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بِسۡمِ ٱللَّهِ ٱلرَّحۡمَـٰنِ ٱلرَّحِيمِ

" وَقُل رَّبِّ زِدۡنِى عِلۡمًا "

(سورة طه - أية ١١٤)

" وَلَا تُفۡسِدُواْ فِى ٱلۡأَرۡضِ بَعۡدَ إِصۡلَـٰحِهَا "

(سورة الأعراف - أية 56)

In the name of Allah, the Beneficent, the Merciful

“and say: My Lord! Increase me in knowledge”

(Sura Taha – Ayah 114)

“Work not confusion in the earth after the fair ordering”

(Sura Al Araf – Ayah 56)

Research Approval

On Tuesday 23\3\2010 met in the theatre of Faculty of Engineering - Mattaria - Helwan University the committee of discussion and ruler which approved from professor vice president for graduate studies and research on 15/12/2009 to discuss the submitted thesis by Arch. Eng./ **Eslam Mohamed Mahmoud Moraekip** – Assistant Teacher - Department of Architecture - Faculty of Engineering - Mattaria - Helwan University who registered to obtain a master degree in architecture on 26/2/2007 and the committee has approved the master thesis under the title of:

Sustainable Architecture between Theory and Application in Egypt

The Committee OF Discussion and Ruler

1. Prof. **Hesham Sameh Hossen Sameh**. (Ruler)
   Professor in Architecture Department - Faculty of Engineering – Cairo University.

2. Prof. **Khaled Mahmoud Samy Hassan**. (Ruler)
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5. Assist. Prof. **Mohamed Abdel Mageed Diab**. (Supervisor)
   Assistant Professor in Architecture Department - Faculty of Engineering – Mattaria - Helwan University.

Dedication

To:

My Late Father

My Mother, Brother and Sister

My Fiancee

My Colleagues, Friends and Students

Acknowledgment

Many people have contributed to this research from its early beginning onwards, support has come in many forms but each input has helped to bring this research to a successful completion.

I thank all who have helped me in this research but also would also like to specifically mention a selection of persons whose contribution has been especially important.

I would like to express my sincere gratitude for the guidance, help and support which provided by my supervisors:

Prof.
Randa Mohamed Reda Kamel
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Finally, I would like to thank **my late father, my mother, brother and sister, my fiancee and all my family and friends** for their help and support to finish my research.

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Research Introduction.

Development processes of societies and countries are usually accompanying by series of changes that aiming to raise the community's nature, economic and social environment.

Associating with those processes many of environment hazards and negative impacts are resulting, for example: negative impacts on soil, water, sea sources, wide spreading of pollutions and regional climate changes.

So, it is necessary to take other directions of development to enhance the quality of life without negatively affecting the local and global nature, economic and social environment.

Sustainability is one of those other directions of development which appear to enhance the living conditions of the current generations without causing negative impacts to future generations, nature sources and the surrounding economic and social environment.

The aim of sustainability is to meet the need of the present generations without reducing the abilities of future generations to have their requirements in all areas relating to them through the various dimensions of sustainability naturally, economically and socially with conserving local and regional environment.

The architecture field is representing great challenges in the area of implementing sustainability at all stages of construction and reconstruction such as: planning, designing, constructing, operating, maintaining, demolition and reusing because they are consuming large quantities of materials, great amount of energy and nonrenewable nature sources and producing large quantities of wastes and resulting lots of negative impacts to nature, economic and social environment.

To achieve sustainability in the field of architecture, there should be integration between many disciplines such as: planning, designing, constructing, electrical, mechanical and environment engineering and many other disciplines that are related to this field.

By applying sustainability in the field of architecture, there are differences in the criteria of implementation from one region to another caused by differences of sustainability development dimensions from one region to another such as: nature, economic and social dimensions.

It is necessary to examine the possibility of implementing sustainability in architecture and construction at the level of each territory alone to reaching the optimum benefits of it in accordance with local nature, economic and social conditions.

For achieving an integrated sustainable architecture in Egypt; it is very necessary to develop local construction guidelines for implementing sustainability during each stage of the architecture project. In addition, considering the roles of all people who are working in this area is very important for applying this approach as an integrated way suitable with local nature, economic and social conditions.

So, this research will consider discussing the theories of sustainability and its relationships with the architecture field to conclude the theory of sustainable architecture.

Then, will discuss the elements which sustainable architecture should be implemented on, orienting some international sustainable architecture rating systems, design guidelines and case studies and some Egyptian sustainable architecture case studies.

Finally, suggesting some sustainable architecture guidelines that should be considered and take advantage to implementing sustainability in the field of architecture as an integrated way.

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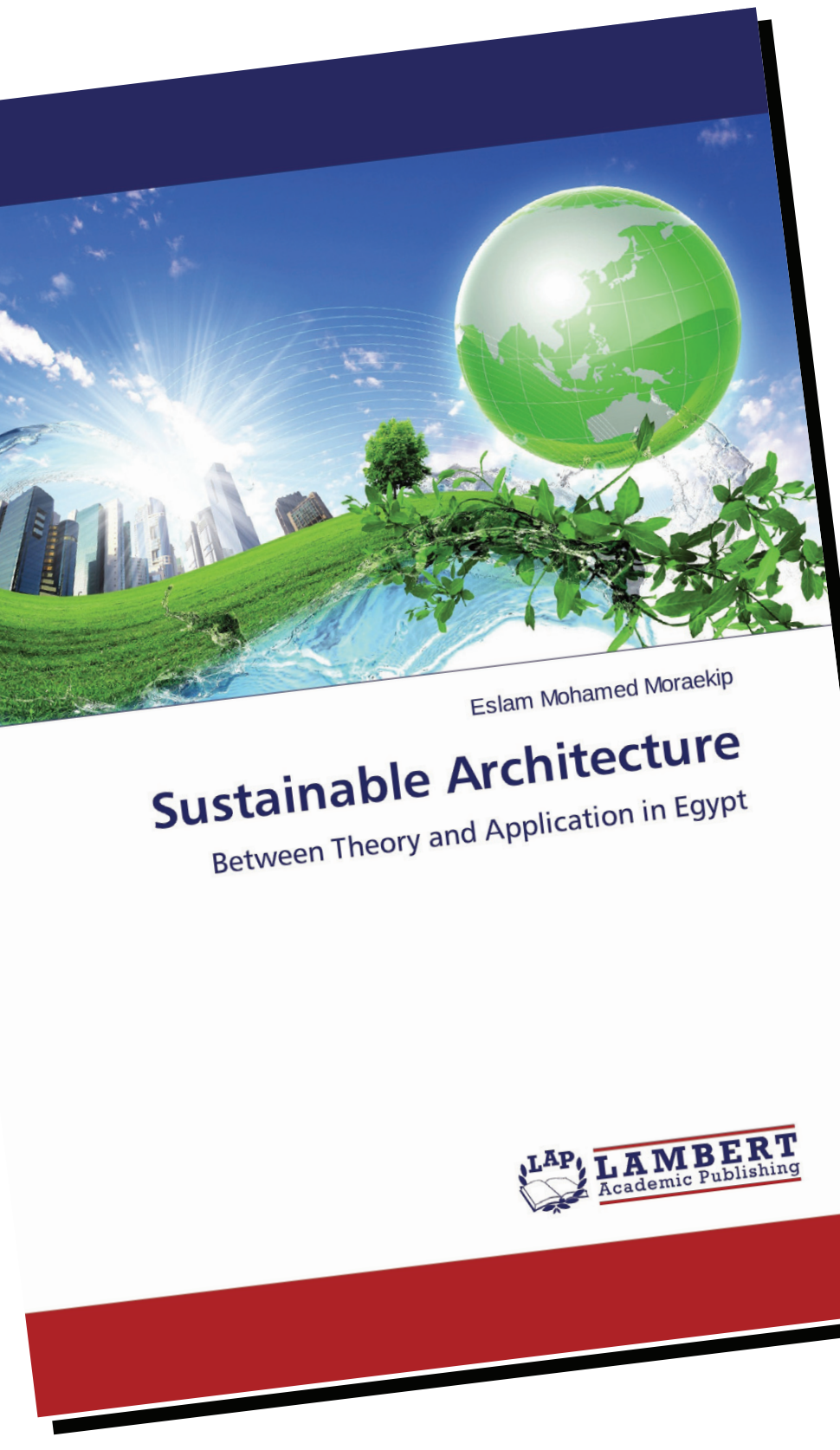

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