User’s View and Utilization Process in Urban Space
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Abstract
How does the user’s view get into the endoscope? The endoscopical picture makes no difference between centralized perspective parts and the perception in the borderzones of the eyes’ view. The utilization of endoscopical pictures shows that we learned this way of viewing in renaissance. The user’s view is obtained by everyday experiences:

- It accounts for the extension of the own body in motion. Everything happening in the borderzones of the eyes’ view is perceived with reduced attention and depth of focus;
- The user’s movement is only guided by the user’s view. The other senses are added;
- In habitual surroundings the user’s view sorts out according to the significance of objects.

In this contribution these aspects are demonstrated in examples of simulating the utilization process in urban space. According to our (three year) experience with endoscopical simulation there are at least three different manors of view, which we are trying to make visible with the available hardware: a.) architect’s or planner’s view, b.) owner’s view and c.) user’s view.

Introduction
Planners often claim to be in touch with everything about utilization processes in general, but in fact little knowledge on real utilization processes in urban space is available. Not exactly known is f.i. which of our senses realizes the individual and collective using of urban spaces and in which way they cooperate simultaneously [1]. It seems quite clear that the endoscope can serve as a suitable instrument to demonstrate the user’s view and become popular regarding users’ participation in the design process. The description of some particular experiences aims at differentiating those assumptions.

Example 1: Orientation and Use of Space at Mykonos (Greece)
This village has been constructed by the users themselves without architects. Some years ago we found a place, we later on called "place of seven churches". Seven days we went measuring and mapping it. When finishing work,
we left the place every evening always at the same street, we had taken in the morning. But on the way back we never reached the same point where we started out near our house in the morning. Obviously, an information system was incorporated in this town, which guided our senses every day to the same but wrong way and we didn’t grasp it.

Fig. 1 Main Street and entrance to a by-lane in Mykonos.

Each space, we passed through, was built out as a line of outer living places on both sides, defined by several common designed objects. The incorporated information system guided us by the following means:

- the perspective view guides into the far but bright depth of the street with a tree or another peculiar object as point of attraction;
- the main moving direction is enforced by the design of windows, doors, stairways and other elements which are placed to define and influence ways passing by;
- in this way "passing strangers" were kept out of the outer living places by series of elements like little walls to sit on, groups and rows of flower pots, little trees and their rims which all appear as a barrier to movement only in the borderzones of our eyes view;
- In contrary to the façades and the furniture of street the zone of movement itself is not painted all white and it is formed at the same time as a trough in longitudinal direction.
Such a system is combining the senses of seeing, moving, balance and the complex feeling of rhythm and is guiding our movement into the main direction. If you want to leave for example into a by-lane, you have to break it consciously. When we brought it to our mind, we soon found the points of misguidance and we found the shortest way at last.

**Example 2: Placa dels paisos catalans in Barcelona**

This place is a modern example demonstrating the misguidance if you only trust on seeings believing. The place was built by architects and artists with the objective to rebuild the quarter round the main railway station in Barcelona.

![Diagram of Placa dels paisos catalans in Barcelona](image)

Fig. 2 "Placa dels paisos catalans" - Barcelona (1984-85).

It was not built by long-term using processes, on the contrary: it seems to play with our habits of seeing, it intends to irritate them deeply by design. The perspective view is broken or blocked by installations, bording walls are transparent or pretend sheltered places and so on.
Fig. 3 The former wall of the placa becomes transparent.

As a result the sense of seeing loses its predominance to the other senses - for the time of staying in this place. Users orientate themselves on moving connections, on some benches and specifically on the wandering shadows of the installations.

Fig. 4 Transparent installations pretend to guide into the depth of the place.
Both examples (1 and 2) show that visual perception is the dominant sense for moving and for the design bordering user’s spaces - at least in daytimes. The movement is consciously guided by all events in the center of the field of vision, whilst the events in the border zones mostly direct unconsciously. The impressions of the other (four) senses seem to act spontaneously on movement. The outerspace resp. the interspace between buildings can be defined as user’s zones for the residents by designing means and in the same time they can leave undefined moving zones for the passing foreigners.

Methodical Aspects
What do we know about using processes and about the user’s way of acting in urban spaces?

• **Method 1: Photographic Documentation**
  In documenting several years the acting of different users in the same places regarding the same conditions the development, the fixation and the alteration of the user’s places by design can be confirmed. The relationships and the connections of these places can be pointed out.

• **Method 2: Research of Traces**
  User’s public or hidden places always can be made out by notation in a defectively way: registrating the traces, the marks and even the wallpaintings which users or usergroups leave at buildings or objects in the outerspace. This method is noticing even the destructions as a form of tackling with the environment. Summing up the results of analysing user’s utilization forms of urban spaces, it can be stated that urban space is subdivided in zones corresponding to the built space - according to its different designed borderzones and to the functions in the building. Wideness and dictions depend on the domination of traffic systems:

  - Zonal Type 1 can be described as a narrow zone of distance in front of the building or the constructed object;
  - Zonal Type 2 is appropriated by the resident, differentiated in zones of function and passing through, linked to the entrances and to the openings of the building resp. in places where niches are built or exist, which protect users or even keep the main stream of moving in a distance;
  - Zonal Type 3 represents the stream of “passing foreigners” and much more the running and the parking zones of vehicles produce the moving zone, which dominates the direction and the dimensions of the two other zones and places.
Fig. 5 Example of a method of graphic notation.
• **Method 3: Graphic Notation**
The graphic notation of movements shows the persistence of preferred localities and the outline of men’s moving streams in space, facing other men’s presences and opposite to the walls of buildings [2].

• **Method 4: Video Notation transferred into Graphic Notation**
The notation by video during several hours shows when transferred on the plan: lines of movement, preferred localities and the long-term defined zones containing the same using modes [3].

**The User as a Person**
User’s action produces in cooperation to material design different user zones. In this process users take different roles, which may change in passing or in remaining in a space. We can notice several roles:

- the straight passing foreigner;
- the watching, lingering neighbour;
- the talking or waiting resident;
- the playing child, etc.

Following the roles in the user’s areas, we can notice different sequences of moving and special moving lines of each different user type. More precisely analysed we can describe the different ways of influence to the sequence. In its direction the line is roughly determined by the given aim - as far as it is possible to realise it in the certain interspace [4]. The fine shaping of the sequence is due to the more or less distincted "body buffer zone", which each of us owns. It is nearly the reach of our stretched arms [5].

If anybody meets us, he is on the way to penetrate our "body buffer zone". We now have to decide whether we have to get out of her or his way or to communicate. We all have experienced this: If both act to get out of the way in the same direction in the same time, we both practice this funny kind of a slapstick dance together on the pavement. In case we decide to communicate in a group, our buffer zones become part of a new combined and therefore larger buffer zone. The precise run of user’s moving line is determined by two influences:

- roughly by the general aim of movement in space;
- the fine shape of the moving line is defined by the forming an the wideness of the "body buffer zone".
How can we get user’s view into the endoscope with all his senses?

First of all we have to reduce all our sensitive experiences to the sense of seeing. All our senses have to be subordinated to it. The cooperation between senses is not determined by equality [6]. The sense of seeing is dominating the others and our using modes of the endoscope is only one example which is showing this fact. The image of the user’s view shown by the endoscope reduces further more. It doesn’t distinguish between the events in the center and in the borderzones of view. Generally, they are all equalized by the transformation on the image of the monitor. With regard to the limitations the materialistic settings of the endoscope have to be taken into account. The focus, the vanishing point of the image is in the point of view of the potential or of the
real user. Using the endoscope in regarding a model means more than to avoid lifting the model by hand and to examine it more comfortably. Another possibility is added by means of a camera rig, a machine which enables to turn the "head" like a moving person. It is necessary to distinguish between moving direction and visual angle. Depending on the different scales the endoscope can be guided in different spaces: from non- movement to the speed of a car or even more. In this way several roles can be practiced. Inspite of all these possibilities we have to account for the old wisdom: "I only can see what I know" or more precisely and in the same time more optimistic: "I only know what I have experienced". The most advanced way to get parts of the user’s view into the endoscope is probably to take the various types of real moving lines as a guiding line for the endoscope and to take the guiding line with corresponding speed into the model as one method among others to improve analyzing, designing and optimizing processes.

In several simulations - computer-aided but also “endo-aided” - the various possible processes of view to urban space are mostly mixing the roles or they operate on the highest level to give a realistic image and in the same time do not regard the reliance between individual and (architectonic) object, for example the moving lines as one of the most import relations. There seem to be three different ways to get a special mode of seeing according to the role of the onlooker. A bird’s eye view, which is the mode for the investor to regard the object of investment as a whole like a jewel on the blue velvet pillow. In this way the capacity for the activities of the invested capital can be tested (a). Planners and architects are in most cases following the main axes of space, trying to present the main design ideas, and often to show the object as "exact play of the volume in the light", as Le Corbusier said (b).

Users firstly get in connection with an object by using it. Therefore user’s view follows first special moving lines. The real or assumed moving lines of different types of users can help optimizing the design (c).

Fig. 7 Examples of the typical view of an architect.
This means, however, to research much more exactly on actual user’s processing in the different cases. It also means to get the user earlier and more deeply involved into the planning process as an expert-user of urban space.

References