think about the associations the sounds held for each pupil.

The first piece of music was of Balinese drummers, the start was slow where each drum beat

was long and measured and the next drum beat was made only after the resonance of the earlier beat had completely faded. The sounds gradually increased in speed until there was a rapid beating of the drums and the sounds were completely intermingled. Finally the sounds slowed and faded into silence. Initially the pupils were a little bemused by the passage of sounds but found that they had imagined some very specific images. Some were of underwater scenes or ideas about outer space, but each pupil produced some specific ideas concerned with the tract of music.

The second piece of music was taken from an Irish folk song called, Catch the Fox. This piece of music was played on a violin and again started slowly and gained speed as the imaginary fox was pursued throughout the length of the music. The pupils identified the various instruments used by the players but did not particularly like the music. Tertia had described the influences of the music and the pupils easily understood this and dismissed it purely as a piece of music. The ideas had been made and presented to them and after hearing it, they accepted it!

A third piece of music was played and this was electronic sound. After listening to this, the pupils felt they had enough information and input to make their artworks and were keen to start. Tertia offered to play the music again and during their work and the pupils were happy for this to take place. They felt that it might help them to remember if they missed out anything. Building on the ideas received from the first piece of music the group of pupils started to work on ideas connected with water and underwater, caves, space, icebergs and machinery.

The group worked steadily from around ten o'clock in the morning to around two thirty in the afternoon. (with the usual regular breaks) At this point most of the pupils had taken their ideas to a state of completion, some wished to stop at this point others wanted to either continue or to try a further development. I was happy for this to happen.

The pupils had, up to this point worked in two's using a large piece of A2 paper. Tertia had asked them to work in this way as she felt that by working together, they may inspire and encourage each other with their joint ideas. This generally worked although in some of the groups, the more dominant party took charge and the less inspired pupil was relegated into producing cut out shapes for the other person. After the two-thirty cut off I encouraged each pupil to work on any individual idea they might have.

A— and B--'s artwork. (A— has some useful sight, B— has light perception only)

This group felt that the sounds evoked thoughts about underwater. They envisaged submarines, rocks and fish. Whilst the music played they described their ideas as a journey underwater and they made their shapes to fit in with this idea. The colour they chose for the underwater was red. This felt rubbery and they said that it produced the “right kind of feel for underwater”. The red “rubbery” paper was cut into long rectangular strips and was stuck overlapping along the top and to halfway down the sheet of paper. It created a very heavy feel to the artwork. Under this solid band of rubbery red other colours and shapes were fitted and fixed. (These shapes and colours were simple cut shapes using a variety of colours and textures, they had no specific plan or pattern other than providing a decorative function and a symbolic function for the creators.)

A--- was the pupil who made most of the decisions and described the ideas that should be placed into their artwork. B--- spent most of the time cutting out and providing shapes for A-. A--- also decided upon the colours and the shapes and often asked B--- to redo some of the shapes if he felt they were unsuitable.

Once the effect of the sounds had provided an initial stimulus to the group, their own ideas began to influence them and more representational imagery was introduced. The underwater concept changed into a seaside picture and although the colours, textures and basic shapes

remained the same, these “symbols” now became named as a pier, a wreck, an unsafe area on the beach and quite unusually, an alien space craft shooting rays across the water. This last inclusion was influenced by another group nearby and was added because it appeared to provide some exciting imagery.

J— & T---’s artwork. (J— has no sight whatsoever, T— has some limited vision.)

For this group, the electronic music inspired ideas about space rockets, a space station and mechanisms and clock dials. A lot of time was spent thinking about the space rocket and how to show the power of the rocket as it flew through space. Some colour representation was considered, (black for the smoke coming out of the rocket’s exhaust, yellow for the rocket and white yellow and red for the stars and planets) As with the previous group, their first ideas were much more abstracted and seemed to respond much more directly to the sounds they had heard but, as their ideas became more fixed, they introduced representational images of spacemen floating around in space.

This group found some limitations with the tactile paper and needed to use metal rods to make their artworks. This group also broke up their composition and introduced a clock dial into their picture, which had nothing to do with their original idea, but this idea seemed to be so strong for them that they felt it was necessary to include it into their picture.

Some small account was taken of the materials they used but their main interest was the creating of an image and again much of the colour and shape was a symbolic placing of a marker which represented some part of the whole idea.

M— & A--’s artwork. (Both M— and A— have some useful vision.)

This group appeared to be the least interested in the creation of artworks, yet they participated with some interest for the first part of the day. Each pupil had specific ideas about the music and after discussing their ideas with one another, felt that they needed to

divide their paper and to work independently on each part. They each experimented with the paper to a much greater extent than any other group and their originality was much more marked than any other group.

A— decided that the music made him think of caves and underground treasure. His artwork represented golden nuggets in rock formations. A— used the materials in a much more three dimensional way where he made some of the cut out shapes stick out from the surface of the paper. These were representational stalagmites.

A— worked very quickly and after lunch claimed it had been a useful experience but was not really his sort of thing.

M— found the music inspired him to think about underwater things and of ice. However M— felt that he needed to make ice men, ice weapons and an ice bomb. He described ice explosions and also included ideas concerning machinery. He made a “wonder wheel” that some how was a type of weapon. His ice men had triangular heads and carried weapons. His “wonder wheel” actually spun around, (fixed by a central butterfly pin) and seemed to have some similarity to a roulette wheel.

M— again worked extremely quickly and after he had completed the music inspired composition asked if he could use the tactile paper to make an almost life size picture of David Beckham. (A footballer)

With both of these pupils, their impressions created by the music were quite marked and profound yet they dismissed this creative outlet and found their success in representation.

They used the tactile paper to produce something they were more interested in and were content with producing a realistic image. These pupils were not concerned with any symbolic shapes or textures but wished to make realistic representations about things they wanted.

A— and M— absorbed the functions and processes available through the tactile paper medium and produced work that was of interest to themselves rather than inspired by the

sounds, they did in fact produce work that indicated their understanding of the links between the sounds and their interpretations of the sounds but found that they could use the materials to produce other results as well.

J— & B—'s artwork. (J— has some useful vision, B— has no sight whatsoever.)

This group found that the music evoked thoughts and ideas about icebergs and water. They became fixed on the iceberg idea and very quickly decided to make their artwork about the film, Titanic. J— was the main inspiration for the group and also made most of the shapes, decisions about placing the shapes and colours and textures used B— spent most of his time experimenting with cutting out shapes, feeling the various textures and listening to what J— had to say about the film. (J— had some useful sight B— has no sight whatsoever)

This group quickly ran out of ideas, (the tightness of the film gave them very little opportunity for experimentation) and after they had exploited the shapes and textures felt they could make little further progress.

J— asked if he could make a picture about Jerry Springer, (a television personality) and proceeded to explain about him to B—. They were both content to use the tactile paper as a medium for their conversations about films and television.

Both of the pupils found the musical passages “boring” yet had been inspired initially by it.

The shapes, colours and textures they had made were arbitrary and again were used as symbols for other things they described. Once they had explored, to a limited extent, the original ideas concerned with the tactile paper and sound, they were happy to exploit the possibilities of the medium for their own interests.

A— artwork. (A— has no sight whatsoever.)

A— felt that the electronic music reminded him of underwater and of icebergs. A— thought long and hard about the sounds and created some very interesting, carefully considered cut

out shapes. A— is now totally blind but has a very good visual memory and his shapes were similar to simplified “lightning” shapes. He cut out several of these in blue and white and placed them very closely together, these were his ice shapes. Next, A— thought about undersea rocks and about moving through the water, near to the rock formations. A— made rounder shapes out of brown and black tactile paper and stuck these shapes towards the bottom of his sheet of paper. He carefully felt where he had placed his “ice shapes” and placed his “rock” shapes, around and towards the bottom of the paper.

He talked about slits and cracks in the sea bed and cut out more black jagged shapes, which he stuck to the bottom of the paper.

As the idea became more fixed, A— elaborated with the idea and became more descriptive, distress flares, oil platforms, boats with spray, lighthouses, divers and islands were quickly added. Again the picture became much more representational. As the strong influences of the music became fixed, A— interpreted it into a representational, figurative image.

A— worked steadily throughout the day and although he developed his ideas into a more personal vision he kept to his original idea.

Speculation.

The most marked observation was that for all of the pupils, the music evoked strong pictorial images. Many of those images were linked to the sombre qualities of the sounds and each of the pupils were able to build up a detailed impression of a particular representation.

Each of the pupils impressions were of representational scenes. Even those pupils who had no sight was able to translate the sounds into a particular environment. Whether this was due to the sounds being those that they had previously associated with those particular environments or, if those sounds evoked an environmental impression due exclusively to the feel of that environment, needs to be considered further.

When the pupils started to construct their artworks, the abstracted shapes, colours and textures were more carefully considered but as the narrative aspect of their ideas became more in focus, then all of the pupils became more interested in providing a figurative representation.

Once some of the pupils became familiar with the material, they used it to create artworks that was of interest for them. Whilst this is a perfectly normal development, it also has some aspects of the blindness which transfers the qualities of one particular medium into another.

Many of the pupils used random textured and coloured shapes as tokens or symbols for their imagery. Sometimes the role of the symbol altered, if the pupil forgot the original function or if the symbol needed to be replaced at a subsequent point, is again an area for further consideration.

All of the pupils eagerly consumed the “new” experience and added it to their range of experiences. Many of the pupils experimented with the new experience and modified it to fit in with their own range of interests.

Out of the five separate groups, two were led by totally blind pupils and there was no discernable differences in the types of representation all the pupils chose to use.

Interlocking Shapes---An Aesthetic Exercise!

T— has very limited vision and has two main interests in life, West Ham Football Club and Formula One motor racing.

T— was one of the pupils who had taken part in the Tactile Colour Workshop.

During his time in the Tactile Colour workshop, T— had enjoyed himself but had been rather subdued and had spent most of the time assisting J— with his ideas.

For this particular lesson, T-- was experimenting with placing basic geometric shapes into what he considered was a pleasing arrangement. We had talked about placing shapes next to one another, so that they “looked better” or looked more interesting than before. I had mentioned that sometimes one particular shape, complemented another and sometimes the use of colour or texture could also produce a pleasing effect.

T— had decided to use the tactile paper and as he was familiar with the range of colours and textures, I decided to concentrate upon describing the possibilities of experimenting with shapes and colours.

To begin with, T— had very little idea about shapes and how to place them. He also had little idea about what shapes to use, so we began by looking at a football pitch and T— recognised the component parts. (Centre circle, penalty area--small rectangle, goal keepers area--large rectangle, corner flags--triangle and a half way line.) T— drew out a number of shapes he related to a football pitch and added the luxury of three small circles--footballs! After considering the shapes he chose colours for each of the shapes, the two penalty areas becoming separate colours (one purple the other black). Each of the small circles (footballs) became pink, blue and green. The green ball was placed upon a brown small

rectangle (penalty area). The blue circle was placed upon the large orange circle (centre circle)

and the pink small circle was placed upon a blue semi circle. (from the edge of the goalies area)

All of the shapes were placed and considered and replaced until T— decided that he was happy with the arrangement. The finished composition bore little relationship to a football pitch but did present a very dynamic arrangement.

Many of the shapes had been placed at the top of the composition and T— had retained the centre line which now became a diagonal line from top right, ending by touching the two small rectangles (penalty areas) which had been placed side by side just below halfway down the picture.

The centre circle had been pushed up to touch the top edge of the paper and separated the two large rectangles that had been placed in each corner.

The four enlarged triangles (corner flags) were fixed in a row together on the right hand side of the composition.

The two semi circles were placed on the bottom edge of the paper.

All of the shapes were taken out of their usual positions and were arranged in what T— considered to be a “pleasing arrangement”.

T— had used a very interesting colour composition, the top part of the composition, two large rectangles and a large circle, were, brown, orange and mustard. A small green circle appears in the brown rectangle and a small blue circle appears in the large orange circle.

The colours used in the bottom half of the composition are mainly the primary colours of red, blue and yellow.

T— has retained the green base colour for the composition.

(Please see picture enclosed)

Speculation.

The finished work, is totally different from other pieces because T— has reversed his method of work. Usually he starts with an unformed idea and develops it into a representational narrative. In this case, T— has started with a known image and has rearranged it to form an abstracted interlocking pattern of colours, textures and shapes. He has considered the qualities of balance, harmonious colour and composition.

T— has created an aesthetic composition.

Another interesting feature of this artwork was that even after producing this particular layout, T— still provided a commentary where he referred to the ball being in the goalies area and he better not commit a foul or he may concede a goal. Again we have the possibilities that with these ideas we are able to juggle through medium, dimension and discipline (written, spoken, drawn or constructed.)

T— does not limit himself to any particular specialism, he purely develops his idea and moves throughout innumerable possibilities limited only by his lack of imagination or enthusiasm.

SPECULATION.

Throughout all of the observations some interesting reoccurring instances have been noticed.

In many cases when negotiations are taking place regarding the artworks that pupils are making, vague ambiguous descriptions are used which invites the other person to develop the description more fully. A---'s Garden of Terror, (Ob. Sht. No. 2.) is very imaginative regarding trees that are giant stinging nettles and his method of using sandpaper as a texture but the sizes and the positioning are left for the helper to arrange. Shapes have to be coaxed out of the descriptions although much of the language used by the pupils is quite sophisticated. The "cylinder shape" for the trees and the leap to the creation of an "insect house with creepy crawlie buggy things" appears to be a strategy which keeps the questioner interested in the ideas but just fails to describe fully the content of the idea. It could be argued that the pupil who cannot see, is unable to describe these specific details but I consider that their language development and their knowledge of the environment are sufficient for this to take place.

I consider this method of describing an artwork is an "unfolding", through language of an artwork. The dialogue is a component part of the ordering of the artwork and evolves rather like a doodle in a sketch book, which, when elaborated upon, becomes the blueprint for a finished artwork.

Through these "language doodles" pupils often construct reasoning or invented "logic" which does not relate. This "logic" is again a type of mental doodling which moves between different senses and produces an intriguing form of description. L's description of a squirrel (Ob.Sht. No.3) and D--'s dragon description, (Ob. Sht. No. 5.) Illustrate this point.

Another interesting feature of visually impaired drawing is the use of basic shapes as symbols for objects within their artwork. Circles can become warts on dragons chins and clouds and houses can interchange as the narrative of the story unfolds. (L--, D--, K--.)

The deliberate and accidental interchange of shapes is also interesting to note. Ch— regularly made reference to eyes and ears being different sizes. She would claim to have made these sizes deliberately on some occasions but at other times this would surprise her as she rediscovered the details in her artworks. Ch— also demonstrated her “logical sequencing” with her drawings. “This is the hair and underneath is the forehead and underneath that are the eyes.” This is a method of memory training and is a logical ordering of “what goes where”.

A further demonstration of a developing logic is the method of extending the knowledge of unknown things through the medium of something which is known about. (Ob. Sht. No.6) By using his known and loved ideas of dragons, D— is able to develop his understanding of armor and shields.

Visually impaired pupils often use different sensory experiences together to construct a reality. Ch— when making her artworks, (Ob Sht. No. 7.) juggles with shapes, sounds colour and feelings. We have sleepy shapes and circle sounds and the whole concept becomes a sensory of interrelating constructions which overlap and intermingle. The complete artwork is dependant upon this interrelationship and is richer because of it.

My final observation at this point is the method of using an external function to satisfy an internal idea. (Ob. Sht. 10.) W— was rounding off a block of wood to make a head shape. After a few cursory strokes with a surform and on inspecting the shaped wood, he declared the task complete. Within the internalisation of his creation, W— had finished an outward manipulation and so the task was complete. Only by using sight would anyone feel that the task was incomplete.

An experiment to;

- (A) look at visual/tactile measuring skills.
- (B) consider aesthetic understanding
- (C) develop abstract concepts.

And to,

- (D) consider imaginative processes,

that could be stimulated by the presentation of a carefully constructed series of tactile artworks, for pupils who have a sight problem.

Grace Chan, a student of the Kent Institute of Art and Design, who is in the final year of her Degree course in model making, had visited The Dorton House School for the Blind as she was interested in understanding how and what, people without sight understood by the tactile information they received. After spending time at the school, working with the pupils and learning how they developed their tactile skills, Grace went away and devised a series of carefully designed layouts (6) for the pupils to investigate and comment upon.

These layouts were in the form of formal, brightly coloured, basic shapes that had been carefully arranged over a square surface. Grace had repeated some of the basic shapes on the square surface but had either turned them around, placed other shapes on them, altered the texture or colour of the shape, or had treated the background around the shapes.

Some of the layouts were low relief (5), others were three-dimensional (2), one layout used a face profile, whilst the others were of basic geometric design. One of the layouts had removable magnetic tear-shapes that pupils were encouraged to arrange, measure and position within the square frame provided.

Each pupil experimented with the six layouts, any questions by the pupils were answered and any projected speculations were developed. In turn each of the pupils was asked about;

1. The feel of the shapes.
2. The position of the shapes.
3. The relative size of the shapes.
4. The possible colour of the shapes
5. If any impressions were formed by the shapes or positioning of the shapes.
6. If they considered that any improvements could be made to The positions or to the actual shapes themselves.

Results.

Layout Number One. (Containing two equally sized semi-circles)

1. Most of the pupils thought that the plain semi-circle was larger than the semi-circle which had the blue shapes placed upon the semi-circle.
2. Most pupils thought that the first shape they investigated was the largest shape.
3. Most pupils described the shapes they discovered by relating the shape to something they had experience of. (i.e. a gear stick or a lollipop, for the blue shapes.

Layout Number Two (Containing a large triangle and two similar rectangles.)

1. Most pupils thought that the top rectangle shape was the larger. (again it was usually the first shape they found.)
2. Most pupils found this arrangement quite boring as they were unable to relate it to anything else.
3. Most pupils disregarded the textures of this layout although it provided a tactile similarity to a visual optical illusion. There was apparently no tactile equivalent to a visual illusion.

Layout Number Three. (Containing three dimensional cone shapes.)

1. The smooth cone shape was preferred to the textured cone shape.
2. Most pupils thought that the cone shape with the cut away parts was larger than the plain solid cone shapes.
3. Two pupils related the cone shapes to breast shapes.
4. Most pupils enjoyed the three dimensional shapes to the low relief shapes.

Layout Number Four. (Containing magnetic tear shapes.)

1. This proved the most popular as it was a layout where most manipulation and interaction could take place.
2. No references were made to the tear shapes.
3. Most pupils recognised the soft tactile rulers that were provided for the pupils to measure and compare the tear shapes.

Layout Number Five. (Containing a low relief profile.)

1. One pupil recognised the outline as that of a face in profile
2. Most pupils enjoyed the change from a basic geometric layout to what they considered to be a random line pattern.
3. No recognition was made concerning the positive and negative images and the fact that they both made visual images. Visual images that bear positive and negative similarities do not cross reference with tactile similarities.

Layout Number Six. (Containing a negative relief of the profile image.)

1. One pupil recognised that the low relief was in reverse to the previous profile image.
2. Most pupils realised it was “similar” by being another organic shape.

3. Again all pupils only registered one tactile image and did not consider any duality of meaning.

One pupil thought that the shapes were quite boring but considered that if they were in pale colours they may have a calming effect in a hospital waiting room.

The three pupils who had low vision were reluctant to touch the layouts being content to respond visually. They did not like the bright primary colours although they could see them well but would “improve” the layouts by using other colour combinations. (These combinations proved to be arbitrary and were purely their own favourite colours)

The pupils who could not see investigated the layouts more fully than just feeling the contours of the shapes, the layouts were tapped, tested for possible movement, the reverse sides were felt as an initial over all investigation and each pupil returned to their first point of contact and retraced their touch paths and then enlarged their area of investigation.

Some pupils found that areas that were not planned for inspection held some interest for the pupils. (Areas of roughness, irregularities in construction and the smoothness of the paint were all commented upon.)

Answers taken from a Multi Choice examination paper for Biology

This pupil has been totally blind from birth and is sixteen years of age.

English is his second language and he is within the autistic spectrum of education.

The pupil was questioned carefully regarding his responses and there is no reason to believe that his answers are due to lack of understanding through language difficulties, lack of understanding of the questions or lack of basic knowledge. Each response has been carefully considered by the pupil and the correct answer (for him) has been flagged.

A table was presented for the pupils to consider.

It indicates a range of different receptors in the body of a camel which lives in a hot desert.

Match words from the list with each of the numbers, 1-4 in the table.

EAR.
EYE.
SKIN.
TONGUE.

PART OF THE BODY.	CONTAINS RECEPTORS WHICH ENABLE THE CAMEL TO.
1. SKIN	DETECTS THE CHEMICALS IN THE LEAVES OF THE PALM TREE.
2. EYE	FEELS HOW HOT THE SAND IS.
3. EAR.	HELPS IT TO KEEP ITS BALANCE ON A DARK NIGHT.
4. TONGUE.	SEES TREES IN THE DISTANCE.

Initially, one is quite bemused by the answers, yet when you apply a non-visual logic to the problem you can easily see the reasoning behind the apparently incorrect answers Both skin

and tongue have become touch sensors and so it is correct to assume that these organs can be used to detect chemicals in leaves, (by touch) and can be used to gauge a distance, if the camel was feeding and was stretching to find food. The pupil has in fact demonstrated his knowledge of how camels feed.

The use of the eye to feel how hot the sand is is more problematic. If you have never seen, then the eye has unknown properties. It is possible the pupil has guessed that eyes have this power, but it is also possible that the pupil has arrived at this response by assuming that whenever a blind person is confronted by a new experience, two major interactions take place. Firstly the use of hands, and secondly the other senses are involved. As the other senses are contained in the head, then it is reasonable to move ones head closer to the subject being studied. As the table did not offer hands in the list and as camels do not have hands, the pupil has provided an answer that approximates the closest answer he can find.

For the remaining question, the pupil has indicated correctly that one's ears help to keep balance.

The answers supplied by this blind pupil provide a wonderful example of a "blind logic". By demonstrating methods used by people with sight loss to facilitate their environment and to understand different and new experiences we can perceive how the world of the unsighted can be different. We can imagine experiences in another way and we can utilise our senses to provide us with information in an unusual fashion.

The topic was concerned with transport. Pupils were to describe specific types of transport they knew about. Originally the group discussed the usual modes of moving from one place to another, train car bus plane and boats. Taxi's and transit vans featured highly as many pupils are transported to school using this method of transport. Space travel also featured highly. Pupils listen to television constantly and their imagination is fed by Star Trek, Star Wars, Babylon 5 and other popular programmes. It was interesting to note that the pupils discussed the various space crafts as if they were as real as the other forms of transport. As the discussion developed the group decided to make some drawings of particular vehicles and to construct those ones they felt were most interesting.

D--- is a totally blind from birth pupil, he is fascinated by monsters and space travel.

D--- "There's this bear and it's flying through the air. It's wearing a kind of harness which makes it fly better."

"Can you show me on the drawing where the harness is?"

D--- "I can't show you exactly, but its there. Below him on one side, there are lots of flames reaching up to him and on the other side is the dragon breathing the flames out at him. This is the dragon and the flames are just reaching him and touching him."

"What is the bear going to do?"

D--- "The bear will start to burn, but when he's just a bit singed, a craft will arrive, called Bear Rescue and it will spray water onto the dragon. Dragons and water do not mix and the dragon will explode and vanish. They hate water."

The Craft.

D--- "This space ship comes and sprays the dragon with water. There is vapour coming out of

it, its head is pointing down. It sprays the dragon and the dragon blows up. There is a lot of dust. I'm not very good at drawing dust but I've put it in."

Show me where the dust is."

D--- "I'm not sure actually, he turns the whole drawing around, constantly feeling the surface of the drawing. He checks various parts of the drawing until he is satisfied with the marks he can feel. "This is the head and this is the dust, but I'm not sure really."

Speculation.

D--- is a pupil who has an extremely fertile imagination, his ability to describe and build a complete scenario from a purely verbal input demonstrates a remarkable creative process.

However this investigation highlights two areas of specific interest.

1. D---- tenuous ability to understand the physical constraints and functioning of objects within our environment.
2. The ability D--- has to make his drawings a constantly evolving Vehicle for his ideas.

One of the beauties of D--- imaginative processes is his ability to describe specific instances in a way that almost defies logic. The prospect of a bear supported in a type of harness attempting to do battle with a space craft is quite impossible, yet the impossibilities are due to an understanding of the physical world. It is so easy to denounce the proposal because a bear cannot fight a space craft, what is the harness attached to and how does the bear breathe in space, but to dismiss the incident dismisses a creative innocence. D--- description proposes an imagination that soars beyond the practical and the impossible. Even though D--'s lack of knowledge concerning the physical properties of the world may be the main reason for the construct of such an improbable scene it should not lessen the creation.

D--'s drawings are little better than random scratches upon the surface of the German film.

(The medium D— works with). Yet these scratches and marks seem to be a visible

manifestation of D--'s creative and mental development. As his ideas unfold and evolve marks are committed to the film. The marks become a part of D--'s dialogue and the marks become changing and modifying symbols of the creative work. Sometimes a mark is a part of a creature, then it becomes a part of the sky, finally to become some particles of dust after the battle between the bear and the craft has finished. The craft has now become a dragon. The whole of D--'s drawing process is a constantly changing vehicle for his creative outpouring.

Both of these instances show a fluidity of ideas concerning the physical properties in the known environment. Symbolic representations in this environment can change and are only temporary markers or guides within a constantly evolving dialogue. By not actually seeing the images, these images become as temporary as transient thoughts and just as flexible.

It would appear that, D---'s marks are manifestations of a mental creativity.

CHAPTER FOUR. REALISATION.

REFLECTIONS ON THE RESEARCH QUESTION.

Rather than use the title 'Glossary' for this part of the study I have chosen to use the term 'Realisation.' The reason for this is that the case studies and the observations have formed and reformed the definitions of aesthetic appreciation, which could not have been established in the initial stages of this research. The nature of this study has, from the start, been cyclic as I have regularly revisited specific points as the research unfolded. The case studies and observations formed an organic part of the process of the thesis and culminated in the fulfilment of the initial promise of the research.

During those early months, I was aware of the potency of the programme but uncertain of its exact nature. It was through the diverse and sometimes difficult personalities of the case studies and observations that the research programme was defined and this feature of the research is demonstrated through the richness of the data revealed.

At the beginning of the research programme I focused upon some of the problems concerned with blindness. These problems highlighted the attitudes and beliefs held by both sighted and unsighted people towards the condition of blindness. This focus established the fact that the term 'blindness' was a general term and this term did little to convey any visual acuity held by people with sight problems. I examined some of the improving knowledge held concerning the states of visual impairment and I investigated the role that vision played for many people from both a psychological and a philosophical standpoint.

Finally, in the first part of the research programme I looked at a small sample of artwork which used blindness as a theme for their imagery. I also discussed the ways in which visual imagery was manipulated to convey meaning.

The other strand of this investigation was concerned with an aesthetic understanding that both sighted and unsighted people could appreciate.

After considering many of the debates on the subject of aesthetics, I decided to formulate my own definition of aesthetics as a measure of the qualities I considered to be important for people with a visual impairment. This definition owed much to empirical knowledge and provided a definition of aesthetics which could be used by both sighted and unsighted people, but took particular care not to exclude those people who could not see.

The main body of work was the collection of data through two main sources;

1. Five case studies of visually impaired adults who, despite their visual impairments, had continued to pursue artistic activities using visual media.
2. A number of observations of visually impaired children during art lessons at a school for the blind.

After the collection of this data I reflected upon the findings to find that several reoccurring ideas emerged from the data and these ideas seemed to intertwine throughout the research programme. I have gathered these ideas together into three main areas for further reflection.

1. The individuality of aesthetics.
2. The interplay of sensation.
3. Control over the spatial.

I wish to end this part of my 'realisation' with some further explanation and a small

apology.

I realise that at several junctures in this study I have led up to some very important disclosures and have retreated. I also realise that I have been a little unfair to some of the people who have contributed to the research. Finally, I realise that much of the data gathered reflects upon my own idiosyncrasies. I would like to refer back to two of the 'important disclosures' of which I deliberately avoided.

John Pym.

John raised the issue of creativity being linked to one's sex drive. I briefly commented on this by using Gombrich's description of the artist Richer's drawing exercises. It is apparent that I have skirted this issue.

The circumstances of the original statement were a little bizarre. I had never met John before our first meeting and we had arranged to meet after a telephone conversation. John lived in Eastbourne and had asked that we meet in a cafe along the sea front. It was under these conditions that I found myself talking about creativity and sex drive with a complete stranger, in a strange place and unsure where the conversation was going. As seen by my next question I retreated to more formal ground!

On reflection, John's statement owes much too popular philosophical debate with Freud's thinking foremost in this line of reasoning. It could be argued that Freud's theory on infantile sexuality could be seen as an integral part of a broader developmental theory on human personality where creativity shapes the drives and ambitions of the adult person. I would like to think that rather than the adult person being formed by the bodily/sexual drives of the infant, it is the confidences built in a nurturing and loving environment which emboldens a person to express themselves creatively.

Rosemary Carter.

Rosemary was perhaps the most difficult person to interview simply because her exciting and often outrageous statements left me completely bemused.

Without a doubt her explanations regarding the application of a logical reasoning provided a valuable insight into a practise used by many visually impaired people. Her account of how she coped as a child with the problems of sight loss were heart rending and her inventiveness and creativity showed how humanity overcomes any difficulty if they wish to pursue any goal regardless of any disability. I particularly enjoyed Rosemary's explanations on how she explored ideas and how these ideas interlocked thought processes together with drawn doodles and observations from nature. Often though, Rosemary's bold statements confused me, I could follow the reasoning where she explained about her perceptions of a balance in the world and how she linked this with rats using their tails for balance. I liked her explanations concerning her observations in her garden and how she used plants and seeds to understand about shapes and harmony, but I found the statement about how her daughter took up ballet after learning about seeds and plants quite a large step to take. I suppose the confidence Rosemary had was the issue that concerned me and confused me. After space and time I realised what a potent force Rosemary is. Again I would like to make reference to our first meeting which helps to put into context my regard for Rosemary.

Rosemary lives in a bungalow on the south coast. After speaking with Rosemary on the telephone we agreed to meet and I travelled down to her house one Saturday morning. On arrival I was ushered into a large sitting room where I was seated with around twenty assorted parrots, parakeets and toucans. These assorted birds were randomly caged and scattered around the room. The birds were screeching at each

other was silent with their heads cocked and then screeching again. By way of an explanation Rosemary informed me that the birds were from different countries and had just met. They were, she explained, learning each others language and would be quiet once they understood each other. For around fifteen minutes of constant noise I was a little dubious but after a cup of tea and around twenty minutes the birds were quiet, Rosemary was satisfied with the bird's progress and our interview began!

After such a dramatic introduction to Rosemary one can appreciate my regard for her. The apology I wish to make is for the instances where I have compared opinions made by Joy together with important theories by such a dignitary as Jung.

My final explanation for this is my subconscious reaction to Joy as a person. Joy was a deputy head at the Dorton house School for the blind and contributed to the hierarchical system practised there at the time. During our interview I was 'informed' of how visually impaired people behaved and I was instructed as to how they dealt with their impairment. Joy was a strong and formidable lady and her way of dealing with her own visual impairment brooked no argument. It was with this thought that I placed Joy in the arena with Jung, what a contest!

THE INDIVIDUALITY OF AESTHETICS.

Mann's, (1998) makes the following historical observation regarding aesthetics, which he attributes to Kant's beliefs;

While aware of the subjectivity and relativity of aesthetic judgements, Kant believed that common aesthetic experience could be achieved through the universally communicable pleasure generated by certain works of art. This pleasure is the result of common faculties of understanding, imagination and judgement, of bringing general concepts to bear on sensory information; and it is likely to be affected when one's personal or individual cares and interests are temporarily put aside or transcended. Such pleasure is intense but disinterested, serving no practical purpose.

Mann's (1998)

Fortunately, Mann's modifies this qualification for aesthetic judgement with a developing argument where he concurs those aesthetic judgements could be 'universilizable' to the degree we are 'like minded individuals.' But he doubts that there is any aspect of human nature that is distributed generally throughout all humanity, (and questions the possibility of a totally disinterested outlook). He suggests that we should not assume that there is one, collective universe of taste, but a plurality of universes, a collective of cultures with varying standards of beauty which will overlap to varying degrees with other cultures.

I would like to endorse this explanation as I believe that aesthetic judgement complies with a common formula yet retains a unique quality which sets the object under scrutiny, apart from the ordinary.

Aesthetic judgement is not a measure or proportion, (although it includes a balance of proportion) it is more a response to sensory stimulation, in fact it is a feeling! Feeling is not a visual domain and although visual approval is an initial (sometimes superficial) response, this facility for 'feeling' can be experienced by people who cannot see using other senses. A 'feeling' for the aesthetic can be met (albeit differently) through other sensory stimulation.

To develop this idea further I will draw attention to the experimental work embarked upon by Peter Mackay (1996). His explanation for his work using a flotation tank is as follows;

Much of the art we see today attempts to give alternative means to interpret what we see and experience in the world, but is all this effort not just a duplication of a falsehood and a duplication of equal magnitude and falsity to the one it purports to depart from? I do not pretend to have all the answers to this age old dilemma concerning art and reality but I hope that my current experiments with sensory deprivation will provide me with a new awareness of my own blinkered outlook.

Mackay (1996)

Mackay feels that our modern world has subjected everyone to a 'visual bombardment' which in turn has rendered us all 'blind to what we see.'

I contend that by examining both the artwork and by listening to the dialogues used by visually impaired people we can appreciate some of the concerns held by Mackay. Equally we can understand, not only, the artwork produced by visually impaired people, but we may also be able to reflect more fully upon the psychological reasons for the creation of artworks by everyone. (sighted or otherwise)

Mackay offers us a further insight into his thinking with the following statement;

Can we retrieve universal inner attributes of mind which have been buried by the workings of the contemporary brain or are those 'universalities' culturally conditioned and educated into us, and if so when we scratch the surface of that conditioning are we at the mercy of our individual psyches adrift in aesthetic isolation? If we find novel or re-configured ways of seeing, do we abandon the comfort of a familiar world and feel ourselves constantly at the cusp of an aesthetic adventure, or do we constantly re-invent our surroundings to accommodate our needs and desires.

Mackay (1996)

For Mackay, the facility to experience and compare visual and non-visual stimulation is available. He can subject himself to the experiences that visual and non-visual stimulation can provide through his immersion in his flotation tank. He has instant and first hand information of both a visual world and that of a totally blind environment yet this information are purely subjective and can only relate to their

own experiences and his own knowledge, concepts and perceptions. My study works with the ideas and influences of a number of different people and the data can be compared with a range of people who have a wide and varied experience of the world and its environment. Mackay asks whether we can retrieve 'universal inner attribute', I would argue that the artworks and the dialogues demonstrated by totally blind people, constantly show that this can and does happen. What is needed is the facility and the ability to recognise these 'mental images' whenever they are displayed. I would also argue that the observation sheets demonstrate, that visually impaired people use these 'universal inner attributes' whenever they create artwork. The dialogue shown in Observation sheet 003 is one of many examples of the individuality of a blind person's aesthetic experience which uses the person's own experiences together with learnt information of those 'things' which make up her own personal world.

The section where the pupil is describing a hedgehog is particularly revealing. I quote;

What does a hedgehog look like?
Prickly.
What sort of shape is a hedgehog?
Square ? A circle shape. Like this... L--- points to her curved finger nail.

The first response shows that the pupil has learnt by rote one of the qualities of a hedgehog. The next response is a guess and her final response indicates the subjective impression the pupil has for the shape of a hedgehog. After further reflection the pupil offers further information with the observation that hedgehogs feel like horse chestnut shells. The pupil is trawling her range of concepts to develop a fuller understanding of hedgehogs and after considering the whole concept, the pupil completes the exercise by placing the 'hedgehog into an environment. (at the bottom of a tree, but not near

the squirrel) As the pupil enlarges her ideas and her understanding of the art topic, she demonstrates a building of information dependent upon known and established facts. As the hedgehog is 'squary' so the fox becomes triangular. The pupil knows that foxes are different from hedgehogs so , if hedgehogs are 'squary' then foxes must be another of the shapes the pupil knows. The relative size of the creature is established against the size she has chosen for her squirrel. (Medium sized) This whole process of building the concept, starts with what the pupil knows, the process expands to include what might logically be expected and concludes with a whole complete matrix of new information which is a combination of the initial 'known' information together with assumption and hypothesis.

At the initial reflection stage of the observation sheet, I had commented upon L—'s ability to construct personal logical concepts, where she would reason through her choices using either related or unrelated facts to confirm her actions. This method of work conforms to an individualistic perception of her environment together with a personalised ordering of her imagination.

In the observation sheet 004, I further reflected upon Ch—'s accompanying narrative whilst she drew. The image became a separate entity once it was completed. Through the drawing process, the eyes and ears were of different sizes and this was commented upon by Ch—as she drew them but the observation was made as if the physical sizes were outside Ch—control. Although Ch—was drawing the objects, the fact that they became different sizes upon the German film was not something Ch— felt she could control. I believe that once her idea had formed and the drawing process enacted, then the created image became a separated object. The creative process was complete and the created entity stands alone as a new tangible fact. Further examination of this new

separated object, in turn, provides additional evidence to be considered and developed within the extended parameters of the original concept. Not only does this process of creative development provide for a developing personal concept of the world, it also provides for a unique and personal range of symbols, impressions and logical sequencing, that must produce an increasingly obscure personalised understanding of an individual world.

Elizabeth Price Simmons (case study number 003) has talked about her 'inner world' of chaotic semi-formed shapes waiting for an outside stimulus to give form to her creativity. She feels these 'semi-formed shapes' are personal to each individual, rather like a form of creative DNA, where all of humanity may share in the celebration of the created entity but the unique qualities of the creation depend upon the unique qualities of the creator. Trevarthen (1995, pg 171.) qualifies this belief with the following observation;

Making a statement about a real or imaginary world, telling a factual story, may be the conscious target of an artist's creative arrow, but it is the flourish of the movements by which the bow is plucked that has the aesthetic message.

Trevarthen, 1995.

Rosemary Carter, (case study number 002) demonstrated her 'aesthetic message' forcibly. Her own particular unique vision of her environment and the ways in which she used nature as her basis for understanding provided a further insight into the ways visually impaired people overcame sight problems in order to create artwork. Rosemary's intense observations and resultant concept development is a feature that is commonly used by people with sight loss when they are attempting to understand 'things' in their environment, yet, the depth to which Rosemary has studied and ordered this environment together with her reasoned conclusions indicate an

originality that is quite breathtaking and completely unique. Her reasons for colour despite having no colour vision and her 'logical' progressions show how visually impaired people construct a fragile network of understanding which depends upon trust and supposition. Sometimes these suppositions are flawed and the resultant theory is incorrect but the unique vision is clear. What is pertinent at this juncture is a further question about the desire of visually impaired people who wish to work in areas they cannot see and using materials they cannot see to shape.

However, the question for this research programme is concerned with the nature of aesthetic understanding for people with a visual impairment, what is becoming apparent is that people with sight loss do have aesthetic understanding on a par with people who do not have a sight loss. What is being revealed are the different methods used by people with visual impairments to produce artwork or to appreciate existing artwork.

The observation sheet, number 007 reveals another facet of the individuality of the aesthetic processes demonstrated by visually impaired people, namely that of the subjectivity of language. Language for most people is a common vehicle that provides for an individual understanding. Pinker (1995, pg 18.) describes language as follows,

Language is a complex, specialised skill, which develops in the child spontaneously, without conscious effort or formal instruction, is deployed without awareness of its underlying logic, is qualitatively the same in every individual and is distinct from its more general abilities to process information or behave intelligently.

Pinker 1995.

While I claim that language is subjective for most people, Pinker argues that it is an instinct. He states that language (as an instinct) should have a special set of genes that 'help wire it into place.' He further argues that if an individual was impaired in any

way and language was purely a learnt process, then it would be reasonable to expect the language facility to be proportionally impaired. The fact that language performs 'outside' of the constraints of impairment indicates that language could function in a similar manner to one of the primary senses. The way in which visually impaired people use language as 'another sensory tool' goes some way to developing this idea.

In observation sheet number 007 two visually impaired pupils experiment with the word sound 'jamongo.' This made up word conforms to a believable and convincing convention of word sounds. The dialogue between the two visually impaired pupils demonstrates how an abstract concept can be explained and appreciated between two people who cannot see shape and colour yet each pupil is accepting of the explanations put forward in the describing of the word. As the process of 'making word shapes' and the concepts regarding the word shapes develops, these 'language creations' become increasingly subjective, dependant only upon the individuals' range of experiences. Again, personalised logic is used to provide a formula for the acceptance of the created 'word shape.' The invented formula proves the reality of the word shape and language, shape and texture are imagined and combined to create either a conception or to help with the construction of a three dimensional whole.

The aesthetic value of the artwork is provided through the logical reasoning that accompanies the making of the object (either actual or factual) and if the logical constructions make a viable proposition then the completed process is irrefutable.

For this first section, I feel that I have explored the individuality of aesthetics and have found that the properties needed to demonstrate aesthetic judgement need not be limited to visual perception, an interplay of a multi sensory approach leads to a complete aesthetic understanding. Yet even if one sensory stimulation is absent, some

aesthetic judgement can be made and this judgement has a unique value. I have found that through the exploration of aesthetic understanding for visually impaired people, an ability to gauge a fuller aesthetic appreciation has been made possible. The individuality of aesthetics holds much truth for both sighted and unsighted people.

THE INTERPLAY OF SENSATION.

One of the main revelations of this study has been the regular demonstration, by both the participant of the case studies and the visually impaired pupils in the observed situations, of the ability to mix a variety of different sensory material together. Totally blind pupils have combined auditory and tactual sensations together with verbal description in their attempts to develop new concepts. Participants in the case studies demonstrated their abilities to draw on influences from their sub conscious and their unconscious together with traditional materials to develop their own particular artistic endeavours.

However, whilst this facility for combining sensorial information is not unique to the visually impaired, it does demonstrate how visually impaired artists, (and indeed people) are in tune with contemporary issues in art.

Honnef (1992, pg 189) writes;

If montage was the most striking methodological principle at the beginning of our century, citation has taken its place at the end of it. The scope of these two methods; however is not just a technical matter. There are points of contact between the two, and they also express some very striking spiritual and artistic attitudes. After the experience of the First World War, artists used montage techniques to put together the fragments of a world which had been shattered into many broken pieces, and so without trying to cover up the cracks, they created a new artistic unity. Artists nowadays use citation to call to mind what mankind and – by extension – art have irredeemably lost in the course of the 20th century.

Honnef, (1992)

The fragmentation alluded to by Honnef has developed from the fragmentation of materials to the fragmentation of style, influence, culture and class for the 21st century. This ‘fragmentation is also demonstrated by visually impaired people through their individual ‘fragmented’ sensory reception. Consequently the artwork made and appreciated by visually impaired people develops this expanding idea of fragmentation.

Montage, incidentally, is a medium regularly used by visually impaired artists, yet this is because the tactile qualities are more easily manipulated than applying paint. I am open to the possibilities that visually impaired people are using the materials of fragmentation as a sub conscious demonstration of their own fragmented sensory perceptions, yet, I would be much more in favour to claim that visually impaired people use the facilities of citation (see glossary) much more readily, as a methodological principle in the delivery of their art.

Citation as a method of media manipulation, in contemporary art uses diverse references to provoke, stimulate and inform. Traditional materials are either disregarded or combined with performance, computer technology, or indeed, any media judged by the artist to provide the correct facilities for the projection of the artist's concept.

Hilary Lorenz provides an example of using somewhat surprising materials for her artwork, where her ideas combine the use of scientific, medical and quasi- scientific material to portray her work. In her work *V.A. Hospital* (1998) Lorenz makes use of a number of microscopic slides that contain human tissue. Originally these slides had belonged to a pathologist who worked at the Pittsburgh Hospital and he had taken the slides home for personal research. After his death, the slides were discovered in an old barn and were presented to Lorenz. All the samples are from military personnel who had died during the Vietnam War, but their deaths were from cancer. The materials provide an opportunity for Lorenz to use somewhat shocking material in this instance yet the method of using whatever materials are available is a feature of the work experimented with, and used by visually impaired artists. With Lorenz we see an artist using unusual material in her attempt to provide an insight into the Vietnam War, yet these materials may not have been considered until they were suddenly available to

the artist. Once they became available, the potential of the 'new' material was realised and the concept was broadened to include human tissue.

The observation sheets gathered during this programme of study have indicated that the visually impaired pupils have instinctively demonstrated a similar facility.

Visually impaired children and adults will readily combine any new material into their artwork if it is judged to fit into the developing concept of the original artwork. The intriguing feature of this artwork, however, is the ability to combine verbal description, geometric shape and tactual quality together. Lorenz has used shocking and unusual materials because she has the ability and opportunity to do so, visually impaired people combine their range of different and new materials simply because these combinations seem natural to do so. Equally a visually impaired person will use these combinations as a method of experimentation and further understanding. The process of creating a 'finished piece' is more concerned with expanding the idea until diverse possibilities are explored, rather than the presentation of a completed artwork. I would also suggest that the visually impaired, include many of their known stimuli into their artwork in order to demonstrate their knowledge of an 'unseen' world.

Observation sheet number 006. demonstrates the combining of language (a television dialogue), an understanding of geometric shape, imagination and tactile image. The programme stimulates his imagination; he explores his ideas through tactile models and drawing using his knowledge of geometric shape to combine the whole process into a tactual dialogue

To further help us understand how visually impaired people combine these separate sensory stimulation together into artwork, it is pertinent to consider the article, A Portrait of the Brain by Rose, (1995). In this article he considers how a mind works,

whether as a single mechanism that performs a variety of functions, or whether permanently dedicated faculties exist. Rose argues that it is generally accepted that several processes are more or less distinct from one another yet, interaction and crossover between these processes must occur. He states that parts of the brain receive converging visual, auditory and touch information, which culminates into 'cross modal integration.' Rose further states;

The brain as I have tried to portray it here has near infinite depth: dimensions nested within one another that open out every time one approaches closer to examine the detail and open out yet again as we move in to study further. There are more than three dimensions to the brain and that is what makes it so fascinating.

Rose, 1995.

I would argue that many of the artworks produced by the visually impaired demonstrate this 'cross modal integration', and that the fascination Rose has for the brain echoes my interest with the images presented through the artwork produced by visually impaired people.

Yet one main area for consideration still remains to be considered, being that of the interplay of the sub conscious within the physical mechanisms of the brains function. Trevarthan (1995, pg.193.) recognises the importance of consciousness (and sub consciousness) in the interplay between human brain growth and the creativity of art when he makes this statement;

The body is the primary context and theme for deployment of the sensitive focal points of our consciousness, which are constantly moving, selecting and rejecting, near and far, on left and right. The human cognitive asymmetry that penetrates the records of artists' work is elaborated out of an asymmetry of motives of a personal and emotive kind that serves in all communication.

Trevarthan, 1995.

Therefore the 'body' of the visually impaired artist with all of its complexities of sensory deprivation, different experience and individualised perception must provide for a unique form of communication. Trevarthan (1995, pg 194.) completes this

strand of thought with the following observation.

In pictorial art, visible form gives evidence of a palpable, hearable, smellable and tasteable reality in its emotive aspects, inciting awareness of things of importance, recollected and imagined.

Trevarthan, 1995.

However he has not considered the role that sub conscious impression plays within artwork.

Artwork demonstrated by visually impaired people use the 'hearable', 'smellable' and 'tasteable' 'realities' together with those other properties of consciousness and sub-consciousness. Elizabeth Price Simmons', (case study 003), belief that people respond to colour sub consciously is worthy of consideration at this point. She believes that people 'respond' to colour whether it is seen or not. She believes that colour imparts some kind of radio wave, rather like an infra red or ultra violet light. Elizabeth argues that if people can benefit from unseen ultra violet rays in medicine, then people (both sighted and unsighted) could benefit from the 'sub conscious' effects of colour. She further contends that the proximity of objects and the shape of these objects further effects (sub consciously) the state of mind, our receptiveness to those objects and in turn, our perception and concept of the environment.

In the reflections at the end of Elizabeth's case studies, I have weighed these propositions and have commented upon a number of findings, I would make one further observation to add weight to this argument. At the end of the book *Consciousness Explained*, (1993), Dennett makes the following statement.

Surely it would be better to try to foster an appreciation for the non-absolutist nonintrinsic, nondichotomized grounds for moral concern that can co-exist with our increasing knowledge of the inner workings of that most amazing machine, the brain. The moral arguments on both sides of the issues of capital punishment, abortion eating meat, and experimenting on non-human animals, for instance are raised to a higher more appropriate standard when we can jettison the myths that are beyond protection in any case.

Dennet, 1993

I contend that although one cannot prove the effect of one's sub conscious, it is a

mistake to discount any possible effect. I further content that through this research programme, much of the data gathered, points to a demonstration of the ability of visually impaired people to combine an interplay of sensory stimuli beyond the usual combination of different sensory media. This in turn demonstrates the use of the sub conscious as a positive tool in an armoury of a multi –medial approach.

CONTROL OVER THE SPATIAL.

The third issue I wish to reflect upon is the relationship between visual impairment and space. Earlier I had stated that Hill and Blasch (1979) had listed the loss of environment as one of the major problems for people with sight loss, yet this manipulation of the environment has emerged as a main feature of this research.

People who cannot see their environment, but wish to examine and understand it, are partaking in a natural process. Blind people are part of their surroundings and wish to function and contribute within it, yet the need to develop this contribution to an ordering and controlling situation is puzzling. Why do so many visually impaired people wish to manipulate a space they will never see and why do they need to participate with the using of visual media?

Throughout the research programme, I have referred to a number of different aspects of 'space' which the visually impaired people have engaged with in their pursuit of a creative outlet. These 'different spaces' reflect upon both the physical and mental attitudes adopted by visually impaired people and I believe that the role between an 'internal' world and the 'external' world are pivotal to the answering of this question. Samuels (1989, pg 163.) informs us that the *mundus imaginalis* is a 'fully objective real world with equivalents for everything existing in the sensible world without being perceptible by the sense.' Initially I would like to explore the possibilities of a 'space' created by one's imagination for visually impaired people.

The 'space' created by imagination.

Again, Hill and Blasch (1979) list the loss of basic concepts as one of the three major losses for visually impaired people, yet, once a concept has been grasped by a visually impaired person, the ability to mentally manipulate these concepts is equal to any sighted person. Millar (1994, pg 135.) investigated the possibilities of visually

impaired people being able to engage with mental rotation. She states;

Piagetian tasks indicate the developmental nature of mental spatial structures. The fact that the blind children solved the Piagetian tasks in the same order as the sighted, but at later ages, is thus taken to mean that the nature of spatial structuring is the same, but that visual deprivation retards that construction

Millar 1994.

This would indicate that the facility to 'visualise' ideas and to imagine, is available for all people whether they have sight or not and that sight is not a fundamental requirement for a developing imagination. Gales Encyclopaedia of Psychology (2001) states;

Imagination involves the synthetic combining of aspects of memories or experiences into a mental construction that differs from past or present perceived reality, and may anticipate future reality.

Gale (2001)

For visually impaired people, the ability to combine mental imagery has been demonstrated through their ability to synthesize, language, tactual and physical stimuli into original artwork and a loss of sight do not impede these constructs. Obviously their use of visual imagery will depend upon their experience and use of such media, but this facility is not barred to them. Equally, a loss of sight may encourage mental participation as the confines of a physical world do not apply if you cannot see the limitations (i.e. gravity, balance, weight.)

Once a sensation of touch, smell, taste and sound is combined together with verbal language and perception, then the pure electrical impulses that are triggered within the brain, can produce an 'environment' for the imagination to flourish. In the case study 002 (Rosemary Carter) I had linked some of her behaviour with autistic traits where I had commented upon her ritualistic or formulaic behaviour. Currie (1999) in his article Art, the Mind and the Brain, examines some of the characteristics of autism

and ponders the problem of imagination. He believes that with Autism there is damage within the brain in that area that he calls 'the imagination system.' He acknowledges that with Autism, there are often multiple deficits and that 'pure autism' may not exist, but he claims that it is widely accepted that a 'lack of imagination' is a common autistic trait.

Equally I would argue that another Autistic characteristic is a lack of response towards an external environment. Whilst I had tentatively made a link between the two conditions (visual impairment and autism), I would now claim that the visually impaired persons engagement with space and the visually impaired persons use of imagination, separate the conditions. The need of visually impaired people to participate within their environment and to engage with it using visual material sets these two conditions apart. Turning again to Samuels (1989), he develops his ideas of a 'world of imagination' as being a 'pre-existing environment for images,' and concludes that 'it is the space which is already present when images are produced.' He believes that these images are both personal and transpersonal and can reach past subjective, internal experiences into objective or external experiences.

This explanation would sit well with the demonstration of the use of imaginary processes used by visually impaired people. If one considers observation sheet number 0016, there is a fascinating account by a totally blind pupil of his ideas of transportation. D—has constructed a vast imagined environment for his range of creatures to enact his imaginary drama. I had commented upon D—tenuous grasp on the physical constraints of the real world, yet through D—use of his imagination he has transcended a mundane physical world and created an environment, which soars beyond three-dimensional stability. His ability to mix ideas and media and to develop

these ideas in a continuous flow of creativity must indicate a 'space caused by the imagination.'

Elizabeth Price Simmons (case study 003) had described her 'inner world' as a refuge from reality and in this inner world there are 'swirling fragmented shapes' awaiting the catalyst of stimulation. Perhaps this is a description of the environment where the imagination exists!

The 'space' created by the physical body.

An exercise used by professionals working with totally blind children is using jelly on the child's body to encourage the child to become aware of its bodily extremities.

Blind children do not, naturally, reach out to their external world and do not enquire and explore in a similar way to their sighted peers. Bee (1985 pg. 36.) explains the importance of internal and external influences;

Both internal and external influences are involved in virtually every facet of development and the two interact in complex ways. Since the child also influences the environment she experiences we must think of complex transactions between the child and the world around her, which changes as the child develops.

Bee (1985)

For blind children, the transaction between themselves and an external world, initially, must be taught. The child must develop an understanding of its own place in an unseen environment and must learn the differences between lying down, sitting and standing. The blind child must learn unseen positions such as up, sideways, down across and below. Together with these 'abstract' conditions the child needs to be aware of its own place and relationship within this environment.

Perhaps the building of this special relationship with their unseen environment is the foundation for their concern with an outside world. For many sighted people, the environment is a medium to move through in their need to move from one place to

another. The environment, for sighted people, is a place of work, a journey to travel a place to rest or a situation to enjoy. For the unsighted it is also all of these, yet, it is also an intellectual exercise.

This 'intellectual exercise' is also a concern of artists. Elena Cologni, (2001) has been researching ideas of identity of the real in relation to experience and concepts of space. She states her intentions as follows;

exploration through practice of new spatial ideas and interaction with the audience in a space to create new artistic possibilities to be analysed; audience interpretation and responses to be incorporated into the work and its meaning; to gain information on how audiences who vary on the basis of gender, race and nationality, modifies the experience of spatial, symbolic constructions and performances.

Cologni (2001)

Whilst Cologni considers the differences gender, race and nationality impart upon spatial ideas, the concerns of a visual impairment upon this spatial concern must have a significant impact. Cologni is engaged with her own role together with that of an audience and she use herself to interact with her own intention and the perception of herself and those intentions by others. Her resulting work is video material of herself viewing others and others viewing her in a staged environment. Totally blind people exist in a conceptual environment and engage with others in a spatial vacuum, which must alter their ideas of a personal identity in relation to experience and concepts of space. Cologni has a firm idea of herself in an environment and is concerned with an interplay of people within a space, the area I wish to reflect upon is the appreciation of an unseen space and the manipulation of that unseen space by visually impaired people.

As some artists are concerned with spatial concepts, then it is equally probable that some visually impaired people will be concerned with similar issues and these issues can be initially confusing.

Once a blind person understands the extent of their physical body and the concept of that body within a space, it is natural for an enquiry to be made concerning that 'outside space.' This outside space is a place where things happen which engage all of the senses, sudden noises occur from 'out there' and movement happens where one is suddenly transported from somewhere to somewhere else. Outside 'things' startle with unsuspected contact, smells appear and disappear. Warmth and cold are felt and without sight to rationalise these occurrences, confusion, perplexity and fear could easily be a result.

To develop this strand of enquiry further I would again like to refer to the condition of Autism. Burgoyne, in his paper on Autism and Topology, draws references to the work that Bettelheim has done with developing spatial concepts for autistic children.

Burgoyne notes;

The desperate difficulties encountered by the child in constructing a world and, within it, a separate place for its own being repeat case after case.
Burgoyne (pg 195)

He attempts to explain this difficulty experienced by autistic children as the child's inability to create a world of inner representation. The recognition that these children need help to understand the terms of 'above', 'below', 'underneath' and 'to the right' is exactly the same problem that totally blind children encounter when they wish to engage with an unseen world. The monumental difference between these two categories is that with a totally blind child, all other reasoning facilities are considered to be 'normal'. The impact of this similarity could be important.

The interest that visually impaired people hold for their 'outside world' may help with an understanding of how autistic children deal with their own 'unknown' space.

How totally blind people develop an understanding of global space has been

considered earlier and has demonstrated significant features of how blind people regard their immediate environment and also, how blind people perceive the space away from them. For a sighted person distance can be measured in a number of ways (time taken to travel, changes in scenery, amount of road changes) yet for a totally blind person, space is dependant upon the time it takes to move from one place to another. Once this allotted time has passed then temperature may be different, sounds may be different and smells may be different, but the physical being is still within the same physical confine. Sighted people are visually aware of a change in surroundings and this feeds the appreciation of difference. The totally blind person will engage with this new environment in exactly the same way that they have been taught to engage with every environment. They will adopt a defensive and methodical exploration of their immediate space and establish what is in their way, how far they can move safely and what things are available for them. Everything else depends upon a dialogue with someone else and the use of imagination.

Millar (1994) clarifies the concern with spatial concepts and blindness with the following observation;

In learning about a geographical space, the child, or indeed the adult first remembers particular 'landmarks' then organises these landmarks into sequentially into 'routes' With further experience landmarks and routes are first co-ordinated partially, and finally are fully co-ordinated into map-like overviews or configurations of the whole terrain. The sequence is assumed to be invariant.

Millar, (1994)

This method of developing an understanding of geographical space by sighted people is exactly the same method used by blind people to establish their position in their 'unseen' environment. The significant difference is that for sighted people this method of establishing a 'geographical space' can be updated kinetically by a sighted

person whilst they move around this space. For the unsighted person changes to the space depends upon verbal description and 'other than sight' sensation. I contend that this would lead to a more subjective impression of the space a blind person exists in.

However, the most important point to consider with an environment is that the space is not just the description of a journey from one place to another or a sequential 'unfolding' of space. Being placed in an environment is an awareness of being in a discrete situation, this again depends greatly upon subjective impression.

Millar (1994, pg 229) yet again makes an important observation when she debates non verbal representation, she claims that cognitive skill is needed for any symbol systems that are derived from perceptual information and that merely imagining an event can have the same effect as physically executing it. This has an impact upon this research as it indicates a way that blind people may engage with their environment and answers the question as to why blind people are concerned with their environment to such a degree that they wish to alter it.

The original question for this research paper was to reflect upon the nature of aesthetic understanding that visually impaired people may have.

I found that:

This understanding is conditional upon individual experience and this experience is dependant upon all of the sensory input that is absorbed and shaped by any subjective or unconscious perception.

Whilst this is common to all individuals sighted or otherwise, this investigation notes that there are significant areas of divergence, which have been indicated throughout the research programme.

The interplay of 'multimodal' materials used by visually impaired people whenever

they create an artwork demonstrates a unique method of working. (See observation sheets and case studies.)

The use of language by blind people (noted as verbalism by Scholl pg 132) has developed beyond the descriptive language shared between sighted and unsighted people. It has developed into a vehicle used by blind people to demonstrate a logical sequencing (possibly flawed) but unique and valuable in appreciating how a blind person perceives their environment. It also shows a use of combining descriptive language in an interesting form which does not rely upon visual imagery, yet combines such descriptive passages as 'domed freckles' and 'scratchy curves.' (see observation sheets)

The use of space. The research has shown the unique way blind people perceive and manipulate spatial concepts.

The research has shown how some blind people engage with the issues of imagining and developing new concepts.

Finally, this research has indicated a progress in the understanding of aesthetics that visually impaired people may have, yet it has also shown a number of opportunities for further research. I believe that in all research programmes it is important to end whilst there are still future possibilities.

APPENDIX.

- 1. GLOSSARY.**
- 2. AN OVERVIEW OF CHILDREN'S EYE CONDITIONS/INSIDE SIGHT.**
- 3. REFERENCES AND BIBLIOGRAPHY.**
- 4. PAPERS PRINTED ON THE INTERNET.**
- 5. QUESTIONNAIRES/CONSENT FORMS/STOCK QUESTIONS.**

GLOSSARY.

I have used several different dictionaries in an attempt to provide the exact meaning and an overview of the words and ideas used in this study. The main dictionary used is the Concise Oxford Dictionary although, references from both the Pocket Oxford Dictionary and the Longman Family Dictionary have been explored to provide a fuller appreciation of the terms used.

Raymond William's 'Keywords' has also been consulted and other literary references have been acknowledged.

The internet dictionary has been accessed.

ABSTRACT ART. Referring to ideas or qualities rather than material qualities. Of art in which the subject is represented by shapes and Patterns rather than by a realistic likeness C.O.D.)

AESTHETIC. Dealing with the appreciation or theories concerning taste, beauty, a sense of judgement or criticism.

Concerning the arts.

A developed sensitivity towards artistic considerations. (L)

Pertaining to art. Of a sensitivity to art or things beautiful.
(Hobbs, 1985)

Concerned with beauty or the appreciation of beauty
(C.O.D.)(O.D)

In accordance with the principles of good taste. (C.O.D.) (O.D.)

The philosophy of the beautiful. (C.).D.)

If we wish to discern whether anything is beautiful or not we do not refer the representation of it to the object by means of understanding with a view to cognition but by means of the imagination (acting perhaps in conjunction with understanding) we refer the representation to the subject and its feeling of pleasure or displeasure. The judgement of taste therefore is not a cognitive judgement and so not logical but is aesthetic--- which means that it is one whose determining ground cannot be other than subjective.

Every reference of representation is capable of being objective Even that of sensation (in which case it signifies the real in an empirical representation). The one exception to this is the feeling of pleasure or displeasure. This denotes nothing in the object but is a feeling which the subject has itself and of the manner in which it is affected by the representation.

Kant (1995) pg. 164.

(AESTHETIC) EXPERIENCE.

The use of conscious perception or apprehension of reality or of an external bodily or mental event, with regard to aesthetics. (L.)

Feel or be affected by. (C.O.D.)

AESTHETIC MERIT. Worth or superior quality, to have a positive feature or advantage.

AESTHETIC UNDERSTANDING.

The mental grasp. Comprehension. The power to make Experience intelligible by applying concepts. (L)

To perceive the meaning of. (C.O.D.)

Perceive the significance or explanation. (C.O.D.)

BLINDNESS.

Lacking the power of sight. (O.D.) (C.O.D.)

Without foresight, discernment, intellectual perception or Adequate information. (O.D.)

BEAUTY.

The combination of all the qualities of a person or thing That delights the senses and mind. (C.O.D.)

COGNITION

The act or process of knowing that involves the process of sensory information and includes perception, awareness and judgement. (L.)

Knowing, perceiving or conceiving as an act of faculty

Distinct from emotion and volitions (C.O.D.)

COLOUR CONCEPT. An abstract or general idea regarding colour. (C.O.D.)

CONCEPT.

Conceived in the mind. A thought or notion. (L)

General notion, an abstract idea or mental picture of a group or class of objects formed by combining all their aspects. (C.O.D.)

CONGENITALLY BLIND.

Blindness existing or dating from birth. (C.O.D.)

(COLLECTIVE) CONSCIOUSNESS.

An awareness or understanding pertaining to the upper levels of mental life that is shared by many. (L)

The totality of a person's thoughts and feelings or a class of these. (C.O.D.)

An intense knowledge of what is.

--four functional types correspond to the obvious means by which consciousness obtains its orientation to

experience.

Sensation (i.e. sense perception) tells you something exists.

Thinking tells you what it is.

Feeling tells you whether it is agreeable or not.

Intuition tells you whence it comes and where it is going.

‘When I use the word ‘feeling’ in contrast to thinking, I refer to a judgement of value for instance agreeable or disagreeable, good or bad. Feeling according to this definition is not an emotion—feeling as I mean it is a rational (ordering) function.

(Jung (1978) pg. 49.

That consciousness is in itself an action, and not simply a something we use to think with is a novel idea. It changes the meaning of consciousness, suggesting that consciousness acts directly, informing us with its intelligence and transforming what is fixed and stagnant into what is alive and present.

(Kant (1995) pg. 28.

- CREATIVITY. The act of bringing into existence. (O.D.)
- DATA. Information collected in a study, commonly perceived as numerical but for this research it will be the term used for the information gathered for the study of visual impairment.
- DECORATION An addition that makes something more attractive or ornate. (C.O.D.)
- DEPTH OF VISION How far from front to back we can see. (C.O.D.)
- DYSLEXIC. Development disorder that causes difficulty with reading. (C.O.D.)
- FIELD OF VISION (Peripheral vision) is how far around we can see without moving your head. It locates objects in the environment.
- FOCUS GROUP. A group of visually impaired people who were recruited as ‘random’ members. Specialist groups or target groups who participate with the research programme.
- IDEALISED. To regard or represent in ideal form or character. (C.O.D.)
Exalt in thought to ideal perfection or excellence. (C.O.D.)
- IN DEPTH INTERVIEW. Refers to detailed discussions carried out with individuals regarding the programme of work. Usually involves the use

of a semi structured interview.

- KNOWLEDGE. The fact or condition of knowing something or somebody through experience or association. (L.)
The range of a person's information, perception or understanding.
Awareness or familiarity gained by experience. (C.O.D.)
- There can be in us no items of knowledge, no connection or unity of one item of knowledge with another without that unity of consciousness which precedes all data of intuition and by relation to which representations of objects are alone possible. This pure unchangeable consciousness I shall name Transcendental Appreciation.
Kant pg 20.
- The most significant moment in the course of intellectual development, which gives birth to the purely human forms of practical and abstract intelligence occurs when speech and practical activity, two previously completely independent lines of development converge.
Vygotsky (1978) pg. 24.
- LEARNING RESPONSE
Reaction to acquired knowledge. (L)
Reaction to the realisation of knowing. (L)
An answer given dependant upon knowledge acquired by Study. (C.O.D.)
- LOVE To have a great affection for a person or thing. (C.O.D.)
- PARTICIPANT OBSERVATION.
Sometimes referred to as 'going native' this method (developed by Gold in 1958, commonly used in anthropology, sociology and ethnomethodology, and made famous by Goffman's 1961 study of asylums) refers to the process of the researcher taking on some of the characteristics of the group or individuals they are researching, and becoming integrated into their community or group for the duration of the research. Notes recordings and other sources of information will be collated and interpreted.
- PILOT STUDY. Pre-testing of the study, questionnaire or survey Methodology. For this research project it will be through the format of a questionnaire and will help to form the main research programme of work.
Conduct, lead or initiate as a new scheme. (C.O.D.)
- QUESTIONNAIRE. A set of questions to be asked of a number of people to

- obtain statistically useful information
- RANGE OF VISION. Tells us how far things are away from us. (Distance.)
The region between limits of variation. (C.O.D.)
- RESTRICTED VISION. Confined to certain areas. Regulated or limited vision.
- SAMPLE. A number of people selected to represent the population of interest.
A small part or quantity intended to show what the whole is like. (C.O.D.)
- SEMI-STRUCTURED INTERVIEW.
A research interview carried out with the help of an interview schedule or discussion guide. Although questions are pre-scheduled, the order in which they are asked will often be determined as the conversation proceeds and there is scope for the researcher to follow up the additional information provided by the participant.
- SENSORY INFORMATION.
Information concerned with the senses or with the sense of sensation. (L) (C.O.D.)
- SENTIMENTALISED. Showing or effected by emotion rather than reason. (C.O.D.)
An emotional feeling conveyed in literature or art. (C.O.D.)
- SEQUENCE. Continuous or connected series.
Set of elements following the same order as the natural numbers.
Set of things belonging next to one another on some principle of order. (C.O.D.)
- SIGHT LOSS. The inability to see fully, can be complete or partial loss. (O.D.)
- SYMBOLISM. The use of symbols where those symbols represent or suggest something else by reason of association.
The use of symbols to represent ideas. (C.O.D.)
- UNCONSCIOUS. Not marked by or resulting from conscious thought, sensation or feeling. (L.)
the part of the mind that does not ordinarily enter a person's awareness but nevertheless influences behaviour and may be manifested in dreams or unexpected behaviour (L)
That part of the mind which is inaccessible to the conscious mind but which affects behaviour, emotions

	etc.	(C.O.D.)
VISUAL.	Producing mental images.	(L.)
	Done or executed by sight only.	(L.)
	Concerned with or used in seeing.	(C.O.D.)
VISUAL IMPAIRMENT.		
	Concerned with the inability to see fully.	(O.D.)

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AN OVERVIEW OF CHILDREN'S EYE CONDITIONS

The children at Dorton House School vary in their visual ability from those with good, useful residual vision to those who are completely blind. Children with the same medical condition may vary considerably in their standard of vision whilst children with the same standard of vision may vary in their degree of disability. The degree of visual disability is dependent on many other factors such as:-

- age of onset (past visual experience)
- rate and type of visual loss
- other medical conditions
- family, social and academic environment
- prognosis for vision
- the personality of the child.

Age of onset

Children who are born blind (e.g. anophthalmos = born without eyes) have no visual experience and therefore have to be taught about themselves in relation to their environment. Many aspects of their social and physical development may be delayed (e.g. smiling, bonding, talking, walking).

Children acquiring visual problems later in life will have had some concept of the visual world and their disabilities are more likely to be confined to the visual system. The age of onset of an acquired problem carries with it its own particular advantages and disadvantages. The older child may have a better educational and social foundation but may be more conscious of their loss and mourn it more.

Rate of visual loss

A child who suddenly develops a visual problem (e.g. acute retinal detachment or trauma) will be more disabled than a child with the same level of vision who has experienced a gradual deterioration over several years (e.g. retinitis pigmentosa). The latter will sometimes cope remarkably well despite profound visual loss because they have had time to adapt to the disability.

Type of visual loss

Loss of central vision occurs in conditions such as macular dystrophies and in children with these diagnoses the peripheral vision may be normal. Such a child may be unable to see any letter on the eye chart or to read print but should be able to navigate in unfamiliar surroundings without too much trouble. They may be disadvantaged in the classroom having problems seeing the blackboard, textbooks

vision). This is commonly associated with other forms of brain dysfunction which may give rise to physical and mental disorders e.g. cerebral palsy.

Associated medical conditions

Many of the children at Dorton House have visual problems associated with other general medical conditions. The nature of these conditions, especially if they involve the brain may profoundly influence the way in which a child copes with any particular visual deficit. For example, children who are blind from retinopathy of prematurity are likely to have other problems relating to their prematurity. These problems range from a mild diminution of I.Q. through chronic lung disease to cerebral palsy with all its attendant difficulties.

Associated brain disorders include abnormalities of brain and eye development e.g. septo-optic dysplasia where underdevelopment of the optic nerve is associated with mid-line defects in the structural development of the brain.

In some cases the visual problem may be secondary to a life-threatening disease of the brain or its treatment. For example encephalitis (infections of the brain), haemorrhages within or surrounding the brain, hydrocephalus (water on the brain) and brain tumours (including their surgical removal and radiotherapy) may all affect the visual pathways. The degree of damage these conditions cause to the rest of the brain will determine the associated physical and mental disabilities which in turn will influence the child's ability to cope with their visual problems.

Degenerative disorders of the brain and eyes occur such as in Batten's disease. Children with this diagnosis show an inexorable deterioration in both vision and mental function until eventually they die. Thus their ability to cope with their poor vision may decline as well as their vision itself declining.

Other associated medical conditions include deafness as in Usher's syndrome; the double sensory deficit posing its own particular problems. Many other 'syndromes' have been described that link groups of congenital or inherited abnormalities together. For example Laurence-Moon-Beidl Syndrome characterised by obesity, mental retardation, polydactyly (extra digits on hands, feet) hypogonadism and a progressive retinal dystrophy.

Abnormalities of each of the other body systems can be associated with ocular disorders:-

For example uveitis (inflammation within the eyes) is a well recognised association with juvenile chronic arthritis.

Where the condition is inherited, life threatening and untreatable with risks that other siblings may develop the condition (e.g. Batten's disease) it is hard to imagine the distress a family will suffer.

Prognosis

Both the family's and the child's response to the eye condition will be affected by the prognosis. Some eye conditions change little with time e.g. congenital nystagmus or albinism and in these children a fairly accurate estimation of their likely adult vision can be given at the initial diagnosis in infancy. Plans for the future and for education can be made early on. Other conditions may be stable e.g. optic nerve hypoplasia or retinopathy of prematurity (after completion of treatment) but the level of residual vision may be hard to predict until the child is several years old.

Some conditions can be predicted to deteriorate with time e.g. retinitis pigmentosa but the rate of deterioration and the final visual outcome are unknown. This uncertainty is unsettling and makes planning for the future and for education difficult.

Many of the eye conditions represented at Dorton House are untreatable (other than to maximise the use of the residual vision) e.g. optic atrophy. In some ways this makes coming to terms with the condition easier and certainly avoids the disruption to schooling of multiple hospital attendances and operations.

Some of the treatable eye conditions slowly deteriorate despite the best efforts of all involved. This is particularly true of childhood glaucoma (raised pressure within the eye) and the sense of failure felt by the family and the child (often tinged with guilt if they did not always adhere to the treatment regime) is sometimes exacerbated by the failure felt by the doctors. This inevitably will affect the way in which the child views their disability and learns to cope with it.

Similarly, some children undergo repeated surgical procedures with ever decreasing returns in an attempt to salvage some residual vision (e.g. retinal detachments). Their hopes may be raised and dashed repeatedly or they and their family may have unreasonable expectation as to what can be achieved. This may give rise to feelings of anger as well as disappointment.

Finally, certain diagnoses carry with them their own particular concerns. For example retinoblastoma (primary cancer of the eye in infancy) is a potentially life-threatening disease although with modern treatment most children survive. These children, however, are predisposed to forming other primary cancers later in life,

STOCK QUESTIONS

For use with the research on aesthetic understanding and the visually impaired.

Incident Sheet.

Name.

Category.

Age Range.

Basic Artistic Information

I am interested in the artistic and creative experiences you have received both in school and subsequently throughout your adult life.

1. What artistic/aesthetic experiences did you encounter during your school life?
2. How have these experiences changed or developed?
3. Were there any creative experiences you wish you had pursued further?
4. Have you felt any need to explore any creative/artistic pursuits since your eye sight diminished?
5. What methods do you use to imagine or distinguish different people if you cannot see them?
6. What impressions do you have of such things as colour, scale and distance?
7. What knowledge do you have of artists and artworks?
8. Do you have any anecdotal information that may help me understand more about visual impairment and aesthetics?

Specific creative/aesthetic information. (if applicable)

1. What strategies have you developed to get over your ideas in what is fundamentally a visual medium?
2. How do you develop your ideas and images to your complete satisfaction?
3. What criteria do you use to satisfy yourself that you have achieved what you want to portray?
4. How do you balance, purely visual imagery, (2D & 3D) with other sensory experiences, such as touch, smell and sound?
5. If you have never seen, or lost your sight a long time ago, or have restricted vision, how important are shapes, colours, proportion, position and environment to you with the making of artworks and with your day to day living?
6. What substitutions will you allow in your artworks, such as texture and different materials, to represent purely visual imagery?
7. Do you have any definite feelings of what shapes and what colours things should be?
8. Were you ever taught about specific shapes and colours and how important are these things to you ?
9. What has inspired you or driven you to work in an area that is basically a visual medium?
10. Why does it matter whether we express our feelings or not? (Q)
11. What is so significant about our individual perspective on events? (Q)
12. What else could art be like? (For visually impaired people) (Q)

Further Questions.

1. What is your opinion of Abstract art?
2. How can you make an artistic representation of an abstract concept?
3. Would you consider a lot of visual information becomes an abstract concept for totally blind people? (For example, trees, clouds, rivers and mountains)
4. How do you consider things to be as they should or "right" or "complete". (The proportion of a vase if you cannot see it)
5. How do you define beauty?
6. Would you agree that music or some other creative activity has artistic equivalents that help fulfill a creative need?
7. Could Dance fit within a creative activity for a visually impaired person? (Ballet)
8. Do you think that visually impaired people develop or have some "inner knowledge" or understanding regarding those things not seen? (Tree, environment, human proportion)
9. If you hold a piece of sculpture, how can you decide if it is complete or finished?
10. How do you think your use of language and understanding of language helps towards your understanding of the environment and towards artworks?
11. Do you think you are able to fully understand about things purely from their descriptions?
12. What do you consider our unconscious mind contributes to an understanding of what things are, in our environment?
13. Do you have any thoughts or opinions regarding aesthetic understanding and the loss of vision?

INFORMED CONSENT FORM.

This interview/conversation, will form a part of the research programme at Middlesex University carried out by Bruno Del Tufo, in order to develop a fuller understanding of the research question;

“What is the nature of aesthetic experience for visually impaired people?”

Throughout this investigation, the following points will be strictly adhered to.

- 1. I shall make sure that all relevant people, committees, and authorities have been consulted and necessary permission and approval has been obtained.*
- 2. All confidences will be kept.*
- 3. Any progress reports will be provided upon request.*

On fulfilment of the requirements listed above, I would like to retain the right to report the work, provided those involved are satisfied with the fairness, accuracy and relevance of the account which pertain to them and that the accounts do not unnecessarily expose or embarrass those involved. Drafts of the report will be made available upon request and any publications using the information gathered will be notified to the people concerned. For publication purposes pseudonyms will be used.

I would also expect to be able to report for various levels of release.

If any specific quotes, verbatim transcripts, attributed observations, excerpts of audio and video recordings, judgements, conclusions and recommendations are presented for publication, then explicit authorisation will be obtained.

Any data kept by me will be stored in a secure place and will be for the purpose of academic presentation.

Signed:

Dated:

Signed:

Dated:

INCIDENT SHEET.

No. _____

Date. _____

Client or Group.

Incident.

Pertinent Quote.

Area of Speculation.

NAME:			
CAT.	B.F.B.	N.T.B.	S.U.S

REVISED QUESTIONNAIRE

I am researching the artistic and creative appreciations of the visually impaired and would be grateful if visually impaired people would complete a questionnaire concerning their particular creative and/or artistic interests, hobbies and pastimes.

Artistic Knowledge.

How do you consider your knowledge of artists and artworks to be?

- A. Very Good
- B. Good
- C. Poor

Do you have any favourite artists or artworks?

How often do you visit art galleries or museums?

- A. Regularly
- B. Occasionally
- C. Rarely

How important is music to you?

- A. Very important
- B. Fairly important
- C. Not important

Do you attend live music, concerts, pantomimes or theatrical events?

- A. Regularly --- (names and types)
- B. Occasionally (-----)
- C. Rarely

Do you have a favourite type of music?

Do you take part in any regular hobby?

Interpretation of Visual Stimulus

Do you have a favourite colour?

Do you have a preferred texture?

What types of shapes do you prefer?

A. Geometric

B. Organic

Does sound have any colour or shape associations?

A. Regularly

B. Occasionally

C. Rarely

How often do you dream?

A. Regularly

B. Occasionally

C. Rarely

What form do your dreams take?

Ordering Facilities

Do you have definite places for items on shelves?

A. Yes

B. Sometimes

C. No

How do you decide on "what goes where" in your rooms?

Do you have definite ideas on colour schemes for particular rooms?

A. Yes

B. Sometimes

C. No

Are there any items in your home that you feel are the wrong

shape?

- A. Yes
- B. Sometimes
- C. No

How important are clothes and colour co-ordinations for you?

- A. Very important
- B. Not important

Visual imaging

What methods do you use to imagine or distinguish different people?

What methods do you employ to imagine new surroundings, such as rooms, houses, holiday places and town centres?

Do you like to visit new places?

- A. Yes
- B. Sometimes
- C. No

What lasting impressions do you have of special places?

What other senses do you use when you build up an impression of a new place?

What other senses do you find particularly useful when you are imagining anything?

- A. Sound
- B. Touch
- C. Smell
- D. Taste

QUESTIONNAIRE

What sort of shapes do you like, regular shapes like circles and triangles, or do you prefer organic shapes such as leaves, pods and seeds?

Do special shapes make you think of anything else?

What sort of textures do you like best and what do they remind you of?

Do you associate shapes with words? If so, what?

Does smell play an important part in your orientation?

Do you associate shapes with colours? If so, what?

Do you have a pet? Can you describe it to me?

Do you know the names of any artists or any artworks?
Can you describe them to me?

Do you think they are very special?
What do you like or dislike about them?

Has your opinion ever been changed if you have been told any more about the artworks?

Do you have a favourite colour?
Does it remind you of anything?

When you buy or wear clothes do you choose them so that they are co-ordinated by colour or style, or are you happy to wear things that are chosen for you?

SEMI-STRUCTURED INTERVIEW FORMAT FOR BLIND CHILDREN.

Preamble.

I am interested in the creative and artistic expressions of the Visually-Impaired and I am attempting to collect information regarding how the visually impaired perceive art.

During the learning process there is a lot of information as well as structured knowledge exchanged and through the following questionnaire I hope to find out a little more about art, art understanding and aesthetics and visual impairment.

I hope to find out:

How visually impaired children perceive art.

How children are made aware of an aesthetic sense.

To what extent art and aesthetics are nurtured within children.

Whether there is any genetic influence regarding art and-or aesthetic sensibilities within any of the pupils --- If there is, to what extent?

Understanding and anonymity will be employed at all times when using any information received through the questionnaires, interviews or informal conversations. The process of gathering information can be of a sensitive and personal nature and I would not wish to embarrass or compromise any individual who helped with the gathering of data.

EMI-STRUCTURED INTERVIEW FORMAT FOR BLIND ADULTS.

reamble.

I am interested in the creative and artistic expressions of the visually-impaired and I am attempting to collect information regarding how the visually impaired perceive art.

During the learning process there is a lot of information as well as structured knowledge exchanged and through the following questionnaire I hope to find out a little more about art, art understanding and aesthetics and visual impairment.

I hope to find out:

How visually impaired children perceive art.

How children are made aware of an aesthetic sense.

To what extent art and aesthetics are nurtured within children.

Whether there is any genetic influence regarding art and-or aesthetic sensibilities within any of the pupils --- If there is, to what extent?

Confidentiality and anonymity will be employed at all times when using any information received through the questionnaires, interviews or informal conversations. The process of gathering information can be of a sensitive and personal nature and I would not wish to embarrass or compromise any individual who helped with the gathering of data.

SEMI-STRUCTURED INTERVIEW FORMAT FOR BLIND ARTISTS.

Preamble.

I am interested in the creative and artistic expressions of the Visually-Impaired and I am attempting to collect information regarding how the visually impaired perceive art.

During the learning process there is a lot of information as well as structured knowledge exchanged and through the following questionnaire I hope to find out a little more about art, art understanding and aesthetics and visual impairment.

I hope to find out:

How visually impaired children perceive art.

How children are made aware of an aesthetic sense.

To what extent art and aesthetics are nurtured within children.

Whether there is any genetic influence regarding art and-or aesthetic sensibilities within any of the pupils --- If there is, to what extent?

Understanding and anonymity will be employed at all times when using any information received through the questionnaires, interviews or informal conversations. The process of gathering information can be of a sensitive and personal nature and I would not wish to embarrass or compromise any individual who helped with the gathering of data.

QUESTIONNAIRE

I am interested in the artistic and creative experiences you have received both in school and subsequently throughout your adult life.

What artistic experiences did you encounter during your school life?

Were you taught any methods of expressing pictorial images?

Were there any pictorial images you wish you had been taught how to make?

Have you felt any need to explore any creative-artistic pursuits since you left school?

Have you received any formal lessons in living skills covering such things as "dress sense" or colour co-ordination?

What methods do you employ to imagine or distinguish different people?

What impressions do you have of such things as perspective, colour and scale?

What knowledge do you have of artists and works of art?

Do you have any anecdotal information that may help me get a fuller picture of aesthetic understanding and visual impairment?

SEMI-STRUCTURED INTERVIEW FORMAT FOR ADULTS WORKING WITH BLIND CHILDREN.

Preamble.

I am interested in the creative and artistic expressions of the Visually-Impaired and I am attempting to collect information regarding how the visually impaired perceive art.

During the learning process there is a lot of information as well as structured knowledge exchanged and through the following questionnaire I hope to find out a little more about art, art understanding and aesthetics and visual impairment.

I hope to find out:

How visually impaired children perceive art.

How children are made aware of an aesthetic sense.

To what extent art and aesthetics are nurtured within children.

Whether there is any genetic influence regarding art and-or aesthetic sensibilities within any of the pupils. If there is, to what extent?

Confidentiality and anonymity will be employed at all times when using any information received through the questionnaires, interviews or informal conversations. The process of gathering information can be of a sensitive and personal nature and I would not wish to harass or compromise any individual who helped with the gathering of data.

QUESTIONNAIRE

What modifications do you make with the presentation of work to your pupil and to what extent do you consider artistic convention with regard to layout, colour, shape, proportion etc?

How do you develop creative description to excite the pupils' imagination?

Do you make any conscious efforts to explain or describe the known environment?

Do you enhance their ideas of "What goes where" in an ideal setting? For example, do you explain and "compose" their surroundings into a regular setting?

How do you develop their appreciation and understanding of shape, colour, proportion and position?

How do you develop their interest in known "artifacts"?

Do you have any special strategies for teaching shape and distance?

Do you have any special strategies for explaining scale and perspective to blind youngsters?

Do you teach your pupils about artists and works of art?

If so, are there any special methods you use to illustrate the special way artists work?

How do you explain human proportion? How do you identify and represent it?

Do you provide any "ideal proportions" to the youngsters (other than geometrical forms), maybe standard tree shapes, house shapes etc?

Do you engage in any sensory substitutions with your pupils in any of their creative endeavours?

Do you have any anecdotal information regarding artistic or creative developments that blind children have produced?

(and their food) but may cope quite well moving between classrooms and in the playground. Whilst these children are likely to fall behind their sighted peers educationally they may do well socially.

Loss of peripheral vision (tunnel vision) occurs in conditions such as retinitis pigmentosa and glaucoma and children with these diagnoses may have well preserved central vision. Such children may be able to see the smallest line on the eye chart and read the smallest print in the telephone directory but may not be able to detect a large object right next to them unless they focus directly upon it. They may cope well with blackboard and textbook work but have great difficulties moving between classrooms and be frightened by the fast-moving children in the playground. These children may do quite well educationally in mainstream schools but may have greater social difficulties when dealing with their sighted schoolfriends than the children with central loss of vision.

Reduction of vision throughout the visual field giving rise to generalised blurring of vision occurs in conditions such as cataracts and some forms of optic atrophy.

Poor distance vision but relatively well preserved reading vision occurs in conditions such as congenital nystagmus (wobbly eyes) and high myopia (extreme shortsightedness). These children may read textbooks quite well but have problems seeing the blackboard, bus numbers etc. They may enhance their distance vision by using low vision aids such as telescopes but in a mainstream setting many children are embarrassed to use such aids despite their obvious advantages.

Visual difficulties relating to certain lighting conditions can occur. For example children with albinism, aniridia and cone dystrophies tend to be photophobic and have greater problems in sunlight than indoors. This clearly influences their ability to pursue outdoor activities. Conversely, children with retinitis pigmentosa initially become aware of the difficulties of seeing in the dark whilst children with macular disorders may have particular problems with adapting to moving from light to dark or vice versa.

Poor visual perception may occur in conditions where the eyes themselves are healthy but the brain is not able to integrate or interpret fully the visual information it receives. The best example of this is cortical blindness (malfunctioning of the visual cortex, the specialised part of the brain dealing with

Disorder of the skin and mucous membranes (linings of the nose, mouth, eyelids, anus and genital tract) can be associated with eye problems, most notably in Stevens-Johnson syndrome and in Vitamin A deficiency (world-wide the commonest cause of childhood blindness).

Abnormalities of the genitourinary tract and a certain kind of kidney tumour are related to cases of aniridia (no iris in the eye).

Abnormalities of the skull and face can be associated with eye problems (e.g. Pfeiffer's syndrome).

Nearly all the above conditions are represented at Dorton House. In March 1997 there were children with more than 50 different eye conditions, many with associated physical or mental disabilities. In addition, many of the children have psychological, behavioural or emotional problems which may compound their ocular disease and Dorton House has particular expertise at managing these children and their families.

Family circumstances.

When a child is diagnosed with a visual problem the immediate family is shocked and has to come to terms with the condition as does the child. The response of the family to the problem will certainly influence the response of the child. The stress of having a disabled child may sometimes cause tensions in the family which form an additional burden to the child:

Inheritance. One of the many emotions parents feel is guilt and this is particularly emphasised if the eye condition is inherited from one or other or both parents. Many of the children at Dorton House have conditions that are inherited in a recessive manner from both parents. The parents would not have known in advance of the child's diagnosis that they carried the gene for the condition e.g. Leber's Amaurosis (a cause of very poor vision from birth).

In conditions with a dominant inheritance one parent alone is likely to carry the gene (e.g. some cases of aniridia and retinitis pigmentosa) and this feeling of responsibility for the condition may cause family friction. It will be likely that there is already an affected family member. If this person has coped well with the same eye condition then they may be both reassuring and a good role model for the child and family (the converse may also be true). Where the condition has been less severe or indeed barely noticeable in previous generations (e.g. dominant exudative vitreoretinopathy) then the sense of guilt may be increased thus fuelling the distress of the parents.

Similarly, children whose visual disability arises from a non-accidental injury are likely to have additional problems in that they may have been abused in other ways and will most likely have been taken into care, fostered etc. This will inevitably have affected their confidence in themselves independently of their visual problem.

The character and personality of the child are all important to the manner in which they approach both life in general and their visual disability in particular. A happy child who is self-confident with a feeling of self-worth will cope with a visual handicap far better regardless of their level of vision than one whose confidence is undermined.

In conclusion, whilst the medical diagnosis may give some indication as to the nature of the visual disorder, the degree of the visual disability perceived by the child is dependent on upon many other influences. Indeed four of the children at Dorton House have no diagnosis without this adversely affecting their progress!