INFLUENCE OF POSITIVE YOUTH DEVELOPMENT ON THE DESIGN OF THE BUILT ENVIRONMENT:

The design of a Youth Development Centre in Durban

By

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DECLARATION

I hereby declare that this dissertation is my own, unaided work except where it has been otherwise acknowledged. It is being submitted to the School of Built Environment and Development Studies, University of KwaZulu-Natal, Howard College campus, in partial fulfillment of the requirements towards the degree of Masters of Architecture. This dissertation has not been submitted before for any degree or examination at any other university.

Signed February 2014

________________________________________

Bhavisha Naidoo
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DEDICATION

This dissertation is dedicated to my Parents and Sister. Thank you for your continued support, belief and unconditional love.

“You have the opportunity to change our world. Seize it.”
ABSTRACT

Youth are a reflection of our future and the methods we use to educate, nurture and guide them, assist in determining the type of adults they grow to be. This dissertation analyses how the built environment can serve as a platform to help youth grow into responsible and well-balanced adults. A theoretical framework is set out to explore the requirements involved in understanding physical, mental and emotional changes a youth is faced with at this stage in their life by providing them with environments to assist them in discovering their means of existence, their role in society and vital skills to enter upon adulthood.

A set of case studies and precedent studies aided the research and determined the vital impact a Youth Development Centre may have in evolving and socially uplifting youth and their community. The findings demonstrated that a greater awareness and education is needed in understanding the behavior of the youth to establish a society that is tolerant, respectful and healthy. Limited and restrictive means to how youth expressive themselves, learn and develop leads to a youth population that is confused, conflicted and unable to take on the challenges of adulthood. Thus, highlighting the need for the built environment to serve as a platform where healthy self-expression and learning opportunities, which stimulate the minds and bodies of youth, are encouraged. Such places were shown to inspire youth and their community to do better and be better. Youth are the future leaders of a country and their well-being and healthy development is of utmost important to us all.
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CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND
Picking up any newspaper today or turning on a news broadcast one is inundated with incidents of crime, violence and substance abuse. These are the issues that plague our society today and create a living environment that is riddled with fear, isolation and negativity. The manner in which people go about their daily lives, the way they live, work and play has seen a significant change over the last 30 years (Newman, 1972:1). The sense of community has dwindled to neighbors becoming strangers. This seclusion has been fueled by one’s need to protect one’s self, family and personal belongings. Resulting in homes that have become high-tech fortresses designed to keep intruders out. The repercussion of this is that it has made people prisoners in their own homes. They move with haste and fear from their homes, to their cars and to their places of work (Newman, 1972:1). Very rarely today can one see youth playing outside the perimeters of their homes, at community parks or riding bicycles with fellow neighborhood kids.

However, the issue of crime cannot be viewed as a single, isolated entity. It is just one of the symptoms of our fractured society that is associated to other problems namely, substance abuse, gangsterism, delinquency, vandalism, lack of an identity, degradation of a traditional family structure and support, economical issues and the loss of social and moral values. As highlighted by the Congress of South African Trade Unions, school environments in South Africa are not conducive to developing youth that can overcome these social ills. The Congress of South African Trade Unions declared that, “South African schools are in crisis, dumping grounds for children and bleak, uninspiring places, where violence and abuse are rife” (Aaronson: 2012, 198). Raising, nurturing and educating our youth in conditions such as these are detrimental to the way they develop as the future of our society.

This suggests that the built environment needs to be well thought off at the preliminary design stage to provide a more conducive environment for youth to express themselves in a positive and healthier manner. By encouraging interaction with others, within safe environments and facilitating connections to natural elements it is envisaged that it will bring a positive balance to their well-being. If one feels safe, one is able to live, work and play freely.
This dissertation, therefore, attempts to address the needs and behavior of youth through the built environment by not only providing shelter but creating a tranquil, safe and healthy environments. It is envisaged that the manner in which youth experience and enjoy different spaces should always be positive and uplifting to both their mental, physical and spiritual wellbeing. For these spaces to be successful there is a sensitivity aspect which is needed to address the needs and wants of youth that utilising the space. The success of the built environment would be measured on the quality of space that created for everyday people that utilise and move through the environment daily. Through this dissertation it is hoped that careful consideration will be taken to enhance positive youth development through the formation of the built environment.

1.1.1 Justification of the study
Crime and violent behaviour amongst youth is an escalating issue facing society today. Whilst there are many factors contributing to these statistics, the built form has a significant role to play in combating these social problems. Youth spend majority of their time in learning and recreational environments therefore, it is the role of architects to understand ways in which architectural planning may be manipulated for their betterment to assist in alleviating these social ills and creating environments which are conducive to positive youth development.

1.2 DEFINITION OF THE PROBLEM, AIMS AND OBJECTIVES

1.2.1 Definition of the Problem
Youth spend most of their time at school where they learn and socialise with their peers. The primary focus of public schools is academically driven, thus they fail to address positive youth development through a holistic approach such as life skills development, youth empowerment, arts, sports and healthy learning environments. A lack of addressing these needs has contributed to the issues of crime, violence and substance abuse that plague our society. The resultants are environments that influence youth by making them feel emotions of anger, confusion, fear and frustration which negatively affect their learning and well-being.
1.2.2 Aims
To establish architecture that will serve as a tool for preventing social fracture of our youth. Through the design of healthy and safe learning and recreational environments, that encourage leadership, responsibility and competent youth, positive youth development can be achieved.

1.2.3 Objectives
The objectives of this dissertation are,

- Establish architecture as a tool to enhance youth development and their well-being through the design of healthy learning and recreational environments that will serve to uplift, empower and help youth establish their roles in society.
- Create a clear understanding of how, by showing consideration to the needs and requirements of youth, environments that positively enhance their development can be created through the collection of data research, existing architectural projects and the analysis of principles and theories related to the topic.
- Bring awareness to architects and urban designers on the impact their designs have on the social, physical, emotional and spiritual bodies of youth of today.

1.3 SETTING OUT THE SCOPE

1.3.1 Delimitation of the Research Problem
Referring to the appropriate literature, this research will focus on how by understanding the needs of youth, architecture can respond positively to enhance their development and quality of life. The major areas of research are limited to youth culture, youth learning, and recreational environments and the role a community has to play in youth development. Household environments play a significant role in a youth’s life but will not be explored as they are specific to every family and determined by varying social, cultural and economic factors. The topic at hand is focused to where significant change can be made to a large group of youth through the way they are educated and socialise with one another.
1.3.2 Defining of Terms

“Youth” refers to persons of/between the ages of 13-24.

“Well-being” refers to man's ability to experience and integrate meaning and purpose in life through a person's connectedness with one’s self, others, art, music, literature, nature, or a higher power that establishes a good healthy, happy and prosperous state of living.

“Balance” refers to the equal stability between the physical body, mental state and spiritual body.

“Man” refers to a human being in general, the collective of both male and female.

1.3.3 Key Questions

1.3.3.1 Primary Question

- What role does identity play in the creation of spaces that are conducive to positive youth development?

1.3.3.2 Secondary Questions

- Why is the role of a community significant to the healthy development of a youth?
- How can learning environments encourage youth to interact, engage and stimulate them through activity, sensory perception and the inclusion of nature?

1.3.4 Hypothesis

The physical and psychological well-being of youth can be enhanced through successful building design that encourages users to experience and engage with their environment by designing with an awareness of the needs of youth. The enhancement of the built form conducive to positive youth development becomes a catalyst for architectural and urban design that interacts, relates and engages with its users. Designed spaces that are attractive, meaningful, promote connectivity and sensitivity. This in turn, provides spaces that encourage meaningful learning environments, resulting in a well-utilised and safe uplifting promoting healthy living places.
1.4 CONCEPTS AND THEORIES

1.4.1 Introduction
Following from the concepts and theories outlined below, this dissertation will examine positive youth development through architectural means. Careful examination will be placed on the needs of youth and how the built environment can serve as a platform for their positive development. These concepts and theories provide the theoretical framework upon which the literature reviews and all other research are based.

1.4.2 Erikson’s Theory of Identity
Developed by psychologist Erik Erikson (1950) through his concept of The Eight Stages of Man (1950), the theory of Identity outlines the study of youth in determining who they are in society. It highlights the need to consider the physical body and psychological changes youth undergo as playing a crucial role towards their self development. Erikson introduced researchers to understanding the role confusion that a youth undergoes and how critical it is for a youth to emerge from this stage of their life with a strong sense of identity, so they are equipped to face the challenges of adulthood with confidence and conviction.

This suggests that the built environment has a role to play in creating environments that nurture and provide a safe place for youth to discover who they are and who they want to be, towards their positive development. Through Erikson’s theory of Identity one can begin to examine this critical stage of self development and establish the needs of youth while providing platforms for their self expression. Drawing from this theory, the concepts of Connection and Expression are highlighted as the tools to explore how youth socialize with one another and begin to express who they are as individuals.

1.4.3 Ecological Systems Theory
Developed by psychologist Urie Bronfenbrenner (1979), Ecological Systems Theory is the study of human beings and their environments. It highlights the need to consider environmental factors in playing a fundamental role in one’s development. This theory is widely used in youth development programs to understand the complex environments with which a youth engages and the effect each of these environments has towards a youth’s development. Bronfenbrenner introduced researchers to examine a youth not only as a single
entity, but to rather to consider the quality of their home, school, recreation, social and cultural environments as all working together to influence their development.

Bronfenbrenner outlines these environments as different systems that affect a youth’s development. For the purpose of this research the following systems are identified as the two concepts that influence youth development. The concept of Macrosystems highlights environments that affect a youth indirectly on a larger social scale, such as a community. While the concept of Microsystems explores environments that directly influence a youth such as a school or home.

Through this theory and the concepts of Macrosystems and Microsystems, one can begin to analyse the different contexts that have an impact on the development of a youth. Providing a more holistic understanding of how youth develop and in doing so the types of environments that will positively enhance their development. Bronfenbrenner emphasises how easily impressionable and influenced youth are by environmental factors and therefore to enhance youth development one must place careful consideration to these different variables.

1.5 RESEARCH METHODOLOGY

1.5.1 Introduction
This section outlines the various research methods that were used to inform the argument of this dissertation. It also outlines the materials that were used for the ease of the data collection methods used.

1.5.2 Research methods
For this dissertation both primary and secondary research methods was used. The primary research enabled the testing of the hypothesis against physical sources, establishing a working hypothesis. Which provided the means in which secondary data collected could be compared and evaluated. Secondary research provided the background research and foundation upon which general information and understanding on the topic was obtained. Information gathered helped to provide a broader perspective and understanding to the key research questions.

1.5.2.1 Primary Research
The case studies were used to provide a practical application of what the concepts and theories explored in this dissertation may yield. Information gathered from the case studies were in the form of observations, photographs, interviews and questionnaires. Observation involved critically analysing the chosen study by physically visiting the environment to observe events, while photography was used to capture events that support or disprove highlighted concepts and theories. An informal interview was conducted with the Director of the Anti-Drug Forum and board member of the Chatsworth Youth Centre, see attached Appendix “A”. This set out to understand what positive youth development is and how it could best be achieved. Individual questionnaires with youth of the Chatsworth Youth Centre were also conducted to get an understanding of their needs and the issues they face, see attached Appendix “B”.

1.5.2.2 Secondary Research
This provided background research to enhancing youth development through architecture. Information has been gathered from books, theses, journals, articles and electronic resources, such as e-journals, e-books and online articles.

The primary and secondary research obtained has been combined to provide an informed conclusion and recommendations towards informing the design of a Youth Development Centre for Durban.

1.5.3 Sampling
The samples were selected to provide a practical application of what the concepts and theories explored in this dissertation may yield and are based on how they respond to enhancing youth development through architectural intervention. Local and international precedents were selected to provide an understanding of how youth development is explored on a local and global scale. The first precedent study explored was the Ubuntu Centre in Port Elizabeth, South Africa. It was selected to provide an understanding how the role of community involve aids in positively developing youth. The second precedent study was the Youth Factory in Merida, Spain. This was selected due to the manner in which the built environment responds to the needs of youth and becomes a place that represents the youth of Merida. The final precedent that was explored was the Phoenix High School in Shepherds Bush, London. It was selected for its contemporary approach to youth learning environments
that stimulated and excited youth not only academically but emotionally, culturally and physically.

Durban case studies were used to provide a contextual platform based on those criteria. The first case study explored was the Chatsworth Youth Centre. It was selected because Chatsworth was highlighted as one of the areas with the highest youth orientated substance abuse which this youth centre aims to combat through sports, learning and youth empowerment. An informal interview was conducted with a board member of youth centre as he is plays an active role in empowering youth and teaching them valuable life lessons of love, compassion and responsibility. Youth at the centre were provided with questionnaires to understand how they perceived and enjoyed the centre, well establishing what their needs and wants were. The second case study selected was the George Campbell High School as this was an example of a public school that is partially focused on skill based learning and was set within an urban context. The final set of case studies that were selected, were recreational spaces that youth frequently visit and socialise with their peers. These were observed as the Gateway Shopping centre and the Skatepark at the Durban Beach Front.

1.5.4 Research materials
Primary research materials used included a camera, questionnaire, interviews, journals, a voice recorder and observation skills, while all secondary research materials included journals, books, dissertations, electronic articles and scholar articles.

1.6 CHAPTER OUTLINE

This section provides an outline of the structure of this document. Chapter Two and Three forms the literature review, exploring various authors work and the theories and concepts that were identified through secondary research methods.

Precedent studies are then analysed in Chapter Four through the use of journals and articles, which demonstrate the application of the theories and concepts explored in the literature review. Areas that succeed and fail towards positive youth development are highlighted through the aspects of youth achieving an identity, community involvement and learning environments.
Chapter Five then analyses the case studies selected and examines how they test against the theories and concepts outlined in the literature review.

In Chapter Six all the research gathered from the literature review, interviews, precedents and case studies are critically analysed to determine whether the information obtained in the literature review, when applied practically through the precedent and case studies, yields the stated result. Through this analysis, areas not covered by the literature are highlighted.

Finally in Chapter Seven, conclusions and recommendations towards positive youth development through the built environment are made. Criteria for a site selection and accommodation are tabled to highlight what the research has yielded to best achieve positive youth development within the built environment. The research gathered is further concluded with the final analysis, views and recommendations made by the author.
CHAPTER TWO: LITERATURE REVIEW

2.1 ESTABLISHING AN IDENTITY

2.1.1 INTRODUCTION
For one to understand the complexities which the built environment must cater, in order to establish an environment which is conducive to positive youth development, it is imperative that the issue of establishing an identity is explored. The concept of Connection highlights the need for youth to align themselves with other youth to aid in establishing who they are in society. This is explored through the influence of youth culture and the importance of social spaces. The second concept highlighted as critical to Identity is, Expression. This is explored in platforms for expressions and highlights the need for architectural intervention in providing youth opportunities to discover who they are through self-expression. Erikson (1950) describes the period of youth as a crucial point in one’s life, as it is within these years that one establishes his/her identity. It is at this stage in a person’s life that Erikson states that youth raise the questions of, ‘who am I, how do I fit in and where am I going in life?’ Thus the research shall establish itself from the perspective of youth culture, as a foundation for which subsequent research may build upon. The following section shall shed light on some of the factors through which these identities are established and the role architecture may play in supporting those conducive to progressive youth development.

2.1.2 YOUTH CULTURE

Figure 1 Youth Culture is a broad culture composed of various subcultures. (www.cusitstarasworld.blogspot.com)
Youth culture is the sum of norms and practises shared amongst this particular age group in society and is categorised as where youth search for and establish their identity. Rice (1996) further outlines youth culture as including beliefs, behaviours, interests and styles. With a popular emphasis on sports, fashion, music, technology, social media, vocabulary and members of the opposite sex, which Fasick (1984) believes, gives them their distinct culture, as seen in Figure 1. The emergence of youth culture is relatively a recent phenomenon of the 20th century and has come about through economical, historical and psychological influences. Coleman (1961) however, argues that this development has come about through compulsory schooling that has segregated youth by age groups. Previous to schooling, youth interacted primarily with adults. Whereas now, Coleman points out, youth primarily interact with people their own age which allows them to develop meanings and experiences to things that are shared, which is the basis of youth culture. The modernization of technology has also lead to the formation of youth culture where youth are able to connect to other youth around the world and this has lead to an increase in universal norms. As youth spend more of their time together and learn things from each other they start to develop their own culture. Youth culture, however, is a very broad and a generalised category. As seen in Figure 1, it can be broken down into various subcultures, such as trend setters, punks, goths and hipsters, as acknowledged by Fasick. These subcultures, as shown in Figures 2 and 3, may have varying characteristics from general youth culture and these are the factors which make them unique.

Figure 2 (a) The trend setters (www.channelo.dstv.com) (b) The Punks (www.finalfashion.ca)
It is through these different subcultures that psychological theorists link youth culture to the theory of Identity. It is at this crucial stage in their lives that youth begin to ask themselves, ‘Who am I? What defines me?’. Erikson (1950) notes the role identity plays in youth culture and the major psychological confusion youth experience as a result of them trying to find their place in a society where they behave like adolescents but take on adult roles. Erikson believes that it is in this conflict that youth find their identity within youth culture. Youth are faced with many issues today that severely affect their positive development. Issues of crime, violence and substance abuse are symptoms of the larger problems that plague their daily lives. Erikson identifies these as symptoms of role confusion attributed to a lack of knowing who they are. This suggests that, for youth to establish a positive identity, culture and environments that have an effect on their identity development must be investigated. Similar sentiments are expressed by Fasick (1984), as he recognizes youth culture as a method of identity development and proposes that it is during this time that youth face contradictory pulls from society. They are financially and socially dependent on their parents but they want to make a mark for themselves in the modern world and assert their independence. Youth then start creating independence through behavior. This Fasick identifies as including leisure orientated time and activities with their peers. Soon the parents begin to get replaced by the peer group and this reliance then fades as youth get older and start to enter adulthood (Burlingame, 1970: 131-149).

This break from parents however, has resulted in adults being concerned about the social ills that are perceived to be caused by youth culture. Parsons (1954) sites these concerns as being, a perceived lack of interest in learning, involvement in sex, drugs and a lack of a positive direction in life. This belief has led many adults to feel that youth culture is an attack on the
morals of society as youth hold different values to the older generations (Steinberg, 2008). However, Bronfenbrenner (1974) disagrees with this and attributes age segregation to the adjustment problems such as suicide, premarital pregnancy and delinquency. Fasick (1984) also disproves Steinberg and states numerous studies have shown that most youth hold the same or similar value and moral systems as their parents. Adults falsely believe that a youth’s assertion of their independence represents that they possess a different moral and value system. Fasick affirms that by wearing certain clothes, listening to a certain genre of music or dating does not indicate a compromise in one’s values and morals. Fasick does acknowledge that partaking in these marks of assertion can lead to long term problems in the case of substance abuse and sexual activity but the impact of youth culture as a cause is debatable.

This stage in a youth’s life is about setting out and determining one’s personal boundaries. These, Stevens (1983) states, are determined by allowing youth the ability to make independent decisions, either right or wrong. Youth culture is the medium in which these boundaries are tested and explored (Rice, 1996). The above mentioned discussions draws our attention to the evolutionary nature of one’s identity within their youth and the great need to explore, test, create, understand and try new things without limits. The great amount of energy, vibrancy and the need to evolve which youth possess at this time has great potential in becoming something creative, joyful, and expressive of a time and progression (Ansell, 2005: 73). This suggests that architecture has a role to play in establishing platforms for that energy and creativity to be explored towards a positive development.

2.1.3 PLATFORMS FOR EXPRESSION

For youth to express themselves in a manner that aids to their positive development, it is suggested that architectural design has a vital role in establishing environments that encourage and support these platforms. As outlined by Aaronson (2012:21), design is more than providing shelter, it is a tool that helps us live and express who we are. Erikson (1950) believes that youth must be able to explore and establish their own personal identity, without assistance or pressure from parents. This hints that environments that promote independence must be encouraged to avoid parental influence that forces youth to conform to their view, causing youth to face confusion. Erikson labels this confusion as having an identity crisis (Gross: 1987, 39). To avoid this he suggests that youth must establish their own self-image by facing their physical changes and reconciling their personal ideas with how society views and expects them to be. By addressing these with no parental pressure or expectations, Erikson says that youth can then begin to start forming their basic identity or ego. Richards
(1950, 48-50) agrees and states that given enough space, time and psychosocial freedom youth can be free to experiment and explore who they are. This, Richards establishes, leads to a firm sense of self identity and a deep rooted emotional awareness of who they are. This suggests that youth orientated environments that allow independence and freedom of expression are critical to helping youth establish their identity and in doing so positively enhancing their development.

This stage of youth in an individual’s life is a fantastic opportunity for learning, creativity and social development, outlines Blackemore (2012). It is at this time of heightened risk taking, poor impulse control and self consciousness that can be turned from the negative and rather used as a tool towards self discovery where youth become open to new experiences. Youth are ambitious and energetic and this energy and vibrancy should be positively harnessed and not wasted. This energy can be expelled through play and leisure activities which Ansell (2005:32&73) states, plays an important role in the development of their identities as well as their sense of belonging to a community. Activities such as music, dance, arts and sport are mediums with which youth begin to explore themselves in. This suggests that for architecture to establish platforms for youth to express themselves, it can be achieved by aligning itself with these activities, which allow youth to explore and express their identities and creativities all towards positive youth development.
Youth engage more freely and willingly with spaces that are fun and interesting and do not remind them of intuitional establishments, such as typical public schools. Youth enjoy environments that offer flexibility and allow them to freely use their environment as they wish (Kasavan: 2006, 26). This suggests that spaces that allow for flexibility have the ability to allow youth to define what the space is and by extension who they are. Allowing the environment to mold to the user’s needs and wants becomes a platform of who that user is. Environments that are well lit, secure and comfortable then have the potential to become these platforms and safe havens where youth explore different ideas, sensations and his/her own potential (Gelfand and Freed, 2010: 71). The Maboneng Precinct, as seen in Figure 4, located in Johannesburg, South Africa is one such environment that has become an urban setting of expression. Environments such as this, take on an organic approach by allowing the vision of the built form to be shaped by responding directly to the needs of its users. By allowing such an organic environment that has the ability to evolve, it then becomes favoured by a number of diverse people and activities and creates architecture that is dynamic (www.yswara.com). Activities that express identity are prominent in such environments such as art, clothing, sports, food outlets, music and dance. These types of activities directly align themselves with characteristics of youth culture as previously discussed.
Figure 5 Graffiti in the Maboneng Precinct has become a celebration of artistic self expression and identity. (www.socialmediction.com)

Art and aesthetics is one of the most common mediums or self expression. This medium is most commonly explored and identified within youth culture as graffiti. As shown in Figures 5 and 6, it is a way for youth to make their mark upon an otherwise anonymous environment (Coleman: 1985, 26). Vandalism is another manner in which one’s mark is expressed. This however, is a more of an aggressive identity marker and is a way of letting out frustration and is most common amongst youth, identifies Coleman (1985, 27). These personal markers all aid in establishing ownership and instill feelings of responsibility, care and concern for their surroundings. Youth then have a vested interest in their environment and it becomes a part of them. Typical building materials and fittings that are currently found in youth facilities such as schools all have an institutional feel about them. They are designed not for aesthetic purposes or for the ambience that they create but rather for their durability (Newman, 1972:105). Newman (1972) points out that often this trait of durability is the reason why they are vandalised, graffitied over, broken and badly treated. Youth tend to go out of their way to test the durability of these materials and fittings. Light fittings, which Newman marks as crucial elements in the ambience of a space, are often with plastic, unbreakable covers in these institutional settings. The quality of light and ambience of these spaces are lost and just aids in creating dead, lifeless environments that do nothing to stimulate these young minds. Hence providing environments that are reflective of the aesthetics of the vibrant and creative
nature of youth is critical in establishing a platform that expresses who they are as individuals. This suggests that moving away from environments that are restrictive and have an institutional feel have the ability to serve as platforms that foster and encourage creativity and it’s by product, self identity, see Figure 6.

Figure 6 Lifeless spaces are transformed into places of vibrancy and excitement. (www.socialmediction.com)

Other mediums of self expression and identity are important to explore besides the visual appeal of art and aesthetics. Group activities, such as sport, also have the ability to serve as platforms of expression with the added benefit of developing leadership skills and team building skills states Clark (2012:14). Music, dance and sport are all active mediums that help convey and express the energy and excitement experienced at this stage in a youth’s life, as seen in Figure 7. It therefore suggests that architecture should align its self with these type of activities to create environments that promote positive youth development. By providing access to a multitude of expressive mediums allow youth to experience and decide where they fit in within society and who they are. Creating environments that are able to keep youth entertained, active and engaged helps them stay away from social ills and allows them to engage with other youth (Kasavan, 2003: 10). This teaches them tolerance of others while they begin to socially interact with people who share their similar interests (Clark, 2012: 14).
These social spaces then begin to develop into important platforms where ideas are discussed and exchanged.

Figure 7 Dance and sport are active mediums with which youth can express who they are while expelling their energy in a positive manner.  
(a & b www.channelo.dstv.com) (c- www.gsport.co.za) (d- www.yswara.com)

2.1.4 SOCIAL SPACES
As discussed earlier youth start to move away from the influence of their parents as they try to assert themselves. They begin to socialise and spend an increased amount of time with their peers. These types of social interactions include conversing with friends, team sports, people watching and other recreational activities. Human beings are social creatures that thrive on human interaction. It is one of the ways in which they learn, grow and develop as human beings. Kasavan (2006: 10) states that social interaction is an important tool to self confidence and it is how human beings bond and engage with people of different cultures, nationalities and ethnic groups. He proposes that youth love to socialise and interact with their peers and identifies that their socialising normally occurs in shopping malls, cafes, clubs, amusement parks, sporting facilities, swimming pools, braai, parties and the beach, as shown in Figure 8. Gelfand and Freed (2010: 72) reiterate this statement as they remark that
youth want and need to socialise and will find undercover ways to do so if their environment does not allow for it.

Figure 8 Youth enjoy socialising around braai and recreational activities. (a - www.meldill.blogspot.com) (b- www.mithunonthe.net)

Figure 9 The shopping mall has fast become a popular youth socialising environment. (a- www.flickr.com) (b-www.visualphotos.com)

The shopping mall has become one such environment. It has evolved into the social centre, hang out and recreational area for youth as it has fast replaced the old street corner. It is here, as shown in Figure 9, that youth go to watch the opposite sex, play games, meet friends, shop, people watch and have fun. Youth are noted to be at the shopping mall from one to five hours
a day, after school, on weekends and especially during the holidays (Anthony, 1985: 307-311). However shopping malls are not designed for youth as they purely commercially driven. This highlights that there is an essence to the shopping mall environment that attracts youth as this is an environment that they choose to engage with. This suggests that this essence should be explored to better equip environments that are aimed towards their positive development. By exploring this one can establish youth environments that youth actively want to engage with.

Urban sociologist Ray Oldenburg highlights the shopping mall as being the third place that is independent from home and school which is an essential to youth social development (Shirley, 2013). Shirley explains that this third place is marked with a playful mood which contrasts from the more serious environments of school. It is a place of fun where youth can enjoy watching the activity around them, a place for enjoying social life (Anthony, 1985: 311). Gelfand and Freed (2010: 72) identify that different types of spaces are required for different activities for youth to socialise and interact with other peer groups. These include large social spaces, private spaces and personal spaces (Clark, 2010: 67). Large social spaces that are transparent allow for interaction on a large scale between all age groups and it becomes a place of connections, as depicted in Figure 10 (Scott, 2010: 24).
Private spaces for break away sessions that still allow a connection to the larger context are important. (www.gpp.dk)

Private spaces allow for interaction between break away groups or individuals (Aaronson, 2012: 83). They serve as regulators of social interaction and as Gelfand and Freed (2010: 72) discuss, it is important to have smaller areas for groups to interact away from the major crowds, as depicted in Figure 11. It is important that the private spaces allow youth to still feel connected to the activities around them so they do not feel isolated or unsafe (Clark, 2010: 96). They also provide important spaces where youth may socialise and perform for one another while also keeping an eye on what their peers are doing (Gelfand and Freed, 2010: 72).

Personal spaces are important learning environments that youth can make their own and establish a sense of self identity (Clark, 2010: 81&94). Personal markers are essential in helping youth to engage and connect with their environment. A simple piece of artwork on display can serve as a personal marker or helping with the maintenance of a youth facility through wall art or decorative balustrades all help youth in establishing a sense of identity and belonging to their environment. Transitional spaces can also evolve into fun areas where youth linger on benches, steps or seating blocks, as illustrated in Figure 12. These areas allow for spontaneous activities to occur between different age groups. These transitional spaces can be made interesting through sensory qualities of light, colour and texture (Scott, 2010: 33). These smaller spaces assist in creating micro relationships between youth and their
environment. The proportions of these spaces are critical to ensuring the success of these spaces. As Scott (2012:37) outlines, room sizes must be in relation to the type of activity that is envisaged to occur there. If a room is too large it creates noise and confusion and if a room is too small it may lead to levels of anxiety and stress from overcrowding and can lead to aggressive and destructive behaviour. The above discussions highlight that having a variety of social spaces allows for varying degrees of activities to occur. This allows youth to social interact with their peers as they serve to establish an identity for themselves.

Figure 12 Transitional spaces provide the opportunity for chance encounters. (www.archdaily.com)

2.1.5 CONCLUSION
Youth is a unique stage in an individual’s life as it is the link between adolescents and adulthood (Gross, 1987). It is a time of radical change physically, mentally and emotionally that brings an awareness of one’s role in society. Gross further reiterates Erikson’s notion that a sense of identity is established when a youth can balance the understanding of who they are with their role in society, this notion is explored through Youth Culture. Youth Culture serves as the medium with which youth search for and establish their identity away from the influence of their parents (Rice, 1996). It is a stage in life that sets out to determine one’s personal boundaries by making their own decisions, whether right or wrong (Stevens, 1983). This time of self discovery, coupled with the energy that youth have, suggests that architecture has a vital role to play in creating platforms that positively express and develop this identity (Ansell, 2005). Environments that are organic, flexible and respond to the needs and wants of youth, become reflective of who they are as individuals. Whether expressed through art, sports, dance or music, architecture should align itself with these activities to create environments that youth enjoy (Clark, 2012). As youth then begin to socialise within
these activities they begin to meet people who share similar interests and they move further away from the influence of their parents. It is through this social interaction with their peers that youth begin to further develop their identity. Therefore the built environment has a critical role to play in supporting these factors through which self-identity and creation of space can be established. By understanding the complexities involved with establishing an identity, environments that are conducive to positive youth development can be established.
2.2 ECOLOGICAL SYSTEMS THEORY

2.2.1 INTRODUCTION
As identified in Chapter Two, between the ages of thirteen and twenty-four this is a time of radical change physically, mentally and emotionally in an individual’s life. The environments that youth are exposed to start to have an influence on their development and start to inform the young adults they will become (Blakemore, 2013). To establish an understanding of the role various environments play in the development of youth, Bronfenbrenner’s (1979), Ecological Systems theory is utilised. This theory helps in examining environments on a holistic level, ranging from macro to micro levels. The concept of the macrosystem is the larger, indirect social influence which will be explored through a community’s involvement in youth development, while the concept of the microsystem will be examined through youth learning environments, which have a direct influence on their development. The relationship between each of these concepts is the key in understanding how youth develop and what factors lead to their success or failure (Ahuja, 2005: 3). An environment becomes a prerequisite for understanding problems, behaviour, experience and phenomena while allowing information to be viewed in a new light which becomes more understandable when dealing with youth development (Engelbrecht, 2008: 5).

2.2.2 MACROSYSTEM THROUGH COMMUNITY INVOLVEMENT
Before examining an environment that directly influences a youth, the larger macrosystem must be examined to understand what social context may effect a youth’s development, as the actions and values of youth are difficult to understand if isolated from the social context in which they occur (Engelbrecht, 2008: 4). As shown in Figure 13, there are different levels of systems that may have an effect on a youth’s development. These systems influence one another in a continuous process of dynamic balance, tension and interplay as described by Engelbrecht. They range from family influence, learning environments, communities and as explored in Chapter Two, the influence of peer groups. In this regard a community’s involvement plays an important role in a youth’s developmental system. Engelbrecht argues that it is therefore critical to analyse how youth are shaped by their communities and in turn how these communities are shaped by youth.
Communities are not linked by biological relationships, but the ideology that whatever happens to an individual, affects the whole community. In addition, whatever happens to the community has an effect on the individual, as highlighted by the African philosophy of Ubuntu. This demonstrates a great trait of human welfare which Higgs (2003: 12-14) describes as the essence of Ubuntu which translates as ‘humanness’. Community and belonging to a community is an important part of a youth’s social development. Through Ubuntu, youth are inspired to expose themselves to others in order to encounter different qualities of this humanness to inform and enrich their own. By learning from other members of a community, youth are able to make a conscious effort to treat others with fairness and humanness because they in turn are treated that way. Higgs outlines that this all leads to a community that functions as a collective effort directed ultimately to the good of a community and holds the needs, interests in addition, human dignity with fundamental importance. It is suggested that these are vital life skills that community involvement can expose youth too, all towards positively aiding their development.
Youth have a lot to teach a community while a community, with its elders and wisdom, has a lot to teach youth. Youth are at a stage in their lives where they are free spirited and uninfluenced by any preconceived issues of race, gender or culture. This free spirit and eagerness to learn are great qualities in a community. There are also important qualities and traditions that can be passed down to youth from the elders in the communities, as the African proverb states, “it takes a village to raise a child”. These qualities include fundamental life lessons and traditions that are important in maintaining a sense of community such as kindness, generosity, compassion, courtesy and respect (Higgs, 2003: 14). Communities today are faced with youth that drop out of school and partake in issues related to substance abuse. It is critical to change the attitudes of communities and youth by involving them in positive activities and projects that serve to enhance their lives and contribute positively to community development (www.openarchitecturenetwork.org). An added benefit to a community working together and contributing to the guidance of youth in their area helps minimize any criminal or negative behavior youth may partake. Coleman (1985:10) argues that by exposing youth to a variety of responsible adults in this manner, it helps them model their behavior on a wider range of adults. This helps them develop a better understanding of how to integrate into the adult community. An environment where the adult to youth ratio is low, Coleman says, often results in youth that became frustrated by the constraints that are forced upon them for their own safety. These youth then begin to imitate their friends and pick up poor behavioral patterns, “the immature leading the immature” (Coleman, 1985: 10). By working together a reciprocal relationship is formed where youth are treated with respect and dignity will return the action and treat others with respect and dignity (Higgs, 2003: 15).

The mark of any healthy community is evident in a safe environment where interactions between youth may be facilitated. The most important element in establishing a safe environment is community involvement. Newman (1972) establishes that an emotional connection between inhabitants and their environment must be created. If people are concerned about their environment they will ensure that it is kept safe, neat and free of unsavory characters. Newman puts forward the critical question of whether crime can be prevented through the built environment. Crime is based on numerous variants and it cannot be stopped on solely good building design alone but measures within the built environment and community living can be observed to prevent criminal activities. The built environment needs to celebrate community life and not rely on the police force and security systems for
protection. Through the physical design of a built environment, architects need to find ways of bringing community members and neighbours together to work as a collective against the issues that face our society (Newman, 1972: 2). Newman promotes a community that is controlled by the people that inhabit it and not by law-enforcement as seen in Figure 14. Defined as ‘defensible space’, it is living environments where users hold the power to enhance their quality of life and provide security.

![Figure 14 Natural surveillance of youth social areas within a community.](www.radiohaajblarnblog.wordpress.com)

Creating safe environments for youth to engage with is the one of the most crucial elements in their positive development which can be achieved through community participation and involvement. If an environment is considered unsafe it will not be used and tends to breed more negative activities and this has a ripple effect on its community. Newman states that the key to encourage the community to police their streets is allowing for natural opportunities of visual surveillance of these areas to occur as seen in Figures 14 and 15. Cedric Daniels, an urban design for The City of Cape Town, expresses his sediments on crime within the built
environment, “The buildings should not have hideaway corners or nooks where people can hide and observe as you approach the building. This follows the very basic principal that if a criminal knows he is being observed, can be identified and can get caught for a crime, he is less likely to perform a criminal act” (Aaronson, 2012: 310&311). Newman (1972: 1 & 3) reiterates this and suggests that building layouts should encourage natural surveillance inside and outside on the streets allowing the community to visually police their environment as they go about their daily lives. Criminal activities do not occur out in the open, but in nooks and corners that are not easily monitored or surveillance. By eliminating these types of areas that do not allow for easy surveillance, Newman suggests that environments that do not facilitate criminal behavior or activities may be established. Research found that building design that did facilitate criminal activity had an influence on youth that lived in the area. Newman (1972:14) states that these children had difficulty understanding the rights of others with regards to private, individual space to understanding territory.

![Figure 15 Building layouts that allow natural surveillance to occur provide eyes on the street. (www.lancastercsc.org)](image)

Measures to encourage surveillance should be well integrated into the design of environments. Newman (1972: 59) establishes that the relationship between buildings and ground activities is important in this integration of context. As in Figure 14, the position of
parks, paths, play equipment, seating areas should all be carefully considered so that these areas are well integrated into the urban fabric to allow for constant surveillance of these areas, whether it is by shopkeepers during the day or home dwellers at night. Coleman (1985: 112) says that ground activities should encourage movement of people and activities that all add to the vibrancy of a neighbourhood while maintaining eyes on the streets. Jacobs (1961: 35) reiterates Coleman’s view, by saying that busy pavements that are filled with life encourage people from indoors to keep their eyes on the street as people enjoy watching active streetscapes, as demonstrated in Figure 15. Gehl (1971) further explores the manner in which humans experience and interact with each other under different contextual settings and provides simple design features, as depicted in Figure 16, which improve and help stimulate social interaction. These include allowing a visual connection between spaces and creating shorter distances between nodes to promote human contact. As Gehl establishes, social interaction is a key tool towards a safe environment and should therefore be encouraged through the built form.

<table>
<thead>
<tr>
<th>Inhibiting Contact</th>
<th>Promoting</th>
</tr>
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<tbody>
<tr>
<td><strong>Contact</strong></td>
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<tr>
<td>1.0 Walls</td>
<td>No walls</td>
</tr>
<tr>
<td>2.0 Longer distances</td>
<td>Shorter distances</td>
</tr>
<tr>
<td>3.0 High speeds</td>
<td>Low speeds</td>
</tr>
<tr>
<td>4.0 Multiple levels</td>
<td>One level</td>
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<tr>
<td>5.0 Orientation away each from each other</td>
<td>Orientation towards</td>
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Figure 16 Physical arrangement can promote or present visual or auditory contact in at least 5 different ways. (Gehl, 1971: 64)
By establishing a strong sense of community, environments can be policed by the people that live, work and play there. Coleman (1985: 112) believes that community buildings and parks should not be enclosed by fences or gates but should instead engage with their community. By doing this it allows these community spaces to engage with the street and encourages the community and its youth to freely use and engage with the facilities. This Aaronson (2012: 310) agrees, aids in creating a relationship between the built environment and the community and becomes a platform where the community can socialize and become familiar with one another. A community where everyone knows one another ensures that if anyone new enters a place that they should not be, it is noticed immediately. The same principle can be used for neighborhood youth. If any of youth are out playing on the pavement or community parks and are partaking in any mischievous behavior they can be immediately stopped and reprimanded if their parents are not around. Kasavan (2006:20) points out that this aids working parents that are not always around when their youth arrive home after school. Coleman (1985:10) points out that when their youth go outdoors to play or meet their friends, they can be confident that community members in the area will keep a responsible eye on their youth. It is suggested that youth are the key to socially uplifting a community and establishing environments that are open to change, learning and development. Establishing a community that is healthy, well integrated and safe for youth to develop suggests that the development of these youth will be positive. By employing the principles outlined above, this may serve as philosophical framework for the construction of empowering knowledge that will not only empower communities to participate in social and educational development but youth of these communities as well (Higgs, 2003: 5).

2.2.3 MICROSYSTEM THROUGH LEARNING ENVIRONMENTS

Following from Bronfenbrenner’s (1979) macrosystem of community involvement and social context, it is important to next examine systems that have a direct influence on youth and contribute to their positive development. This system is identified by Bronfenbrenner as the microsystem. The importance in examining the microsystem, is how it is experienced by youth, not only by physical objects in an environment but how this environment is perceived (Bronfenbrenner, 1979: 22). This phenomenological approach to analysing environments that have a significant influence on a youth’s development draws heavily from the works of Husserl (1950), Kohler (1938) and Katz (1930). It is critical to understand microsystems as they are the environments that youth spend a significant amount of their lives in. An example of a microsystem that they are exposed to and that will be examined is a youth’s learning
environment. Learning environments provide a comprehensive context for youth development, second only to a home environment (Bronfenbrenner, 1979: 132). The existence of such an environment is important as it provides the context in which youth experience the most development through self development, peer influence and educational growth. The following discussions highlight design elements critical to learning environments that are conducive to positive youth development.

2.2.3.1 Learning Spaces

When first analysing learning environments it is critical to investigate and understand how youth learn. As identified in Chapter Two this is a period in a youth’s life where they are full of energy with a desire to investigate, experiment and learn new exciting things. By incorporating this behavioural pattern into the manner in which youth are educated it can better engage and stimulate youth as shown in Figure 17. As Scott (2010:7) states, “Youth learn by doing”. This reiterates that youth are best taught through activity and stimulus. As illustrated in Figures 17 and 18, learning is simply not something that an educator teaches, but rather a natural process which does not occur by hearing words but by experience and engaging with an environment (Scott, 2010: 10). Play has developed from a pass time activity into an important learning tool. Environments should be designed to allow for easy
movement and transparency that encourage activity (Scott, 2010: 25). Resources should be readily and freely available to youth so that they may interact, investigate and learn as they wish. Learning is best achieved under such spontaneous conditions as these are the most fun filled for youth. When learning activities become fun and enjoyable, Scott states that, youth are able to absorb information and understand things in more productive and capable manner, as seen in Figure 18.

Learning environments should thus be designed to encourage youth to participate, engage, collaborate and acquire the knowledge necessary to survive and thrive in a rapidly changing world (www.ryanbretag.com). A classroom with a teacher at the front simply teaching is not a favourable method of educating. Aaronson (2012: 198) argues that it lacks stimulus and often does not engage with youth. More often than not the attention of these youth can be lost and nothing learnt at all with this method of repetition and knowledge retention (Blakemore, 2012). Aaronson states that learning environments should at all times engage youth and encourage interaction amongst peers so that youth learn together analysis, problem solving and creativity, and are simply just not taught. This suggests that architecture needs to provide learning spaces that are rich, diverse and are reflective of the needs youth will require in adulthood (Blakemore, 2012). These learning spaces need to be enticing to youth by being flexible, adaptive and engaging, as depicted in Figure 19 (www.ryanbretag.com).
Bretford (www.ryanbretag.com) identifies the following guidelines for the design of these learning spaces,

“1.0 Overall Space: flexibility, placement and configuration, varied sized spaces, resource rich, one size does fit all, and complexity/order.
2.0 Group Space: interactive and collaborative spaces, mobility, and transition/flow.
3.0 Individual Space: focus, identity, personal space, attachment, and prospect/refuge. (www.ryanbretag.com)”

![Possible arrangements for group work/stations.](www.losethechalk.com)

![Possible arrangements for demonstration/discussion.](www.losethechalk.com)

Figure 19 Learning spaces should allow for flexibility in learning methods. (www.losethechalk.com)

Theses range of learning spaces must however ensure good acoustic properties. Youth learning in environments with good acoustic properties achieved higher test scores as youth
were able to hear their educators clearly (Gelfand and Freed, 2010: 3). Environments where youth can hear educators and vice versa are critical to ensuring concentration levels with youth, if they cannot hear an educator they tend to lose interest as it affects knowledge retention, concentration and success rates (Gelfand and Freed, 2010: 16 & 62). Besides the physical design of these learning spaces, the way youth perceive learning environments is important to their mindset and how they learn. By understanding the importance of ambience and setting, rich environments that are most conducive to learning can be created.

2.2.3.2 Colour Therapy
When analysing a learning environment the ambience and setting of the room is critical and the colour of an environment is a significant ‘psychophysiological’ factor when studying (Mahnke and Mahnke, 1987: 82&83). As observed by Mahnke and Mahnke, interior learning environments that are functionally and thoughtfully planned facilitates learning new subject matter and improves performance. Colour has the ability to physically and psychologically affect youth and plays a critical role in the perception of the microsystem as discussed earlier (Bronfenbrenner, 1979: 22). It can be used to generate specific emotions, moods and tones which have an effect on the manner in which learning environments are perceived and thus utilised. By understanding the properties of colour therapy in a learning context, the built environment can thus assist in providing learning environments that function at their optimum. Different colours have different affects on the human body and mind and must be carefully considered when applied so as too not over stimulate nor overpower youth. Coates (1997) explores Rudolf Steiner’s approach to colour therapy on how the application of colour should be seen as “endowing form with soul” (Coates, 1997: 198). This demonstrates the power colour has to be able to breathe life and soul into otherwise dead forms. By understanding colour as a force that dances and develops between one another, colour can be used to create breath taking plays on form. Coates describes how blue is a colour that is interpreted as moving away from one creating feelings of yearning and longing, while the colour red is seen as something vibrant, loud and aggressive showering one with the feeling of something coming towards one. As these two colours dance around each other, one begins to move away from the viewer while the other advances towards the viewer creating dept and meaning to an otherwise bland surface (Coates, 1997: 198).

Coates (1997) further explores the colour theory of Architectural Colourist, Fritz Fuchs. Fuchs’ theory is similar to Steiner’s in understanding colour as a force and not merely an
aesthetic tool. Colour does not have to be loud and boisterous to get across the emotion the designer wishes to convey. Gentle, subtle tones when using colour is far more inviting and appealing to the user. This sensitive use of colour allows the inhabitant to feel their own connection and meaning to the colour palette (Coates, 1997: 199). This method of colour therapy also helps to establish a sense of ownership and belonging to an environment as each individual attaches their own personal meaning to a space based on their interpretation of the colour palette. Coates (1997: 199), and Mahnke and Mahnke (1987: 83&84) recommend the following as a colour tone guide to the different youth environments,

1.0 Practice workshop spaces – Rose tones
2.0 Arts and craft workshop spaces – Neutral shades of blue to violet
3.0 Social space, dining halls and circulation space – Shades of yellow to express and encourage communication and a lively ambience, as illustrated in Figure 20.
4.0 First aid rooms – Warm illnesses need cool shades of blue and blue-violet
   - Cool illnesses need warmer colours such as a warm rose
5.0 Learning centre exterior – Muted shades of yellow and blue, complimented by violet and plum to create a gentle, nurturing learning environment for youth.
6.0 Libraries or classrooms – Beige, pale or light green, and blue-green are appropriate as they permit better concentration by providing a passive effect, as illustrated in Figures 21 and 22.
Figure 21 Shades of blue and green in libraries have a passive effect encouraging concentration. (www.interiordesign.net)

Figure 22 Classrooms with hues of blue and beige aid in helping youth to focus and concentrate. (www.greatbuildings.com)

By understanding the significance and importance of colour therapy learning environments can be created that are best suited to serve the needs of youth. Environments that are fun, exciting and psychologically benefit youth, serve to uplift their experience of the space and enhance their quality of learning, studying and promote physical and mental health (Mahnke
and Mahnke, 1987: 82). This suggests that quality learning environments aid in providing a platform from which youth are able to develop their learning and capability skills in the most optimum manner. The use of colour therapy is not restricted to just a colour palette but is closely related to the use of natural light that serves to enhance and influence how colour is perceived (Mahnke and Mahnke, 1987: 53). The following discussion will serve to establish how natural elements such as lighting, can serve to enhance these learning environments so that they function at their optimum.

2.2.3.3 The Benefits of Natural Elements

As previously established the perception and experience of a microsystem is critical to providing optimum environments. Following on from the use of colour therapy as a perception tool to positively enhance a space, the benefits of natural elements within learning environments will be explored. Most life forms depend on sunlight for their existence. Humans are attracted to well-lit spaces as Alexander (1977) explains, “When they (people) have a choice, they will always gravitate to those rooms which have light on two sides, and leave the rooms which are lit only from one side unused and empty” (1977: 747). The use of light stimulates and engages our sense of sight. The degree of intensity of light creates different settings and ambience therefore it has an effect on the way spaces are perceived. The orientation of a building and the spaces within must be considered when responding to the way sunlight penetrates a building. Scott (2010: 21) says that the movement of natural lighting helps in keeping spaces alive through the movement of complex shadows and

Figure 23 Natural lighting not only adds to the ambience of the space but also adds in learning development. (www.gbdmagazine.com)
different lighting qualities through the day. The most important quality of natural lighting however is its ability to connect the inhabitant not only with their immediate environment but the larger, surrounding environment as well. This connection says Skye (2010: 69) is important in establishing a sense of belonging and being part of a larger whole. Besides giving life to spaces, the use of natural lighting through windows and skylights in learning environments has shown significant improvement in reading performance and test scores (Gelfand and Freed, 2010: 3).

As the outdoors is an important element in the development of a youth, access to outdoor green spaces are important especially to youth that do not have access to gardens at home. Coleman (1985: 25) expresses that gardens are where youth can play freely within the confines of a safe environment and learn self confidence. Clark (2010: 77) agrees that outdoor environments are important social spaces for interacting with peers and allowing youth to partake in activities, hobbies and sports that positively enhance their development, as demonstrated in Figure 24. Scott (2010: 40) mentions the power of visual connections to
the outdoors and how they yield calming effects while views help connect youth to their context, establishing a sense of inclusiveness rather than enclosure. Being outdoors frees one’s mind and is a positive tool in youth development. Youth who spend the majority of their time outdoors are healthier than the norm. These youth “ate better, sleep better, have better motor co-ordination, more muscles and better physical competency” (Scott, 2010: 20). Leedam (2012) agrees and says that youth need fresh air and sunlight to function at their optimum and allowances in the built form must be made. Greater contact with natural elements such as fresh air, sunlight and planting have been associated to an improvement in learning rates, reduced stress levels and an increase in productivity in learners. McLeod (2008: 54) expresses the tranquil nature of these natural elements in having a positive effect on the spirit and mind-set of users. Clark (2010: 13) argues that access to the natural environment is more import than indoor spaces in the positive development of youth. Youth need the outdoors to burn off steam through energetic exercise. It keeps them out of trouble and their minds fresh. Coleman (1985: 25) points out that these outdoor areas however, must be supervised to ensure that youth do not engage in bad behaviour.

Figure 25 Learning environments should be designed to allow for natural ventilation. (www.building.co.uk)

A constant flow of fresh air has a positive effect on the way ones brain functions and reduces sick days and respiratory problems (Gelfand and Freed, 2010: 4). Scott (2011: 21) states that
it stimulates the brain, maintains a level of alertness and helps one feel alive and energetic. Recycled air systems such as air conditioners, leave one feeling lethargic and drowsy due to the lack of oxygen in the air. Leedam (2012) argues that buildings, as illustrated in Figure 25, must be designed to ensure that areas are naturally ventilated to help keep the minds of youth, especially in learning environments, mentally awake and energetic (www.archinect.com). Allowing fresh air to freely flow through a building eliminates stale or stagnant air pockets and helps create a healthy learning environment. Gelfand and Freed (2010: 10) mark the quality of a learning environment by its incorporation of nature that provides spaces that are bright, full of fresh air, comfortable and employ a peaceful quiet. Since outdoor environments play such a pivotal role in youth development it is important to translate these ambient environments into the built form. Environments that encourage learning which are rich in movement, texture and ambience can be just as effective as outdoor spaces (Scott: 2010, 21).

Learning environments that incorporate sustainable measures with an awareness of environment, better educates youth so that they learn the value and importance of sustainable living and conservation (Gelfand & Freed, 2010: 3&6). These environments serve as catalysts for changing mind sets and bad habits while also demonstrating energy conservation to the entire community. They also educate youth on sustainable living which they then carry into their work and homes as adults. Gelfand and Freed believe that sustainable learning environments serve to readjust and reset the base expectations of future generations so that they become conscious of their impact and effect on the natural environment. By changing the environment in which we teach our youth, Aaronson (2012: 196) argues that one can get youth to start imagining new possibilities of how they can learn. This psychologically helps them to manifest things to be different. Using these environments as third teachers with the incorporation of natural elements, allows youth to observe changes in nature and improves their awareness, curiosity, observation skills and reasoning (Gelfand and Freed, 2010: 164).

2.2.4 CONCLUSION

Using Bronfenbrenner’s (1979) theory of Ecological Systems Theory one can begin to understand the role environments have to play in youth development. Ahuja (2005:8) argues that knowing this enables us to change the way we approach youth development and aids in becoming a better society. Bronfenbrenner’s systems theory highlights the fact that society has a part in raising and nurturing youth. Ahuja reiterates that statement by saying that a community that works in harmony together has the ability to support each other and this has a
profound effect on youth. This will yield youth that are tolerant, have patience, show love, respect and compassion for one another. This, Ahuja states, is the mark of a society that is successful and healthy. Stemming from this, Bronfenbrenner’s microsystem highlights that the environment from which we educate youth should be conducive to providing optimum results. The main driver behind learning environments is to create opportunities where youth learn job skill training, build educational skills and develop healthy attitudes and behaviours that are necessary to assure a successful future (www.openarchitecturenetwork.org). These learning environments are essentially growing environments where youth mature into young adults (Gelfand and Freed, 2010: 71). This highlights that architecture has a critical role in providing platforms where youth may learn in healthy, interactive and stimulating environments that enhance their daily lives as well as their community.
CHAPTER THREE: PRECEDENT STUDIES

3.1 INTRODUCTION
This chapter shall explore three precedent studies which serve to illustrate the theories and concepts explored in the literature review. The precedents to be explored are the Ubuntu Centre (by Field Architecture), the Youth Factory (By Selgas Cano Architects) and the Phoenix High School – Post Sixteen (by Bond Bryan Architects).

3.2 UBUNTU CENTRE,
   By Field Architecture, Port Elizabeth, South Africa.

3.2.1 Background
The Ubuntu Centre, as shown in Figure 26, was established in 2011 and is a non-governmental organization that serves to uplift and educate youth of Port Elizabeth in a healthy, nurturing and safe environment. Youth in the area demonstrated an eagerness to learn despite the adverse conditions of unemployment, AIDS, violence, poverty and instability that surrounded them and the idea behind the Ubuntu Centre grew from this ambition to learn and be better.

Figure 26 Street Elevation of the Ubuntu Centre (Field, 2012: 40&41)

Designed by architectural firm, Field Architecture, the Ubuntu Centre provides youth with health, medical, social and educational support ensuring that they have the means, knowledge and support to access higher education and employment. Through community members, this youth focused centre has become a template for other community-based developments and serves to demonstrate the important role a community has in youth development.
3.2.2 Location and Concept
Located in the township of Zwide in Port Elizabeth, the Ubuntu Centre focuses on a seven-kilometer radius in which it helps the lives of four-hundred-thousand people. The reason for this small radius is that the centre focuses on the depth of the help and guidance they can offer these community members. The centre therefore, focuses on quality teaching and guidance as opposed to quantity.

The concept behind the Ubuntu centre was to help nurture youth of the township by providing them with all that youth need, which is everything (www.ubuntufund.org). The meaning of Ubuntu, which is a Xhosa philosophy, speaks to “human interconnectedness: I am because you are” (www.ubuntufund.org). This translates to the belief that a person’s humanity is inter-wound in those around them. It is not about doing good for yourself, but doing good for the community.

3.2.3 Establishing an Identity
The Ubuntu Centre provides various services to youth with the aim of making them feel that they deserve respect, dignity, are worthwhile and that they are somebody. Helping them establish a sense of belonging and identity where they feel empowered by a community that supports and genuinely cares about them. The centre boasts a multitude of social and learning activities such as poetry readings and performing arts that take place in the community theatre/multi-purpose hall, shown in Figure 27. These performances are enjoyed by community members and allow youth to express themselves through the creative arts.

Figure 27 The centre boasts an impressive multi-purpose hall. (Field, 2012: 54 & 55)
The centre offers a variety of spaces where youth can socialise while learning together. As shown in Figures 28 and 29, large gatherings are provided for in the multi-purpose hall while smaller breakaway group meetings are accommodated for in the group study areas and conference room. These spaces however were noted as more functional spaces and the building did not provide social spaces where youth could play and interact with one another on a more social level. The centre however did acknowledge the need for career guidance and
psychological counseling rooms that could address and aid youth with the pressures they are faced with as they embark on their journey towards self discovery.

Figure 30 The building does not speak to a youth culture but stands tall as a beacon of change of the people of Zwide. (Field, 2012: 56 & 57)

The building aesthetic, as seen in Figure 30, does not speak towards a youth culture or identity. Users were noted as liking it to a museum or a building that was too expensive to belong to the township. This however, was a conscious decision by the architects to establish a building that the community could be proud of and instil a sense of community pride.
3.2.4 Ecological Systems Theory

3.2.4.1 Macrosystem explored through Community Involvement

In an effort to integrate the building into the existing community so that it became a part of its context, existing footpaths on the vacant site were noted and the foot print of the building was generated from this, as illustrated in Figure 31. This design decision served to complement the existing fabric that defined the town. The Ubuntu Centre takes a strong view in including parents and the community in youth education process. Families are required to attend tutoring, assessment programs and family/educator meetings (www.ubuntufund.org). The traditional family structure of many South African homes has changed to youth headed or grandparent headed households. The Ubuntu Centre recognises this and has created a Childcare Committee run by the community. This committee is trained in hygiene and care of the ill. They also provide household packages to homes to ensure that youth do not take unnecessary risks just to have food on the table. Family planning lessons, holiday camps, legal guidance, financial planning and home assessments are all driven by this community program (www.ubuntufund.org).
In an area where acts of violence, rape, abuse and crime is an everyday occurrence, the designers of the Ubuntu Centre looked at creating defensible architecture that encouraged movement through the building complex by not enclosing the building with a fence, as seen in Figure 32. The edge of the street and the building has now become a civic space for the community. What would normally have excluded and enclosed, now engages and includes. The building has become a place for gathering, thus ensuring a constant flow of people to discourage any unsavoury behaviour from occurring. The centre further diminishes the barrier between the inside and outside through the use of glass with allows transparency into and out of the building (Field, 2012: 90).

The organic rooftop garden provides a learning experience for youth and community members. As seen in Figure 33, through classes they are educated about nutrition and how they can grow their own organic vegetables and herbs at home, where they can feed their families and sell their extra produce to generate an income for their family (www.ubuntufund.org).
3.2.4.2 Microsystem explored through Learning Environments

The Ubuntu Centre offers various forms of educating youth through after school programs and job-training programs. The after school program includes mathematic and literacy teachings. The Ubuntu Centre recognises that youth crave more than academic stimulation and provide classes in baking, poetry, yoga, dancing and journalism. The centre also includes university visits to youth that wish to pursue a higher degree education. These students are then assisted with scholarships for living expenses, fees, medical care and supplies (www.ubuntufund.org). Youth are also taught important health care issues on basic health and life issues. They have access to a clinic where they are educated on the importance of nutrition, sex education as well physical and psychological abuse, and are able to receive medicine from the centre’s pharmacy (www.ubuntufund.org). The centre aims to make their youth physically and mentally ready for their adulthood life with a strong foundation of knowledge.

Natural light and ventilation are employed throughout the centre and the resultant is learning environments that are inviting and assist in keeping the mind alert and fresh. The Ubuntu Centre also boasts an impressive rooftop organic vegetable and herb garden. Nutritional meals are provided on a daily basis from this garden to youth (www.ubuntufund.org). Youth are educated on where food comes from, the importance of good nutrition and how they can grow their own organic vegetables and herbs at home. However this is the only outdoor or green environment provided where youth can learn from nature.

Founded on the dream of giving youth the same opportunities to succeed as those that come from privilege backgrounds, the Ubuntu Centre educates and keeps youth healthy through care, learning and empowerment. Through their community programs they are able to provide health care, school supplies, school uniforms, nutritious food, as well a place to use their imagination, play and talk to a counsellor. The Ubuntu Centre looks to transform their community through youth development (www.ubuntufund.org).
3.3 YOUTH FACTORY,

By Selgas Cano Architects, Merida, Spain.

3.3.1 Background

The Youth Factory was established in 2011 as a centre to provide a healthy and positive place for youth of Merida, Spain to express themselves, have fun and expel their energies in a creative manner. The aim behind the Youth Factory, by local architectural firm Selgas Cano, was to create an environment that is inclusive, open and safe (www.thecoolhunter.net). It is a creative community centre, equipped with a variety of activities all directed towards youth of area. The centre is a sanctuary for youth of Spain and serves to be a positive outlet in the lives of youth. The centre highlights the need to provide an open platform in which youth can interact with one another and establish their own identity through varying activities.

3.3.2 Location and Concept

Figure 34 Youth Factory (Interior Design, 2011: 170).

Located in Merida Spain, the Youth Factory, as illustrated in Figure 34, is a recreation centre for youth of the area. It is situated just outside of the city centre and has become a bright and vibrant beacon in the area. The site totals seventeen-thousand meter-square and includes a variety of indoor and outdoor spaces that reflect the needs of youth of the community (Interior Design, 2011: 171).

Minister Carlos Jimenez (2011) says that the concept of the Youth Factory was not designed to be a typical youth centre. The form and function of the building is meant to represent the interests of youth of the area becoming a building that is truly apart of them, as seen in Figure
35. The centre was designed to be an interactive playground that is imaginative, vibrant and flexible while providing youth of the area with activities that they want to participate in (Walker, 2011: 1).

Figure 35 Youth come to the centre to relax, peer watch or ride their bicycles. (www.archdaily.com)

3.3.3 Establishing an Identity
Youth are encouraged at the Youth Factory to express themselves, who they are and who they want to be. This is supported through various activities that represent youth culture of the Merida, which is fun, creative and expressive. The architects call the building a “grand marquee” (Interior Design, 2011: 171) a building that embraces all youth of the area with no filters, as seen in Figure 36. This has been achieved by the form of the building that is likened to a giant portico that serves to welcome youth. This suggests that the built form was designed to embrace youth no matter who they are, showing no discrimination and acceptance of all.
The roof structure sweeps across the outdoor spaces and the pod-like learning spaces as illustrated in Figure 36. The roof is also a symbol of protection that shelters youth from the hot midday sun and becomes a well lit beacon at night that allows youth a safe environment to play and socialise at night (Interior Design, 2011: 171). The building is designed not to be heavy but rather a light weight structure that provides a place for youth to be free, creative and just have fun. The centre is a haven for the restless and unemployed youth. It takes them off the sinister streets and provides them with a safe environment to express themselves (www.thecoolhunter.net).

The centre also identifies the need for counselling for youth and meeting rooms double up as counselling venues. Since seeking counselling can sometimes be seen as weak or an embarrassment to one’s peers with the clever design of the skatepark around the pods it actually hides the meeting rooms. This allows youth to have their counselling sessions without fearing any embarrassment. The variety of fun activities offered at the centre get youth attracted to the centre, which provides the opportunity to reach youth to address any issues they may be facing (Walker, 2011:1).

The outdoor spaces around the structure of the Youth Factory are designed for social interaction and people watching to occur. The bright orange roof shelters some of these...
spaces creating a variety of atmospheres for youth to relax and socialise all protected from the hot Spanish sun. There are graffiti walls, as depicted in Figure 37, along the perimeter of the campus where youth are free to let their creativity lose. The green areas are contoured and stepped to allow youth to sit down and watch the activities around them. The concrete steps around the ramps allow youth to watch their peers demonstrate their skateboarding and bicycle tricks. The skatepark is light with artificial lighting allowing youth to use the centre at night, giving them a safe place to socialise at all times of the day, as seen in Figures 37 and 38.

3.3.4 Ecological Systems Theory
3.3.4.1 Macrosystem explored through Community Involvement

Figure 37 Youth Factory is a safe place for youth to enjoy at night. (www.fastcodesign.com)

The community worked together with local government to create a space that met the needs of youth to save them from street life, which is prone to criminal activities and gangsterism. Now, the Youth Factory has literally and figuratively become a beacon of light in the community (www.thecoolhunter.net). It has provided a safe place for the troubled youth in the area that would ordinarily be partaking in street activities of vandalism, criminal activity
and gangsterism. By providing youth with a healthy environment to express themselves, it has changed the quality of the community environment (Walker, 2011:1). However, the Youth Factory does not employ any other community involvement further than this as the centre is solely devoted to providing an outlet for youth.

3.3.4.2 Microsystem explored through Learning Environments

Learning activities at the Youth Factory range from bicycle riding, skateboarding, circus training, rock climbing, graffiti spraying and hip-hop dance offs. These activities are all reflective of youth culture in the area. The outdoor spaces are cleverly interwoven with the indoor learning spaces, as seen in Figure 38. The bright orange roof sweeps over the concrete, ramps and steps, green turf as well as indoor spaces, unifying all these different components (Interior Design, 2011: 171). The skatepark weaves between the learning pods intertwining fun and learning spaces. Most of the areas around the pods are suitable for skating, while the contoured landscape around the pods also provides a concert for performing arts (Walker, 2011:1).
The centre consists of a multipurpose space, dance studio, computer laboratory (approximately eight-hundred meter-square) with meeting rooms, rest rooms and storage facilities. These pods are constructed from translucent white polycarbonate that allow natural light into the pods during the day and allow artificial lighting out during the night, as illustrated in Figure 39. The doors and windows are all strategically placed to optimise natural cross ventilation making the learning spaces pleasant and comfortable to learn in (Interior Design, 2011: 174).

The centre is marked as successful due to its clever ways of integrating play with life skills. The use of the climbing walls, as seen in Figure 40, teaches youth to take risks (Walker, 2011:1). The building most importantly comprises of activities that actually interest youth and provides them with a safe environment to perform these activities that they would do elsewhere anyway (Walker, 2011:1). The building speaks directly to aspects of youth culture with its bright, vibrant colours and in doing so creates a building that responds accordingly to the needs of youth in the area.
3.4 PHOENIX HIGH SCHOOL – POST SIXTEEN,


3.4.1 Background

Designed by architect Bond Bryan between 2009 -2011, the Phoenix High School provides a contemporary expression of a youth learning environment. The new Phoenix High School – Post Sixteen building is an addition to the existing Phoenix School Campus and encompasses all youth based activities and learning centres. The high school aims to provide its learners not just basic educational skills but also with the knowledge of how to approach higher educational schools or the working force. The Phoenix High School – Post Sixteen is a learning environment that was designed to challenge and excite its learners through its flexible and dynamic spaces (www.openbuildings.com). The high school has become a beacon of learning within the community as continues to inspire those around it. Executive Head Teacher, Sir William Atkinson, outlines the schools commitment to providing the best learning opportunities for learners. Every learner has the capability to achieve and Atkinson argues that the function of the school to maximise the opportunities of success for learners (www.phoenixhighschool.org).

3.4.2 Location and Concept

Figure 41 The school campus sits within a strong residential community. (www.maps.google.co.za)
The Phoenix High School – Post Sixteen is located on in Shepherds Bush, London. As shown in Figure 41, the high school is in a strong residential neighbour and stands as a beacon of knowledge for the community.

The concept behind the high school was to create an environment that stimulated and excited youth not just academically but also emotionally, culturally and physically. The school runs various programs that serve to stimulate and engage youth in all these aspects. The new Phoenix High School – Post Sixteen building was established as realisation of this concept. The building is sleek and modern relating to youth’s interests in the most modern technology while being fun, vibrant and open.

3.4.3 Establishing an Identity

The building has been labelled “the liquorice allsorts school” (www.e-architect.co.uk) due to its colourful and vibrant vertical timber panels that are randomly repeated on the buildings elevation resembling the sweet, Figure 42. The building was designed to become an iconic symbol for youth and has instilled a sense of pride and inspired its learners. The building is not only aesthetically pleasing but has a low environmental impact rating. These characteristics have actually inspired learners to look to the field of architecture as a future career.
The structure of the building has allowed for maximum flexibility of space for youth within the building, notes Nick Rogers project leader of Bond Bryan Architects. This serves to allow youth ownership and control of their environment. The design of the high school speaks to the social spaces that youth enjoy as, seen in Figure 43. The building serves to be a “social heart space” (www.openbuildings.com) on the campus. These social spaces occur in breakaway and transitional spaces, allowing for more intimate and spontaneous interactions to occur.

The high school aims to treat youth as adults as much as possible by giving them the freedom to make their own decisions. Youth are made to learn the life lesson that with adulthood, comes great responsibility. If homework or any other misconduct is found, youth are disciplined by having some of their school privileges withdrawn. The key tool, the school emphasises, is communication between learners, educators and parents. Through communication, honesty and a willingness to go beyond academic boundaries Phoenix High School-Post Sixteen aims to gradually transition youth into young, independent adults (www.phoenixhighschool.org).

The school acknowledges the difficult and confusing time youth may experience and offers counseling services which are confidential. Through the work of counselor Jennifer Lynch, youth are provided with a safe and secure environment to voice any emotional distress or behavioral problems they may be facing. Youth are encouraged to talk to Lynch regarding
any issues that trouble them in this confidential and safe environment (www.phoenixhighschool.org).

3.4.4 Ecological Systems Theory

3.4.4.1 Macrosystem explored through Community Involvement

The Phoenix High School – Post Sixteen is dedicated to engaging with its community through its Family and Community Engagement programme. Director of development, Garry McMillan, states that the school aims to establish a community node where learners and community members can share experiences as well as learn from one another. The school offers courses free of charge to the community in arts and crafts, sports, traditional learning and community events (www.phoenixhighschool.org). It suggests that by uplifting the community, the school aims to aid in its learner’s success in succeeding and achieving their goals.

Atkinson states that, the building encapsulates the ideology of the school, which is to inspire its learners and the community, all while creating a visual beacon for the community as a “cathedral for learning” (www.e-architect.co.uk). Parnell states that the school does not only strive for academic excellence but also to create an extended enriched environment. By uplifting youth and educating the community the school aims to create a community rich in knowledge and empowerment (www.phoenixhighschool.org).

3.4.4.2 Microsystem explored through Learning Environments

The new school building is a symbol of the hard work and dedication of the learners. The standard of achievement at the school has changed from a school known for its fail rate, to a school with an outstanding level of study. The built form has become a symbol of encouragement which aspires youth, says director of the Bond Bryan Architects, Jeff Stibbons. Atkinson shares Stibbons findings and notes that the design has created an “uplifting and stimulating environment by introducing a vibrant concept that motivates learners” (www.e-architect.co.uk).
The school houses learning laboratories, a common room, café, media room, library and various learning rooms, as illustrated in Figure 44 (www.bondbryan.com). The school seeks to provide youth with a wide range of learning opportunities inside and outside of the classroom. Atkinson strongly believes that learning beyond the confines of a classroom has the ability to enhance and engage youth in new and innovative ways (www.phoenixhighschool.org). Director Jan Parnell reiterates this statement with schools drive to provide youth with a well balanced lifestyle with access to sport, volunteering and cultural opportunities (www.phoenixhighschool.org). The school houses an impressive gym, dance studio, swimming pool and urban farms which serve to educate learners and the greater community.

The Phoenix High School-Post Sixteen aims to bring together aspects of youth culture with community involvement as an integrated approach to educating youth. This suggests that an academic environment is not enough to equip youth with the skills and knowledge that they will need to make informed decisions that will determine who they are, the people they will become and the effect they will have on their community.

3.5 CONCLUSION
The precedent studies illustrated the concepts and theories as put forth in the literature review in various context and settings. They highlighted the vital role architecture has to play in understanding the needs of youth towards positively enhancing their quality of life. A clear understanding of designing with awareness, could physically and psychologically affect the well-being of youth. This was demonstrated through environments that encourage self expression, socialising, community involvement and learning. The following chapter will examine case studies in a similar manner.
CHAPTER FOUR: CASE STUDIES

4.1 INTRODUCTION
The following chapter shall discuss and analyse case studies that are relevant to the study at hand. These case studies have been selected to demonstrate and analyse aspects identified in the literature review set out by the theoretical framework. Case studies in the city of Durban where selected to provide a contextual response to the issues at hand. The case studies are the Chatsworth Youth Centre, George Campbell High School, Gateway Theatre of Shopping and the Durban Beachfront Skatepark.

4.2 CHATSWORTH YOUTH CENTRE
By AUB Projects, Chatsworth, South Africa.

4.2.1 Background
The Chatsworth Youth Centre was established in 2003 after the tragic death of thirteen teenagers at the Throb Night Club in 2001. This tragic event brought to light the limited healthy environments youth of Chatsworth had to enjoy (Reilly, 2004: 27). Through Nelson Mandela’s initiative, the Chatsworth Youth Centre (Figure 45) was established to provide a safe, nurturing and fun environment where youth of Chatsworth could learn, play and engage with other youth members (Cooke, 2005: 25).

Figure 45 External views of youth Centre (Digest of South African Architecture, 2004/2005: 78 &79)

The Chatsworth Youth Centre is an optimum example of a youth facility that can complement public school learning. It serves to engage youth in safe and healthy environments where they can develop important social, leadership and responsibility skills. It is suggested that these are all important components in aiding to positive youth development.
4.2.2 Location and Concept

The area of Chatsworth is located approximately twenty-kilometers from Durban and is predominately an Indian dominated area due to the South African Apartheid Group Areas Act of 1950. Due to social and economical reasons most parents in the area are full time members of the working force. With few financially able to pay for domestic help, youth are left to supervise and entertain themselves. This suggests a break down in the family centred social structure and has left many youth in the area vulnerable to substance abuse, gambling, rape, domestic abuse and prostitution (Reilly, 2004: 27). The death of the thirteen youth, at the local club event, further highlighted the social need for a safe environment for youth (Cooke, 2005: 25).

The location of the centre was based on the availability of free land that was offered by the local municipality (Reilly, 2004: 27). This site was chosen due to its central location within the Chatsworth area and its close proximity to the local popular youth destination, The Chatsworth Shopping Centre. The transport network already established by the surrounding commercial and recreational facilities provided youth with easy access to youth centre. The site is surrounded by commercial activities rather than belonging to a residential community.

The concept behind youth centre was to establish a youth facility that provide a platform where youth of Chatsworth could positively express themselves, learn and play in a safe and nurturing environment. The concept behind the building was to create something that reflected the character of youth that would embody it, fun, lively and open.

4.2.3 Establishing an Identity

Members of Chatsworth community were invited to discuss the brief for the centre. It is reported that while parents and teachers argued for a formalised and educational based centre youth simply wanted a vibrant, fun place to socialise with their peers (Digest of South African Architecture Reporter, 2004/2005: 78). Architects placed careful consideration to the wants and needs of youth to ensure it would be a destination that they would want to visit. The centre was not in a compulsory setting as a school is and therefore required to create an ambience that would attract youth through its atmosphere and activities (Reilly, 2004: 27).
The youth centre captures the essence of youth with its fun, vibrant, bright and open social spaces, as shown in Figure 46. The colours used in the centre were selected to excite and stimulate youth through coloured panels and mural art which are painted in selected areas around the centre. The use of fun, bright colours where specifically requested by youth in the area (Digest of South African Architecture Reporter, 2004/2005: 78). The materials used in construction were chosen more for their robust nature to ensure minimal maintenance but clever ways were used to incorporate youthful elements within that structure. The use of different materials, colours and textures are found throughout the centre and are used with careful consideration in their appropriate contexts, as illustrated in Figure 47. The main social areas are lively, vibrant, flooded with natural light and with sweeping views of the surrounding gardens. With activities such as sport, music, dance or simple counselling, the youth centre provides a facility where youth can direct their boundless energies in a constructive and self empowerment manner.

Figure 46 The social areas are fun and vibrant and flooded with natural light (Reilly, 2004: 29 & 30)

Figure 47 Colourful panels decorate the interior and exterior facades. (Sanders, 2010: 149)
Youth centre offers a variety of activities to appeal to a broad range of youth. The multi-purpose hall, as shown in Figures 48 and 49 are where all different ages of youth meet and socialise. This venue is large, naturally lit, naturally ventilated and can accommodate the large volume of noise generated by youth. The lounge area in the second building is smaller for more intimate group socialising, see Figure 46. These various sizes of social meeting and
interaction spaces allow for a variety of activities to occur within them. The social spaces are all located around the entrance to the centre, as shown in Figure 50. This suggests that youth members in these areas can monitor who is entering and leaving the centre as well as allowing for a constant flow of movement across these spaces encouraging other youth members to join in on discussions or games that maybe occurring. The major spaces of the facility, as illustrated in Figure 50, are the indoor sport hall and ablutions (yellow and red), the admin and entertainment rooms (blue and orange), the counseling clinic and IT/ AV room (green and purple) with the garden courtyard (grey) between. The youth centre also plays host to various family fun days as well school workshops. These workshops allow youth members from different schools in the Chatsworth area to meet, interact and engage with one another.

Figure 50 Floor plan of youth centre. (Sanders, 2010: 147)
The outdoor social spaces are located around the multi-purpose outdoor court, as seen in Figure 51, where youth can watch and cheer on their peers in sporting activities. A multitude of sporting activities take place at the centre and serve as a social interaction tool between youth. However due to site restrictions a soccer field and cricket pitch, which are sports that are popular with the Indian community, could not be accommodated. There is also an outdoor amphitheatre which allows for outdoor social events such as music concerts and plays. At the heart of the centre is an outdoor seating area that forms the connection between the main building and the multi-purpose hall. This seating area was designed with a memorial wall in honour to the thirteen youth that died tragically in 2001 and which served as a catalyst for the design of the centre, as shown in Figure 52. This social space is more intimate and even though it is located at such a busy junction within the complex it remains a place to remember, reflect and contemplate.
Besides education tuition, the centre also offers yoga courses that teach youth to meditate and centre their spiritual bodies to help them cope with the pressures that they face, as illustrated in Figure 53. The centre runs the Art of Living Foundation Upliftment Program which is designed to refocus the mind through the use of breathing, meditation and relaxation.
techniques which serves as a vital coping mechanism for youth with exam and life stress (www.artofliving.org). The centre also plays host to more energetic experiences such as boxing and Zumba classes, seen in Figure 54. These services are all offered free of charge to youth, in order to ensure that all that wish to participate, may. The centre also has counselling facilities to offer guidance on personal issues, career guidance and substance addiction.

Figure 54 Zumba classes in the multi-purpose hall. (www.looklocal.co.za)
4.2.4 Ecological Systems Theory

4.2.4.1 Macrosystem explored through Community Involvement

As shown in Figure 55, youth centre is surrounded by factories, businesses, the Chatsworth Shopping Centre and has minimal residential connectivity. Due to its lack of connection to a residential community the youth centre is mainly supported, both financially and through free youth educating services, by NGO’s and local business. The Anti-Drug Forum is one such NGO that uses the facilities of the youth centre to run leadership programs, family fun days and substance abuse awareness programs. Through the leadership of Sam Pillay, this NGO aids in the daily running of the centre and the programs offered to youth. Schools in the surrounding communities are also encouraged to make use of the youth centre and its facilities. School groups regularly attend workshops and make use of the sporting facilities offered at the centre such as netball. As Figure 55 demonstrates, the building is isolated from its context and has succumbed to the social ills of the area. Break-in’s and vandalism are common occurrences, due to a lack of surveillance on the building, in creating defensible space (Pillay, 2013). The centre aims to uplift the community of Chatsworth by providing youth with healthy activities that empower them to be better and keep them away from criminal activities. In an area wrought with youth drug abuse and crime, a centre such as this aims to alleviate this social problem by educating youth with life skills and lessons (Pillay, 2013).
4.2.4.2 Microsystem explored through Learning Environments

The building is divided into various layouts of learning and studying environments. The different rooms provide opportunities for large youth social interactions, as seen in Figure 56, as well as more intimate smaller group activities to occur. The main multi-purpose hall, shown in Figure 57, where the large group meetings are held, is naturally ventilated through expanded mesh screens that provide fresh air flow into the hall. However, users did complain about the acoustic properties of the hall and not being able to hear speakers clearly, especially during inclement weather. The users noted that the sound of external noises such as rain on the metal sheeted roof of the hall caused them to miss vital information from their educators. The smaller learning rooms overlook one another and users complained of the lack of privacy and as a result the poor acoustical property, as noise is easily transferred between the spaces. These results in only one of the spaces being utilised at a time and the centre cannot perform to its optimum. Theses learning spaces are all multi-functional and allows for opportunities of diverse learning experiences which unfortunately are disadvantaged by the above mentioned problems.
The only specialised facilities are the IT and audio-visual room which is used for educational and recreational purposes. The design palate of the learning rooms are more focused than the rest of the building, with more neutral shades as to not over stimulate and distract youth while
learning. The colour palette utilised in these rooms are beige with selected colour wall panels in hues of green and blues that serve to stimulate and uplift the environment. They are however, all naturally light and ventilated, providing comfortable environments to learn, as illustrated by Figure 58. Recycling collection programs are also run at the centre, encouraging and teaching youth about being environmentally sustainable and conscious. The learning rooms all have visual access to nature, whether it is into the central courtyard, as shown in Figure 59, or the surrounding grounds and amphitheatre, shown in Figure 60. Unfortunately these grounds are not well maintained and youth do not get to play or in these outdoor green areas, missing out on vital experiences.

Figure 59 Central courtyard between the learning rooms. (Sanders, 2010: 151)

Figure 60 Outdoor amphitheatre and surrounding grounds (Author, 2013)
4.3 GEORGE CAMPBELL TECHNICAL HIGH SCHOOL
Durban, South Africa.

4.3.1 Background
The George Campbell Technical High School is a public school with a focus on skill based learning. Established in the 1960’s, the school has played and continues to play a fundamental role in the lives of many youth of Durban. Host to approximately one-thousand-one-hundred pupils, both male and female, George Campbell serves to demonstrate alternative methods of education and empowering youth. A school environment is where youth spend majority of their time. This suggests that special focus and attention needs to be paid to the quality of learning, youth culture and social interaction that takes place here. George Campbell is a technical high school which focuses on skill based learning. Youth are taught theory on their subjects and then required to practically apply these theories. George Campbell is an example of how alternate education can benefit youth development (www.georgecampbell.co.za).

4.3.2 Location and Concept

Located in an urban environment, the school plays host to students in and around the surrounding Durban area. The school campus is bound by roads with fast paced traffic on three of its boundaries, as seen on Figure 61. This separation does not allow the school campus to engage with the surrounding buildings in any manner. Due to this, the school campus is more internally focused providing a much quieter, nurturing and safer environment for its youth.

Figure 61 Aerial view of the George Campbell High School (www.georgecampbell.co.za)
The concept behind their approach to youth development is clearly defined in their school ethos, “To prepare learners fully for adult life in a technologically advanced society which demands skills, independent thought, effective action, self-discipline and ethics” (www.georgecampbell.co.za).

4.3.3 Establishing an Identity

Opportunities for self expression and assertion are strongly encouraged through various recreational sports, cultural activities, leadership and empowerment programs. The diverse activities that the school offers, allow youth the opportunity to engage with their personal interests and assist in creating an identity. Debating, choir and public speaking all encourage youth empowerment. The Grade Twelve prefect program also seeks to empower youth. Here, Grade Eleven learners are required to submit their curriculum vita to the school for consideration into the program. After which, all applicants attend a team building and leadership course at Shongweni Dam. The candidates are then paired with a Grade Twelve prefect that serves as their mentor. After this process they are assessed by their peers, current Grade Twelve prefects and educators and the prefect selection for their Grade Twelve year is made. This process demonstrates vital life skills to youth of responsibility and self assertion. For the lower Grades, learners have the opportunity to join the Learner Representative Council (LRC). This council serves as the official line of communication between youth and school management. The LRC deals with all learner complaints, issues or recommendations and serves to teach the learners responsibility, communication and empowerment skills.

On observation the buildings of the school do not speak or reflect a youth culture. The materials used are common of most public institutions, face-brick walls and fittings that are made for durability rather than aesthetic reasons. The only area which does engage more with a fun and vibrant character is the Media Centre. The different textures, colours and the use of natural lighting makes the Media Centre an open and a fun place to learn.

Besides educational teachings, the learners also have access to guidance counsellors who teach the learners respect, anger management, their constitutional rights and guide them on career prospects. Learners also participate in career days where they visit various firms to get an idea of the practical scope required in fields that they may be interested in.
There is also the concern of safety between learners, in particularly between the different grades. Cases such as bullying are not tolerated and it is for this reason that the different grades are allocated different recess areas, as seen in Figure 62. Grades are not permitted to interact with one another during recess times. To ensure no unsavoury behaviour occurs during the recess, Grade Twelve learners and teachers, patrol the school grounds and building. No learners are permitted to be in the classrooms during recess unsupervised for their own safety and the safety of their peers. Learners are also not permitted into the workshops at any time if an educator is not present due to the safety hazards of the machinery. Learners that do not conform to the school's code of conduct are disciplined. The main form of discipline used in the school is detention, which is held every Friday for two hours after school hours.

Sport is a huge contributor to social integration at George Campbell. The school boasts various sporting activities such as swimming, shown in Figure 63, water polo, canoeing, body boarding, rugby, soccer, hockey, netball, squash and cricket. If learners are interested in any
other sports not listed by the school, such as rock climbing, they are encouraged to start new sport clubs which are fully supported by the school. To further encourage a team spirit between learners, each learner is assigned to one of four school houses. The aim behind creating houses is to create a spirit of comradeship and healthy competition between learners and to instill a sense of belonging, even if they do not physically participate in any sport activities (www.georgecampbell.co.za).

4.4.4 Ecological Systems Theory

4.3.4.1 Macросystem explored through Community Involvement

George Campbell is not a neighbourhood school due to its urban context. Management does find it difficult at times to get assistance for fundraising and outreach programs. The closest community to the school is the flats surrounding the beachfront area. The school runs an eating program for underprivileged learners, with food donated by the beachfront community. This provides these learners with sandwiches and juices every day. This suggests that community involvement is critical to helping youth, especially where school finances are strained. Through the Interact Club and Durban Youth Council, learners are encouraged to engage with the community through various activities. These allow the learners to become part of their larger community while uplifting and helping the community.

4.3.4.2 Microsystem explored through Learning Environments

Figure 64 A typical classroom layout where subjects like mathematics are taught. (Author, 2013)
The school uses alternative means of educating its youth through more practical applications of skills based learning. The school curriculum is split between traditional learning and skill based learning system. The subjects Mathematics, Science, English, Afrikaans, Zulu and Technical Drawing are compulsory subjects to all learners. These subjects form part of the more traditional school based learning. These classrooms follow the traditional classroom layout found in most public schools, as seen in Figure 64. High level windows, linear rows of desks all directed towards an educator, who stands in front of the classroom and teaches.

Figure 65 The workshop spaces where the practical skills work is carried out. (Author, 2013)

The learners are allowed to choose an elective from Grade Ten. These electives are both theory and skills based Mechanical Engineering, Civil Engineering and Electrical Engineering. The practical component of these electives teaches the learners how to design, practical problem solving, how to apply theory and principles in a practical application and an understanding of the production and manufacture of components (www.georgecampbell.co.za). Each of the workshops, as seen in Figure 65, where these electives are housed, consist of a standardised classroom where the theory of the subject is taught with an inter-leading door to the workshop space where the machinery and tools are kept. The workshops have very poor natural lighting and ventilation and depend tremendously on artificial lighting and ventilation.
The school also boosts an impressive media centre, as illustrated in Figure 66, which was an addition to school campus and funded privately. The media centre employs a full-time librarian and has a variety of books, computers with internet access and other research tools to aid learners in their studies. The learners have access to this media centre afterschool and during lunch breaks while they have one period every cycle where they have compulsory use of the media centre. A cycle is the school timetable which is based on a two week period. The media centre is naturally light and a colourful place for the learners to use. There are group tables for more serious research and a mat area for more leisurely, relaxing reading.

The George Campbell Technical High School provides youth with an alternate experience to the learning process. The high school places youth development high on its manifesto which can be seen through the various programs and workshops that are run in addition to the mandatory educational lessons.
4.4 YOUTH RECREATION SPACES AT,

THE GATEWAY THEATRE OF SHOPPING AND,
By Johnson Murray Architects, Umhlanga, South Africa.

THE DURBAN BEACHFRONT SKATEPARK
By OMM Design Workshop, Durban, South Africa.

4.4.1 Background
The Gateway Theatre of Shopping was designed by local architectural firm Johnson Murray Architects together with an American firm in 2001. Together with the Beachfront Skatepark, renovated during the 2010 Soccer World Cup by local architectural firm OMM, these recreational spaces have become popular places for youth to visit with their peers. Although the Gateway Shopping Centre is a commercially driven environment, it still manages to attract countless numbers of youth and both have become a hub of social activity. Youth can be seen frequently either relaxing, people watching or making use of these two venues. Recreational spaces are fun, vibrant places where youth enjoy socialising with their peers and making new friends. Since youth spend the majority of their free time out with their peers it is essential to understand the types of environments that attract their attention and lead to social interaction.

4.4.2 Location and Concept
The Gateway Shopping Centre is located in the Umhlanga area, eighteen-kilometres from Durban. Since its development it has served as a catalyst from other developments in the area such as business parks, hotels and commercial activities. The Umhlanga precinct has therefore developed into a new business district with the Gateway Shopping Centre as its anchor. The shopping centre was not specifically designed for youth but certain areas within the shopping centre have been designed to attract youth. The shopping centre is a commercial model and understands that enticing youth to their shopping mall, has the advantage of bringing their parents with them to purchase the latest fashions and technological gadgets.

The Durban Beachfront Skatepark was designed for different reasons to the Gateway Shopping Centre and was to be a social and recreational node on the Durban Beachfront. Located opposite the Elangani Hotel, the skatepark has lead to the development of other
commercial activities that feed off the traffic that is generated by the skatepark. In this way the skatepark is similar to the Gateway Shopping Centre in enticing youth with fun recreational activities that bring their parents along to make the commercial purchases such as food, drinks, bicycle and skateboard hires.

4.4.3 Establishing an Identity

![Image](Figure 67 Youth orientated spaces in the shopping centre are fun, vibrant and full of excitement. (Author, 2013)

The Gateway Shopping Centre appeals to youth culture in a variety of ways. This could be the reason why the shopping centre has become such an important environment in their social development and identity. The shopping centre has the latest technological gadgets, hippest fashion trends and various recreational activities. A designated area in the mall has been designed specifically towards youth. The aesthetics of this part of the shopping centre are completely different to the rest of the shopping centre. The lighting, material finishes and colours are all youth orientated, as seen in Figure 67. They are bright, colourful and fun with surfers and skateboard art suspended from the ceiling reflective of Durban’s beach culture. The floors are painted in various colours with markings of an indoor multi-purpose court. It was envisaged that this internal court area would be used for sporting competitions and other youth based activities. This area houses youth directed stores such as branded clothing stores, fast food outlets, music and gaming stores, sporting stores, the rock climbing wall as well as provides the access to the Wave House. The Wave House is a favourite venue for youth. Here, music concerts are held amongst the go-carting, skateboard and water park attractions.
The atmosphere at the Durban Beachfront Skatepark is electric and more fun and free than the more commercial Gateway Shopping Centre. It is a fun place where youth are just free to be themselves. The skatepark is decorated with various graffiti artwork showcasing the creativity of youth, as shown in Figure 68. This all adds to the vibrant and free spirited ambience of the space. After school, predominately youth that reside in the surrounding beachfront flats frequent the skatepark. On weekends, however, the skatepark is a source of fun and activity for youth regardless of proximity. The skatepark area is bustling at these times with skaters and cyclist performing gravity defying tricks. The edges of the skatepark are lined with youth watching their peers this suggests that even if they do not skate or cycle the skatepark is a great place to socialise, relax and meet friends.

Parents were observed dropping off their children at the Gateway Shopping Centre and returning hours later to pick them up. These youth were left unsupervised and this suggests that parents view these commercial environments as being safe. This could be attributed to the security that constantly patrols the areas or to the heavy foot traffic of other users.
As shown in Figure 69, parents at the Durban Skatepark tended to stay with their children and enjoy the amenities the beachfront has to offer. This may suggest that parents do not view this safe environment to leave their children unattended or that going to the beachfront is viewed as a more family orientated bonding and recreational time.

The Gateway Shopping Centre was designed specifically for commercial purposes. They aim to entice youth through fun activities and other recreational sports. The Gateway Shopping Centre has arcade games, pool tables, movie facilities, go-carting, rock climbing, Astroturf soccer, paint ball, a skate park and water park facilities (Figure 70). These activities all require youth to pay to enjoy these activities. The busiest youth activities were observed
during the school holidays and on weekends. Youth were seldom seen alone in the mall but rather in groups of three or more, leisurely walking up and down the mall simply socialising, people watching and window shopping. This suggests that the mall has become a place where youth come to socialise with their peers and also provides the opportunity to meet and make new friends, in particular of the opposite sex.

Figure 71 The skatepark has become an important social node along the promenade. (Author, 2013)

The facilities at the Durban Beachfront Skatepark are slightly different than those at Gateway in that the use of the promenade for riding bicycles, walking, skateboarding, running and roller-blading are all free, as seen in Figure 71. The edges of the skatepark are clustered with passerby’s, parents and other youth. This suggests that the skatepark appeals to all ages, either through simply watching the often gravity defying movements of the skate youth or making use of the facilities themselves. It appears that the area around the skatepark has become an important social node along the beachfront. It is a hub of activity with the Skate Store, which offers the renting of bicycles and skateboards and the Circus Circus restaurant which many of the parents were viewed to be relaxing at.
4.4.4 Ecological Systems Theory

4.4.4.1 Macrosystem explored through Community Involvement
There is no sense of community in these types of commercial and more public spaces. It appears that the shop managers and security become the adoptive community in these more commercialised environments. They monitor youth and any unfavourable behaviour is quickly reprimanded or brought to the attention of security. The skatepark has become a social node along the beachfront and has become a popular recreational space for all ages to enjoy.

4.4.4.2 Microsystem explored through Learning Environments
Gateway Shopping Centre is purely a commercial environment and does not lean its self to a learning environment.

The Skatepark is purely recreational and allows youth to learn to ride bicycles and skateboards. These recreational spaces are frequented by youth and form a major part of their developmental environment. It suggests that careful consideration must be paid to these spaces and the qualities of these spaces that have a high youth attraction level. These qualities can then be incorporated into learning environments to ensure a well balanced and quality use of space. Youth frequent these areas out of their own desire and free will. This is an important element to consider when designing spaces with youth activities.

4.5 CONCLUSION
Through understanding the needs and desires of youth, the case studies where able to demonstrate critically the role architecture has to play towards their positive development. The concepts and theories discussed in the literature review were clearly illustrated through the case studies. Thus the designs of environments that physically and psychologically affect the well-being of youth were established. The following Chapter will serve to analyse and discuss the findings from the above case studies together with the literature review and precedent studies.
CHAPTER FIVE: ANALYSIS AND DISCUSSIONS

5.1 INTRODUCTION
Following the findings of the Literature Review, Precedent Studies, Case Studies and the Informal Interview with Youth Development Expert, Sam Pillay (Appendix “A”) this chapter analyses the content of the research in its entirety. It also tests the hypothesis set out in Chapter One, which suggests that the physical and psychological well-being of youth can be enhanced through successful building design. Through which encourages users to experience and engage with their environment by designing with an awareness of the needs of youth. The discussions below are set out to respond to the key questions put forth in the first chapter.

5.2 ESTABLISHING AN IDENTITY
As established by Erikson (1950), this period in an individual’s life is critical to their self development, as it is within these years that one establishes his/her identity. Thus, the research set out to explore the role identity plays in the creation of environments that are conducive to positive youth development. In order to explore this concept it was first investigated why youth need to establish an identity and how this is achieved through the perspective of youth culture. Through the literature review it was established that, due to the physical and psychological changes experienced at this stage in a youth’s life, they begin to question their role in society and what defines them as a person. This exploration is further tested through experimentation, the testing of boundaries, expression and socialising. If explored with pressure and influence, may lead to an identity crisis with symptoms of substance abuse and other social ills (Erikson 1950). For these ills to be prevented and for positive youth development to be established, architecture needs to provide platforms from which these self expressions are allowed to be explored.

The research established that these platforms are critical in keeping youth entertained, active and engaged. Access to varying platforms then allows youth to experience a variety of self expression which aids in helping them establish their identity. As outlined by Pillay (2013: Appendix “A”), given the opportunity to do positive things with this energy, youth will step forward. Thus an emphasis was noted on the types of environments, through the case and precedent studies, which lend themselves towards self expression and independence which allow youth to explore who they are and where their interests may lay. It was found that architecture has the potential to translate the creative energies through the creation of
innovative platforms, as aptly illustrated in the Youth Factory. These spaces then move towards a more involved, successful, youth orientated and engaging environment. Platforms such as the arts, music, sports are found to be the most common platform through which youth engaged with, throughout the various case studies and precedent studies. Often it is found that it is more important that the activities of the facility is youth orientated, more so than the architecture. The building is found to be the facilitator of youth activities and should therefore align itself with those activities primarily. Taking into account the developing nature of youth, as discussed previously in the literature review, one should take into cognizance the practicalities of designing for youth, especially in understanding their need to test boundaries. Youth require boundaries to understand the difference between what is right and wrong as demonstrated with George Campbell High School. Youth will always seek to find out how far is too far thus architecture must strike a balance that allows youth to express themselves but within a boundary. This boundary should not serve to restrict, but rather used as a tool to educate youth on distinguishing between what is right and wrong.

In establishing an identity for youth through the built form, the great amount of energy, vibrancy and the desire to evolve that youth posse should be something that is harnessed and celebrated. Such understandings underline the potential in creating architecture that is reflective of this energy that is creative, interactive, vibrant, and expressive of a time and progression (Ansell, 2005: 73). Through understanding the needs and desires of youth, the case studies where able to demonstrate critically the role architecture has to play towards their positive development. Environments that are truly reflective of their context, both socially and environmentally, are able to capture the interests of youth and harness their creativity and energy in a positive manner. These buildings, as illustrated with the Youth Factory and the Phoenix High School – Post Sixteen, then begin to speak of an identity of youth in the area. The environments that were found to be the most engaging and saw the highest, non-mandatory, youth participation were the Youth Factory and Chatsworth Youth Centre, which addressed and embraced youth ambitious and energetic vibrancy. Through this celebration, these buildings were able to then engage youth with vital life skill lessons all towards enhancing their quality of life. As realised with the Youth Factory, architecture that is solely about youth and responds to their needs becomes a place that has meaning which they can identify with. This is important as it yields architecture that speaks to its users and caters to their needs by becoming organic environments that evolve with youth through spatial flexibility, aesthetic qualities, activity or self expression such as graffiti facades where
youth can decide their role and involvement. These spaces become a part of youth as they are able to mould and sculpt their environment to be reflective of whom they are. Two varying approaches to establishing youth culture was explored through the precedent studies, which brought to attention that the Ubuntu Centre did not speak of a youth culture or identity through the aesthetic of the built form. It rather showcased a building that the community as a whole could be proud of and that successfully uplifted not only youth, but the entire community. This shows that aesthetics of a building is inevitably dependent on its context and the needs of its people. By responding to the social and environmental context, successful architecture is created with spaces that are meaningful and reflective of its people, time and place.

In establishing ones identity, it was found through the literature review that youth are of a social nature. As such, they are influenced by their peers as they set out to establish their identities. Thus, they require a variety of social spaces in which varying degrees of this communication may take place. As demonstrated in the Chatsworth Youth Centre, these social spaces become places where ideas and thoughts are discussed, exchanged and lessons of tolerance and communication learnt. This illustrates that architecture is a medium from which fun, interaction with peers, people watching and game playing may spring from. These social spaces were identified as having an essence that were different from a home or school environment, as highlighted through the Durban Beachfront Skatepark and Gateway Theatre of Shopping case studies. These types of spaces allow youth to learn, grow and develop their identities, as they facilitate social interaction through conversing with friends, people watching and recreational activities. These types of interactions are critical to youth self development and identity as this is a time where they move away from the influence of their parents as they try to assert themselves. Thus, architecture has the ability to become the catalyst for social interaction through innovative design by introducing sensory qualities of light, colour and texture. These spaces can develop into interesting environments that engage youth on multiple physical and psychological levels which entice them to want to socialise and interact with one another.

Overall, it was found through the literature in conjunction with the precedent and case studies, that the following principles must be considered when establishing the role of identity in the creation of architectural spaces conducive to positive youth development:

- Access to a variety of activities from arts and culture to sporting and recreational.
Environments that employ a degree of supervision from adults.
Organic design, developing architecture in a manner that is responsive to the needs of the users with allowance of spatial flexibility.
Responding to its social and environmental context in creating architecture that is meaningful and reflective of its users.
Varying degrees of social spaces that range from large group meetings to smaller break away groups.
Incorporation of sensory qualities of light, colour and texture into social spaces.

5.3 ECOLOGICAL SYSTEMS THEORY
Bronfenbrenner’s (1979) Ecological Systems Theory was used for the understanding of how various environments have youth development and the role architecture may play in creating conducive environments for healthy positive developments. Through his theory, it was underlined that youth should not be examined as a single entity, but to rather to consider the quality of their home, school, recreation, social and cultural environments as all working together to influence their development. Through the literature review, environments on a holistic level ranging from the larger, macrosystem to the smaller, microsystem were examined. These various environments have an indirect or direct influence on youth. The research first examined this indirect influence through an example of a macrosystem, community involvement.

5.3.1 Macrosystem explored through Community Involvement
As the youth begin their journey of self identity, support from a community is critical to their positive development. To enhance youth development, careful consideration must be placed on the environmental factors that influence youth at this easily impressionable stage as they are trying to find themselves. As put forth by Erikson (1950) through his theory of identity, youth question their role in society and this directed the research to further explore the society youth develops in their community. The research further examined how this involvement could serve to positively enhance youth development.

The need for strong community support within the period of youth is one which is found to be a recurring theme within the research. Suggesting that, such integrated approaches between the community and youth should be encouraged when and where possible. Such
approaches of community involvement are found to play an important role in creating safe environments which are nurturing, safe an aid to the positive development of youth as acknowledged by Newman (1972). Together with Newman, Jacobs (1961) encouraged communities and its streets to be places where life unfolds, with vibrancy and activity.

The research suggests that spaces around buildings where drug use, bullying and other crimes could be discouraged by natural surveillance provided by the community. Creating communities that were healthy and set positive examples of what behaviour was right and wrong to youth in the area. It was found with the Ubuntu Centre, that there was a critical need for community involvement towards ensuring environments that are safe, healthy and employ a strong sense of belonging where there is a genuine care for the well-being of youth. The Chatsworth Youth Centre and George Campbell High School, however, demonstrated issues of crime from external influences on the campus due to the lack of natural surveillance offered by a community presence. Thus highlighting the need for a community to help monitor safe environments. The research showed that if environments are safe, then they will be utilised more. Architecture has a role in finding ways that encourage community members and neighbours to work as a collective against the issues of crime that make environments unsafe for youth. The research findings demonstrated that through innovative building, layouts that encourage natural surveillance spaces for youth to play and be free, can be created without fear of safety concerns (Coleman, 1985:10). Allowance for natural surveillance enables youth to explore and establish an identity for themselves but in an environment that is still safe. As this is critical to their development of self discovery and identity, it reassures parents that their youth are in safe environments.

As the research findings demonstrated, a safe community is a place of great diversity and this opens the opportunity of learning immensely. It was found with the Ubuntu Centre that a strong community becomes a place of great wisdom and knowledge that youth can have invaluable access too. Due to economical issues and availability of time, Pillay (2013: Appendix “A”) stresses that the lack of parents as positive roles has accredited to their poor development. Therefore, as demonstrated with the Ubuntu Centre, the community has a vital role to play in helping to educate and nature youth. Youth have a lot to learn, in particular from the elders in the community as illustrated through the research. This emphasised that youth need a positive environment to talk to their elders, especially adults that are not their parents. A forum that allows for this interaction provides youth with a healthy environment to
voice their concerns and any issues or pressures they are facing. As Pillay mentions, not all parents are able to provide their youth with professional counseling. Therefore, a community with a vested interest in the well-being of its youth can offer guidance and support in such matters. Youth not having someone to talk to in these situations could lead to worse situations, such as youth suicides. The case studies highlighted the need for community involvement in making these youth orientated environments successful, whether this was through financial assistance or providing voluntary services. This was investigated through the Ubuntu Centre which demonstrated a clear response to how architecture could be used as a tool to encourage community involvement to education and social upliftment. The Phoenix High School – Post Sixteen, suggested that community based activities that are integrated into youth development programs will assist in helping the community to establish a sense of belonging and ownership to the school. Thus, emphasising there is a need for architecture to make allowances for these learning activities to occur. The success of any of these learning centres however is marked by active community involvement. Through the research findings, Pillay emphasized the importance of having well-balanced, healthy youth in society depends on a community that is healthy, vibrant and eager to learn and teach one another.

5.3.2 Microsystem explored through Learning Environments

After examining how positive youth development could be enhanced through the macrosystem of community involvement, the research was directed to analyse the microsystem as identified by Bronfenbrenner (1979). This system has direct influence on youth development and was identified as their learning environment. The research conducted set out to understand how learning environments could better interact, engage and stimulate youth through activity, sensory perception and the inclusion of nature.

A key factor in making a sustainable difference towards positive youth development was found to be education. It is however, important to note that it is a holistic approach to education which is promoted over a purely academic one. As Pillay (2013: Appendix “A”) stresses, youth need to be taught more than purely academia but should also be schooled on love, emotion, relationships, how to show gratitude and compassion. Expose youth to love and attention, and they will grow with love and attention. The research suggested an integrated learning approach should be adopted that develops good human beings and that does not simply certificate youth, but educates them holistically. It was found that learning does not only occur in a classroom. There are valuable life and developmental skills to be
learnt through sporting activities, art and culture, outdoor learning activities and interactive experiences, argues Pillay. Within environments where learning occurred, evidence from case studies and precedent studies suggested that these are best done in environments which are interactive and engaged youth by getting them excited and eager to participate. These alternative learning methods have a greater chance of engaging with youth as they are viewed as recreational activities and not mundane teaching sessions as clearly demonstrated in the Chatsworth Youth Centre and George Campbell High School. George Campbell’s approach to educating through skill based development showcased how youth could learn invaluable practical experience in problem solving, team work and application through a built environment that was conducive to this approach to learning. The learning environments, investigated through the case studies, allowed for a comparison between the traditional methods of teaching and learning through activity. It was demonstrated that youth found more enjoyment and learning by investigation and activity as they found this more stimulating and interactive. As highlighted by Scott (2010), through the literature review, learning is a natural process which does not occur by hearing words but by experience and engaging with an environment. When learning activities become fun and enjoyable, youth are able to absorb information and understand things in a more productive and capable manner (Scott, 2010). Learning through activity becomes a vital tool to educating youth not just in academia but also critical life lessons of tolerance through team work and sports as well as respect, responsibility and compassion.

The sensory experience, within these learning environments demonstrated through the precedent and case studies, then start to play a fundamental role to how youth perceive the environment which has the ability to physically and psychologically affect youth. The use of colour was highlighted in the research through the literature of Cotes (1997) and his works with Rudolf Steiner and Architectural Colourist, Fritz Fuchs. The literature review examined how by understanding colour as a force and not just an aesthetic tool, it had the ability to evoke different feels and responses. By understanding the power of colour, these could then be used in the correct environments to positively enhance the utilisation of these spaces making them optimum to conducive to learning. The use of colour therapy was also highlighted as a tool to breaking away from an intuitional feel. It was found through the Youth Factory and Chatsworth Youth Centre to have a critical psychological effect on youth in how they utilised and expressed themselves. Through the Phoenix High School – Post Sixteen and the Youth Factory the use of colour was evident in creating environments that
were fun, vibrant and reflective of the youth. This instilled feelings of ownership and belonging, as youth wanted to visit these learning platforms. The use of colour aided in moving away from the institutional feel of most learning facilities and had the ability to change the mindset of the youth in their approach to learning. The use of colour and the incorporation of natural elements within learning environments created spaces that were fun, lively that physically and psychologically benefited youth. The case and precedent studies demonstrated an understanding that designing with awareness could physically and psychologically affect the well-being of youth.

As well as exploring the influence of colour in a learning environment, the inclusion of natural elements was also investigated in creating learning environments that stimulated youth and allowed them to experience learning through a multitude of senses. Besides the health and physical benefits highlighted with access to fresh air, planting and sunlight, Leedam (2012) noted an improvement in learning rates, reduced stress levels and an increase in productivity in learners. Unfortunately the use of the nature as learning and teaching methods was not evident in the majority of the case studies. The case studies that did incorporate outdoor environments did so through sporting and recreational activities. These environments also did fully utilise sustainable design measures therefore learning environments not the most conducive to learning, were noted. Since outdoor environments play such a pivotal role in youth development, the research suggested that it is important to translate these ambient environments into the built form. Environments that encourage learning which are rich in movement, texture and ambience can be just as effective as outdoor spaces (Scott: 2010, 21).
CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

The research set out to examine how positive youth development could be enhanced through the built environment and to test the hypothesis which states that the physical and psychological well-being of youth can be enhanced through successful building design. Through which encourages users to experience and engage with their environment by designing with an awareness of the needs of youth. Suggesting that, the enhancement of the built form conducive to positive youth development becomes a catalyst for architectural and urban design that interacts, relates and engages with its users. Thus, spaces that are attractive, meaningful, promote connectivity and sensitivity are created, which results in environments that are well utilised, safe and enhance the quality of life of youth.

First it was established that youth years of an individual are the most critical in a person’s development. Their body goes through physical changes and there is a strong desire to establish who they are in the world and achieve a sense of belonging. There are added responsibilities that they receive both socially and within their family structure. These added pressures and internal changes of their physical body and emotional mind can easily lead to feelings of confusion, lack of self worth and other negative emotions. In understanding this, the built environment must establish spaces which attend to the needs of youth both physically and psychologically.

It is found that to provide for youth’s need to assert and establish themselves, there needs to be a sense of identity and self expression establish to allow youth to define who they are and what their role in society is. Architectural responses which create platforms for this expression to occur are found to have a greater success rate with troubled youth. Through this response the built environment takes into consideration youth needs and activities and adapts to create spaces that are meaningful to youth. It is by considering the needs and how youth wish to express themselves that architecture that appeals to youth can begin to manifest.

It is in creating platforms for this self expression to occur that it is found that social interaction between youth with similar interests is generated. Hence, youth start to develop a sense of belonging to their peer group as socialising develops. Architectural responses to these different types of social activities began to create spaces that appealed to the manner in which the youth interacted with each other from large groups, to more intimate groups and...
finally chance meetings. It is in considering these types of social interactions that allow a sense of freedom, comfort and belonging to occur that appeals to youth’s experience of these space making them attractive and life enhancing.

In considering the needs of youth towards positive development, support from a community was defined as being for the betterment of youth. Community involvement created architectural environments that were safe, diverse, nurturing and healthy through clever building layout, natural surveillance and the opportunity to learn from one another. The built environment then lends its self to a community that has a strong sense of ownership, pride and most importantly a strong invested interest to the well-being of youth in the area.

Understanding the way that youth interact with each other and their great desire for fun and expelling their energy, learning environments that captured this essence were found to engage and interact with youth more. The quality of these learning spaces becomes exciting, dynamic, interactive and stimulating but not overly so. Drawing inspiration from natural environments, and the perception and sensory qualities of colour, architectural learning environments are created with spaces that appeal to the body, mind and soul. Holistically educating youth is critical to their development as it allows them maximum exposure to different forms of learning environments for them to determine who they are. Providing them with these positive platforms to express themselves and their beliefs will only serve to enhance their quality of life and having the support of a community provides them with valuable insight and knowledge and creates a society that is rich and vibrant.

As the world becomes more technologically advanced and the emotional connection between people become lost, architecture has a significant role to play in establishing platforms for where these connections can develop. Youth are at the forefront of the technological evolution and the manner in which they interact, socialise, learn and most importantly develop is most critical in defining the adults they will become. This unveils that the built form has a significant role to play in providing a platform for positive youth development.
Following from the research findings the following criteria are critical when selecting a site,

- In an area where there is a strong youth presence.
- Based within a residential and commercial community environment to establish that the buildings belong to a community. This helps with maintenance of the building as the community takes ownership of the building security of the building as there is constant surveillance on the centre.
- Access to green areas for outdoor sporting and recreational spaces.
- A site that can accommodate a variety of indoor and outdoor activities to attract and to appeal to a wide variety of youth.
- Easy access to the centre, within walking distance or a quick bicycle ride, to enable youth to freely visit the centre as they please without being reliant on transport money or the availability of their parents.

It is found that greater awareness and education is needed in understanding the behavior of the youth to establish a society that is tolerant, respectful and healthy. Limited and restrictive means to how youth expressive themselves, learn and develop leads to a youth population that is confused, conflicted and unable to take on the challenges of adulthood. It is therefore recommended that facilities which promote healthy self expression and learning opportunities, which stimulate the minds and bodies of youth, are encouraged. Such places can inspire the youth and their community to do better and be better. It is time that designers realise that youth are the future leaders of a country and their well-being and healthy development is of utmost important to us all.
APPENDIX “A”

An informal interview was conducted with Sam Pillay (2013) of the Anti-Drug Forum as he plays an active role in advocating for positive youth development. A former educator who saw the need to empower and educate youth on the crippling affects of substance abuse, Pillay initiated the Anti-Drug Forum in Chatsworth, South Africa in 2005. Through this program Pillay conducts workshops, facilitates family and youth interventions whilst also conducting substance abuse awareness programs. Pillay, who also sits on the board of directors of the Chatsworth Youth Centre, introduced the SMART Club program in primary and high school programs to educate and help youth with issues such as acts of violence, bullying, aggressive behaviour and lack of focus. This program facilitates Pillay’s main drive of instilling youth with leadership, empowerment, responsibility and strong moral and value systems. Pillay believes it is critical to change the mindsets of learners through leadership and awareness campaigns and aims to empower them so that they actually change the way they think.

Kindly note that the questions below are not verbatim.

Framework of Questions Regarding Youth Development

1.0 What is positive youth development?
2.0 What issues are youth of today faced with?
3.0 What do you think attributes to this lack of focus in youth?
4.0 What sustainable changes do you suggest should be made to rectify these issues?
5.0 How important is the role of a guidance counsellor in schools?
6.0 How do provide a positive outlet and make a difference to youth that are already exposed and living in these negative situations?
7.0 Is it important to have community involvement in youth development?
8.0 This is an important time in youth where they are seeking an identity for themselves which may lead to social ills such as experimentation with drugs or gangsterism. Why do you think there is a need for them to seek for an identity?
9.0 You state they have a need to be part of a group. Where do you think this comes from?
10.0 Do you think this could also be attributed to a lack of connections with their communities and or families in society today?
10.0 How important is it youth to spend their time outdoors?
11.0 What is your view of shopping malls as a place where youth spend their free time?
12.0 How can we make youth centre an important element in a community and does it need to be?

Framework of Questions regarding the Chatsworth Youth Centre
1.0 How has the centre positively influenced the development of youth in the area?
2.0 How is youth participation in these activities?
3.0 Do you think a centre like this can pick up the shortfall that you mentioned in education system, teaching youth skills development, empowering youth and making them better equipped for the working world?
4.0 What can you comment about the physical architecture of the building?
5.0 The gardens around the centre aren’t maintained, why is this?
6.0 Do you think that location of the building is ideal?
7.0 Has that worked to a disadvantaged or advantage?
APPENDIX “B”

PART A: Name of the Youth Centre
Please enter the name of the Youth Centre and the city/area of where the Youth Centre is situated.

Name of Youth Centre: ________________________________
City/ Area Name: ________________________________
Date: ________________________________

PART B: About your use of the Youth Centre

1) How often do you visit the youth centre?  
   (please choose only one option)
   - Daily
   - 2 or 3 times a week
   - Once a month
   - Once a year
   - Other (please specify) ________________________________

2) Why do you visit the youth centre?  
   (please choose only one option)
   - Recreational
   - Educational
   - Other (please specify) ________________________________

3) How do you travel to the youth centre?  
   (please choose only one option)
   - Private vehicle
   - Mini bus taxi
   - Metered taxi
   - Bus
   - On foot
   - Bicycle
   - Other (please specify) ________________________________

4) Approximately how long does your normal journey take?  
   (please choose only one option)
   - less than 5 minutes
   - 5 - 10 minutes
   - 10 - 15 minutes
   - 15 - 20 minutes
   - 20 - 30 minutes
   - more than 30 minutes

5) When you visit the youth centre where are you arriving from?  
   (please choose only one option)
   - Home
   - Work
   - School
   - Shops
   - College / University
   - Other (please specify) ________________________________

6a) Do you visit the youth centre alone or with a group?  
   (please choose only one option)
   - Alone
   - In a group
   - Both

6b) When you visit as part of a group, who normally accompanies you?  
   (please choose only one option)
   - Partner
   - Friend
   - School group
   - Team / Club
   - Other family
   - Other (please specify) ________________________________
APPENDIX “B”

7) What do you do when you visit the youth centre? (please choose up to 5 options)
   Sporting activities □ Attend events □
   Arts and crafts □ Organised educational visit □
   Reading and learning □ Other □
   Meet friends □
   Other (please specify) 1 ____________________________
   Other (please specify) 2 ____________________________
   Other (please specify) 3 ____________________________

PART C: About the youth centre

1a) How would you rate the design and appearance of the youth centre? (please choose only one option)
   Excellent □ Good □ Fair □ Poor □ Very Poor □ No opinion □ Do not know □

1b) If you would like to include a comment, please do so in the space provided.
   ____________________________________________
   ____________________________________________

2a) How would you rate the cleanliness and maintenance of the youth centre? (please choose only one option)
   Excellent □ Good □ Fair □ Poor □ Very Poor □ No opinion □ Do not know □

2b) If you would like to include a comment, please do so in the space provided.
   ____________________________________________
   ____________________________________________

3a) Do you feel safe within the youth centre? (please choose only one option)
   Yes □ No □ Sometimes □ No opinion □

3b) If you would like to include a comment, please do so in the space provided.
   ____________________________________________
   ____________________________________________

4a) Do you feel the youth centre encourages interaction and enhances your well-being? (please choose only one option)
   Yes □ No □ Do not know □ No opinion □

4b) If you would like to include a comment, please do so in the space provided.
   ____________________________________________
APPENDIX “B”

5) Which indoor space appeals to you the most in the youth centre and why?

________________________________________________________________________

6) Which outdoor space appeals to you the most in the youth centre and why?

________________________________________________________________________

7) a) What is your overall impression of the youth centre? (please choose only one option)
   Excellent □  Good □  Fair □  Poor □  Very Poor □  No opinion □  Do not know □

7) b) If you would like to include a comment, please do so in the space provided.

________________________________________________________________________

8) a) Can you think of anything that would encourage you to use the youth centre more often? (please choose only one option)
   Yes □  No □  Do not know □  No opinion □

8) b) If you answered “yes”, please specify.

________________________________________________________________________

PART D: About you

1) What is your age?

________________________________________________________________________

2) Are you male or female? (please choose only one option)
   Male □  Female □

3) Do you have a disability that affects the way you perceive or use the space? (please choose only one option)
   Yes □  No □  No comment □

THE END
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