



SMART CREATIVE URBAN ENVIRONMENTS
INVESTIGATING USERS' SPACIAL EXPERIENCE IN INTERACTIVE OPEN
SPACES.

By

Sara Tarek El-Sayed Mohamed

A Thesis Submitted to the
Faculty of Engineering at Cairo University
in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE
in Architecture engineering
Urban design and community development

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Abstract

In response to the rapid advances in technology that is changing our lives, traditions, cultures and perception for our environment, this study highlights the impact of technology with all its different types on the urban environments in the twenty first century. It studies the changes that occurred in contemporary urban open spaces' elements and components according to the technological impact on it, which resulted in a new typology of urban open spaces featured by interactive landscape elements. It also studies the interactive urban experience as one of the most important consequences of the evolution of interactive landscape elements in the contemporary urban environment. The main issue of this research is the lack in the urban design criteria that accommodates these new digitized interventions and innovations in contemporary urban environments. Hence, the aim of this research is to appropriate a developed set of design guidelines to accommodate the new features in the urban open spaces in the digital era, Moreover, it also aims to inform and guide eventual future efforts to promote the acceptance and application of interactive landscape applications in Egypt.

Thus, the research followed a methodology started by the review of a rapidly growing literature that presents smart creative urban environments as a promising strategy for urban development, which is spreading world widely. This literature review ends by reviewing the seven principles of responsive urban environments and how to achieve them through a proposed set of guidelines.

Accordingly, the research studies people's preference and understanding for these interactive landscape applications and assesses the role of these applications in the interactive experience within contemporary urban open spaces. It also studies where and how do people prefer to apply the interactive installations in urban open spaces. Moreover it investigates people's opinion about the suitability of this kind of urban open spaces in the Egyptian urbanism.

Finally, this study asserts the need for further investigation of the smart creative urban environments' preferred patterns. It emphasizes more investigation of the relations between the seven aspects of responsive urban environments and people's preferences through simulation experiments is needed as well.