

Signage project for San Donato Hospital complex, Arezzo (IT)

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TOPICS

Wayfinding and layout.

KEYWORDS

Wayfinding, Signage Project, Participation, Stress Reduction, Environment, Communication.

1. INTRODUCTION

As it is known, the ability to orient yourself is one of the components that determines the stress level of a person in relation to his environmental context. From a demand point of view, we can say that ease to access and use the functions and services net (usability) is one of the main indicators, that measure its quality and performance capability. In this sense, the signage project (of orientation and wayfinding) becomes a useful component to overcome conflict conditions between man and environment created by sensory and cognitive barriers.

In the case of a hospital building (emblem of complexity), the variables that determine the intelligibility of its operation find an articulating and delicate solution, especially considering the needs of this framework which is composed by users with psychophysical deficit conditions.

The aim of this paper is to describe the method used for the San Donato Hospital signage project in order to improve the conflicts between man and environment. The hospital is organized in a quintuple body type with a concentric planimetry and a development in semicircular building blocks, and it is an emblematic example of the aforementioned complexity between typology and organization and of the resulting difficulty to read the access and connection routes between every function.

As a consequence of this and of the need to adjust to the present crediting regulations, the signage project focused to simplify and assure access ease to most different categories of people. The survey and analysis phases that involved the hospital organization

and management members were an opportunity of rethinking the access to the services network.

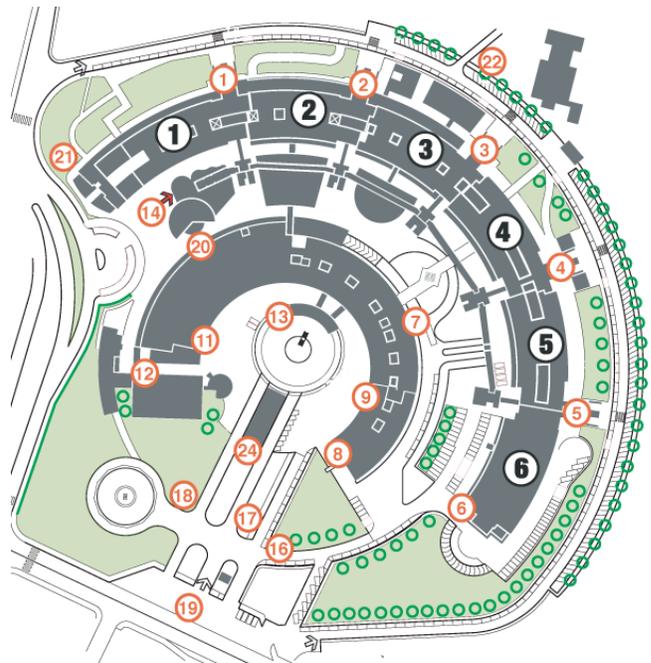


Figure 1. Plan layout of San Donato Hospital.

2. METHODOLOGY

After a comparison with care stakeholders (medical management, technical office, PR Office) the project developed on a process approach split into 4 phases. The environmental survey, the users categories analysis, the access and flows system analysis are developed in the first phase (knowledge phase). In the second phase the critical data are interpreted in order to propose new

scenarios for possible changes. In the third phase the signage project was made up and test panels were installed in the hospital to evaluate the location effects and the scheduled typology. The last phase of the work consists of the project fulfilment.

2.1 First phase

The goal was to analyse the hospital complex with regard to its current use by various groups of people, being aware that in case of changes to a complex structure like a hospital, even if only concerning a single aspect, one should not disregard the knowledge which is made possible by an evidence-based approach relating the functional side of the building with its users. One or more observers were surveyed both inside and outside the building of interest regarding both the layout of health organization and the room classification system. The observers, through direct contact with a health representative (charge nurse or head physician), started their observation by exploring all areas, conversing with the operator to find out how the room fits into the departmental framework and which are the existing problems within the use of space and traffic.

A procedure of mapping the actual “spaces in use” was then performed identifying the referential health department and the system of access. The critical points pertaining to the accessibility of these spaces were verified in person; a diagram reflection on the individuality of the current paths and a user split up into categories were added.

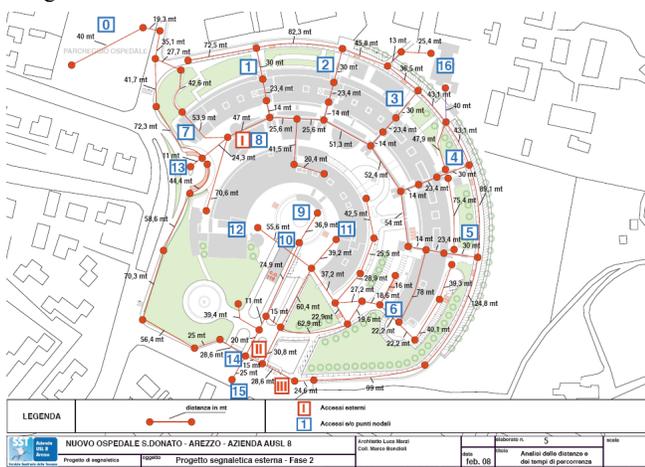


Figure 2. Distances analysis in m/sec.

2.2 Second phase

After the previous exploratory phase, the next step of the process was to catalogue the physical components of the existing orientation system (divided up into visible access, plan configuration, architectural differentiation, existing signage) classifying the structure of signs and their interpretation by different categories of users, evaluating their effectiveness in both “discriminatory” and “identifiable” terms.

Various scenarios for possible changes were gathered from this analysis, indicating numerous important landmarks of information system inside and outside the hospital complex. Every proposed solution aims to favour the horizontal paths, exploiting their spontaneous communicative characteristics to make the relationship between user and environment easier.

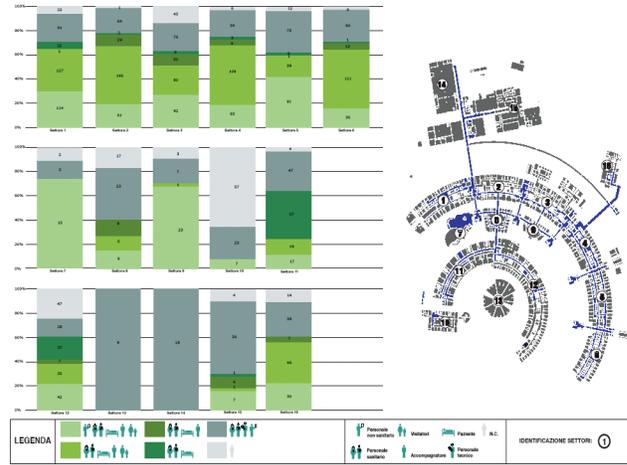


Figure 3. Type of users analysis.

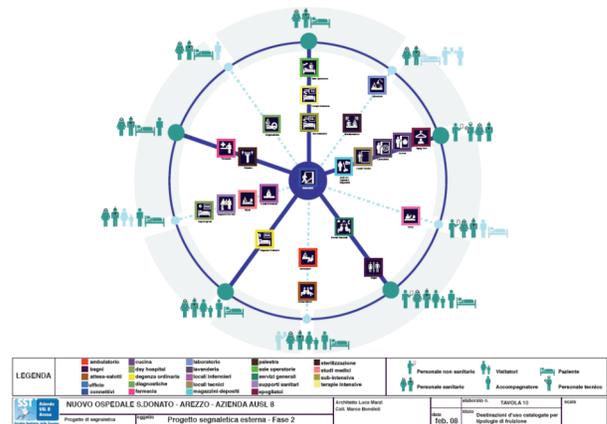


Figure 4. Rooms uses divided by categories of users.

2.3 Third phase

The “environmental communication” project, fixed up according to the landmarks shape and their connection paths, aims to enhance the emission capacity of intentional signals (non-natural like maps and directional notices) in order to subsume the low issuing of natural signals (non-intentional like linear corridors).

To create a communicative environment useful to the user acting consciously, a test signage was created, made up of vertical panels with different scenarios proposed. The test signage, designed according to the approach distance and the information progressive content, accounts for both directional (dynamic) and orientation message (static).

The test was important to evaluate both the supports lettering and legibility, so that they consolidate the user “cognitive maps” and help him to verify his own position during the journey inside the hospital, and to assess a new codification system of the health functions and their access. The medical staff involved in the project phase gathered the information about the communicative capability of proposed test signage using specific data forms.



Figure 5. Test signage example.

At the end of this phase the orientation systems for blind and low vision people were planned. This project plans to use horizontal signage integrated with vertical and tactile systems (continuous natural lines) in order to reduce the cognitive stress often produced by coding systems perceptible only by a particular user category.

2.4 Fourth phase

This phase concerns the planning of the communication project fulfilment. Moreover a software to manage automatically the signage update in relation to the changes in the hospital rooms was implemented to increase the information system reliability, being aware that its first critical situation cause is connected to the fallibility of the information communicated.

3. RESULTS

The study aims to achieve two main results. On one hand the development of a cognitive picture is useful to the different

medical administration sectors in order to evaluate the efficacy of the rooms uses locations compared to users type and so optimize the access and connections system. On the other the signage program aims to make the hospital paths more reachable and recognizable from a wide category of users.

4. CONCLUSIONS

The signage project of this study is faced with a participative methodology; even though this enhance the effort and the time to conclude a project, the results quality are assured because of the project sharing among different actors.

Thanks to this not only the environment communication level raised, but also the every single sector communication level raised contributing to create hospitable and relaxing health spaces.

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