Starting design by exploring, experiencing and understanding the city and life within it by walking amazed an HCI researcher in several ways. First, it revealed how dependent one is on structured traditional methods of user-centered design. Second, it showed how fixed one is to quickly start aiming for providing solutions to problems or trying to find needs to fulfill. Third, one easily drifted to thinking about the current available technologies and technological infrastructure in the city and how it could be used to engage people or study the city life. Fourth, it demonstrated how the characteristics of each team member affected their approach and orientation towards approaching the challenge of having no clear design goal in the first place, accepting the frustration of having to search for it and having to use considerable amount of time to explore the city and experience it with all senses and with an open mind. Accepting the frustration and giving in to the true exploring of the city, provided insights of the city life that could not have been found with traditional approaches that aim to identify needs, or by using technology-driven design goals.

BACKGROUD OF THE CASE STUDY

In this case study I describe what happened when a group of four HCI researchers was given a challenge to use new methods in exploring, experiencing and understanding the city life. Our group consisted of two researchers with the educational background in engineering, one researcher with a background in design and one with a background in architecture. We had five days to complete our design challenge ("Urban sensoria", by A. James), which was defined widely as using ubiquitous computing for personal urban sensing and to explore the use of ubiquitous systems and solutions for the creation of content, preservation, and sharing of experiences.

This paper describes what happened during this week from the point of view of one of the group members (author). Paper briefly describes the methods applied in the project, specifically highlighting the process, its phases and challenges that the group encountered during the project week. In addition, the findings of the project are briefly illustrated to give a concrete example how design ideas may emerge from study findings that seemingly do not provide explicit needs or requirements for design or technology development.

DESCRIPTION OF THE USED APPROACH

As a start for the creative process, we were given a brief on the methods to be applied in the creative process. The premise for the project was to explore the socio-cultural context with different senses by using ethnographic approach (Atkinson et al. 2007, Hammersley & Atkinson, 2007) and using these findings in the group’s creative process. The goal was to aim for creating a theoretical framework based on the findings, increase cultural awareness through exploring, sensing and understanding the city, and to document, create and share the findings and solutions.

We were briefed to explore the city as a group but on the other hand independently, as the experience and sensing of the city is shaped by not only the local culture and its memory, but by each person’s own prior experiences. Technological solutions, such as audio, photos, video clips, sensor data could be used to capture the city life. The idea was to bring the subjective experiences and observations of the city to group meetings and start the creative process from identifying from the individual findings the interesting themes to explore as a group. The expected outcome of the project could be new methods for exploring, new content created, creation and evaluation of new technological solutions, or new tools.

Walking as a way of exploring the city

Prior to setting off to the city, we were introduced to different types of approaches to use walking and mapping as a way to explore the city. The approaches were related psychogeography (e.g. Bassett, 2004, Pinder, 1996), and specifically dérive and algorithmic psychogeography were discussed. Dérive is “drifting”, “an unplanned journey through a landscape”, described as follows (Debord, 1955, translated by Knabb): “In a dérive one or more persons during a certain period drop their usual motives for movement and action, their relations, their work and leisure activities, and let themselves be drawn by the attractions of the terrain and the encounters they find there...”. In algorithmic psychogeography, walking is guided by an algorithm or fixed pattern (Bassett, 2004). An example is
turning right after two blocks, walking one block, turning left, walking two blocks, turning right etc.

IMPLEMENTATION OF THE APPROACH
We started off to the city and focused first on observing and the city life, urban rhythm, physical context, people’s movement in the city, groups of people and their actions. We took notes, shot photos and videos and tried to identify patterns related to people’s movement and locations within the city center. We also interviewed from where and why a person had come to a specific location. Figure 1 illustrates, how we observed in certain areas the flow of people and formation of pairs and groups.

![Figure 1. Observing city life and patterns of people moving in selected areas.](image1)

We made several attempts to come together, discuss and identify something to design for and failing miserably. And ended up going out again time after time, to observe the city life. When coming together we drifted between technology and design trying to think about existing technological infrastructure within the city, like public screens how to engage people into using them, thinking about how to implement temperature sensing into our observations of how people use space on the streets, how to use QR codes for accessing old photos of buildings at a certain location and think about how to design something engaging people into action. We were half way through the five days, and we had nothing concrete, that we could agree on as a goal, nothing that seemed worth exploring and meaningful enough to be implemented or studied in practice. Example of one of our first attempts that we dropped is shown in Figure 2.

![Figure 2. Exploring the rhythm of the city.](image2)

We set off once again to explore the city, frustrated, and separately. This time one of the team members got something interesting in his camera view: graffiti, stickers and posters. When coming together we again first started to think about how could we apply technology to replace these practices as they are illegal, but then we realized that by looking at these practices we might actually learn something about the local life as these practices are manifestations within their context. At this point we finally were ready to break free from the technology driven design and took the map of the city center, divided it into four equally sized blocks and map these areas through these three types of media with GPS enabled mobile phones capturing photos of the selected media types – each poster, sticker and graffiti that we came across within the area that each of us was assigned.

Mapping the city through urban traces
As we set out to explore and captured altogether 512 geotagged photos from the city center of the three types of media (stickers, posters and graffiti) we were looking into the question of why in the era of digital technology, people still use the non-digital and illegal forms of communication, what can we learn about the city life and the practice itself?

To map the captured photos, we decided to upload them to Flickr (see Figure 3). We used both qualitative and quantitative analysis of the photos. We used in the qualitative analysis three categorizations based on 1) the type of media (graffiti, sticker or poster), 2) the surface on which the media was found (poles, trash bins etc.), and 3) the content or theme of the media (music, politics, sports etc.). We used these categories and codes within the categories to tag each photo (see Figure 4). Quantitative analysis was used to reveal relationships between media, theme and surface.
THE WHOLE PROCESS AND THE OUTCOME
As a whole, the process that we went through during the week is illustrated in Figure 5. The figure illustrates, how we went through multiple phases of exploring, coming finally up with the idea, and implementing it, and as both the exploration by photographing as well as actual analysis of the collected data emerged, we gained understanding of the city life, practices related to these media, and found a new map of the city, that was created by the captured and mapped photos and dependent on the media (see Figure 6).

WHY WE FINALLY SUCCEEDED?
We used considerable amount of time to struggle with our sticky habits of HCI related practices, methods that we had used in our prior studies for eliciting user needs and requirements or for innovation, own personal preferences, and trying too hard and too fast to get into the design and implementation phase. Specifically, each of us also was stuck with the basic university education background in one way or the other – either engineering, architecture or design, which was manifested in how we approached trying to identify either implementation possibilities or what to design for. It therefore took quite some time break free from our background and habits, and prior approaches that we had each found successful in our own prior research when designing and developing solutions for relatively clear goals and needs.
The succeeding in the challenge and starting truly to explore the city can be attributed to the multidisciplinary background of the team as it enabled to

- identify the topic for the focus of the study, as one of the team members had photography as a hobby and he therefore had an eye to look for topics to photograph,
- the innovative way of using technology and its affordances in capturing and mapping the city life, as the team members were used to think about utilizing affordances of available services and technological enablers in their research in data collection and visualization,
- the methodological approaches in exploring the city through walking, that the team applied in the task and
- the qualitative and quantitative analysis approaches used in the analysis of the collected photos that were based on team members’ prior approaches used in analysis of data and applied for the analysis and coding of the geotagged photos.

Although we did not implement in our project a new technological solution to replace an existing practice or augmenting the reality with digital information, our solution to capture photos and share them in Flickr documents captures the reality of that moment and part of history that may be cleaned up tomorrow. In addition, by exploring this type of existing practices in its specific context, we may find new requirements for supporting the practices with technological solutions as well.

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REFERENCES

Figure 6. The invisible edges of the city center lightened up by stickers on poles.