

Original-Ecology Sounds of Cities' Impression

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Abstract. Sounds appear everywhere. From the natural sound of a primitive society to the mechanical symphony of an industrial society, we are surrounded by sounds. Along with the development of human society, new sounds are produced continually. So the sound history reflects the course of human history. However, due to a lack of awareness to our sound environment, some sounds have faded away while their value not being recognized. Original-Ecology sounds, which are without any processing, trace our ways of living and thinking, and touch on our memories and feelings. Sounds are invisible and intangible. Once gone, the crafts, lifestyle, living conditions and feelings that they used to represent will disappear along with them. Sounds are a part of our cultural heritage and deserve to be studied.

As an important part of human civilization, cities are associated with the development of human society. Today's effervescent cities generate many new sounds while accelerating the demise of traditional ones. We intend to evoke the lost memories of neglected sounds by creating an interactive, emotional-centered experience. More Than Sound, an on-line social soundscape with three major components: a mobile application, a website and a public sound installation, outlining social scenes and life stories, it does not end up at encouraging people to collect and save sounds around cities; it enables people to form a deeper understanding of their living environment through cities' vivid sound portraits.

Keywords: Original-ecology sounds, soundscape, cities, cultural protection, emotional-centered experience.

1 Introduction

Sounds appear everywhere. From the natural sound of a primitive society to the mechanical symphony of an industrial society, we are surrounded by sounds. Along with the development of human society, new sounds are produced continually. So the sound history reflects the course of human history. However, due to a lack of awareness to our sound environment, some sounds have faded away while their value not being recognized. Original-Ecology sounds, which are without any processing, trace

our ways of living and thinking, and touch on our memories and feelings. Sounds are invisible and intangible. Once gone, the crafts, lifestyle, living conditions and feelings that they used to represent will disappear along with them. Sounds are a part of our cultural heritage and deserve to be studied, according to UNESCO, even as intangible cultural heritage¹. Therefore, in recent years, sound protection plans have got social approval and public's support.

As an important part of human civilization, cities are associated with the development of human society. Today's effervescent cities generate many new sounds while accelerating the demise of traditional ones. This design intends to evoke the lost memories of neglected sounds by creating an interactive, emotional-centered experience through a social soundscape. This design, grouping sounds by cities, encourages people involved in cultural protection to collect sounds around a city, creating a global impression by piecing together the different fragments.

More Than Sound, an on-line social soundscape, consists of three major components, a mobile application, a website and a public sound installation. Comparing to the mobile application and the website, we focused more on the public sound installation because of its greater flexibility and stronger sense of engagement.

2 Related Work

In recent years, Britain, Germany, America, Spain, South Korea and other countries have begun sound protection plans on the internet, with Britain's are the most complete and abundant. For instance, the "Save Our Sound" project of BBC² is aim to build a sound map of the world through encouraging people to snapshot sounds in their daily life and share the recordings to its website. While "London Sound

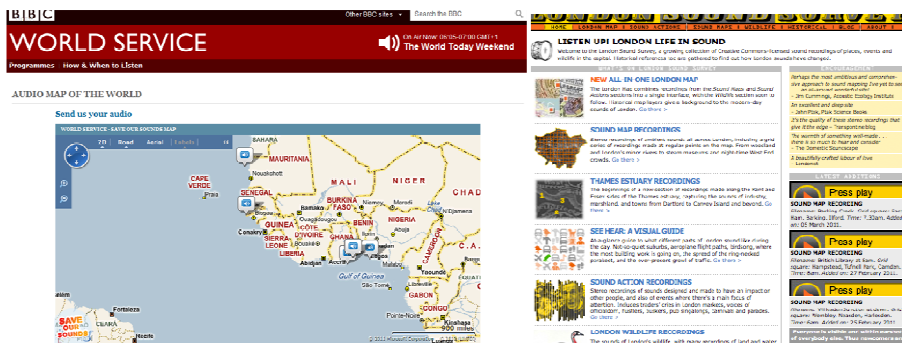


Fig. 1. "Save Our Sound" & "London Sound Survey"

¹ Meri Kytö, Nicolas Remy & Heikki Uimonen, European Acoustic Heritage, published by Tampere University of Applied Sciences (TAMK) & Grenoble: CRESSON 2012.

² <http://www.bbc.co.uk/worldservice/specialreports/saveoursounds/index.shtml>

Survey”³, even though only collecting sounds in London, it has a very detailed classification of sounds, includes social, economic, culture, religion and so on. However, all these projects end up at collecting and uploading sounds, what we hope is to dig into people’s mind to provide a more interactive and emotional way to enhance people’s engagement in experiencing and saving sounds.

3 About Original-Ecology Sounds

3.1 Definition of Original-Ecology Sounds

Original-Ecology is a new phrase. People are talking a great deal of something in the original ecological form, such as “primitive” or “natural” music or performance or painting, etc. In this paper, original-ecology sounds mean sounds without any processing. They are fragments of living spaces, reflecting the most real life state of human beings. Every single, little original-ecology sound of daily life contains many kinds of information like a place, the people who live there, their beliefs, etc. For instance, the sound of a teapot in the morning can be associated with the warmth of family and motherly love. These sounds can connect with our feelings directly.

3.2 Relationship between Original-Ecology Sounds and Human Emotions

Original-Ecology Sounds and Regional Culture. A sound is produced within a physical environment, thus its content is strongly related to its location. Every place is represented by its sounds: shouts from Beijing Hu Tongs or from Guangzhou Teahouses, ringing in Shanghai Linongs, etc. These sounds are marked by the regional culture. Upon hearing these typical sounds, people who come from these places would attach their memory naturally. R. Murray Schafer, a Canadian composer and environmentalist, has put forward a concept of “soundmark”. It is derived from the term “landmark”. A soundmark is a sound which is unique to an area. He said, “Once a Soundmark has been identified, it deserves to be protected, for soundmarks make the acoustic life of a community unique”.⁴

Original-Ecology Sounds and Time characteristics. In addition to the illustrations of regional culture, sounds are characteristic of their times. Different historical periods will produce different sounds. In 1930s and 1940s, it was filled with the roar of war fire sound in China; while in 1950s and 1960s, it was the idolatrous crazy cries because of the Cultural Revolution. Time characteristics are blended into the acoustic impression subliminally.

Original-Ecology Sounds and Human Emotions. A song is touching, because it sings into your heart; a sound is attractive and impressive, because it carries your feelings and memories. Combining above two features, sounds is contagious by its emotional resonance. As Emotional Design mentioned: The objects in our lives are

³ <http://www.soundsurvey.org.uk/>

⁴ R. Murray Schafer, *The Tuning of the World*, published by Univ of Pennsylvania Pr, 1981.

more than mere material possessions. We take pride in them, not necessarily because we are showing off our wealth or status, but because of the meanings they bring to our lives.⁵ This sentence simply explained that our attraction to an item is not the item itself, but because of the related meanings and emotions. Therefore, people have more in common with sounds closely related to their lives. It could be the roar of the train, or shouts from the local farmers market, or the chirping of birds in the morning, etc.

4 Design Concept of a Social Soundscape

Original-ecology sounds carry the culture of different regions and times. Hearing, as a perception, can evoke rich scenes. In observing this, we came up with an idea about establishing an on-line social soundscape which outlines social scenes and life stories. It is named More Than Sound. This design, basing on cities, advocates people to collect sounds around their local areas, creating a global impression of their own city by piecing together the different sound fragments. Therefore, people can understand cities in a whole new way. More Than Sound consists of three major components, a mobile application, a website and a public sound installation.

As science and technology develop, networks will be everywhere. People can exchange information from different devices without any limitation of place and time. From large-scale computers to portable computing devices, from traditional hard disks with limited storage to modern cloud computing with large capabilities, the technological advances have created good conditions for collecting and storing sounds. People can record sound anywhere and at any time by using portable computing devices.

In this way, the mobile application is the fundamental part of the whole system. Given the portability, mobility and versatility of mobile phones, it is easy for people to collect sounds while adding extra information, such as the location and photos. They can upload, share and manage sounds through the network. The website can collect the sounds that were not recorded through the mobile application. It also provides users with additional social features. The public sound installation, getting data from the two basic clients above, allows people to experience sounds in a public space.

5 Design and Development

5.1 Social Research

Share Stories: achieve shared empathy and a common vocabulary.⁶ Sharing stories is a design approach to understand our audiences. According to respondents' descriptions, we can know about their needs and feelings. In this section, I want to proof the below two points:

⁵ Donald A. Norman, *Emotional Design*, published by Basic Books, 2005.

⁶ Banny Banerjee, Stanford University, *Design thinking based co-creation*, 2010.

- There are some cherished sounds in everyone’s memory.
- People are willing to participate in sound protection plans for their cities.

We conducted separate in-depth interviews with 7 people from different background. According to the result of our survey, we found that each interviewee has their own cherished sounds closely related to their living environment. And they were all willing to record and share these sounds.

One of our interviewees said:

“My hometown is a small village in Mongolia. It is a very quiet place. In winter snowing nights, I can hear the snowflakes falling to the ground with a gentle sound. When I think of my hometown, it is the courtyard in the early summer. The wind is blowing the leaves around, rustling. When the wind is becoming weak, I can hear the shouts of traders from so far away, and my dog starts barking. Then, the wind gradually becoming strong again, all that’s left is the rustling leaves sound... Maybe the fact is not so, because memory is always changing. I would like to call it as ‘Heart Sounds’.”

Indeed, sounds become blurred as the years go by, but some of them have imprinted in heart. These sounds can evoke audiences’ strong emotional resonance.

5.2 From Service Blueprint to Sound Tag

Service Blueprint is used to be an effective design approach for constructing service systems, but we would like to use it to explain this soundscape system because of its clear and pragmatic structure. During designing the interaction flow, we need to consider the complete operation of a user behavior. Therefore, it is a chain from a user’s operating behavior to the visual interface and eventually to the background data processing.

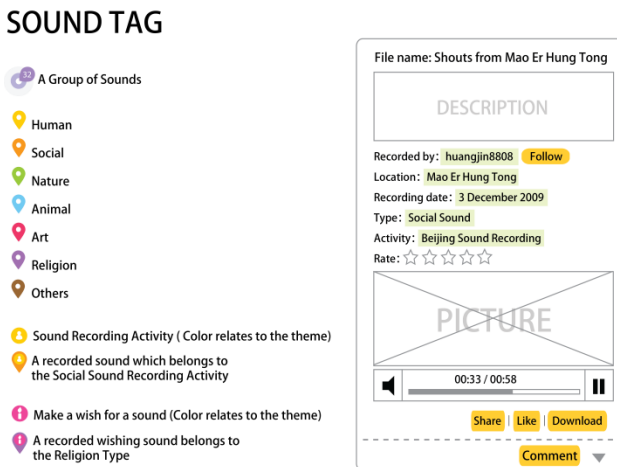


Fig. 2. Sound Tag

After two days classification of blueprint, we found that no matter what user operations are, all are linked to the sound tag attributes. Consequently, as long as the sound tag attributes are sufficiently complete and accurate, the system can meet the needs of users. Below is a sound tag sample with a brief description.

5.3 Specific Design of the Public Sound Installation

Information Framework. As we have mentioned above, the social soundscape consists of three components, a mobile application, a website and a public sound installation. Comparing with the mobile application and the website, the physical installation allows more design possibilities and is more attractive to our audiences by its stronger sense of engagement. We hope to use this medium to enhance people's awareness of their acoustic environment and arouse people's enthusiasm in saving sounds.

There are three sections of the physical installation: Project Introduction, Sound Exploration and "Sound Parcels". Sound Exploration is the core section of this installation, including different cities' soundscapes and "Sound Postcards". Project Introduction is an overview of this sound protection plan, while "Sound Parcels" provides an e-mail service for audiences. People can select their favorite sounds after providing their e-mail addresses, and then the system will send the selected sounds to them.

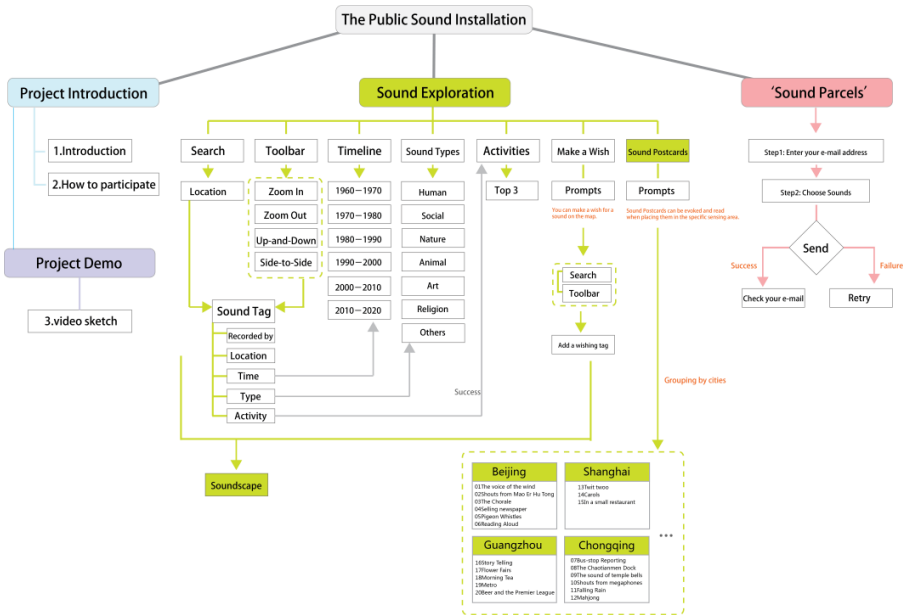


Fig. 3. Information Framework of the Public Sound Installation

Sound Postcards. Postcards which always carry best wishes are not only miniatures of places, but also mediums for people to convey feelings and emotions. In observing

these similar characteristics to original-ecology sounds, we intended to combine the postcard concept to our design, thus formed Sound Postcards. Sounds grouping by cities are bound to separate RFID chips which are inserted into different physical postcards. Once people placing them in the specific sensing area, these postcards can be evoked and read, while the visual content is showed in a related big screen.

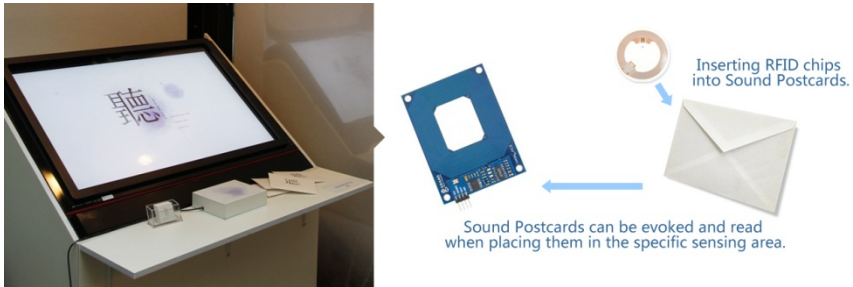


Fig. 4. An Illustration of Sound Postcards

5.4 Visual Design

The interface design is aim to create an immersive atmosphere of listening. Sound as an invisible and intangible media, comparing to the physical form, it is like the ripple which appears after a stone falls into water. Chinese Painting style, as a combination of flowing rhythms and elegant colors, expresses a sense of quiet and harmony. As a result, we combined these two factors to form our final interface design style which leads people into a state of wholehearted listening.



Fig. 5. The Interface Design Style of More Than Sound

6 Conclusion

Original-ecology sounds are like the auditory historical texts, outlining the social scenes and life stories. More Than Sound, it does not end up at encouraging people to collect and save sounds around cities; it enables people to form a deeper understanding of their living environment through cities' vivid sound portraits.

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