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GENERAL ORGANIZATION FOR HOUSING BUILDING AND PLANNING RESEARCH

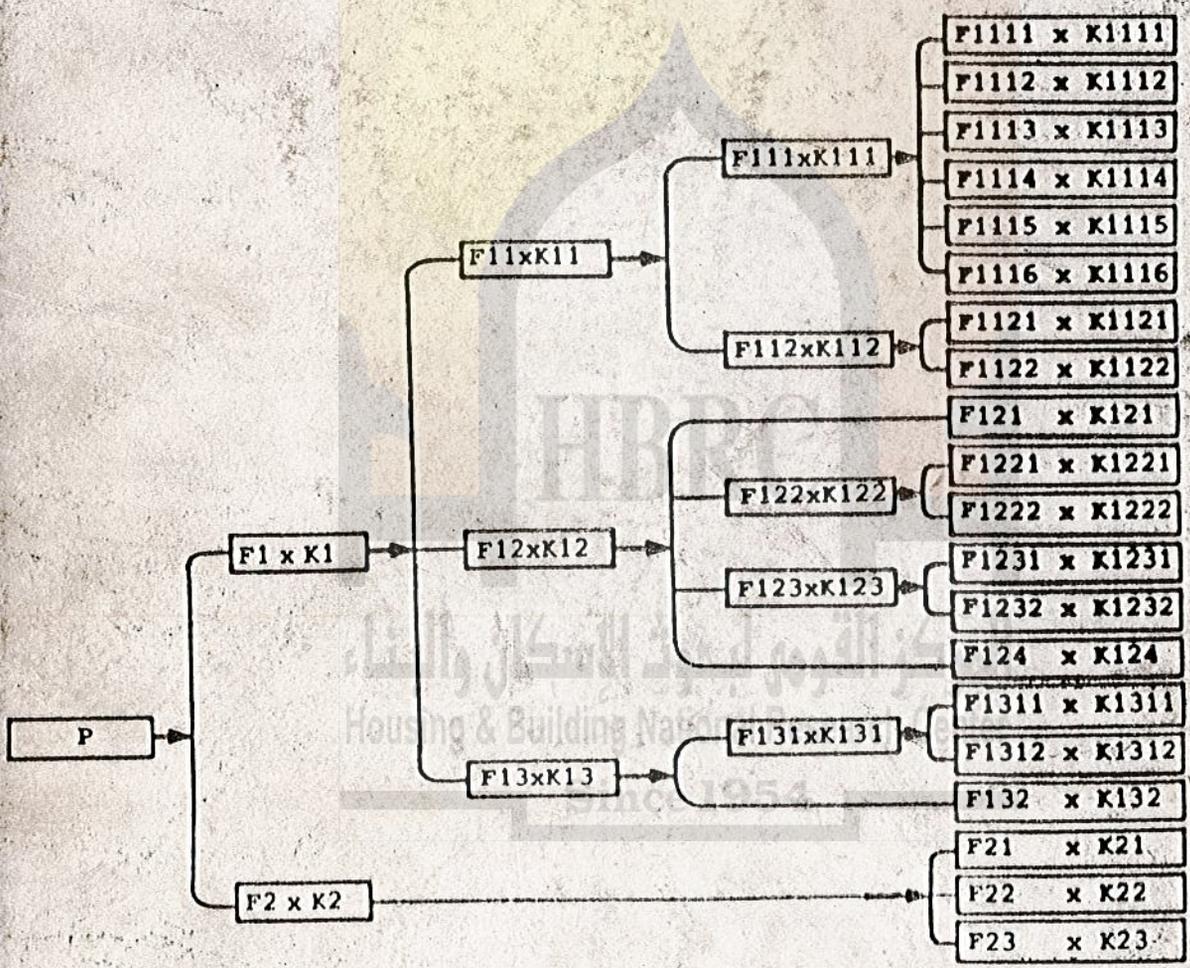
Department OF Housing And Urban Planning

1985

Dr. Magda Metwally

SYSTEMATIC APPROACH TO

HOUSING PROJECTS EVALUATION

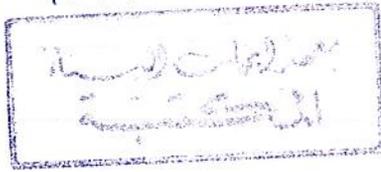


4. THE PLANNING PERFORMANCE

Model Formulation, Formulation of Objective Functions, Applications.

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SYSTEMATIC APPROACH TO

HOUSING PROJECTS EVALUATION



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Since 1954

التصميم

COMPUTER PROGRAM DESIGN & OPERATION

PROF. DR. ADEL EL MALLAWANY

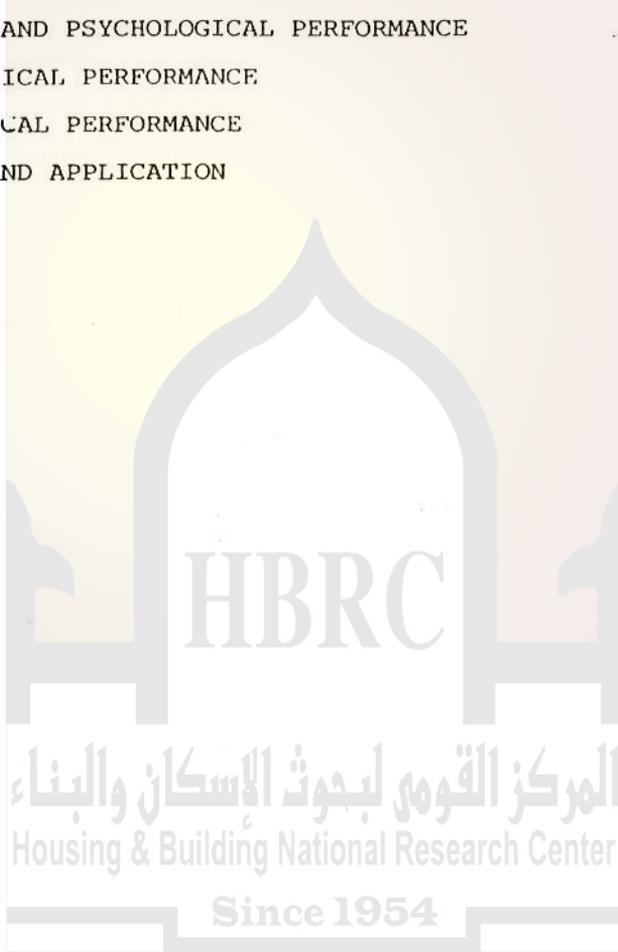
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CONTENTS

INTRODUCTION	1
1- PROBLEM DEFINITION	3
2- CHARACTERISTICS OF HOUSING AREAS	4
3- MODEL FORMULATION	8
4- FORMULATION OF OBJECTIVE FUNCTIONS	14
4.1. FUNCTIONAL PERFORMANCE	15
4.2. SOCIAL AND PSYCHOLOGICAL PERFORMANCE	
4.3. AESTHETICAL PERFORMANCE	
4.4. ECONOMICAL PERFORMANCE	
5- PROGRAMMING AND APPLICATION	
CONCLUSION	



The first stage of the research concerned with the evaluation of alternative solutions to housing unit design. A mathematical model based on a systematic approach was designed. Using computer techniques, proposed model allows to investigate a very great number of design solutions before the final decision, which offers the architect a practical design tool and helps him to choose the best solution for further development.

Recent study is concerned with using computer techniques as an aid to the systematic evaluation of housing projects planning.

In recent years a number of systematic methods have been developed to assist the planning process. There is, however, a considerable gap between the developers of these methods and the practising planner, partly because the latter has difficulty in understanding the former's ideas which are usually expressed in a very general way and partly because the planner finds that his traditional methods yield acceptable results. This research attempts to bridge the gap by investigating the practical application of a systematic method for establishing the most appropriate structure of a complex problem. The aim throughout is to reduce the cognitive load on the planner and thereby improve his decision making.

Systematic planning is primarily a means of resolving a conflict that exists between logical analysis and creative thought. The difficulty is that the imagination does not work well unless it is free to alternate between all aspects of the problem, in any order, and at any time. Systematic approach aims at separating logic and imagination in order :

- * To leave the mind free to produce ideas, solutions, hunches, guess work, at any time without being inhibited by practical limitations and without confusing the processes of analysis .

* To provide a system of notation which records every item of planning information outside the memory, keeps planning requirements and solution completely separate from each other, and provides a systematic means of relating solutions to requirements with the least possible compromise.

The Urban Planning is mainly concerned with achieving equilibrium between urban populations, their activities and environments.

The cyclical nature of the planning process involves a gradual refinement from broad issues to a narrower range of feasible options. Each cycle builds upon the previous one and this permits to reject alternatives which fail as feasible solutions, and those which appear to be the most promising to be further refined. Thus, the evaluation of some alternatives will lead to the searching out of better ones.

Evaluation is a "continuous process" which takes place at different planning stages in order to contribute to "continuous refinement". As urban planning is complex, there is a need for evaluation methods which do not oversimplify planning issues, and which strike a balance between the unwieldy character of too much information and the inadequacy of too little.

Evaluation is needed to set out the implications of different courses of action in a communicable and intelligible form so that decision makers can make a reasoned choice.

The evaluation of housing projects should be regarded as a creative and analytical tool, setting up cycles of reconsideration not only of alternative programmes, but reaching back to the reconsideration of the objectives of the project planning.