

# The living experience

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## ABSTRACT

There is a growing interest to consider a sensual perspective in embodied experiences in unused urban areas, contributing to connect specific spaces with citizens. Some spaces in urban metropolis are gaining new identities along the years according to the habits of society although other areas became gradually unused and lost their meaning to citizens. How people can feel more at ease in these urban environments and how to find a balance between notions of modern comfort and the urgent need for social responsibility in design practice.

This paper examines an approach to a sensual experience through an explorative prototype as a way of study the embodiment between citizens and target users in a specific area in Malmö city, Sweden.

The study project is a result of the “Embodied interaction” module exploring the public space in Rosengård, in Malmö. The intention of the concept is to provide users a place to be in as well as to feel the place is alive with their presence. *Processing* and *Microsoft Kinect* were used to explore embodied interaction with users. Aesthetics and interaction will be approached as a relevant role to this public area, creating an engaging experience, affecting users as well as citizens to visit, interact with and be in the place.

## Keywords

Interaction, participatory design, embodiment, emotions, playfulness, aesthetics.

## 1. INTRODUCTION

Urban areas are in a constant evolution [1]; in addition some urban spaces gradually become unused for the citizens. Urban areas which made sense in the past no longer do now. This is part of the process called evolution of the cities.

This paper explores, the *Aesthetics of Interaction* as a way to minimize [2] the lack of embodiment between citizens and unused urban areas, providing a better functionality to these urban spaces. This project researches how users can be stimulated in addition be more connected to the space. During the project each step was planned and discussed putting the user as the center of the project. First, the paper describes the framework and the context of the project, presenting the guidelines.

Second, the paper presents the concept in details, regarding the qualitative research we made, during the design process, to get insights and after analyze it to provide usefulness in a social context in addition to test playfulness, embodiment and affects/emotions from users through the prototype experience.

Third, is also described how the study was observed during the design process including the user test prototype. The project will be analyzed according to *Aesthetics of Interaction* perspective. This part will substantiate the discussion; how *Aesthetics of*

*Interaction* can contribute to minimize the lack of embodiment between users/citizens to this space in the city (taking in consideration the social context).

Finally, is also described what was expected to find in with this project, following possible further developments.

## 2. THE LIVING AREA

### 2.1 Background

The aim of the present study is an exploration of a sensual experience in the public space in Rosengård (figure 1), in the sense to create a better connection between the target users and citizens to the activity area, since the space doesn't have this feature.

Firstly, we planned the project, defined a timeline to orientate what and how we intended to focus. We defined our plan with guidelines [2] and tasks to our group. Secondly, we made a qualitative research. We established contacts and observed the field camp; we visited the central area of Rosengård, nearby the area of the study project, to have a broad perspective. We also went to Rosengård's library, at the central area, plus to Yalla Trappan. We took this opportunity to interview stakeholders from the Municipality of Malmö, from the development manager at the Education Unit in Rosengård, from Rosengård Folkets Hus as well as the Radio-RGRA in Rosengård. At the same time, we looked to some sources of inspirations and information on the Internet. We also had two workshops; one with girls between 16 to 24 years old at Rosengård Folkets Hus plus another at Radio-RGRA in Rosengård with boys also around that age, to complement some research. Thirdly, we gather all the information and documents to initiate the analysis [2].

Most of people, who live in this part of the city, are emigrants and refugees from Serbia, Bosnia Herzegovina, the Middle East and Somalia. The areas of apartments in this part of the city are extremely small therefore lots of people live in these small/crowded apartments.

The activity space in Rosengård can gain embodiment and meaning to this target user. It's also a viable solution to Malmö Municipality since it can be an activity area with spontaneous events to the city, controlled by citizens and the municipality.



Figure 1. The activity area in Rosengård – the unused space

## 2.2 The living process

A group of possibilities was written down during the brainstorming plus visually generated in the ideation sessions, based on stakeholders' needs to better define our visions. The *Problem/Solution* [2] method was used in our brainstorming. Each member came up with 3 ideas in the first ideation to give a contribution to the project. All of the team members were students of interaction design, from the IDM program at Malmö University in Sweden, from different backgrounds such as industrial design, new media, communication design and computer science. It was chosen a member who has the ability to coordinate and orientate the session as well as to register the ideas in a white board while one of the team members was presenting his/her suggestions and visual ideas. A matrix was made according to similarities. During next ideation sessions the most considerable ideas were selected to narrow down plus to start to define our concept. The three most relevant ideas were chosen to create one concept. We used an evolutionary ideation session [2] to improve and unify our concept. In order to have time to test a study prototype of our experience, we decided to focus in one part of the big concept. We revised, refined the concept and called *The Living area*. The tasks were divided according to respective backgrounds of each team member. Three students were more focus on research process, all of the team members participated in brainstorm and ideation sessions, one of the team members was more dedicated on the prototype and technical support. We focused on the aim we intended since the beginning, which was to let the users think they play an important role in keeping the place alive. Qualities such as social responsibility, playability, coziness, safety, spontaneity were selected to be relevant to stakeholders and to affect users be embodied to this place. An area where girls are welcome, feel comfort, privacy with a dynamic atmosphere. They can talk, dance, sing, make music as well as many other activities. These activities were mentioned by some of the stakeholders during the qualitative research (Eva Petrov, Beata and girls). The concept was created. It consists of a digital part and a physical part. The digital consists of a website where girls can book the area for themselves plus decide what activity to play, connected to one of the most fluent social network existed in the Internet (*facebook*). In the physical area will be meeting spaces for their activities. A projection of lights and a shadow will be in this area to present the mood of the area based on users' interactions and in their activities (physical and virtual). The mood is personified by a shadow; a playful creature, similar to human body, which reflects the mood of the activity area, according to long term (sum up of the amount of users; per season, time of the day as well as the activity events provided from the website and the mood of the users in the physical space) and instant term (facial users' expressions, the movement and pace of the users as well as the body in real space and time). The shadow creature changes according to the meaning that people are providing to physical and virtual space in long term (reflected in the size and face of the shadow) and instant term (transmitted in the movements and pace of the shadow). The prototype is viewed to our project as an early user test, as an explorative study in playfulness plus as a tool to add knowledge to our study. We decided to focus on the instant physical input of the shadow, to test the playfulness and the embodiment of our experience.

	INSTANT	AGGREGATED
WEB	<ul style="list-style-type: none"> <li>- Google search hits</li> <li>- Facebook (likes, check-in, posts)</li> <li>- Online booking of the park</li> <li>- Other social network based input</li> </ul>	
PHYSICAL	<ul style="list-style-type: none"> <li>- Number of users</li> <li>- Face expressions</li> <li>- The users' height</li> <li>- The movement of the users (body/arms/head)</li> <li>- The users' distance to the projection</li> </ul>	<ul style="list-style-type: none"> <li>- Amount of people in total</li> <li>- Time of day</li> <li>- Seasons</li> <li>- Weather</li> </ul>

Figure 2. Inputs into physical/web plus instant/aggregated

## 2.3 The living experience

We made the user test prototype during Christmas market in Rosengård, with the users' target; some girls between 16 to 24 years old, some people from Malmö Municipality as well as some parents who were there. Processing software and *Microsoft Kinect* were used in the prototype to explore the playfulness and the embodiment. The feedback obtained from the users, during the test prototype session, confirmed some of the important features incorporated in the concept of the living area.

Firstly people were curious looking at the blank wall. They read the concept and after they started to interact with the wall. The welcome face of the shadow appeared on the wall and led users to make a smile. They started to move their bodies and realized the shadow was doing the same gestures with a happy smile (figure 3).

Secondly, people started to laugh and felt stimulated to interact with the shadow as an extension of their bodies. Sometimes people stopped, to see what the shadow was doing and the happy face of the shadow turned into an unhappy face. We observed they were emotionally attached to this creature and they continued to dance and play with the shadow (figure 4). They were through a playable and a sensual experience.

There were four girls, who looked to their friends and laugh while were performing the user test.

The prototype in this paper is viewed as part of an explorative study [3] as a way of doing research.



Figure 3. One of the users interacting with the shadow



Figure 4. One of the girls playing and dancing

### 3. DISCUSSION

The feedback during the qualitative analysis and during the user test prototype, demonstrated that *the living area* could be used to cover the lack of embodiment between target users and this public area in Rosengård.

This area is fulfilled with useful spare time activities for girls without forget the playfulness, concerning the ages, gender as well as their socio-cultural features. This experience affect users in a positive level, since it has social responsibility and can generate a sensual relation between the space and user.

*Aesthetics of Interaction* encourages users to explore and assess the relationship between them and space more deeply as well as to easier integrate this experience into their daily lifes. *Aesthetics of Interaction* is about all aspects of an artifact; not only how it looks but also how users behave, interact and feel. [4] There are four main features to achieve *Aesthetics of Interaction* [4]; 1 - Has practical use next to intrinsic value; the *Living area* is a participatory design study for a specific area in Rosengard, in Malmo city, giving possibilities to satisfy needs and desires of target users. The redesign of this area with this experience let target users to connect their daily lifes to this area as well as to feel affect and embodiment with the space, 2 - Has social and ethical dimensions; our concept depended from socio-cultural factors and historical background of the users living nearby this space. We reflected about the behaviors and analysis obtained from the feedback provided from the stakeholders, how we intended to invite people to interact with our user test prototype. An embodied experience, connecting girls and other users to this space of the city. Social responsibility, playability, safety, spontaneity and coziness, provide a sensual experience and minimize he lack of embodiment and affection between space and users, 3 - Has satisfying dynamic form; users were attached to the shadow as an extension to their bodies. Dynamic behaviors were observed during the testing prototype. The welcome shadow invited the girls to participate. This project promoted curiosity, engagement and imagination to users in the exploration of this interactive system, 4 - Involving the whole human being; according to the last feature users engaged with mind and body during our test prototype. The sensual stimulation from the user influenced the shadow and the shadow, in turn, influenced the

sensual stimulation of the user. A space may suggest itself experiences as well as narratives. [4]

In *Aesthetics of Interaction* perspective we projected an embodied sensual experience, where coziness provides familiarity to this space. The users need to interact with this area, maintaining it alive in a good condition. This living urban area is intrinsically connected with users and citizens, as a symbiosis relationship. During the design process and user test prototype, the concept generated/affects emotions, because this area gives possibilities to solve their needs and desires with function and useful suggestions. In addition, it brings pleasure in a visual context. The contribution to the events of the space or simply being there to talk and interact with the space, stimulate girls and other users to be a part of this area. This contributes for the maintenance of this urban space as a collective experience (girls, parents, Malmö Municipality, citizens, young people) and minimizes the lack of embodiment connecting citizens to this activity space.

### 4. CONCLUSION

I believe that I reasoned how the aesthetic experience through interaction relies on addressing mind and body [6], as well as it is rooted in the socio-cultural context of users and citizens. Moreover, *Aesthetics of Interaction* goes beyond the ideas of functionality, providing atmospheres full of meaning, emotions and embodiment.

In order to examine the potential use of *Aesthetics of Interaction* in our study project, the four main features were addressed in this paper. *The Living area* presents a possibility to reinvent unused urban areas in the cities, humanizing the space with sensual interactions, without forget the context of the space. Interaction design needs to be sensitive to beauty [7] and ethics to create and provide better atmospheres to people in a positive as well as in an intelligent perspective, letting users engage totally with mind and body. These specific urban spaces can be more responsive to people's needs to let them deeply embodied with the place through a sensual experience. When the action defines meaning to citizens these spaces turns into memorable experiences. [8]

I think *Aesthetics of Interaction* can highly contribute for a better future in this specific urban areas of the cities.

There are some parts of *the living area* that were studied theoretically and would be interesting to develop further some test prototypes in future, in the digital part (in long and instant term), as well as in the physical part of the project, to know how the shadow concept should be developed in the future. Different types of shadows linked to sound could also be a viable test.

Another reflection was made theoretically in how the shadow would be in ten years in addition how users should contribute to the shadow in five or ten years, since it is a collective experience. As an initial prototype we didn't have the opportunity to test the interactivity with more than one people with the shadow. Probably this detail affected the outcome of the testing. Although it was extremely relevant to evaluate the emotions and behaviors from the target users in an individual level.

However, as I mentioned above, I believe *Aesthetics of Interaction* is a benefit when designing embodied experiences. This perspective can be an advantage to participatory design as well as to promote curiosity, engagement and imagination in the exploration of an interactive system [9].

The feedback from stakeholders matches this statement along the design concept and during the study prototype, confirming *Aesthetics of Interaction* connects specific spaces of the city which have a lack of embodiment between citizens and the city.

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