Wild Urban Design: Sustainable Landscape for Street Children

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1. Introduction

Calling the research Wild Urban Design was inspired by the street children's wild nature and their way of living in inadequate, inappropriate and risky environment. The experience of childhood is increasingly urban; over half the world's people, including more than a billion children, now live in cities and towns. *The State of the World's Children 2012* shows with clarity and urgency, millions of children in cities and towns all over the world are also at risk of being left behind and it is assumed that, by 2050, 70% of all people will live in urban areas.

Now days, 1 in 3 urban dwellers live in slum conditions; but in Africa, it's 6 in 10. (UNICEF, 2012: iv-v) The phenomena "Children at risk" was spread in the last ten years in Egypt, due to several local factors from rapid increase of informal settlements and urban poverty rate. Believing that street children are considered in this risk and warrant the same rights as other children, a childhood free from hunger and fear, in 2003 "The National Strategy for the Protection and Rehabilitation of Street Children in Egypt", launched by Egypt's then first lady, and guided by the NCCM" to support street children, who are the most marginalized and neglected groups in some societies. The NCCM's strategy was to remove these children from streets and educate them to reintegrate with community. (The National Council of Childhood and Motherhood, 2012)

Some associations have tried collecting street children in caring centers as a protection aid and a new project was triggered four years ago in 2008 financed by *Sawiris foundation for social development.* One of their social foundations "*I the Egyptian*" has performed a unique project as the first daytime reception center for street children in Egypt. 'I the Egyptian Children at risk program' at the 6th of October Institute, which is planned on part of the *24 acres* of plot of desert land assigned by the Egyptian government' in "*Haram City*", in the 6th of October City. (I the Egyptian, 2008)

The new residential compound which consists of fifty-five thousand residential units comprehensive facilities and services that have been analgesia at least five thousand families in the city of the victims of *Duwaiqa Ki*^{vi} as shown in **Photo 1** becomes a large part of the project to area shelters.



Photo 1: Duwaiqa ki tragedy in 2006. Source :(https://saulovalley.wordpress.com/category/tragedia/page/3/)

This project will be transported in many of the citizens of the slums to the project implementation of the planned evacuation of slums in the center of the country. (Wikipedia, 8th February 2012) The 6th of October area is considered mainly desert, it contains the left



bank of the Nile Valley to both the north and south of Giza, and the important oasis town of *Bahariya* as shown in **Map 1.**



Map 1: Locator map of the former 6th of October City in Egypt. (Google, 2012)

The institute required this piece of huge land for further extensions which is why this part of Egypt was chosen as green field land for its provision as accommodation for children, homeless young mothers and youth who don't wish to remain on the streets. In 2011 the average amount of children in the Institute was 60; some are shown in **Photo 2.**



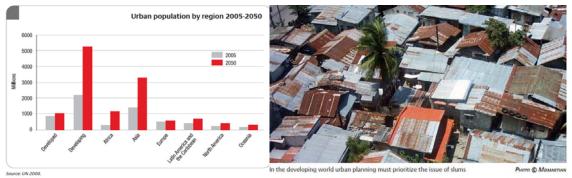
Photo 2: A group of street children in an interview with the author in their accommodation at 6th of October institute. (Source: The author, July 2009)



2. Planning and Housing in the Rapidly Urbanizing World

"The major urban challenges of the 21st century include the rapid growth of many cities and the decline of others, the expansion of the informal sector, and the role of cities in causing or mitigating climate change. Evidence from around the world suggests that contemporary urban planning has largely failed to address these challenges." – Ban Ki-Moon, Secretary-General of the United Nations.

Less than half of the world's cities have urban environment plans. In the developing world, as Africa and Asia their population are rapidly rising as shown in **Graph 1**, their urban planning must interrelated some issues in their priority such as; rapid urbanization, informality, urban poverty, slums and basic services as shown in **Photo 3**.



Graph 1: Urban Population by region 2005-2050

Photo 3: Slums in developing countries. (Naison & Mutizwa, 2009: 19)

The world is coming to a situation in which the urban population dominates numerically and governments should provide solutions for better quality of life. (Naison & Mutizwa, 2009) New agendas for urbanization should be discussed and applied to cope with rapid urbanized movements. On the becoming years, our work in urban planning field will be enriching the trials of sustainable urbanization.

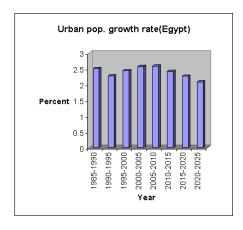
2.1 Green and Brown Agendas

The latest issue of UN-HABITAT's Global Report on Human Settlements 2009 says that the *Green and Brown Agendas* pose a 'significant dilemma' for urban planners. The Green Agenda refers to the natural environment on which cities have such a great impact. While Brown Agenda is our human environment and the cities in which the most of us now live. The rapid growth of cities in the past 50 years means that the brown agenda of providing buildings and transport, (Sarr & Yemeru, 2009) overwhelming many cities with wastes and socio-problems such Egyptian growth of Street children phenomena.

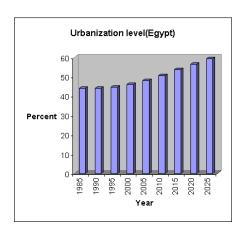
2.2 Rapid Risk Egyptian Urbanization

In developing countries one out of four households live in urban poverty; 40% in African cities. (Sarr & Yemeru, 2009) Egyptians have a very sentimental character. People have very different attitudes and ideas responding to a variety of physical environments, it varies from place to place due to differences in the interplay of social, cultural, economic, physical and ritual factors. (Rapoport, 1969: 46) Egyptian urban population growth rate rose the last 10 years as shown in **Graph 2**, which lead to rapid rise of the urbanization level and further rise in levels by year 2025 as shown in **Graph 3**. (UN_ HABITAT, 2010)





Graph 2: Egyptian Urban population growth rate. Source: (UN_ HABITAT, 2010)



Graph 3: Egyptian Urbanization level. Source: (UN_ HABITAT, 2010)

3. Children at Risk

Children at risk are children that are exposed to violence, abuse or neglect. They also could be dealing with unhealthy or immoral influences like drugs and criminal activities. Most of them are forced to work by their parents, mainly fathers. (The National Council of Childhood and Motherhood, 2012) *Street children* are of these risked children, as they are deprived of their right of education, health care and having normal life with parents. They could be begging, drug dealing or abused leading to arousal of an abnormal child or a WILD CHILD as shown in **Photo 4**. These children are the result if several social and economical decade of nations. Rapidly urbanization of cities could involve socio-problems that lead to such phenomena of street children, which its causes and influences will be discussed further points.



Photo 4: Egyptian Street Children.

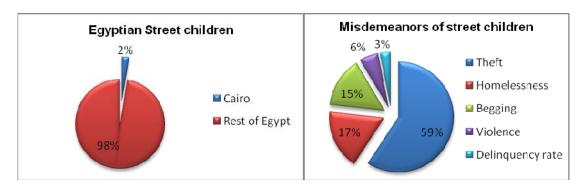
Children born in cities count for 60% of the increase in urban population. "When we think of poverty, the image that traditionally comes to mind is that of a child in a rural village," said UNICEF Executive Director Anthony Lake. "But today, an increasing number of children living in slums and shantytowns are among the most disadvantaged and vulnerable in the world, deprived of the most basic services and denied the right to thrive. Excluding these children in slums not only robs them of the chance to reach their full potential; it robs their



societies of the economic benefits of having a well-educated, healthy urban population." (UNICEF, 28th February 2012)

3.1 Egyptian Wild Child

Cairo is considered the street child capital of the governorates. As most of them were living in extreme urban poverty in their governorate and escaped from their parents to Cairo. (El Barmany, 2011) The phenomena of internal migration from the rural area to cities, which increased the last few years in Egyptian society lead to children escape from poverty or evade an education. In case of marriage of divorced parents, or both, reject the new partner of the child in most cases, then the street is the logical alternative for a child. (Arab Civil Society Forum for Children, 2006) The number of street children in Egypt is two million children, in Cairo alone 50,000 street children as shown in **Pie 1**. (Fisk, 2012) Also their misdemeanors rate have increase according to statistics mainly in theft with 56%, and exposure to homelessness by 16.5%, and begging by 13.9%, and violence by 5.2%, and the delinquency rate of 2.9% as shown in **Pie 2**. (Ahmed, 2011)



Pie 1: Percentage of Egyptian Street children

Pie 2: Misdemeanors of street children.

3.2 Time Bomb in a Slum

Egypt is now divided into 27 governorates; 20 of them include slums and informal settlements. Slums made an explosive belt around Cairo, Slums have reached 916 regions in year 2000 and 1228, in year 2003, 1000 regions of them in Cairo alone (Sarhan, 2008) see **Photo 5**, with about 50% of the city population (17-19 million people) according to statistics of 2004-2005 as shown in **Pie 3**. (Ahmed, 2011)

It has been observed that these areas are an important tool for breeding *crime and terrorism* as they contain some incidents like "child labor, and the spread of drugs, lack of health awareness and cultural heritage." They had to work in early age in any work and trying to earn their money with any way. (Refaey & Murtada & Abd El-Azeem, 2001) UNICEF, after much deliberation, defined child labor as one that involves work that exerts undue physical, social, or psychological stress and life on the streets in bad conditions. (Gay, 1998)





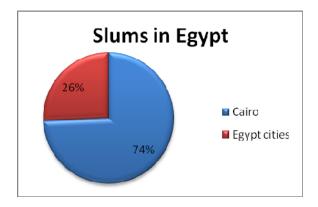


Photo 5: Slums in Cairo.

Pie 3: Slums in Egypt. Source: (The researcher)

From **Pie 1** and **Pie 3**, there is an extreme direct relationship between the rapid informal settlements and slum urbanization and the time bomb of street children phenomena. And from **Pie 2** shows a range of misbehavior in street children starting from Steeling to Delinguency rate.

3.3 Who is the WILD?

Interviews were taken with the children in 6th of October institute, they were conducted a wild child; as Street children have three main characteristics as shown in **Photo 6**;

- 3.3.1 Riot, Hooliganism and aggressive tendencies, as a result of psychological distress, which affects the child by the loss of love and dignified treatment.
- 3.3.2 Lying and deception and the ability to acting, for they are all behaviors as means of defense against any danger he faces.
- 3.3.3 Lack of focus and dementia: hence the low level of culture and education.

3.4 Wild Demands

Giving attention to the phenomenon of the exploitation of street children in the political events and acts of violence that emerged after the revolution of 25th of January 2011. This attention became a demand for community to treat these children as victims, not criminals. (El Ahram, April 2012) Absence of social justice and spread of the oppression and poverty spirit, slums Communities and children turn into a center of a crime against the community, crying for their human rights and needs; (Maklad, 13th January 2012) Under Egyptian law, street children can be locked up as "potential delinquents." (Caroll, 2008)

- 3.4.1 Nutrition: One demand was noticed first sight on these children was food. All of the children suffered from malnutrition. When we offered them food they ate as if they never seen it before, and they never seem full, like beasts. They were afraid that if they don't eat fast they won't eat again.
- 3.4.2 Shelter: They are all homeless and desperate not to be, taking rubbish bins and carton as a shelter to protect them from the rain in winter and from the sun in summer. They even call the streets their home. (UNICEF, 29 December 2005)
- 3.4.3 Secure: All of them need security and safety. They need to be secure from all kind of violence and abuse. Mostly 100% of the interviewed children are sexually abused and beaten by heartless people or parents.
- 3.4.4 Health Care: The first sight on these children shows a series of skin diseases and unhealthy looking skin, teeth problems, deep scars, eye infections, drug-addictions and so on as also shown in photo 6. Even AIDS and hepatitis C are spread among



these children. Egypt has become the latest country to join UNICEF's global UNITE FOR CHILDREN AGAINST AIDS campaign, for every minute around the world a child dies by HIV/AIDS, everyday; there are nearly 2,000 new infections among children under 15. Preventing new HIV and hepatitis C infections among street children was a particular focus of Egypt's five-year campaign. (Ingram, Simon, 2006)



Photo 6: The author interviewing the street children in 6th of October institute.



- 3.4.5 Education: Mostly 90% of the interviewed children are ignorant, the rest escaped from early years of education. One of the interviewed children 13 years old, told me: "When I see other children on their way to school, I wish I could be like them. Here on the streets, I have no future". He wanted to return back home but he's afraid of his father.
- 3.4.6 Psychological treatment: No doubt a lot of psychological conflicts are established and lived in these poor children's souls; all the interviewed children were talking about their hatred and envy of society. Some hate their parents giving them the responsibility by ignoring them or forcing them to work at an early age and go out in the streets.
- 3.4.7 Raising: All the interviewed need to learn manners of treating and dealing with people, I noticed they all have bad manners in talking, dealing, eating, dressing and life style overall. If we leave these children without any attention, how many risks will they face in the absence of a family care appropriate to them?

4. Dynamic Urban Landscape Project

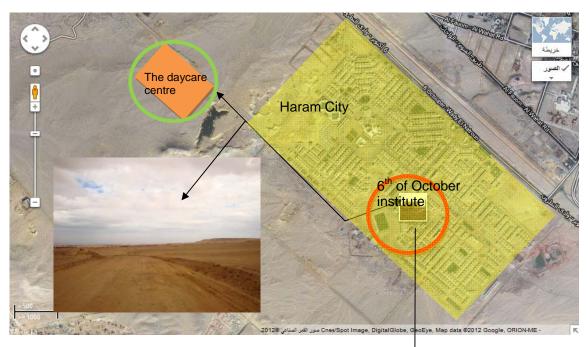
In 1986 UNCHS published the first *Global Report on Human Settlements*, which characterized cities as places of opportunity and 'engines of growth'. (UNCHS 1996), The HABITAT Agenda ^{vii} concentrated on *Sustainable Development* and *Urban Poverty* ^{viii}, diagnosing the problems arising in urban areas due to rapid urbanization. (Jenkins, Paul & Smith, Harry and Wang, Ya Ping, 2007: 181)

These previous inspirations and recommendations triggered me as an urban designer and a landscaper, to exaggerate in my landscape design for street children re-habitation and day care project. Dealing with such person and characters has to be very cautious and suspicious; it was my first time to design for a tiny criminal!

The Project is considered new in Egypt, for it is only an area for Wild day care, as a part of a bigger project of re-habitation centre in "I the Egyptian institute" of 6th of October for street children as shown in Map 2. The idea came from the street children themselves. They come from the street with a lot of psychological and medical problems, when they communicate with the rest of the children in the accommodation part in the institute see Figure 1, retreat the others back. They can let the others return to start point. In this point the foundation thought of this idea of a daycare only to take the children step by step from the street, train them to eat and communicate and medicate them from t infection diseases that can harm the others. 3 Acers are in "Haram city" owned by the I Egyptian foundation too to be related to the institute, for a rapid urbanization it was chosen to be far away from the houses expansions and the institute itself. First; the team of the organization goes to the city and get to know the kids, they invite them to spend the day with them in the daycare centre and to return them back home (the streets) at night. Suppose they stay for weeks or months each one has his own case, till they get used to the place and the team, after they ask themselves to stay in the accommodation with the rest of the children, after being prepared and treated.

I was put in a challenge as an urban designer and a landscaper. The 3 Acres were designed with landscape elements in the middle of the desert and had to be attractive enough for wild savage children and at the same time sustainable for future expansions, thinking in this rapid urbanization development after 5 years this place can be changed or be an appropriate day care centre. The challenge is how to design a piece of a desert to be a light oasis?





Map 2: The position of the new day care centre in relation to the Institute. Source:(Google earth) 25/6/2012



(Figure 1): 6th of October Institute for street children of I the Egyptian Foundation. Source :(I the Egyptian Institute 2009)

5.1Restoration of Damaged Relationship between Street Children and Nature

Thinking started by a program for the site, which fulfills all the Street children's needs explained before and restore the damage relationship between them and the nature that they used not to feel its beauty; the program was design to assign Urban Morphology^{ix} and social cohesion^x for the environment in the new site.

The program as shown in Figure 2; (The researcher)

- Food shelter with a kitchen.
- Open wood structure for learning purposes.
- Amphitheatre.
- Multi-purpose sports court.



- Football court.
- Light structure shelters for medical centre, classes and temporary accommodation.
- Swimming pool (it was canceled after for its dangerous to kids specially they all don't know to swim)
- Open area for outdoor activates (table tennis, speed ball and so on)
- Kids' area as a play ground.
- Parking area for 10 cars.

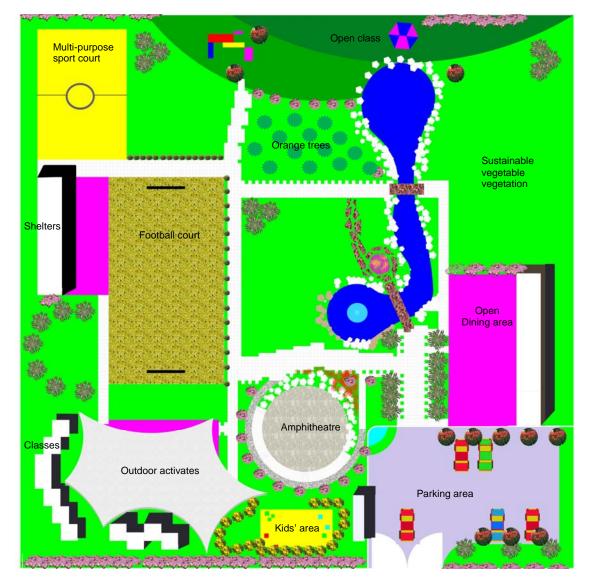


Figure 2: Sustainable layout drawn and designed by the author for the daycare centre of street children. (The researcher)

5.2. Sustainable Urban Design and Landscape Project

Sustainability is a complex phenomenon that represents the simultaneous presence of several aspects as shown in **Figure 3**. Sustainable urban development increases the quality of life and reduces health risks. Climate change has to be taken in consideration in sustainable urban design but we have to put in account not only environmental and social advantages but economic development as well. (Regolini & Junyent, 2009:2-3)



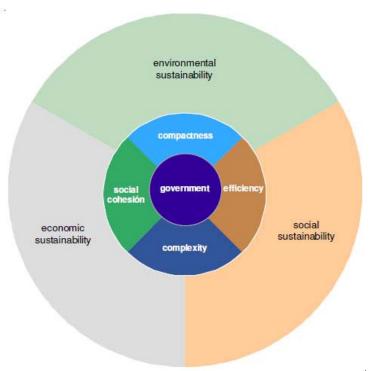


Figure 3: Aspects that represent Urban Sustainability. (Spanish Government, 2006)

- 5.2.1 Sustainable Garden Umbrella; the project's scale has varied between urban scale and garden one. The main strategy of design that controlled my thoughts was creating natural system balance. For creating regenerative landscape site, we have to balance the inputs and the outputs of the site. (Christopher, 2011)The inputs in our project are the resources from water and fertilizer if needed for being an investment in the project, while output here are vegetable, fruits (oranges) and flowers, also byproducts like garden waste are put in consideration. Socially will be the re-habitation of the wild street children.
- 5.2.2 Semi-permanent' dwellings are used by sedentary societies relying on simple forms of cultivation. (Jenkins & Smith & Wang, 2007) First the shelters were designed to be built in red bricks and a big tent will cover the open activity only a drawn in Figure 2, on sustainable level of thoughts, it was exchanged by light white color tents for its cooling effect, as white reflects lights and reduce the heat, tents that can be taken out in anytime and its is transparent in a way that children could be seen from outside for safety purposes as shown in Photo 7. These children shouldn't be in a closed place together without supervision, so I thought in this way; problems of violence, sexual seductions and abuse can be reduced as shown in Figure 4. Also tents were made of a German anti-fire cloth for safety. Tents were given as a donation from "Daghash," one of the biggest tent companies in Egypt and were recycled to fit our new sizes. Light wooden structure were used as open classes and set on a huge hill to be seen from anywhere in the site as shown in Photo 8.

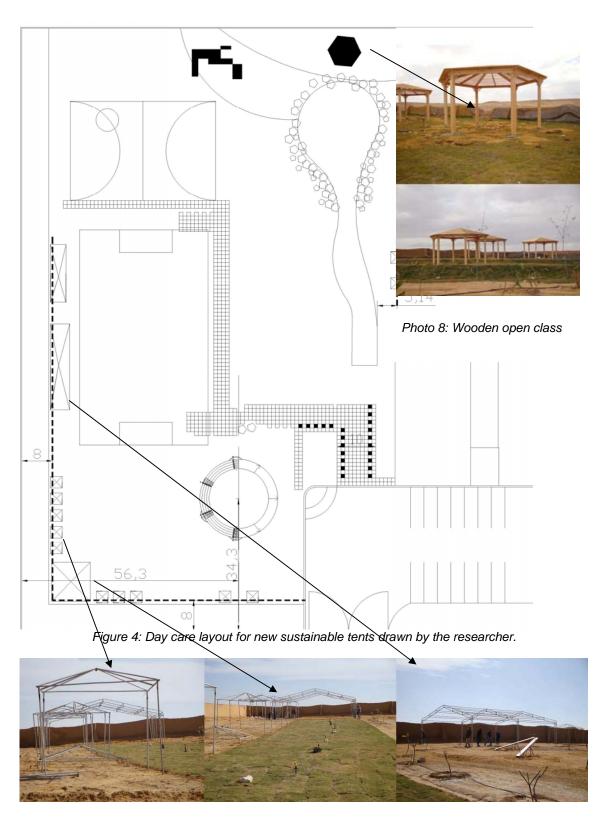


Photo 7: Light movable tents. (Photographed by the researcher 2009)



5.2.3 *Urban Sustainable landscaping* design for this site was to suit local environmental conditions of the Egyptian desert's very hot weather in the summer and very cold in winter. Select plants with low supplementary water requirements. Select non-invasive plants, non-toxic and reusable local materials; drought-tolerant plantings; and the latest technologies in drip, greywater^{xi} (Osaka, 1997) to conserve water. Provide habitat to local native fauna. Avoid use of harmful chemicals. Minimize non-renewable energy consumption. Use sustainably and locally sourced products and materials. Materials and methods used in this particular project all consider water and energy conservation, pollution prevention waste minimization, and biodiversity. It is considered low maintenance landscape. (Green Power, 2005)

5.2.4 Water feature has been built for two sustainable purposes; first for a cooling effect in the desert and second is to conserve water and use it in irrigation of plants s shown in Photo 9. Water is a resource unlike gas or petrol, it has no substitute. An adequate supply of water is irreplaceable. Water is both essential resource in a garden and the most potent tool. (Christopher, 2011) For this we chose irrigation by dripping system to conserve water and provide regular watering of plants and trees as shown in Photo 10. The water in the kitchen and bathroom sinks (Greywater) was used also in watering the trees to reduce the need for fresh water and the amount of wastewater entering sewers or on-site treatment systems. (Sustainable Earth Technologies 2012)

After each installation of any landscape element we used to bring the children as a test trial for the element. Unfortunately one of the children had a fight with another and pushed him in water. Then I remember the difficult challenge I am working in to design not only a sustainable project, but it was for wild child. Then the only way is to protect water from children and protect children from falling in water. I surrounded the whole area with metallic fences and cactuses as shown in **Photo 11**.



Photo 9: Water feature. (Photographed by the researcher)





Photo 10: The dripping system. (Photographed by the researcher)



Photo 11: Inserting metallic fences around the water features. (Photographed by the researcher 2009)

5.2.5 Planting sustainable is choosing economical and environmental plants. First we decided to help these children to learn to work and cultivate their own food;

- Thinking about vegetable in an organic way, children helped in planting tomatoes, cucumber, peppers, beans, potatoes and sweet-potatoes without using any fertilizer or synthetic chemical or fungicides. Allowing the minimized field for more imperfection, whether there are some bugs that eat leaves, a farmer has to be strong from the inside and understands the idea of sustainability.
- "Humans used to love our gardens, they sustain us spiritually and physically, it can be undeniably positive impact on the ecology of our local environment," said by Stephen Orr. (Orr, 2011) Choosing functional and flowery trees was a priority in the design to be attractive to street children. Parking area are spread by spreading trees of Pantheana (Delonix Regic) see Photo 12 which is locally found in Egypt, giving huge shade and red flowers. The amphitheatre was also surrounded by spreading pink flowered tree of (Cassia Nodosa) see Photo 13. A whole area was planted by orange trees see Photo 14 for its functional use and beautiful color.



Photo 12: Pantheana tree.



Photo 13: Cassia Nodosa





Photo 14: Orange trees. (Photographed by the researcher 2009)

• Aesthetic effect is made in the kids' area is surrounded by Indian Jasmine tree for its fantastic smell and calming effect by throwing its flower on the ground giving the chance for the kids to pick it up and smell it for interacting with nature to increase sensory quality of the site see Photo 15.



Photo 15: kids' area surrounded by Indian jasmine trees. (Photographed by the researcher 2009)

 Date Palm trees are used in the entrance on both ways of the corridor, for its sustainable need to water and at the same time gives fruit and fantastic royal media for the entrance and landmark for the site image and visual design, as shown in Photo 16.



Photo 16: Palm trees. (Photographed by the researcher 2009)

5.3.6 Sustainable Hardscape; was interfered in local materials brought from the surroundings to build the amphitheatre from stones and mortar as shown in **Photo 17**. The theatre was a chance to bring artists and singers to the place for kids' entertainment and social cohesion as working with street children involves the community. When testing it with the children, it was noticed that they play with any loose stone; they found and hit each other, so we stabilized all the stones with mortar. They also can be treated by drama and music once they are settled down. Music has been used in medicine for thousands of years; (American Cancer Society, 2008) it is considered an effective anxiolytic treatment, where stress decreases when children exposed to music. (Knight & Rickard, 2001) It also stimulates antibodies which suppresses the efficacy of the *Immune System* and activates the autonomic *Nervous System*. (Selye, 1993) Children were asked to play drama rules to express themselves as Drama is the art of expressions and also dance in groups for Dance therapy, or dance



movement therapy is the psychotherapeutic use of movement and dance for emotional, cognitive, social, behavioral and physical conditions. (Creative Therapy Network, 2009)



Photo 17: Local stones in amphitheatre. (Photographed by the researcher 2009)

5.2.7 Sport courts yards are divided into; football courtyard and multi-purpose court yard, they both were built with sustainable local materials as shown in **Photo 18 & Photo 19**. Wild street children have to be physically trained by playing sports. Children need 60 minutes of exercise each day. Exercise improves their physical, psychological and social well-being, for behavior learned in childhood influences future adult behavior. (Bruen, Judy, May 4th 2011)



(Photo 18): The football court yard. (Photographed by the researcher 2009)



(Photo 19): The multi- sports' court yard. (Photographed by the researcher 2009)

5. Conclusions

5.1 Wild Urban landscape design

If we conclude all urban elements of installation in our project's site, so we can formulate the answer in the following **Equation 1**;

Wild Street kid + Landscape site → WILD URBAN DESIGN

Equation 1: The formula of Wild Urban design (The researcher)



And when designing a garden or a landscape site for street children as explained before, we can call the resulted design WILD URBAN DESIGN a shown in **Equation 2**;

WILD URBAN DESIGN → sustainable vegetation + Light structure + Sport courts + Protective water feature + Sustainable hardscape + **Aesthetic effect**

Equation 2: The formation of Wild Urban Design. (The researcher)

6.2 Further Recommendations

As explained before that this project is specialized for street children that mostly all are suffering from difficulties and physiological problems; then recommendation for further activities to be installed in the site's program to be discussed in this point, that deals with planning for children with problems;

6.2.1 A Farm or a pet centre: a farm area or a pet centre would be helpful in this project. (AAT) Animal Assisted Therapy; is used in numerous health care facilities. Animals have been a part of humans life for ages, thus it can help in re-habitation of the wild street children. The animals that can be installed in a corner of the site are; dogs, cats, rabbits, horses and lizards. They have a calming effect on anybody not just these children as shown in **Photo 20.** (Ellis, 2001) Just stroking a cat or dog regularly may lower the person's blood pressure and help to alleviate depression. Improvements in people's emotional well-being help with behavioral and physiological problems and self-esteem and reduced anxiety or loneliness. (Creative Therapy Network, 2009)



Photo 20: A street Kid patting a dog. (Ellis, 2001)

6.2.2 Open Art Gallery: An open area should be added for the program for artistic work and art crafts. Children using artistic work cope better with stress, work through traumatic experiences, increase cognitive abilities, have better relationships with family and friends, and to just be able to enjoy the life-affirming pleasures of the creative experience. A compatible sustainable project in Vientiane used artistic education to stimulate street children's internal energies as shown in **Photo 21**. (Mit, 2006) Children can produce crafts themselves and sell it in open days to earn money to feel the stability and enjoy earning by work, for a sustainable social interaction between them and the community.





Photo 21: Vietnamese street children (Mit, 2006)

Street Children live a very difficult life, beyond the scope of any logic, religion or social ethics. (El Arabia, 29 May 2012) They want nothing more than to actually be children, with all of the fun, freedom and security that childhood should entail. (Polak, 2010)

Finally: WILD CHILDREN needs "LOVE", it is the Magical Wand to help them. They need to love and they need to be loved in return. When I started this project with them, I was full of fear, and then I began caring about them. My sustainable landscape design was made specially to make them happier and in a better condition, because I truly cared. May God help all these young and poor street children to be good citizens in the whole wide world.

Endnote

ⁱ Children at risk: The amended Child Law lists cases that put the child at risk and prompt action by child protection authorities. These include cases of exposure to violence, abuse; or neglect (such as the failure to provide adequate food and shelter); exposure to unhealthy or immoral influence (such as exposure to criminal activity, including drugs); inadequate supervision and guidance; denial of access to education; being forced to work in violation of the law. Children who are deprived of their right to education or who live on the street or engage in dangerous activities such as begging are also identified as "at-risk," entitled to special protection.

development of urban activities in better conditions and also for the simple act of inhabiting according to better life standards.

- ^x **Social cohesion:** Recover the role of the city as a meeting space where citizens can develop socially and individually. Produce integrating social and cultural structures and develop a sense of belonging and identity in its inhabitants.
- Greywater: Greywater can be defined as any domestic wastewater produced, excluding sewage. Recycled water from; dishwashing, laundry, sink and shower. http://www.sustainable.com.au/greywater-treatment.html 7/2/2012

Reference

Ahmed, Gh., (17/11/2011): Research in "The Geography of Crime in Egypt": Violence, poverty and crime in Egypt: The confusion of society," El Nagah University, Nablus, Palestine.

American Cancer Society, (2008): "Find Support and Treatment," © 2012 American Cancer Society, U.S.A.

http://www.cancer.org/Treatment/TreatmentsandSideEffects/ComplementaryandAlternativeMedicine/MindBodyandSpirit/music-therapy, 7/8/2012

Arab Civil Society Forum for Children, (2006): "National Strategy for protection and rehabilitation and integration of street children", © the Arab Council for Childhood and Development.

Bruen, Judy, (5 /4/ 2011): "What are the Benefits of Sports for Children?," Copyright © 2012 Demand Media, The Lance Armstrong Foundation and LIVESTRONG.COM, U.S.A. http://www.livestrong.com/article/95377-benefits-sports-children/ 7/5/2012.

Caroll, Jill, (31 January 2008): "In Cairo, hordes of street kids, but no longer ignored," The Christian Science Monitor Press, © 2011 The Christian Science Monitor, U.S.A.

Christopher, Thomas, (2011): "The New American Landscape: Leading Voices on the Future of Sustainable Gardening," TIMBER Press, Portland, London, U.K.



[&]quot; NCCM: The National Council of Childhood and Motherhood.

ⁱⁱⁱ Sawiris foundation for social development: It was founded on the belief that development is only sustainable when its beneficiaries are equal partners in the process. We aspire to be a recognized pioneer in the provision of innovative and sustainable development initiatives, promoting increased empowerment of, and participation by, the people of Egypt. http://www.sawirisfoundation.org/sawiris/index.php?option=com_content&view=article&id=47 <emid=56&lang=en, 6/23/2012.

iv I the Egyptian Foundation: is a non-profit, non governmental foundation established in 2008 (Registration number 559/2008), http://www.anaelmasry.org/index.html, 6/23/2012

^v Haram City: it means Pyramid city and is located in 6th of October governorate.

vi **Duwaiqa Ki**: It is a plateau in El Mokatam Hill in Cairo that contained a suburb slum, it fell on its inhabitants in 2006 and 1500 family were on the street.

vii **HABITAT Agenda:** The goals of the Habitat Agenda were adequate shelter for all and sustainable human settlements development in the urbanizing world. The Habitat Agenda indicated that the definition of 'adequate' shelter needs to be undertaken at a local level.

Urban poverty: Urban poverty is a multidimensional phenomenon. The urban poor live with many deprivations.

^{ix} **Urban Morphology:** a new morphology that meet standards of sustainability allowing for the

Creative Therapy Network, (2009): "What is Creative Art Therapy," © Creative Therapy Network 2009.

http://www.creativetherapynetwork.com/learn_more.php 7/8/2012

El-Ahram, (April 2012): "Social Research warns: Street children social disaster," El-Ahram Newspaper, issue of April 2012, A.R.E.

El Arabiya, (29th May 2012): "*Egyptian film provides real street children in incest and sex group*," Nilesat: AB7 ** frequency: 12169 V ** FEC: 3/4 ** Symbol rate: 27500, last reviewed 2 November 2010.

http://www.alarabiya.net/articles/2008/07/01/52399.html 7/8/2012

El Barmany, khedr, (2011): "Street children in Egypt", Khedr Hamam El Barmany, Cairo. 26/12/2011,

http://atfalalshwaria.blogspot.com/2011/12/blog-post.html 29/6/2012

Ellis, Samantha, (12 November 2011): "Talking To Your Child About Getting A Pet", Global Animal Magazine, issue of 12 November 2011, Global Animal Foundation, U.S.A.

Ennew, Judith and Kruger, Jill Swart (2003.): "Introduction: Homes, Places and Spaces in the Construction of Street Children and Street Youth," Children, Youth and Environments Journal, Volume 13, No.1, Spring 2003, © Children, Youth and Environments (2003-2008), University of Colorado, U.S.A.

http://colorado.edu/journals/cye. 7/8/2012

Fisk, Robert, (2012): "Cairo's 50,000 street children were abused by this regime", The INDEPENDENT issue of Saturday 30th June 2012, © independent.co.uk, London

Gay, Kathlyn, (1998): "Child Labor: A Global Crisis," The Millbrook Press, Inc., Brookfield, Connecticut.

Google, (2012): "6th of October governorate", Google Maps - ©2012 Google, June 25th 2012. http://maps.google.com.eg/maps?q=%D9%87%D8%B1%D9%85%20%D8%B3%D9%8A%D8%AA%D9%8A%20%D9%81%D9%8A%20%D9%85%D8%AF%D9%8A%D9%86%D8%A9%20%D8%A7%D9%84%D8%B3%D8%A7%D8%AF%D8%B3%20%D9%85%D9%86%20%D8%A7%D9%83%D8%AA%D9%88%D8%A8%D8%B1&hl=ar&prmd=imvns&biw=1366&bih=665&ie=UTF-8&sa=N&tab=il 25/6/2012

Green power, (2005): "Urban sustainable landscapes," by Green Power, Australia. http://www.sustainablelandscapes.com.au/index.php?page=sustainability, 7/2/2012.

Ingram, Simon (11 December 2006): "Egypt joins the global AIDS campaign in a bid to keep HIV prevalence low," UNICEF & The United Nations, U.S.A.

I the Egyptian, (2008): "6th of October Institute", I the Egyptian programs, June 24th 2012. http://www.anaelmasry.org/6thoctober.html, 24/6/2012.

Jenkins, Paul & Smith, Harry and Wang, Ya Ping (2007): "Planning and Housing in the Rapidly Urbanising World", Routledge, Published in the USA and Canada.

Knight, Wendy E.J.& Rickard, Nikki, (2001): "Relaxing Music Prevent Stress Induced Increases in Subjective Anxiety, Systolic Blood Pressure, And Heart rate in Healthy Males and Females," Journal of Music Therapy, xxxviii (4) 2001, 254-272, © By the American Music Association, Monash University, U.S.A



Naison, D. Mangiza, Mutizwa, (2009): "Urban World: Scaling new Heights, New ideas in

urban planning", Volume 1-issue 4, October 2009, UN-HABITAT for further better future, UN-HABITAT, PRESSGROUP HOLDINGS EUROPE S.A, Valencia, Spain.

Maklad, Sameh, (13th January 2012): "Slums and street children in Egypt", Sameh Farouk Maklad.

Mexico Child Link, (2009): "Street children - What are street children? Definition of a street child Street children statistics in Mexico," 2009 Mexico Child Link © All Rights Reserved. http://www.mexico-child-link.org/street-children-definition-statistics.htm 7/8/2012

Mit, Paul (December 2006): "Building a Sustainable, Street Children Project in Lao PDR," Review of UNICEF Support to Street Children Activities, UNICEF Lao PDR, Department of Social Welfare, Needy Children's Section, Ministry of Labor and Social Welfare, Vientiane, Lao PDR.

National Council of Childhood and Motherhood, (2012): "Children at Risk", NCCM Report © 2003-2012 National Council Of Childhood and Motherhood. http://www.nccm-egypt.org/e5/e1179/index_eng.html, 26/6/2012.

Orr, Stephen, (2011): "Tomorrow's Gardens: Design and Inspiration for a New Age of Sustainable Gardening," Printed by RODALE Inc., New York, U.S.A.

Osaka, Sherri, (1997): "Sustainable Landscape Design," U.S.A. www.sustainable-landscape.com/about.html 7/2/2012

PANGAEA, (2010): "Street Children - Community Children," Last revised 6 January 2010, Worldwide Resource Library. http://pangaea.org/street_children/kids.htm 7/8/2012

Polak, Hanna, (2010): "Life on the streets: millions of children remain homeless, without care and protection," The Convention on The Rights of the Child, UNICEF, U.S.A.

Rapoport, A. (1969): "House Form and Culture", Englewood Cliffs, NJ: Prentice Hall.

Refaey, Tonia & Murtada, Mahmoud M and Abd el-Azeem, Mohamed (2001): "Urban Children and Poverty: Child Labor and Family Dynamics: Case Studies in Old Cairo," The Center for Studies and Programs of Alternative Development, Egypt.

Regolini, Carlos A. & Junyent, Rosa (2009): "Sustainable Urban Design", Conference City Futures '09, 4-6 June 2009, Opening Plenary Session: City Futures in a Globalising World - Perspectives from the World of 'Policy' and Planning for the Sustainable City (Track 1), Madrid.

Sarhan, Hamam (2008): "Slums Egypt "Time bombs" waiting for real solutions!," Swissinfo.ch, 23 September 2008.

http://www.swissinfo.ch/ara/detail/content.html?cid=496722 29/6/2012

Sarr, Olubusiyi and Yemeru, Edlam, (2009): "Urban World: Scaling new Heights, New ideas in urban planning", Volume 1-issue 4, October 2009, UN-HABITAT for further better future, UN-HABITAT, PRESSGROUP HOLDINGS EUROPE S.A, Valencia, Spain.



Selye, H., (1993): "History of Stress Concept," In L. Goldberger & S. Breznitz (eds.), "Handbook of Stress: Theoretical and clinical aspects", 2nd edition, p7-20, Free Press, New York, U.S.A.

Spanish Government, (2006): "Spanish Strategy on Urban Environment", Ministry of Environment, Barcelona, Spain.

Sustainable Earth Technologies (2012): "Grey Water Treatment," Sustainable Earth Technologies, Supported by SOLAR Online, Newcastle, NSW Australia http://www.sustainable.com.au/greywater-treatment.html 7/2/2012

UNICEF, (28/2/2012): "Cities are failing children, UNICEF warns," UNICEF Press, 28th February 2012, New York, USA.

UNICEF, (2012): "Children in an Urban World: Unite for children, The state of the World's Children 2012," Printed by Brodock Press, Inc. © United Nations publication, United Nations Children's Fund (UNICEF), February 2012, USA.

UNCHS, (1996): "An Urbanizing World: Global Report on Human Settlements 1996", Oxford and New York: Oxford University Press.

UN_ HABITAT, (2010): "EGYPT," UN_ HABITAT 2010. http://ww2.unhabitat.org/habrdd/conditions/nafrica/egypt.htm 26/6/2012

Wikipedia, (3 September 2009): Locator map of the former 6th of October Governorate in Egypt, Wikipedia the free Encyclopedia, June 25th 2012. http://en.wikipedia.org/wiki/File:Egypt 6th of October locator map.svg 25/6/2012

Wikipedia, (2012): 6th_of_October_Governorate, Wikipedia the free Encyclopedia, June 25th 2012

http://en.wikipedia.org/wiki/6th_of_October_Governorate 25/6/2012

Wikipedia, (8th February 2012): "Haram city", Wikipedia the free Encyclopedia, June 25th 2012

http://ar.wikipedia.org/w/index.php?title=%D9%87%D8%B1%D9%85_%D8%B3%D9%8A%D8%AA%D9%89&oldid=8088429 25/6/2012

