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## From experiencing sites of past to the future of the Demolition Man, and how graffiti fits to all

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### Abstract

This paper explores the possibilities graffiti can provide to research user experience, focusing in those that might emerge in urban environments. The concept of User Experience (UX) can be seen as a consciously experienced phenomenon entailing for example biological, psychological and cultural, spatial and temporal aspects. Graffiti can be used as a tool to study experiences and meanings in physical and social places and practices. This can be done by studying direct experiences while completing a task, but also for example by narratives and memories involving graffiti. As the technology develops, it is incorporated in our lives, becoming more adaptive and virtual. This might have a strong impact in our future experiences while engaging with urban systems.

**Keywords:** Graffiti, user experience, spatial experience, memory, interaction research, UX-design

### 1 Introduction: defining User Experience

The term User Experience (UX) is often associated with human-computer-interactions (HCI) and when designing products and services involving computers, smartphones, machines, digital user interfaces and such. Even though there is a lot of buzz around this trendy term “UX”, the concept of user experience still seems to be vague and varying to many. For example, sometimes “experience” is mixed with “perception”. Experience as a word might have alternative meanings in different contexts, as can be seen when experience is referred to a direct and immediate experience (Erlebnis in German) or to the cumulative, earlier based experience (Erfahrung). Typically, UX in HCI refers to the former; as internally felt effects of interaction with a product or a system in the context where it is used

in (Hartson and Pyla, 2012), whereas the latter may be more about gained knowledge, memories and life history.

As Saariluoma and Oulasvirta (2010) suggest, user psychology framework can be used outside the field of HCI. The same underlying explanations about how humans interact and experience can be applied for example in researching and designing physical places and urban, built environments. User-centric planning that involves understanding people’s behavior, cognitive processes and what kind of tasks they might face, has been suggested to be implement for example in architectural work, where humans can be seen interacting with artifacts such as buildings (Krukar et. al, 2016). However, in order to be able to discuss about user experience in urban contexts, it is necessary to first clarify how UX can be described.

Saariluoma and Oulasvirta (2010) propose that we humans can be seen as intentional actors, where different sets of activities are driven by different sets of needs and goals. Our subjective experiences emerge in interaction with the material-social-cultural-historical world and technological artifacts (Saariluoma and Oulasvirta, 2010). User experience can be seen as a phenomenal experience that occurs during a same period of time than the underlying mental activities and processes related to that specific event (Edelman and Fekete, 2012). User experience may be seen as cognitive process that is prompted by internal or external stimuli (Dale et. al, 2012). This process which involves perception, thinking, emotions, goals, knowledge, memories, attitudes and beliefs, and many other psychological and biological factors, may lead to an unique conscious experience including a meaning and a certain feeling. (Revonsuo, 2010; Chalmers, 1996; Dennett, 2002; Carruthers 2000; Saariluoma, 2001; Von Eckard 2012). A conscious experience can be seen as a plastic phenomenon, which is based on the development of individual's skills, sensorimotor practice and cultural learning, reflecting to the dynamic and social interactions in different cultures, contexts and situations (Allen and Williams, 2011). These interactions can further modify both our behavioural patterns and even the functionality and structure of our brains (Han et al., 2013).

An experience is deeply impacted with individual's cognitive functions. For example, shift in attention might change the focus of interest and perception and thus alter the experience (Laarni et al., 2001). This may affect to how a person starts to perceive new environmental affordances and possibilities to act (Noë, 2004; Tversky, 2011; Schnall, 2011). The sense of agency impacts to perception, thinking and experiencing (Noë, 2004; Varela et al., 2016; Joy and Sherry, 2003), also in graffiti (Schacter, 2008). In addition, as humans we are living beings, moving, navigating and interacting in our three-dimensional environments (Schubert and Maass, 2011), converging the sensory information from different senses such as touch, vision, hearing and others, into a supramodal, spatial knowledge (Tversky, 2011). As Bloomer and Moore (1977) propose, the strongest memories of the spatial structures of our three-dimensional environments are born through our bodily experiences. A conscious experience depends also on spatial context, which may further affect to the

perception and estimations of space and time, due to both biological and socio-psychological reasons (Schubert and Maass, 2011). These reasons might be for example what kind of bodily, cognitive, emotional and social resources a person has in order to cope and act in any current situation (Schnall, 2011). As Schubert and Maass (2011) propose, spatial and social cognition affect each other and to our thinking about spaces and social realities. These suggestions above might explain for example, if a person is interested in graffiti, she may start to notice new city surfaces as potential places for graffiti, create mental maps of those places where for example physical distances, accessibility, and the social milieu in those places might be felt differently than before or than for other people.

According to Hartson and Pyla (2012), user experience cannot be designed because it is related to the subjective user and to the context of the interaction between the user and the design. However, by using appropriate research frameworks, such as user psychology, we can try to find explanations with enough predictive power about different users and what may impact to their experiences of things and interactions (Saariluoma and Oulasvirta, 2010). We can try to find solutions to those problems that arise from the analysis around events and activities in human life for human beings, by researching "what people do and why they do it" (Beccari and Oliveira, 2011, p.13). This way of thinking also evolves the user centered design to a more holistic view that is used in life-based design, where the focus from analysing mere individual user needs is shifted to a goal of improving the quality of people's lives in different situations (Leikas, 2009).

## **2 Graffiti as a tool of an experience and an anchor to cultural sites**

Research in art and aesthetics by using graffiti as a research tool can offer insights to the study of how different users experience life. According to Dewey (2005), art is experienced as a result of interaction between the art work and the experiencer; as a subjective, emotionally impacted experience when reaching a certain goal. Visual art and graffiti both may (or may not) invoke interest, further interpretations and emotions in their perceivers (Myllylä, 2018b). The experience and inferences may



Fig. 1: Urban user experiences can be studied by using graffiti as a tool. This kind of a UX-study was conducted during a Purkutaide-project in 2016 at Kerava, Finland, where this photo is taken (Purkutaide, 2016). Photo: Mari Myllylä, 2016.

change according to the perceiver's knowledge, values and goals, just to mention few. Also, the multisensory sensations that arise during inspecting an artwork may affect to how a person values and experiences art (Joy and Sherry, 2003; Kirk and Freedberg, 2014). Visual art and graffiti are made possible by using technology and tools to produce different kinds of pictures, which can further be seen as not just visual copies of the world, but as tools for putting something that is normally hidden on display (Noë, 2015, 152-161; Heidegger, 1995). Using urban art form such as graffiti as a means to study experience (Myllylä, unpublished raw data; figure 1) creates an intriguing possibility to inspect for example what aspects of individual and social properties are similar or different, how they develop and change and what might explain those and other possible phenomena in contemporary world we live in.

We can interpret graffiti also as a part of a contemporary, urban culture and its built spaces. Graffiti, like other

postmodern art, can be interpreted as a way to confiscate and humanize built environments that are made distance and sterile by the modern architecture (Myllylä, 2018a; Pallasmaa, 1996). We can see graffiti as an intervention disrupting and challenging not only physical places but institutions, attitudes, morals and norms about for example legality, democratic participation to the society or art (Dickens, 2008). We can also understand graffiti not as a confrontation, but as a natural, organically developing and spreading communicative, technological and creative practice (Noë, 2015).

Graffiti is externalized in physical world, altering and modifying for example the spatial experience. Graffiti entails artistic and other properties and may create an experience with aesthetic content. An aesthetic experience can be seen emerging as a result of a complex, continuous interaction within perceptual, cognitive and emotional processes, and it underlays not only the perceiver's individual characteristics, such as knowledge, interests

and personality, but also the situation, social discourse and socio-cultural world's expectations, and many other aspects (Leder and Nadal, 2014). According to Noë (2015), to experience art and to be able to perceive different nuances of it, to be able to infer it and to have interest, ideas and emotions about it, requires also to be able to engage with it. This is just like with graffiti. The engagement is easily disrupted, and it requires active efforts from the experienter to be able to stay interested, find new aspects, meanings and understanding in the work, even barring the occasional dullness and boredom that perceiving art might cause (Noë, 2015). This kind of involuntary boredom can be illustrated for example in study of street art (Bengtson, 2014).

Context and physical location seem to be some of the key issues when explaining the differences within how people perceive and experience art and graffiti (Bloch, 2016; Chmielewska, 2007; Ferrell and Weide, 2010; Gartus and Leder, 2014; Kirchberg and Tröndle, 2012). Even though graffiti works are by their nature ephemeral, there typically seem to be places where the amount of graffiti artefacts is saturated. According to Ferrell and Weide (2010), these kind of locations provide also moments for social processes and development of both the city and graffiti world in a dynamic relationship (Ferrell and Weide, 2010). As Casey (1993) proposes, we come into places and act in those places usually together, also modifying and reforming the places together, through our shared cultures. At the same time that culture is shaping us. We are all connected to the same continuously changing and renewing spatial and temporal history, where we all create new mental connections to just by moving in those places (Massey, 2005).

According to Wells (2016), within graffiti writers "graffiti" is foremost a culture, a way to participate in the world as a rebel, to conquer public spaces and walls with writers' signatures. Groups from families to cultures are also important for a person's development, behavior and user experience (Matsumoto, 2001). Graffiti works may be seen as connecting the graffiti subculture into concrete places. As Casey (1993) proposes, places are an essential part of culture, they are always connected with a cultural context, and vice-versa a culture has always been linked to a certain place. The cultural connection of a place emerges in the level of an experience, via the agency of the body, expressing the collective community, social interaction, historicalness

and politicality (Casey, 1993). Social and spatial practices, differing human activities in different cultural contexts can create varying meanings even for a same physical place (Arnold and Ballantyne, 2004). Because people experience the world in fundamentally different ways between different cultures, it is recommended, that any research related to humans should be done as a cross-cultural study (Pervin, 2003). In case of designing interactions which impact user experience, at least the world view and general knowledge of the end user, context of the usage, and the tasks to be accomplished by the end user should be considered (Blank et al., 2013).

### 3 Spirit of the urban space, spirit of the graffiti

Norberg-Schulz (1980) sees, that a place is formed out of wholes of concrete material things, which together define the essence of that place. A place has its own experienced atmosphere that is construed of different wholes of its parts, that cannot be reduced to its individual properties. The genius loci, the spirit of a place, is defined by the nature of those things that are in that place (Norberg-Schulz, 1980). Instead, Langer (1953) suggests that places are things that are created through people's activities and relationships, illusions of different perception fields and activity patterns, each having their own geographical visual looks. Places are invisible, tangible virtual spaces, where however there are different physical objects. These artefacts are only parts of the whole culture, that opens up and is understood only for the people who know that culture (Langer, 1953). Similarly, because graffiti are artefacts produced by their own subculture, their aesthetic language and symbolic meanings may open up to a person who understands and can read the graffiti subculture often better or at least in different ways than a person who does not possess this knowledge (Bowen, 2010; Gartus et al., 2015).

Graffiti can also be mentally associated to exist in special places or activities, in meaningfully organized mental schemas (Solso, 2003). In a study to investigate graffiti evoked experiences (Myllylä, unpublished raw data), interviewed participants often seemed to imagine visually certain types of prototypical (Solso, 2003) graffiti works into underpass tunnels, on abandoned buildings' walls or on train cars, with speculatively less possible encounters



and interactions both physically and temporally. In other types of graffiti, especially those that participants seemed to evaluate for example more artistic, skilled or interesting, they located to more publicly shared places, such as libraries, sport halls, or even on covers of books; assumably, where ever they seemed to think to be more active site of participation and visibility (Myllylä, unpublished raw data). Presumably, on what kind of sites the graffiti works are mentally located might depend for example of the individual's psychological characteristics, her personal history and interests (Gartus and Leder, 2014), level of expertise and knowledge (Ferrell and Weide, 2010), certain learned graffiti cultural stereotypes (Lombard, 2013) and social norms (Fransberg, 2018), and possible other reasons.

Built environments can be seen as network of public and private places, where people's experiences are born of interaction with physical and imagined spaces; things and everyday practices which affect to our concepts of space and time (Deshpande 2016, p. 321-322; Tversky, 2011). Similarly, graffiti can be encountered in abstract and concrete forms; as physical artefacts or in spoken or written stories. Graffiti writers' works can be seen as a collection of their individual and subcultural meaning-making practices, creating name-tracking networks, which affect both the members of that subculture and anyone who confronts their graffiti (Hanna and Harrison, 2004).

Different narratives exemplify the various and complex ways graffiti can be assessed, judged and engaged with; not only as hegemonic master narratives but also as showcases for ambivalence of individual actors (Sliwa and Cairns, 2007). Ylinen (2018) describes, how graffiti is viewed in two different construction projects' public media narratives, bringing forth certain, occasionally overlapping and partly contradicting themes, which illustrate some typical ways graffiti are assessed and judged. As Ylinen (2018) suggests, these narratives could and should be utilized more in designing better living environments for all users of those spaces.

#### 4 Urban experiences in sites of memories

Graffiti can merge into parts of their environments and create a unique experience of place, which would not be the same without those graffiti. Those places become valued and fostered, and they can stay in the memories or recordings of their experiencers long time after the physical place has disappeared. This way those places can become as "sites of memory", places for preserving and honoring practices of histories and meanings of special social groups (Winter, 2010, p. 312). An example of this kind of a special place is the "Pasila Gallery" (figure 2), a noticeable Hall of Fame for Finnish graffiti subculture which attracted painters from all over Finland and abroad.

In this place as a physical, architectural space, originally a large tunnel for cargo trains, there were many elements that fascinated graffiti writers as well as other graffiti interested audience; it was at the same time hidden and in a central location, it was illegal, mysterious, exciting and dangerous, generating a feeling of temptation as described by Hildebrand (1999). Pasila Gallery had its own distinguished character, which according to Norberg-Schulz (1980) is an important aspect of experiencing a place. Pasila Gallery had also its own recognizable identity, which served as a platform for both shared experiences and intentions, reminding other graffiti galleries, but still being unique as its own spatial whole (Relph, 2008).

Since my last visit to Pasila Galleria in 2016, there has been major changes in the Pasila station area, and the Galleria has deceased to exist. With the disappearance of the Pasila Gallery a large part of Finnish graffiti culture's history has disappeared too. The formerly active and often visited place by graffiti writers has now turned into a saved memory, that is shared and put forward in discussions, nostalgic stories and historical documents about graffiti in Helsinki, both by graffiti writers and institutions preserving art and other cultural artefacts (see for example HAM Helsinki Art Museum, 2018). Thus, the lifetime and existence of an original graffiti work can be seen continuing as a physical copy, recording or a memory (Marsh and Hick, 2014; Schacter, 2008; McCormick, 2005).



Fig. 2: A researcher is exploring, experiencing and recording Pasila Gallery. Photo: Antti Ojajärvi, 2016.

Memory as a mental phenomenon is not a sort of a permanent recording, but a result of a dynamic, selective, interpretive and integrating process (Foster, 2008). Memory can be seen as a reconstruction of a past, which is affected also by the current moment and the anticipation of the future. To remember something is an interactive event itself. It is affected by individual's worldview, knowledge and expertise, attention and interests, mood, motivation and goals, and memories, in turn, affect to individual's thinking and behavior. Memories change, mix and distort as time goes on, and also much is forgotten. What is recalled later, is often actually a reconstruct of the existing memories, reasoning, suggestions and expectations that a person has at the moment of recalling. This can even lead to false, imagined memories. (Foster, 2008; Sutton et al., 2010.) Also, memory is not to be understood as a simple information storing and retrieving process that happens

mechanically in brains. As Sutton et al. (2010, p. 210) put it: "The activities of remembering that matter in everyday life often involve the interaction and coordination of memory-related processes at many different levels and timescales: neural, cognitive, affective, bodily, social, material, and cultural".

For example, even though people seem to appreciate the experience generated by original visual artworks higher than their copies, the memory of that artwork can still keep it existing, even if the original work was destroyed (Marsh and Hick, 2014). Then, Marsh and Hick (2014) speculate further, by recollections of the artwork an art experience might be possible to become a part of a publicly shared experience, even with people who have not perceived the original work themselves (Marsh and Hick, 2014). It is quite easy to see how graffiti can be experienced via

printed or digital copies of shared memories. Whether it was about the subcultural resistance and the collective traumas of zero-tolerance period or the visual styles of early contemporary graffiti, graffiti enthusiasts seem to be immersed in graffiti subculture and recognize its highly appreciated artefacts almost as if they had lived, encountered and experienced those events and objects themselves, instead of learning them from for example discussions, books, internet or other media. Thus, individual's personal memories become compatible and completed with collective memory (Sutton et al., 2010).

## 5 Back to the Future with the Demolition Man

As technology develops, those thoughts that today might seem utopian or even absurd can tomorrow be a part of ordinary everyday life. We can find examples for example from the development of information technology, computers, robots and Artificial Intelligence (AI). Technological development has enabled new information age phenomena and things accessible to all (at least in developed, high-income societies) from social media to selfie-sticks, from movement recognizing game consoles to augmented reality smartphone applications. Even though it is quite impossible to predict the future, it is quite plausible that technological development will change our lives even more drastically or different ways, than we can imagine now.

Remember the clip from a movie "Demolition Man" from the year 1993, where a graffiti automat appeared from the ground and painted a quick political graffiti on a police sign; the piece was immediately erased by an automatic buffing system (electricity?!) that automatically erased the graffiti? Well, what then was the imagined technology in year 2032, is not that far away technology anymore. As we have witnessed, technology has become ubiquitous, invisible but all-present in our environments, interacting and adapting to human behavior and changing environmental conditions.

For example, it has become common to have inbuilt systems and "adaptive architecture" that can automatically manage for example lights, temperature, air-conditioning and access in buildings, and even further, reacting to human behavior via embedded sensors, computers and

other technology (Jäger et al., 2016). "Embodied Adaptive Architecture" aim to offer digital environments, which can provide unique and personalized experiences for people via their bodily inputs and interactions from distance, without needing to physically touch the system controls (Jäger et al., 2016). Even though I do not wish that there would be systems such as in the Demolition Man, what would be interesting to see is how adaptive environments could offer for example digital interfaces for creating graffiti and public art for some building users, and something else for others, depending on user requirements.

Virtual Reality (VR) has been used to gaming but also for education and research on experience, for example to investigate gender differences and similarities (Martens et al., 2018), and the experience of body ownership and body transfer illusion (Slater et al., 2010, p. 4-7). It is already possible to create immersive paintings in Virtual Reality (VR), where people can "step inside" the painting in a virtual, three-dimensional space, where the graphical objects such as light or fire can be synchronized with audio sounds and tactile haptics, and the works can be even shared with other artists (Tilt Brush, 2019). Also graffiti production can be simulated in a virtual space in a special VR game, where the player can browse and wander in different virtual locations, either selecting her own spots to write or observe other graffiti writers works in other virtual spots (Kingspray Graffiti, 2018).

This raises an interesting possibility for the future: maybe in the not so distant future graffiti are made, watched and experienced more and more virtually. For purists this might seem an appalling idea, and rather silly science-fiction. However, according to the brief discussions of couple of graffiti writers who have themselves tried out this game, the experience is not that far from the real one. Of course, there are still differences for example in the ergonomics, how the player of the game holds the controller versus how in real life a spray can or a marker pen are held. There are still challenges and shortcomings in creating a fully immersive and realistic experience in VR, as it lacks for example odors - which can be important part of a graffiti writing experience - and inputs and feedback on vestibular-proprioceptive information, causing nausea and disorientation.

But the technology gets more realistic, cheaper, and for example travelling to further locations is probably going



to lessen due to possible restrictions and lifestyle changes required because of the climate change. It starts to seem quite plausible that VR could replace at least some of the physical graffiti production and practices in real life. What kind of effects this would have to the physical appearance or the mental experience of a place in situ can only be speculated.

## 6 Conclusions

As has been noted, urban user experience in graffiti is not only the physical production or perception but it is also a mental and bodily experience, connecting oneself to physical and social world and their meanings. The user experience depends on multiple factors from individuals to groups, from spatial to temporal. Research and design of urban user experiences require considering how aspects from the biological to psychological and social may affect to the experience.

Models from e.g. neuroscience can help us to understand, for example, how the visual and attentional systems may work in biological level, but they do not tell much about the social discourses and bodily interactions that happen in the real world, outside laboratories. Similarly, focusing on just social or cultural explanations of experience can leave out some important findings related to for example psychological development or cognitive mechanisms, which can provide stronger explanations for certain behavior and mental phenomena that are otherwise difficult to explicate. (Freeland, 2002; Noë, 2015; Saariluoma and Oulasvirta, 2010).

When designing common spaces, products, services and systems, it is important that all people who are potential users are considered and involved. For example, living places should be designed to offer comfortable, safe, accessible and adaptive spaces for all members of the community. They should be respecting and preserving both tangible and intangible material, people and cultural-historically valuable items. These include also graffiti, as they may be an essential part of contemporary, urban experiences.

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### Figures:

Figure 1: Purkutaide-project. Photo by Mari Myllylä, 2016.

Figure 2: Pasila Gallery. Photo by Antti Ojajärvi, 2016.

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