

Proceedings of the XXXVIII IAHS World Congress

Visions for the Future of Housing Mega Cities

April 16-19, 2012 Istanbul Technical University

edited by

**Oktay Ural
Muhammed Şahin
Derin Ural**



International Association
for Housing Science



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**IAHS
HOUSING
İSTANBUL**
2012

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Visions for the Future of Housing:
Mega Cities

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Congress Secretary

Esin Ergen



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Preface

The Proceedings for the "XXXVIII IAHS World Congress: Visions for the Future of Housing-Mega Cities" are intended to guide the participants through the various disciplines and perspectives, all of which are closely related and intertwined, in this multi and interdisciplinary study of Housing Science. We are happy to welcome so many valuable contributions from many countries of the world. This genuine interest emphasizes the significance of housing studies, demonstrating its importance as all families have hope and expectations to improve their habitat, and to maintain a better quality of life.

The sub-themes of the congress: innovative design; construction schemes; innovative financing systems; effective management for housing, allow the participants to address all pertinent subjects related to the main issues. There are almost three hundred manuscripts prepared by established world scientists and experts who create the most relevant documents.

The year 2012 has a special meaning for the IAHS - International Association for Housing Science, for this year marks the FORTIETH year of its founding. It was initiated at the campus of the University of Missouri, Rolla, in 1972. The IAHS Journey, since then, has been exciting and ever-growing. So far, world congresses have been held in 30 countries and IAHS has published thirty five volumes of Proceedings, including thousands of manuscripts. This is an accomplishment whose honor belongs to all of you, the IAHS family.

Istanbul, a historic city on two continents, welcomes you to her charms. It is a Mega-City facing all sorts of housing obstacles. As you visit, you will witness firsthand most housing issues on a living platform. We are certain it will be a most interesting and enlightening experience.

Once more, we welcome you to the XXXVIIIth IAHS Congress. We hope you will enjoy your dynamic visits and return with abundance of knowledge and fond memories.

Professor Oktay Ural, IAHS Founding President

Professor Muhammed Şahin, ITU President

Professor Derin Ural, Congress Chairperson

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**Price Formation and Real Estate Characteristics:
Residential Real Estate, Lisbon – Portugal**

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Key words: Real estate valuation; hedonic models; lineal regression; factorial analysis; residential real estate characteristics; asset price formation.

Abstract

The discretionality and the appraisers' subjectivity that characterize traditional real estate valuation are still allowed to take part in the formation of the asset price even when respecting international standards (EVS, IVS) or Appraisal Institution's regulations (TEGOVA, RICS, etc.). The application of Econometric Methods to real estate valuation by the use of statistic procedures aims at the elimination of subjectivity on the appraisal process. On this study, Hedonic Models (Econometric Methods applied to Real Estate Appraisal) are used to determine the most important characteristics that define the multifamily residential real estate selling price and therefore to make estimations on real estate selling price (knowing the asset characteristics). Two different Statistical Techniques were used in order to compare the results: Multiple Lineal Regression; and Factorial Analysis. These techniques were applied to a sample of 82 flats for sale located in Lisbon, Portugal. From the 15 studied characteristics, we conclude that the ones that determine/influence the most the asset price are: Area (m2); Nr. of Bathrooms; Privileged View; Nr. of Parking places. Using these 4 variables the asset's price estimation model obtained explains 80, 9% of the Real Estate selling Price.

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