

2

brief

problem statement desired outcomes

- *focus area and context**
- *conceptual goal setting**
- *activities and functional systems**
- *sensory exploration_needs + activities**
- client, sponsors + administrators**
- site requirements**

problem statement

This study investigates the influence of architecture on human psychology. The subconscious improvement of sensory perception and cognition through **movement and experiential interaction** with built environments is also explored through right-brain processing, which is essential for the holistic development of individuals. The mechanistic, left-brain focus of our society is being counteracted by environments which are rich in sensory qualities and which can be used as loci for creative thinking.

The built environment is viewed as a laboratory for developmental analysis in the scientific field of environmental psychology. Science is supported by architectural theory, which periodically explores the sensual aspects of architecture. Where these fields converge, an architectural solution focussing on the rich experiential qualities of space emerges. Architecture becomes an agent in and a supportive backdrop to life.

An outcome of this investigation is the creation of architecture which enhances the mental, perceptual and cognitive development of human beings from infancy to adulthood. Such an outcome in an area like Sunnyside would be highly beneficial in merging the socio-economic and developmental demands of a community that would not ordinarily access quality spaces.

Following on from the socio-economic aspects previously discussed, safe and vibrant environments are lacking within Sunnyside. Facilities for creative skills development within architectural spaces which support community activities are also limited. With the influx of adults from rural areas into urban areas, the consequent unemployment rate has resulted in a higher degree of informal trade occurring in the city streets. Skills development for individuals not only provides better economic opportunities, but also enhances the individual's sense of accomplishment.

The design proposal provides facilities which cater for the above mentioned issues. These include environments which support experiential development, community facilities, including activity spaces, as well as areas which support informal trade.

The project aims to:

1. Create a systematic program consisting of various activities and users.
2. Provide an architectural solution which promotes cross programming.
3. Develop an architectural response which supports developmental and perceptual development in early childhood.
4. Allow for the cultivation of creativity by generating spaces for right-brain activity in order to counterbalance the societal focus on left-brain activity.
5. Provide facilities for skill development in the adult community.
6. Cater for potential community involvement by incorporating existing practices like informal trade into the architectural response.
7. Encourage community participation, by creating entrepreneurial opportunities for economic returns which benefit the community and the centre.
8. Create a place which is a haven for the individual, where personalities are explored, where talents materialize and where freedom is expressed through art, movement, and spontaneous interaction.

The proposed design, *Mandscape_ a centre for creative development*, consists of dynamic, multi-functional spaces, which can be utilised by a broad range of users at different times without changing the core design. The program has two definite branches.

The first branch is an early childhood development centre and exploratorium. A group of trained teachers and specialists will form the permanent core of this facility and their assistants will be members of the community trained in internship programs. The developmental progress of children will be recorded by the research bodies involved. This facility will also house offices for professionals with experience in dealing with gifted or special needs children.

The second branch provides facilities for the greater community. This centre will serve as a pilot study for the provision of community services within cities. Rather than being a large centre encompassing rigid functions, it will be divided to fulfill the various context-specific needs. The success of this project will determine whether local government will implement the strategy developed here in other urban regeneration areas.

The greater community will be catered for by opening facilities up to members of the community by providing public exhibition spaces, activity halls and outdoor spaces for community meetings, private functions, extramural activities or informal trade.

Bimonthly arts and crafts workshops, emphasising right brain thinking will be held to enhance creativity and cognitive skills in adolescents and adults. Products from these workshops will be retailed to the community and the broader South African and international markets. A percentage of the sales profit will go towards the centre and the remainder will be given to the artist, creator, or author, thereby motivating the community to become involved in the initiatives of the centre and in doing so, to build the identity of the community.



Most built environments contain either too little or too much sensory stimulation. In cities, the need exists for spaces which support development through balanced neural input such as tactile, audio and motor activities. This development derived from exploration, forms the basis for learning. [Kokot, S. 2005]

Our bodies learn behaviours through observation: -from children acquiring basic skills to adults perfecting them in activities such as dance. Repetition conditions the body to function in response to stimuli.

Sensory loads may be reduced by using white noise from water sources to achieve a calming effect, incorporating natural features in the design, creating subtle boundaries

between spaces, as well as providing gradual transitions between materials such as wood, plaster, and glass. The use of slightly curved, flowing, or angular lines promotes the visual attractiveness of a space by softening the impact on the senses and prompting their exploration.

Due to their neurological immaturity, young children are easily excited and overwhelmed when confronted with excessive sensory input. In these situations they tend to shut down. This kind of sensory withdrawal which is especially induced by noise, has critical consequences for their development [Gallagher: 79]. In response to overwhelming stimuli, children react with flight, fight or fight. The behavioural manifestations of these reactions may be seen

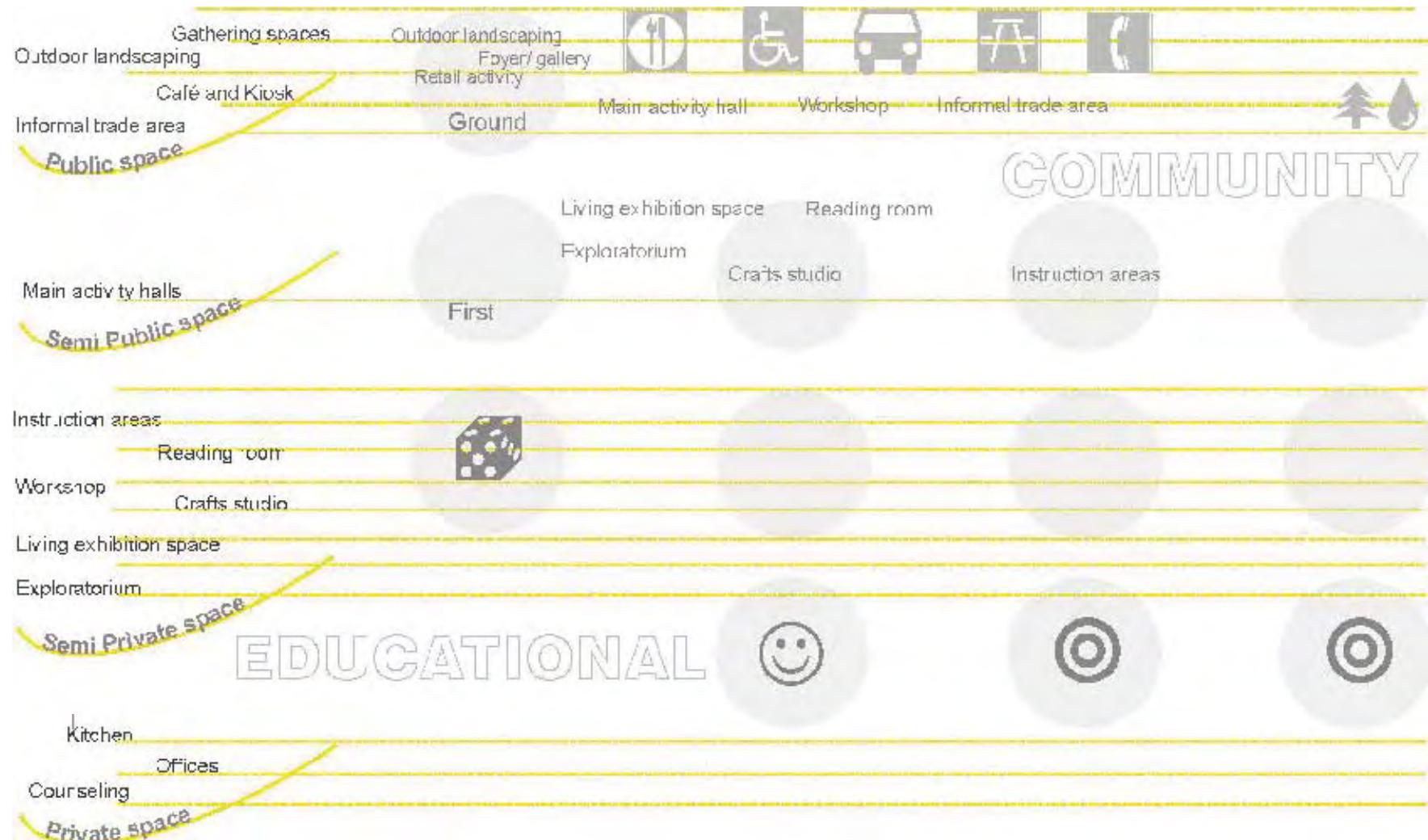
in children who hide (to block out disturbing visual stimuli), day dream (to withdraw from a chaotic environment) or physically attack others (to attempt to control noise levels).

Spatial experiences are pivotal to the wellbeing of gifted children, children with special needs, or adults with a high sensitivity to sensory stimuli. Spaces should however, not be monotonous. Highest sensory sensitivity is experienced in areas with high degrees of noise, bright colours, patterned walls, and strong odours contained within what can become claustrophobic spaces. A preference for curved or angular lines with a gradual flow between spaces and materials is noted and has produced favourable results in most cases. [Kokot, S. 2005]

— sensory exploration: needs and activities



Illus. 32: *Sensuous* exploration of architectural space



Illus. 33: Diagrammatic representation of public/private activities and their interaction



A non-profit organisation known as People Take Action (PTA) consisting of elected members representing the Sunnyside community is eager to develop a facility which offers skills development in a safe and educative setting. The committee has assumed responsibility for the materialization of the project, as well as a sustained involvement in the management of the centre after its completion.

After consultation with local government in 2004, a piece of unused government land to the value of R 500 000 was donated to PTA. It consists of four stands between Leyds, De Rapper and Bourke Streets adjacent to the Walkerspruit, and has been rezoned as required.

Conditions set by government stated that PTA find a sponsor who would ensure project completion in time for the 2010



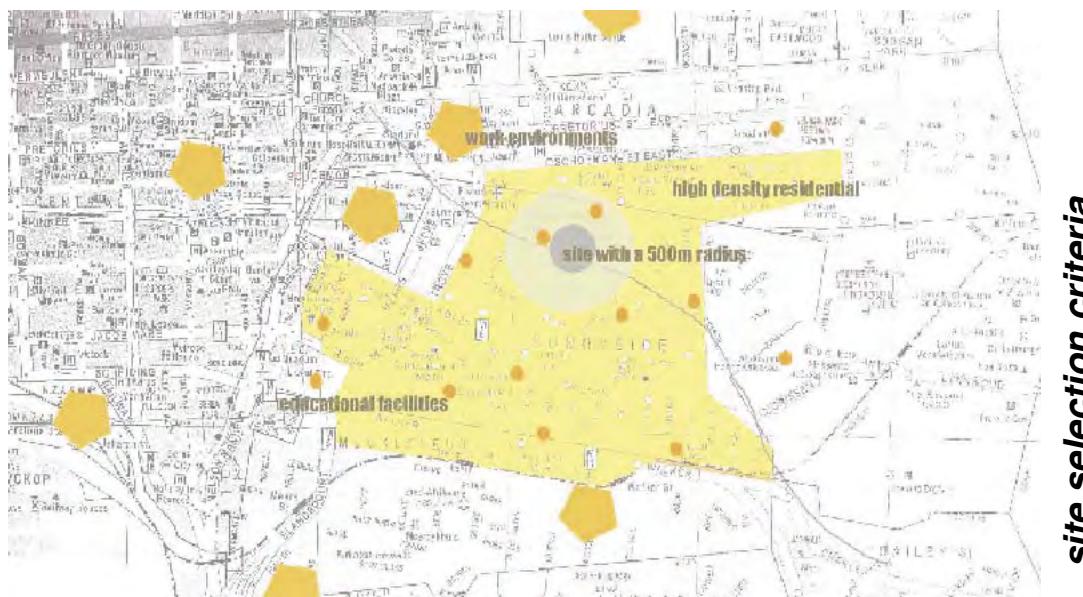
Soccer World Cup. To support the activities related to 2010, the centre should be able to provide individuals with the initiative to help create a vibrant, well-functioning city. Lastly, the said portion of Walkerspruit must be upgraded and must remain open for public use.

Local and foreign sponsors that were willing to meet the conditions were found. The foreign sponsor is represented by the foreign social investment department of Le Grande Ambition Inc (LGA), a Swiss-based corporation, which donates 6% of its yearly multi-million profits to various upliftment projects worldwide. The South African sponsor is part of the HANDEL group and requires the centre to provide a place where children can be observed so as to develop their expertise in the field of perceptual development in children and the related psychological effects of built environments on humans.

The site, positioned along the Walkerspruit between Bourke, De Rapper and Leyds streets was identified for the following reasons:

1. It is within walking distance of high-density residential environments
2. It enjoys proximity to educational facilities
3. It lies central to needs or work environments
4. It enjoys quiet surroundings
5. It will allow landscapes to be created to accommodate community activities
6. It can share services and facilities from the existing infrastructure
7. It has urban regeneration potential
8. Green areas can utilise features like the Walkerspruit

[Moore: 42, 64]



Illus. 35: Map of the site selection criteria over the city centre

3

design philosophy

overview

imageability

a new order

sensuous architecture

the subconscious effects of space

placemaking

The proposed design has been influenced by the design philosophies discussed in this chapter. Firstly, the building form is based on deconstructivist principles, where the design attempts to challenge traditional built forms to produce a solution which is contextually based and which can be reprogrammed over time to maintain its usefulness. Derived from the programme and potential activities therein, the building does not conform to traditional architectural imagery.

Secondly, the spatial and material quality of the design proposal, and the effect of spaces on humans, is investigated to discover which spaces enhance the sense of place and well being in built environments. These philosophies have guided the principles of the design which is based on sensuous and experiential architecture

"In the celebrated architecture of our time...buildings attempt to conquer the foreground rather than create supportive backgrounds for human activities and perceptions" J. Pallasmaa [2000:84]

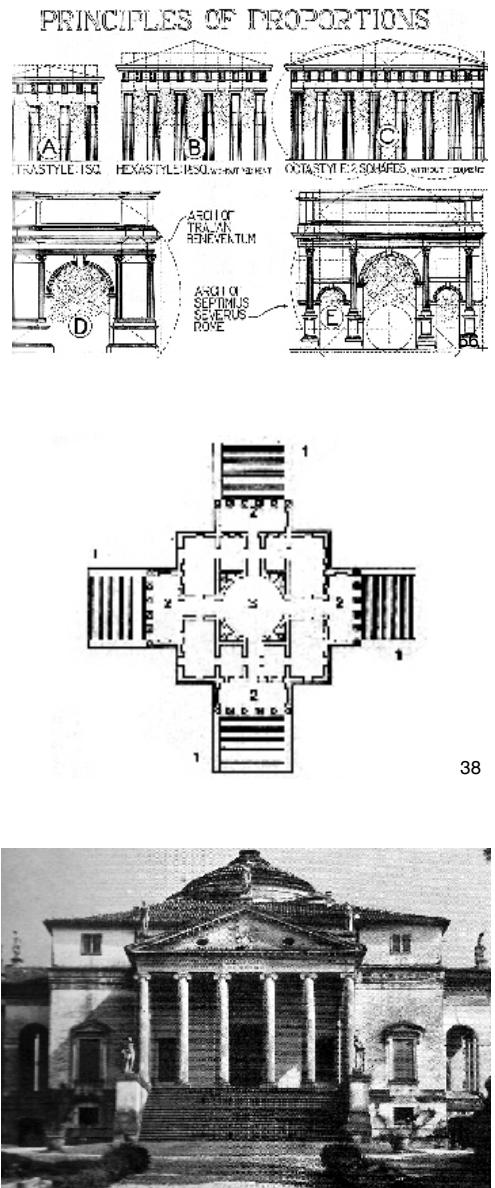
Meaningless images have become the manna of present day society. Looks sell; the new is always better than the predecessor, always, a fad. An image is recyclable; trends recur: what your parents wore in their youth, you now wear. [Illus. 55] It seems that books (and everything else) have to be judged by their covers if they are to stand a chance of being acceptable. If this is true for design, then is it true for architecture, which is popularly termed 'grand design' on mass media such as the BBC?

Is the image adopted in favour of the diagram for the reason that it is an existing reference to self expression? It allows the inner immaterial self to be recognised and identified by other immaterial selves according to existing universal symbols and icons. The commodity is desired through sight; therefore the image becomes seductive eye candy. The meaning is lost. The diagram becomes pointless. Basic needs are forgotten only to be replaced by addictions, to the extent that individuals are no longer satisfied with what they have, but instead demand the latest edition. Architecture does not seem to have been exempted. It now boasts 'designer frills' that make one want to compete with the Jones's.

Architecture is becoming flashy and image-based; a composition of existing elements versus a system of instruction sets that generate a contextual result. It may be said that the architecture of today is just scratching at the surface. The Finnish architect and theoretician Juhani Pallasmaa describes architecture as an endangered art form, threatened by the opposing forces of a materialistic global culture: technology and economy. Our shallow and transient cultures emphasise the image over essence, from individual behaviour to fashion and politics [Pallasmaa 51-2].

Illus. 36: Fashion and its cyclic nature [Digital manipulation from Elle [spain]: January 2005: 23]





Illus. 37: Renaissance principles of proportions [Fletcher: 1975: 265]

Illus. 38: Palladio's Villa Rotonda, 1569. Classical revival. [Norwich: 1979: 149]

The image was introduced into architecture during the Middle Ages when gothic was cast aside in favour of the aesthetics of ancient Rome. During the Renaissance, Alberti (1400's), rediscovered and reinterpreted Vitruvius' *The Ten books on Architecture*, the only surviving roman text on architecture. The ideal principles of classical architecture expressed therein, were based on symmetry, mathematical proportion and harmony, arithmetic and geometry [Norwich: 142] [Illus 37]. The images produced were purely representative of classical roman architecture. By the 1500's Renaissance architects had developed representative imagery of classical roman architecture. This allowed them to develop personalised stylistic expressions of the ultimate art: architecture [Illus. 38]. It became pure image architecture.

Following the theoretician Quatremère de Quincy's essays on the origins of architecture (1785 onwards), the design process changed from copying past models into the logical analysis of the technical possibilities of construction and program. This analysis was continued by the theoretical work of David de Superville (1800's). Superville sought to reduce painting, sculpture and architecture to its basic geometric patterns by moving away from the figurative image-based product toward the permanence of the abstract. It is with this exploration that the origins of the Modern Movement as well as Modern art is said to have begun [Sola-Morales: 128-133].

The early 1900s were epitomised by a search for simplicity, logic and structural ingenuity. Architects like H.P Berlage, Peter Behrens and August Perret produced a collection of works from which members of the Bauhaus, amongst others, were to take their inspiration [Illus. 39]. Efforts made to introduce a new architecture, responsive to social needs and using new materials and construction techniques, were initially isolated and tentative. Movements in art, namely Impressionism and Cubism, inspired architects to break from the confusion of 19th century styles by searching for the truth through

abstraction [Illus. 40]. Impressionism placed a high emphasis on the eye due to its focus on the interpretation of art through sight. As a result, the work of Cezanne, followed by Cubism, aimed to place the emphasis on the mind and on conception versus perception [Taylor: 59].

In 1928, the Congrès Internationaux d'Architecture Moderne (CIAM) was founded to develop the planning and social role of architecture; to discover its absolute language. Amongst its members were architects Charles-Eduard Jeanneret/Le Corbusier, Alvar Aalto and Walter Gropius. Under Gropius, the Bauhaus concerned itself with the machine age, standardisation and mass-production. The emphasis was on form derived from function [Illus. 41-3]. Less was more. The International Style was adopted worldwide, but rather than maintaining the *principles* of the movement, its image and style were applied. The quest for absolute originality failed, since it based itself on existing precedents [Taylor: 50]. Dissatisfaction with Modernism's obsessive abstraction led to the counter-movement known as Post-Modernism [Norwich: 232-3].

'Less is bore': Post-Modernism rejected Modern principles, its dualist mindset and its obsession with abstraction. Instead, it focused on the figurative [Illus. 44]. Architectural meaning became the ultimate form of expression with an overall embrace of the world of excessiveness beyond utility. The focus on representation and symbolism was fundamental to the movement as was the emphasis on imitation. Like Andy Warhol's pop art, so architecture focused on cliché and popular imagery.



39



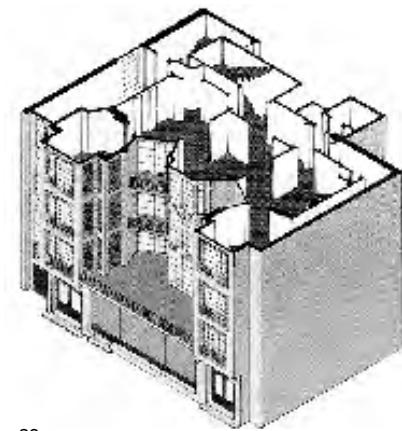
40



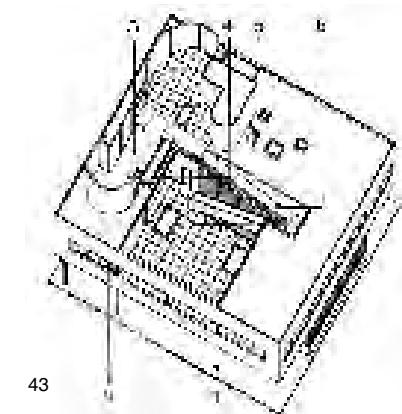
41



42



39



43

Illus. 39: August Perret's new concrete apartments on Rue Franklin, Paris, 1902. [Norwich: 1979: 228]

Illus. 40: Maison Stoclet by Josef Hoffmann, Brussels, 1911. The new Art Nouveau inspired geometry

Illus. 41-2: Villa Savoye, by Le Corbusier, Poissy, 1929. The Modern Movement emerges

Illus. 43: Villa Savoye: the 5 principles of the Modern Movement [Norwich: 1979: 241]

4

theoretical enquiry

overview: psychology in architecture

designing children's places: exploratorium

- +cognitive development

- +design guidelines

designing stimulating spaces_entire design

- +environmental psychology

- +perception

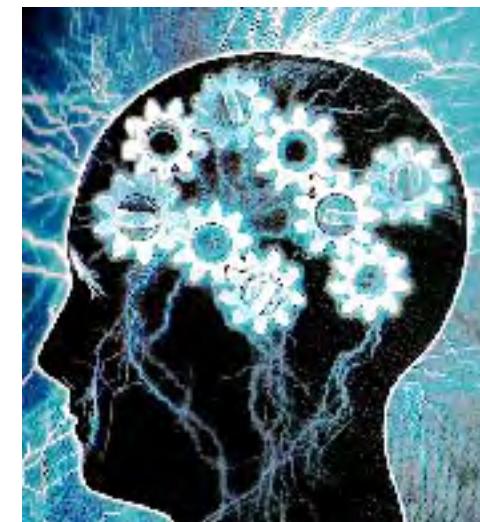
- +stimulation

over

Research concerning the psychological development of humans and their responses to space often becomes so empirical that it has to generalise its results. Design solutions based on these results become depleted of any spontaneity or interactivity. Because of this, only basic principles of environmental psychology will be considered in this dissertation, with greater focus on child development.

Architectural theory has dealt with many of the issues studied in environmental psychology, without the scientific constraints. Theoreticians like Pallasmaa and the work of various architects has been used to enrich the design process.

view



“There exists in our world an unusual, partly savage tribe, ancient and widely distributed, yet until recently little studied by anthropologists or historians. All of us were at one time members of this tribe: we knew its customs, manners, and rituals, its folklore and sacred texts. I refer of course to children.”

[Alison Laurie: ix]



With these words, Alison Laurie begins her book on subversive children's literature, *Not in front of the GROWN-UPS*. We often forget what our ideas, feelings and thoughts were as children; what spaces, places, colours, and activities we liked. It is usually without these considerations that adults design spaces for children, resulting in delimited, defined and contained places. In most cases, children count the seconds until they can escape to the outdoors, and retreat into their imaginations and worlds of fantasy.

Humans relate to the world actively. We interpret it by questioning, constructing and representing it to ourselves through movement and direct exploration [Illus. 52].

At first, children are encouraged to explore and discover and create. However, the ideals and values of the educational system result in a large percentage of adolescents experiencing disappointment in a prescriptive system. Children are forced to deal with problems that do not arise from circumstance but which are posed and therefore seem 'unnatural' [Donaldson: 8, 121]. Students are forced to master a formal system without experimentation, where abstract ideas are taught, but never applied. This apartheid of the intimate and reciprocal connection between the mind and the body has negatively affected education [Donaldson: 82]. Therefore, the exploratorium design will focus on experimental learning.

designing places for children_exploratorium considerations

67

The effects of day care on cognitive development have been proven to be positive in the development of children from lower income environments [Moore: 43] [Illus. 53]. High-quality facilities improve the cognitive and social characteristics which these children learn, and negative effects tend to be emotional and not social. [Smith: 92]

Piaget's stages of Cognitive Development and subsequent design responses follow:



73

Stage	Characterisation	Design response
Sensorimotor [0-2]	Differentiates self from objects. Actions are intentional	Spaces should be flexible to encourage movement
Preoperational [2-7]	Language is used to represent objects. Classifies objects by a single feature.	Interaction between groups of children and adults should be encouraged. Promote movement.
Concrete operational [7-11]	Logic and concepts of conservation develop	Provide features which stimulate problem solving, such as mazes or puzzles.
Formal operational 11 onwards	Can logically test abstract ideas. Conceives the future and ideological problems	Encourage thought-based activities by providing workshop spaces within a structured environment

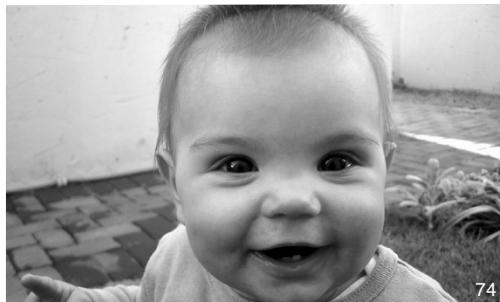
Adapted from [Weinstein: 171-181]

Illus. 53: Middle to lower income groups especially benefit from child care

Illus. 54: Infants are born with inherent learning mechanisms

Illus. 55 on facing page: Children have a rich variety of skills to develop and to dream [Digital manipulation from Tony Stone Images, 1998]

cognitive development



74

Infants are attracted to objects with curved lines, high contrasts, edges, movement and complexity. They respond to sounds and visual stimuli by voluntary movement. Infants learn and remember quickly in familiar environments and are well prepared to perceive, and learn from, the world [Smith: 70-72] [Illus. 54].

Children develop by acquiring knowledge through the analysis of different environmental sources. The difference between the amount and depth of knowledge acquired in young children and that of adults is the only difference in their cognitive skills levels. This means that the improvement of cognition has to occur in the early years. Development is also influenced by socio-cultural aspects through which children form prototypes for action, which forms the basis for morality. [Smith:80-82]

Cognitive development in children can be accelerated through imitation, practice, extra attention, and interaction with adults. Language plays an important role in developing new skills and knowledge. Children use language to guide their own actions as they practice new skills. The critical stage in language learning occurs at the age of six, after which it is extremely difficult for a child to learn a language for the first time. [Smith: 67, 82, 323]

Symbolic expression	Combine sensory motor activities and symbolic play within one space	A hollow platform may be climbed on or used as a 'house'
Logical thought	Children's views are dominated by what they can see.	Views to different spaces challenge perception
Creativity and problem solving	Imaginary and fantasy play in mixed environments	Offer mixed materials and spaces with little imagery
Attention span	Structured activities should be brief	Offer space which supports complex activities e.g. jungle gym
Motor development	Achieved through free play: jumping, tumbling, balancing	Spaces should be adjustable/cater for all needs. Multi functionality



Children learn through movement [Illus. 56]. Their bodies are their primary source of education. Therefore the proposed design incorporates spaces which promote movement by stretching, reaching, crawling and altering orientation, thereby diversifying spatial perceptions. Perceptual motor activities include sliding, climbing ladders, stepping, balancing, rolling and tumbling. Space is explored within subtle boundaries, which provide intimate but not crowded spaces. The number and types of children using spaces depends on their level of development and not on their age group.

The following developmental goals and design implications have been used: There is little discrepancy in the design between what children want to do and what they can do. The following table represents the socio-emotional development of children and the related design responses:

Self-esteem [2-5]	Personal identity develops	Interaction between people and environments. Provide opportunity for individualisation
Security and comfort	Provide sensory stimulation through colour, texture, etc	A view over various spaces should be given at the entrance
Self control	Spaces promote types of behaviour and accommodate different needs	Provide a mixture of spaces, such as retreat (time-out) or activity nodes. Group complementary functions together Moveable partitions promote feelings of closeness, intimacy and safety

Adapted from [Weinstein: 162-170] [Moore: 1979]

design guidelines



The effects of the environment on the well-being of individuals have been observed through the centuries and are influenced by setting, which includes different seasons as well as geographical locations. In modern society, the effects of artificial indoor environments in which individuals spend most of their time prove to have negative consequences [Gallagher: 14].

It is beneficial to be cognisant of the effects that artificial environments have on people, especially in creating positive, legible spaces. Primarily, information

communication within buildings is visual, so the legibility thereof is of major importance. Positioning of information must meet users' expectations in terms of where particular information is likely to be found at any given time. This is achieved through the visual openness of buildings [Brebner: 77].

Social behaviour is influenced by design features. The frequency and conditions under which strangers meet each other affects their interaction, as demonstrated by an intimate colonnade versus an open square. People with common interests will

gather within areas which promote certain activities. Consequently, an infinite number of communication opportunities may occur [Brebner: 136] [Illus. 77].

Overcrowding affects performance negatively, due to limited privacy, and because higher noise levels create an overload of stimuli. In such cases, defensible space is essential for good social behaviour and quality of life. However, in communal spaces like a residential park, territorial people may resist the influx of outsiders invading 'their' space [Brebner: 139, 144].



Illus.57: Spontaneous, accidental interaction between various users [Digitally enhanced manipulation from Tony stone images, 1998]

Aesthetics, the interaction of cognitive and emotional processes, is learned by abstracting experiences of different environments. These experiences establish the rules by which sensory information is integrated into the perception and understanding of the world. Behaviour may be determined through the aesthetic properties of objects and environments. At a psychological level, individuals are stimulated by factors like music or the use of angular shapes or colours, whereas the presence of nature tends to create calmer environments [Brebner: 159, 169, 171].

The immune and nervous systems are particularly responsive to environmental stimuli, for example, hypersensitive introverts also suffer from allergies and hay fever. Just as our choices in life have an effect on our well-being, so do the environments in which we live. Manipulation of sensory environments is therefore necessary for improved development of individuals in

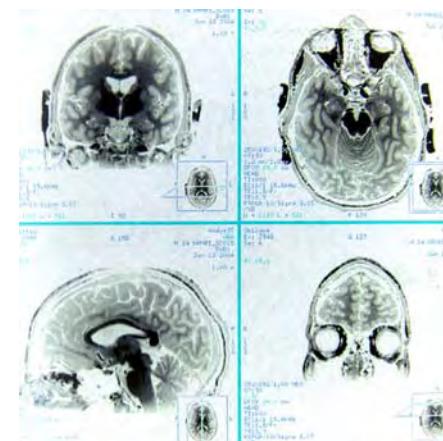
society, to the advantage of people with sensitivities towards sensory and neural stimulation [Gallagher: 18, 105] [Illus. 78].

Urban environments are complex systems of interconnected activities. When subjected to the hectic pace of urbanity, people become addicted to its rush and stress, without noticing the effect on their behaviours until they reach their limit. This stress is often relieved by going somewhere else, somewhere with a slower pace. Moving through spaces or environments which form part of larger systems of physical organisation renews the overall state of well-being. But science remains purely rational and does not seek to explain the experiential and often inexplicable effects that certain spaces have on people. [Gallagher: 21, 23, 148]

The need not to overload information processing capacities and to achieve integration of environmental stimuli, demands that environments should not

be too cluttered nor too complex. The multiplicity of different objects, colours, and edges should not conflict too much with each other. Complex environments such as those in the proposed design are improved by scaling elements and using gradual changes in settings. [Brebner: 172] It should be remembered that people feel their best in settings that foster a sense of control, impose few constraints, and offer multiple options. [Gallagher: 77]

To conclude, FM Crewdson wrote: "balance is the securing of unity in the midst of variety. Both variety and unity are necessary to sustain interest, and these opposing forces must be balanced. Variety is necessary to attract and arouse interest; unity is essential to create a favourable impression and to satisfy the moods and desires. Variety overdone is confusing and unpleasant; unity overdone is monotonous." [Crewdson 1953: 121 in Mahnke 1987: 7]



Illus.58: The Brain: the basis for environmental psychology constructs [Digital manipulation from Tony Stone Images, 1998]

perception

Perception is the process by which raw data is organised into a coherent representation of the world in order to solve problems. Whether human capabilities are inborn or develop due to experience is debatable. Nineteenth century psychologists divided perception into elements of sensations. This approach was replaced in the 1920s by newer schools: behaviourism, gestalt psychology and psychoanalysis.

+Behaviourism occurs as a result of conditioning, where the environment shapes behaviour by reinforcing specific habits based on stimulus and response, as illustrated by Ivan Pavlov's dogs [Smith: 7].

+Gestalt psychology originated in Germany around 1912. Its primary focus was on perceptual experience based on the patterns formed by stimuli. The whole is different from the sum of its parts because the whole depends on the relationships between the parts [Smith: 8].

+Psychoanalysis, developed by Sigmund Freud at the turn of the 20thC, deals with the concept of the unconscious - the thoughts, attitudes, impulses, wishes, motivations and emotions of which we are unaware. When forbidden desires are driven out of the conscious awareness, they begin to influence thoughts and feelings from within the unconscious [Smith: 8].

Contemporary psychological perspectives include aspects from most of these schools. The cognitive perspective deals with understanding mental processes such as perceiving, remembering, reasoning, deciding, and problem solving, and their relationship to behaviour. Developmental perspectives are concerned with human development and the factors that shape behaviour from birth to old age. In all cases where perception is challenged, lateral thinking is promoted. The design of the centre for creative development aims to challenge perception by creating various spaces and distorting the links between areas and by using materials in unconventional ways to create a new architectural form.

Ancient theories promote living in harmony with the environment to improve life. We appreciate these concepts in the information age more than ever before. Spaces should welcome users by emphasising entrances and movement towards places of importance. Movement through a building should provide different levels of stimulation, not only to promote diversity, but also to cater for a wider variety of users. Impoverished environments are those that deprive the senses of stimulation through minimal external cues from the natural or built environment [Gallagher: 142-143].

The effects of the environment on behaviour when individuals adapt to stress does not ameliorate the stress. In toxic stress environments such as those with high noise pollution levels, a decrease in productivity, sociability and concentration is noted. These effects have to be considered not only in response to the stimulation provided, but also to what it means to the person experiencing them. Genetic, cultural and experiential backgrounds and their differences also contribute to the effects. For example, in modern societies which are made up of many diverse cultures, it is often difficult to merge ideas of personal space and territoriality. It becomes increasingly difficult to adapt to different cultures, so that it is often better to support them within less defined spaces which provide multiple opportunities for interaction [Gallagher: 159-161, 188-187].

When we are able to perform activities that we enjoy, whether playing the violin or jogging, our actions merge with our awareness and we stop being the self-conscious spectators of our experience. This is often described as a feeling of oneness with something that is greater than the self [Gallagher: 172]. When this occurs, the built environment supports human activity in the best possible way. It provides comfortable places for humans to be in.

Stimulation