

Design Philosophy and Concept for Revival Center for Visually Impaired

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Abstract—This is to examine the relationship between non visual context, architecture and civil engineering perspective. Thus what better space to experiment with than a conventional centre for the blind. I will study and research the design criteria for the visually impaired. I believe the spaces are better understood when the vision is taken off. The eye sight over laps the other senses i.e. the vision studies the spaces in just a glimpse that we don't depend on the other senses for a second look. Designing is not only about visual beauty but also about the texture, the acoustics, the odour and the feel. Thus the design philosophy and concepts for a revival centre for the blind, a space where the visually impaired are educated, trained and entertained. A school, a braille library and a theatre are the focus points of this conventional space. To design for a group of people and provide opportunity to create a structure that is humane

Keywords—Revival; Impairment; Visual impairment; Disease; Disability; Handicap;

I. INTRODUCTION

Have you ever imagined a life in darkness? A whole life, where you can only guess what seems to be around you. We are very blessed that we own the power of vision. Eye sight is the supreme of all the human senses. Vision does the majority part of the sensing at the first glimpse. Other senses just are like a secondary option, for a detailed analysis. Its high time we realise how blessed we are to have eye sight unlike some unlucky people. It is very hard to imagine life from the perspective of a blind. If vision, the most prominent of all the senses is taken away then your life is made much more miserable indeed. In my thesis, I am going to implement a conventional space where the visually impaired would be treated and entertained. A human capable of eye sight is also a part of the space.

II. PHILOSOPHY

A. Basic Ideology

A society for the Blind is an organised group of persons associated together because of a common goal of aiding, supporting and educating people with visual impairments.

The aim of an organisation such as this is to provide a support network for the visually impaired person and to provide them with the tools for dealing with their impairment. The purpose is to empower them so that they can lead independent lives through the provision of education, training and employment services. The overall goal is to improve the quality of life of visually impaired people.

Design is experienced by simultaneous perception of all the human senses, every element of design aims to stimulate

one or more of these senses in order to create the experience. Every habitable space invokes a cognitive thought process that results in certain associations we make in relation to that particular space.

B. Objectives

This dissertation will investigate the nature of the built environment and interpret which aspects impact upon the visually impaired both to their detriment and conversely, to their improved quality of life. The research will also study how designers can address all the sensors through the use of architectural design in order to enable a visually impaired person to accurately comprehend their environment and gain enjoyment from it. A building for the Society for the Blind must accommodate the needs of the Society and provide appropriate facilities that enable the continuation of assistance and education for visually impaired people. This research's intention is to explore the ways in which designers can make a significant contribution to the quality of life of the visually impaired user in their mobility, independence, self-determination and their overall enjoyment of the built environment.

C. Enabling Environment

Although most visually impaired people will never be able to regain their sight, the environment in which they enter for aid and care must be of a healing nature. A healing environment will accelerate the pace at which a person gains mobility or the pace at which a person comes to terms with their impairment and the consequences thereof. Architecture can either serve to support their impairment or damage it.

D. Spirit of the Space

Through the use of one's senses the spirit of a place is formed in one's mind and body. More than the appearance of a place it's the spirit of the place which affects us emotionally. A building therefore with a sense of wholeness and peace will nourish the user on an emotional level. An outside source, ie counselling, is needed to initiate the healing process however the environment can provide nourishment and support for the person. Healing environments and healing qualities of environments can therefore be discussed.

E. The Essence of the Space

The spirit of a place is perceived through our finer senses. These senses recognize the invisible reality which lies beyond our senses of touch, smell and hearing. This is the spiritual essence of a place. The way in which it has been planned, built, is cared for and has evolved portrays the unspoken values which are the sense of place.

Soft surfaces have healing qualities. Softer surfaces feel more alive and relaxed and renew us. Harder surfaces are lifeless, sterile and tense. Our surroundings can dictate our mood and emotions causing us to feel a certain way. Vegetation plays an important role in a healing environment. Vegetation brings life and softness. The spaces between buildings therefore become crucial in designing a place which heals.

III. CONCEPT

Research reveals two prominent and opposing schools of thought surrounding the issue of designing for disabled people. Those that believe the building should be custom designed to accommodate the disabled persons every need and those that believe the building should be normal as other buildings in the built environment that do not accommodate the disabled person's every need.

Phenomenology is an aspect of philosophy researching to human experience of built space. It is an architectural and civil engineering movement that emphasizes on both intellectual and aesthetical characters. The stimuli picked up by our sensory organs plays a vital role in the 'human experience'. Thus phenomenology is what ties the understanding of the human senses with its manifestation.

A. Zoning

Different spaces have been allotted their positions on the site depending on their function and as a response to the site. The different zones (image below) are carefully calculated taking into consideration- 1) Function 2) Spatial Relationship 3) Activity 4) Primary User 5) Ease Of Navigation

B. Transition Of Spaces

To create a sense of continuity in movement there needs to be a seamless transition between spaces. In addition to having a barrier free circulation, incorporation additional features that facilitates a multi-sensory experience improves the quality of these transitional spaces.

C. Sensory Gardens

A sensory garden is a self-contained garden area that allows visitors to enjoy a wide variety of sensory experiences. Sensory gardens are designed to provide opportunities to stimulate the senses, both individually and in combination, in ways that users may not usually encounter. Sensory gardens have a wide range of educational and recreational applications. To the visually impaired, it can be a place to train and sharpen their senses and even help them discover some of their more dormant senses. Adding elements of sensory gardens in different open spaces creates the foundations for a phenomenologically strong architectural design.

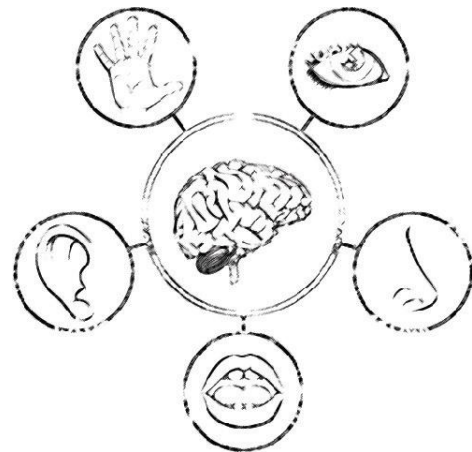


Fig. 1. Sensory organs

D. Shadows

For the visually impaired, shadows play a very important role, it provides contrasts with light. Something as simple as adding pergolas to an outdoor pathway between two blocks creates that connectivity which facilitates a movement trail to be used by the visually impaired also giving them a pleasant experience of dynamic shadows that changes throughout the day.

E. Sound and Space

For a normal person spaces are connected by visual perception but to a person who is visually impaired, sound is key in understanding spatial connections. It is the one sense that is omni directional and always present, it tells the blind the difference between open spaces and the indoors.

F. Environment

The use of natural heating, lighting and ventilation is the ultimate target. Short spans and adjacent openings achieve cross ventilation. Glazing in the recommended proportions to room size and maximising of the north orientation for habitable rooms such as offices and residential accommodation and the south orientation for studios help to achieve natural light and ventilation.

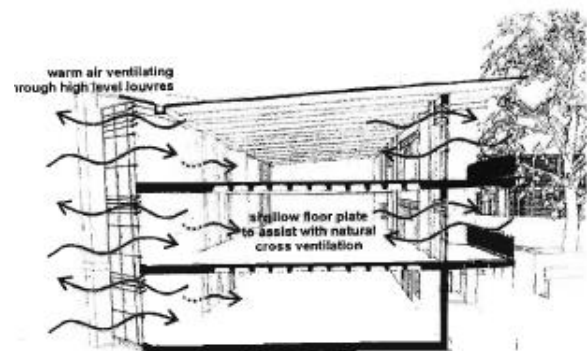


Fig 2. Ventilation analysis representation

Solar control is essential so as to reduce glare and create an environment with a constant lighting quality particularly in the studios where close work is being performed. Direct light causes glare and can be problematic for partially sighted people therefore actions have been taken to ensure the lighting quality in all spaces is adequate. The

studios have glazing facing south so as to receive indirect south light. On the north eastern facade which opens towards the courtyard, balconies extending 2.5 metres aid in shading and shielding the studios from an excess of direct light.

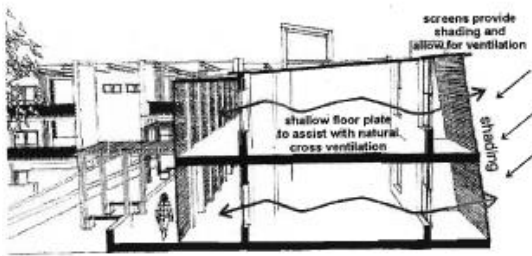


Fig 3. Shading analysis representation

REFERENCES

- [1] Barker. P, "Building Sight", London, Royal Institute for the Blind, 1995.
- [2] Catherine M Bergeron and Marie-Chantal Wanet Defalque, "Psychological adaptation to visual impairment: The traditional grief process revised", British Journal of Visual Impairment, 2013
- [3] Moore, N, "The Information Needs of Visually Impaired People", RNIB, Acumen. Retrieved June 24, 2013.
- [4] Keb S, "Psychosocial Adjustment and Meaning of Social Support for Visual Impairments Adolescents", Journal of Visual Impairment and Blindness, Jan. 2002