

Ain-Shams University Faculty of Engineering Architecture Department

The Impact of Open Spaces on the Development of the Integrated Capabilities of Egyptian Child

A thesis submitted of Faculty of Engineering Ain Shams University in Partial Fulfillment of requirements for the Degree of Master of Science Degree in Architecture

Submitted by

Nargis Shafik Sabry

B.Sc. Architecture – 2011

Under the Supervision of

Prof. Dr. Gamal Mohamed El Kholy

Assist.Prof. Dr. Ruby Elias Morcos

Department of Architecture Faculty of Engineering Ain Shams University Department of Architecture Faculty of Engineering Ain Shams University

Egypt

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STATEMENT

This thesis is submitted to Ain Shams University for the degree of Master of Science in Architecture.

The work included in this thesis was accomplished by the author at the Department of Architecture, Faculty of Engineering, to Ain Shams University, during period from 2013 to 2015.

No part of this thesis has been submitted for a degree for qualification at any other university or institute.

Name: Nargis Shafik Sabry

Signature:

Date: / / 2015

APPROVAL SHEET

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Submitted by

Nargis Shafik Sabry

B.Sc. Architecture – 2011

This thesis toward degree of Master of Science in Architecture has been approved by:

Board of Examiners	
Prof. Dr. Aly Hatem Gabr Professor Department of Architecture Faculty of Engineering Cairo University	
Prof. Dr. Magda Ekram Ebaid Professor Institute of Environmental Studies and Research Faculty of Engineering Ain Shams University	
Prof. Dr. Gamal Mohamed El Kholy Professor Department of Architecture Faculty of Engineering Ain Shams University	
Assist. Prof. Dr. Ruby Elias Marcos Assist. Professor Department of Architecture Faculty of Engineering Ain Shams University	

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Abstract

This research is entitled "The Impact of Open Spaces on the Development of the Integrated Capabilities of Egyptian Child". It addresses the design of open outdoor spaces within residential areas - especially economical residential areas - in terms of design considerations and determinants. The main objective is to upgrade these spaces, to raise awareness of the importance of such spaces, and design it correctly following the scientific rules which will reflect in return on the development of the Egyptian child's physical, mental, social and moral capabilities in primary school age.

The research problem comes from the importance of childhood period in human life and importance of addressing and providing child's needs – whether such needs are environmental, social, cultural-educational, or physical. This can be achieved through open outdoor spaces connected with child's residence, and through working on the development of all these needs through playing and contacting with the outdoor environment around him, which is known as development or learning through playing.

The research deals with a set of hypotheses which mainly rely on the need to develop a mutual relationship between the child and the outdoor environment through open spaces annexed to the place of residence. These play a major role in the child's composition and raising in order to become the man of the future, who will be responsible for the renaissance of the Arab nation and the Egyptian society. Because of this, we can consider open outdoor spaces as an object which affects and is affected by the child and the opposite is true.

From here, the research is based on the importance of studying both the child and the open outdoor spaces, particularly for the Egyptian child. This is because he represents the human dimension in the design process and his needs must be responded to by these spaces, which in its turn represent the spatial dimension. This occurs through the design process, by the designer, in order to achieve successful open outdoor spaces that are reflected in a positive and influential manner on the user child of the space.

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The research consists of five chapters; each chapter consists of two parts.

Chapter one: Deals with the general concept of childhood to explain its importance and the necessity of providing care to the child - as a basic structure that holds the progress of society - through middle childhood, which is characterized by freedom of movement, love of discovery and knowledge. This is in addition to displaying child needs in this age group in order to achieve it through the design process.

The second part deals with the study of the Egyptian child; particularly to identify the positive and negative aspects of his character and the causes that lead to the occurrence of personality disorders caused by negative factors influential within our society. It also deals with ways to avoid them through contacting with the surrounding outdoor environment which includes inputs that can affect the child in a positive way.

Chapter two: Deals with the surrounding environment for children, both physical environment (natural environment - the built environment - the physical environment), and non-physical environment (the social environment - the cultural environment - the psychological environment) in terms of the components and influences. It also reviews the importance of preserving the natural environment and the necessity of deepening the direct relationship between it and the child, in addition to identifying the characteristics of low-income housing areas and urban spaces, subject of the study, to know the patterns and requirements for development.

The second part studies the social, cultural and psychological aspects of children occupying those areas to know the extent of the reflection of the cultural and social environment on their behavior and actions and towards the natural environment surrounding them.

Chapter three: Deals with the most important aspects of the research by studying the interrelationship between the child and the surrounding outdoor environment. Moreover, it focuses on the importance of play in childhood and its effect on the formation of child's life, and finding out how the child perceives the outdoor environment around him. This is in addition to identifying the impact of outdoor open spaces in order to meet the different needs of development, and how to achieve those needs through interrelationship between the child and environment, because both of them affects and is affected by the other.

Chapter four: Deal with the design process of outdoor open spaces for children in middle childhood; focusing on a set of considerations and determinants affecting the design, to help the designer reach the best design solutions which are reflected directly on the child's development. This is in addition to monitoring some of the interesting international examples in designing outdoor open spaces for children trying to take advantage of the positive trends and employing them in line with Egyptian children's personal needs. This part represents the link between the theoretical study and applied study of the research, and concluding the framework of the design process.

Chapter five: This chapter represents the applied part of the research. It focuses on exploring a case study in Cairo specially El-Ameiria neighborhood because it has plenty of reasons which make it a successful model for the study. Then, it compares it to other successful examples that have been developed in Egypt. Finally, the research concludes that urban open spaces in residential areas have a strong role in child's development on many physical, mental, psychological and social development levels; however, urban spaces in the study did not achieve their goals and did not provide the opportunity needed to set up the various activities of children playing areas and green spaces.

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