

Haptic Media Across Cultures

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Abstract

The paper presents how mobile and ubiquitous technologies add new layers to the arsenal of medias potential for perceptual manipulation. This shift can deeply affect and change users impression of place, pleasure and identity. Experiments with haptic, wearable and GPS enabled technologies enable new corporal sensations and sensitivities that pose new possibilities, but also challenges to how we understand the world and across cultures. Through a practice based approach, rooted in media arts, the paper describes how the new, mobile media reality can be applied to manipulate our impression of the world. To understand the changes induced by perceptual manipulative media, I will first present the World Ripple mobile, haptic art project, then discuss how this impacts us across different cultures. The author has here worked with women in Iran to map cultural differences in how touch can be experienced in order to produce changed perceptions of the world. In the context of ISEA 2014 the paper will present both the utopian and critical issues of how these emerging technological possibilities add to media that manipulate our perceptions of the world as well as across eastern and western cultures.

Introduction

Touch is my main artistic medium. Since 1992 I have built a wide range of artistic experiments and projects researching into how touch can be used as an artistic material. [1, 2, 3, 4, 5, 6, 7] Building functional haptic systems and experiences is more than a technical endeavor. When applying touch in the context of art, one quickly discovers all the complexities attached to it, both in order to understand and utilize it. So, how do we learn to understand touch? Touch has a strong cultural, learnt component. [8, 9]

The body can be seen as a construction that we have to learn. If we learn to see the body as something else, then the body as we knew it ceases to exist. It is replaced by a new, learned body that filters and affects our perception differently from the old one. The great plasticity of the body percept is reflected in Merleau-Ponty's claim that the body is 'an historical idea' rather than 'a natural species'. [10] To understand the depth of the body as an historical,

and therefore also cultural 'idea', I decided to probe it in the most extreme, different and unknown context for me.

From the culturally biased perspective of a white, European male, I wanted to explore how Muslim and covered women sense touch in public space. A further speculation was if they would change behavior with the changed perceptions due to electronically extended senses.

This was inspired by a weak, but working hypothesis that Muslim women from the Middle East have a limited haptic sensitivity while walking outdoors. The strict dress code is due to the rules of conduct and clothing imposed by Muslim and religious laws.

My impressions and fascinations were both inspired by western media reports of current living restrictions in Muslim countries as well as historic, western exoticism. One example is the clash between Niqap or Burka dressed ladies in the news and Disney's portrait of Princess Jasmine (Arabic: الأميرة ياسمين), starring in The Aladdin cartoon (1992), as the historic embodiment of Muslim and arab sensuality. [11] Admittedly a naïve inspiration, but also toying with stereotypes, this approach inspired the following problem formulation and experimental hypothesis: if these Muslim women were given an electronic clothing that function as a second, sensitive and haptic skin, then these women would also experience an extra, extended sense, or sensitivity of their environment.

Project in Iran

To research and solve these issues I travelled to Teheran in 2008 to build an electronic chador and test it with Iranian women. My reason for going to Iran was solely to explore what most people at that time saw as one of the three worst countries of 'The Axis of Evil'. If an 'evil' country, then my experiences would most likely contribute to my artistically inspired methodology of autobiographic, confessional autoethnography.

For the technological construction I brought along components from my previous experiment with The World Ripple Project. [3] The *World Ripple* project builds geotagged structures in empty space that become physical

through a vibrotactile bodysuit. The structures are like invisible, immaterial sculptures made sensually senseable by a tactile, wireless, mobile bodysuit and binaural sound system. These sculptures are triggered by GPS coordinates. They are expressed as physical stimulations and soundbased compositions. The sculptures of World Ripple are experiential –and sensed - in the open, outdoor landscape. As computer constructed structures they can be endlessly large and dynamic experiences that can cross, be sensed around and potentially even encompass the whole world. The users wear a transparent, bodybased and visually hidden system. The bodysuit is worn underneath the ordinary clothing and has a resolution of 64 puls modulated outputs controlled by an Arduino board. In the first versions, the mobile, sensor- and GPS based computing system was carried in a shoulderbag. Walking through the world users will sense and interfere with the sculptures.

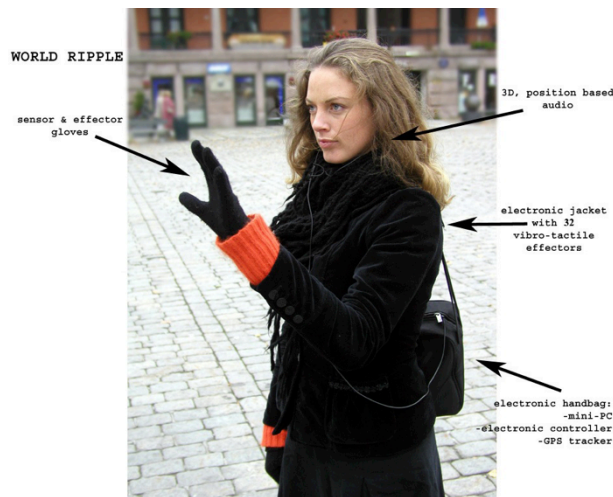


Fig 1. *World Ripple system set up*, 2005, Stahl Stenslie, Mobile Haptic Media, Copyright Stenslie.

World Ripple combines computer constructed structures with the existing, physical and real landscape, and is therefore a "*Mixed Reality*" project. [12] It is a corporal interface where none of the interaction is screen based. The project focus on the individual, body oriented spaces of experience. The parameters enabling the user to experience the immaterial sculptures are mainly location and behaviour (orientation), but also personal profile (individual needs) and biometric data (personal condition). The user experiences the sculptures as combinations of different tactile patterns triggered in the bodysuit. These stimuli give the sculpture texture and strength. The shape of the sculpture, that is walls, borders and consistency are rendered through different combinations and strengths in the effectors of the suit (vibrotactile stimulus). Different sound patterns and recordings are triggered and played as

the user meets and affects the sculpture. This combination of physical stimulus with sound gives a strong and immediate sense of physical consistence and spatial experience.

Experiments with haptic, wearable and GPS enabled technologies -such as World Ripple- enable new corporal sensations and sensitivities that pose new aesthetic possibilities. Emerging physical connections between humans and the Internet become new sensory organs that challenge the corporality of how we literally grasp and understand our environment. This both adds to and extends well beyond McLuhans audiovisual phenomenology. His quote that the medium is an "extension of ourselves" was based on the experience with the electric technology of radio and television. [13] Now haptic telepresence and global, real time networks add yet a new layer to media, promising to impact our very physiognomy, but also cultural production of meanings of touch.

As touch is not just a pre-reflective acquired skill, but also can be understood as a culturally acquired knowledge, the what are both the common as well as diverging ways of understanding touch across western and Arabic cultures? Will a European female understand the same stroke of the same bodypart in the way a Muslim women would?

To investigate the cultural differences or parallels in experiencing touch amongst women, I brought several short, binaurally recorded sound stories where Norwegian women talked about how it was to sense as a woman in Norway. Through the anticipated abrupt, geo-cultural shift in understanding, how would these stories relate to how the Iranian women sense?

The artistic goals of my project were several. Firstly, as mentioned, I wanted to work together with Iranian women to explore if and how their senses of touch were culturally coded. Would they have a sensual impression of nakedness while being fully dressed? Then I wanted to build a bodysuit with local materials and look. This resulted in the electronic chador, the traditional Iranian female outfit of a full length cloak, typically held closed at the front by the wearer's hands or under their arms. [14] Further I wanted to construct new haptic sculptures together with Iranian women in order to both directly experience, but also exchange 'bodies of touch' between women in Norway and Iran.

While in Iran I managed to build a contact network and work with several women in the safe environment of one private home. Here I conducted personal conversations, interviews and made trials with the electronic Chador that was custom built at the site. In particular I worked closely with a Muslim woman that had a background as actor in traditional Iranian theatre. While working with the vibrotactilely produced touch in the bodysuit, we never actually exchanged personal touch, not

even a handshake. Despite the nature of the project there was a respectful distance in approaching the skin barrier. Touches were developed with the female *touch'O'nauts* wearing various development stages of the chador, while I was testing scripting touches in real time. Patterns of touch were iteratively developed through testing and questioning. In parallel the one female participant scripted and recorded stories of how she experienced being a woman. These stories unfolded in a poetic and metaphysical way.

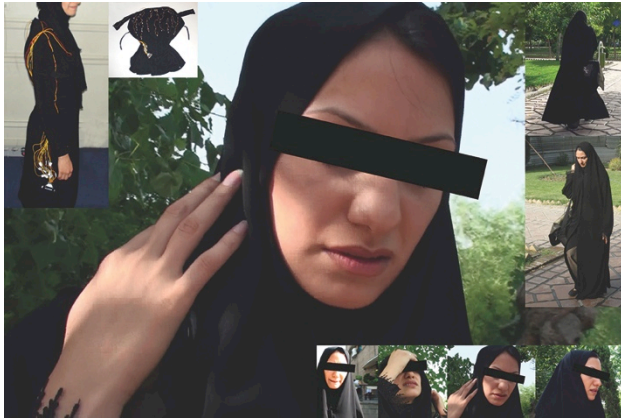


Fig 2. *Electronic chador test*, 2005, Stahl Stenslie, Mobile Haptic Media, Copyright Stenslie.

Field Test

At the end of the period we conducted a field test in the Bag-e-Tehran park, Tehran, on June 19th 2008. This park is relatively shielded and we felt we somehow could do a participatory observation of the one participant while trying geo-tagged, haptic sculptures built around the binaural stories told by Norwegian women. The sculptures were based on their recording of their won phenomenological and embodied understanding of touch and translated into touch patterns and sound.

The sculptures consisted of five different locations/zones in the park where unique and distinct sense-stories/sculptures could be experienced. The performer did not know where these zones were. The performance was done in secrecy due to the performers fear of repercussion. All necessary measures were taken to hide the performance.

Results

The findings of the project were several, yet conclusive results are in need of more research. The project set out to expand the possibilities for Iranian women to sense their environment, but also to better understand how strict, religious dress codes affects the understanding of touch.

In essence the project was somewhat able to explore the biopolitics of haptics and perception in Iran by literally dressing women naked to corporal sensations and direct, vibrotactile stimulus. One result indicated by the participant was a certain heightening of corporal sensations. This, however, could also be due to the experienced sense of illegality and tension during the performance. Obvious differences in touch between Scandinavian and Iranian women are found in the ways touch is played out. Touch in Scandinavian context is much less ridden by shame. Also, sexual explicit content appears much less tolerated amongst the otherwise rather open Iranian participants. However, one of the stories of being an Iranian woman contained rather explicit references to erotics, but wrapped in symbolic language. This story later became a part of my Blind Theatre project. [15] The most concrete result was that a unique, electronic chador/bodysuit was created and tested in public by one Iranian woman. Albeit a strictly ethical and respectful approach in European terms, this was completed while in risk of exposure to and possible detention by the Iranian, Islamic religious police.

The remaining speculative mediation is that mobile, geo-tagged, haptic media such as World Ripple represents a new approach to our phenomenological experience of the world. It is still so new that a new vocabulary and new conceptions of touch are needed to better understand it.

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