Interdisciplinary analysis of sign systems and guidance systems in hospitals

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Abstract
The project goal is to create a regulation book for sign systems and guidance in health facilities. This project will establish a model of multiple needs that will enable the understanding of the main difficulties about the use of these facilities. Through the study of the present context and the reproduction of actual model we’ll be able to design a new model and therefore propose a set of rules and its applications criteria that will optimise those systems.

In order to achieve this objective we propose four complementary methods:
1. The Space Syntax
2. Social Psychology Experimental Methods
3. Quantifying Visual Information in Complex Structures
4. Cognitive Ergonomics Experimental Methods

We will establish a theoretical model of the present situation in large health care facilities. Then we will produce a new model for improvement of the multiple communication and use problems and, at last, use the model to establish a set of rules as support for architectural and visual design for these kinds of facilities.

The project is not strictly an architectural or urban one, but will use the multiple approach that G. Broadbent and others started few years ago. In a strict sense it is a visual design oriented project. In the long term we seek to find the real impact of visual information (directions) regardless of different built structures.

Although, multidisciplinary studies in architecture and design are common in the late 20th century, this project, by studying a complex and socially vital built structure, will add new visions and new applications for the design sciences. The major aspects of the originality of project are the use of Space Syntax not to define built structures but to define a framework of communication supported by them. So, the project, will understand that information cognition in such buildings may be typified as an emergent behaviour in a complex structure. By quantifying information, both architectural and sign system information resulting from inquiries we will (hopefully) be able to predict the relative viscosity of circulation on planned hospitals in the project. Health care buildings have been in past years a field for space syntax studies. We hope to contribute to the enlargement of this field by adding, especially, information quantification in complex structures and cognitive ergonomics.
At this stage we have established relations between anxiety and visual data interpretation along with the emergence of an hospital culture that relies on “asking” the way. We have determined an error factor that will be used to quantify types of users and help to establish the relative “viscosity” of both a cluster and a symmetric building. Defining the relative weight of architecture and placed (sign system) visual information we will create a model of multifunctional “robots” in a digital framework that will characterize each structure. Then we will try the influence the placing visual information in the system.