بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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MONA MAGHRABY

AIN SHAMS UNIVERSITY

FACULTY OF ENGINEERING

Urban Planning

The Impact of Climate Change on Historical Coastal Cities: The Case of Rosetta, Egypt

A Thesis submitted in partial fulfillment of the requirements of the degree of

Doctor of Philosophy in Architectural Engineering

(Urban Planning)

By:

Sara Mohamed Fawzi Adam Shaheen

Master of Science **In** Architectural Engineering

(Urban Planning)

Faculty of Engineering, Ain Shams University, 2013

Supervised By

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Cairo - (2021)

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Statement

This thesis is submitted as a partial fulfillment of Master of Science in Architectural Engineering (Urban Planning), Faculty of Engineering, Ain shams University.

The author carried out the work included in this thesis, and no part of it has been submitted for a degree or a qualification at any other scientific entity.

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Acknowledgment

" وَقَالُوا الْحَمْدُ لِلَّهِ الَّذِي هَدَانَا لِهَٰذَا وَمَا كُنَّا لِنَهْتَدِيَ لَوْلَا أَنْ هَدَانَا اللَّهُ "

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" وَآخِرُ دَعْوَاهُمْ أَنِ الْحَمْدُ لِلَّهِ رَبِّ الْعَالَمِينَ "

Abstract

Although several approaches are being tested with the notion of attaining resilience in historic cities yet, it has become challenging in developing countries due to socio-economic, environmental, institutional difficulties. Hereby, the need for connecting regeneration and adaptation approaches has emerged. This thesis aimed to a better understanding of climate change impacts at a local level while preserving and regenerating historic cities. The research assumed that planning for the resiliency of historic cities is a key aspect to regeneration, it postulated that adaptation approaches should consider all of the cities' multilayers to reach conservation aims. This was achieved through the linkage of two recent approaches integrating planning for resiliency notions and the regeneration ideologies.

The researcher followed a mixed-approach methodology to reach the research aims and test the hypothesis, different methods of primary and secondary data collection were used. Followed by an analytical study of regeneration and resilient-based adaptation recent approaches hence, rationalizing the usage of both adopted approaches, and linking their endorsed notions. Finally, the researcher explored the applicability of the integrated approach through the empirical part of the research on the case study of Rosetta Egypt. Rosetta city is known for its rich historic value and its unique coastal position that acquires an effective multilayer adaptation and regeneration approach to help the city survive under the imminent climate changes, become resilient, fill in the gaps in existing plans, and identify and prioritize plans and projects responding to the recognized gaps.

The key findings of the research were: first, resilient-based adaptation represents the essence of recent adaptation approaches as it is based on value-based and risk-based methods. Second, dealing with the historic city as a whole through a comprehensive multi-layered regeneration approach would help to have a more in-depth recognition of the city's issues and objectives. Finally, the alliance of both approaches developed a balance between different dimensions, the maintenance of the socio-economic aspects, the prioritizing of heritage conservation objectives, the preservation of the environment, and the planning for resiliency.

The thesis highlighted the objective gaps in the existing adaptation and conservation plans and called for more attention aimed at linking adaptation approaches and regeneration approaches. Foremost, it explored the operation of both approaches in the Egyptian context promoting the mindset shift and procedure change presenting a useful initial step in the resilience journey.

Keywords: Climate change, Adaptation, Resiliency, coastal cities, historic cities, Rosetta, Regeneration.

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