

# **Urban Between Place Identity and Temporal Variability**

## **A Multidimensional System for Supporting Decision Making in Uniformed Building Regulation**

**By**

**Eng. Shaimaa Ahmed Magdi Amin**

Assistant Lecturer - Department of Architectural Engineering  
Faculty of Engineering - Fayoum University

**A Thesis Submitted to the Faculty of Engineering at Cairo University  
In Partial Fulfillment of the  
Requirements for the Doctorate Degree**

**In  
(URBAN PLANNING)**

**Under the Supervision of**

**Prof. Dr. Mohamed Mohamed El Barmelgy**

Professor of Urban Planning  
Department of Architectural Engineering  
Faculty of Engineering - Cairo University

**Prof. Dr. Hisham Mahmoud Aref**

Head of Department of Architectural Engineering  
Faculty of Engineering - Fayoum University

**Assistant Prof. Dr. Ayman Hassan Mahmoud**

Assistant professor - Department of Architectural Engineering  
Faculty of Engineering - Cairo University

**FACULTY OF ENGINEERING , CAIRO UNIVERSITY  
GIZA , EGYPT  
June 2008**

# Urban Between Place Identity and Temporal Variability

## A Multidimensional System for Supporting Decision-Making in Uniformed Building Regulation

**Sustainable development is defined as a development that does not destroy and harmonize the physical environment to preserve the city's social and economic structure. The goal of sustainable development is to achieve society's current needs without injustice to society's future needs for urban-socio-economic justice.**

**"Inclusive development is a process of moving society from existing to more advanced conditions, in order to achieve specific goals that seek to raise the standard of living of society as a whole from all aspects of the physical - socio-economic - within the framework of resources and possibilities available locally.**

**Comprehensive development is a process of moving society from existing to more advanced conditions, in order to achieve specific goals that seek to raise the standard of living of society as a whole from all aspects of the physical - socio-economic - within the framework of resources and possibilities available locally.**

**Resources and potential vary from State to State and region, consisting of two parts of natural resources and human resources. Human resources from enduring ineffective resources reflect the ability of the human person to manage properly in the exploitation of technology and capital as material possibilities and to direct them towards the achievement of its development goals .**

**Planning and architectural design are tools for sustainable development, one of the goals of urban design is to achieve guidance, efficiency in installation, pleasure, and the**

purpose of pleasure is to give the user a sense of the aesthetics of urbanization(2)" .

Sustainable development is defined as a process with a scientific basis and economic, urban and social development goals so that it achieves what is called (Economic -Ecology - Equity (3Es) Economics - Ecological Balance - Equity in Distribution. (3) These goals control the interrelationship between man and urbanization. Urbanization legislation is the most important control of this relationship to achieve the aesthetics of urbanization and the sustainability of urbanization.

The research aims to build a technological information system for Egyptian urban legislation, which may contribute to reducing negative changes in the features of the urban composition and the awakening of the identity of the local character.

The choice of technological systems in the field of urbanization has become an irreplaceable development challenge to achieve progress and sustainability. Geographic Information Systems (GIS) has evolved dramatically in the past several years and has entered into all urban development programs remarkably in all countries of the world.

"Geographic Information Systems (GIS) is one of the latest technologies to analyse, process, model and demonstrate spatial data and information, the primary objective of which is to assist the blueprint, the architectural designer and the decision maker in a precise scientific manner in identifying and clarifying a true view of the relationships and effects between the urban elements of existing and emerging areas(1) " .

The research proposes the idea of integrating GIS with the e-government mechanism for decision-making in the procedures of urban legislation and urban management.

**Geographic Information Systems (GIS) is an important resource planning tool and provides a means of supporting decision-makers' decisions by allowing decision-makers to rely on different approaches to work. It provides an enabling environment for e-government work aimed at achieving operational flexibility in technologically delivering day-to-day transactions with clients through direct channels of communication.**

**Technological technologies are still moving in isolation, despite trends in transforming the daily interaction system between government and citizens into digital transactions and integrating GIS into e-government machinery has become an integral and inseparable technical role. "**  
**(Lavender, 2004)**

**The research is one of the proposed future research to complete the master's research entitled The Impact of Urban Legislation on Urban Formation (towards a model of a geographic information system that achieves the sustainability of formation). The research segments are divided as follows: the first part is concerned with identifying the problem, objectives and theoretical review. It reviews previous research in the field of research problematique and its most important results. This is followed by the identification and classification of the variables and constants of research, and it reviews the global, Arab and local experiences in the field of IT relationship to urban.**

**The second part is concerned with the collection and presentation of information through the field study of existing regions to examine the local situation in the legislative and administrative process to extract problems, possibilities and determinants. In part III, the comparative analytical and analytical input between the results of the theoretical study and the results of the field study is used to produce legislative and administrative physical foundations to build the proposed information system.**

**Part IV is about designing, building and experimenting with a geographic information system**