The University of Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

Chamberlain, Alan and Bødker, Mads and Papangelis, Konstantinos (2017) Mapping media and meaning: autoethnography as an approach to designing personal heritage soundscapes. In: Proceedings of the 12th International Audio Mostly Conference on Augmented and Participatory Sound and Music Experiences, 23-26 Aug 2017, London, UK.

Mapping Media and Meaning: Autoethnography as an Approach to Designing Personal Heritage Soundscapes

Alan Chamberlain
School of Computer Science
University of Nottingham
Nottingham
UK
Alan.Chamberlain@Nottingham.ac.uk

Mads Bødker
Dept. Digitalization
Copenhagen Business School
Copenhagen
Denmark
mb.digi@cbs.dk

Konstantinos Papangelis
Dept. of Computer Science & Software
Engineering
Xi'an Jiaotong-Liverpool University
China
K.papangelis@xjtlu.edu.cn

ABSTRACT

The paper presents reflections on understanding the issues of designing of locative sonic memory-scapes. As physical space and digital media become ever more intertwined, together forming and augmenting meaning and experience, we need methods to further explore possible ways in which physical places and intangible personal content can be used to develop meaningful experiences. The paper explores the use of autoethnography as a method for soundscape design in the fields of personal heritage and locative media. Specifically, we explore possible connections between digital media, space and 'meaning making', suggesting how autoethnographies might help discover design opportunities for merging digital media and places. These are methods that are more personally relevant than those typically associated with a more system-based design approaches that we often find are less sensitive to the way that emotion, relationships, memory and meaning come together. As a way to expand upon these relationships we also reflect on relations between personal and community-based responses.

CCS CONCEPTS

• **Human Centered Computing** → **Collaborative and social computing;** Collaborative and social computing theory, concepts and paradigms; Social content sharing; Collaborative content creation.

KEYWORDS

Ethnography, Autoethnography, Semantics, Methods, Design, Maps, Audio, Participation, Ubiquitous Computing, Place, Space, Memory, Curation, Museums, Music, Heritage.

ACM Reference format:

A. Chamberlain, M. Bødker, K. Papangelis. Mapping Media and Meaning: Autoethnography as an Approach to Designing Personal Heritage Soundscapes. In *Proceedings of Audio Mostly, London, United Kingdom, August 23-26, 2017 (AM´17)*, 4 pages. https://doi.org/10.1145/3123514.3123536.

1 INTRODUCTION

Ethnography has long been used within a variety of settings in order to articulate and understand the everyday worlds of work and leisure. It is particularly important to highlight the role and impact that autoethnography has when we consider the move from the public to the private spheres of life, a space where researchers are perhaps not welcome and where a more democratic, truthful, existential representation of lived experience is required in order that we might *really* understand about people. As Chamberlain *et al* [6] write, "*the computer has steadily moved from the workplace to the domestic space and beyond, in all manner of forms...we can truly say that this technology pervades our day-to-day lives*". It is autoethnography that will in part be able to offer understandings about technology, and the way it pervades and intertwines with our lived practices, social existence and our past.

Unpacking one's own world through autoethnography is something that has emerged within the field of Information Systems [2]. A key reason for using such an approach is its ability to offer insights into the world of the user as a felt and affected experience, which one might argue renders a less abstracted representation of phenomena of the real-world, "*in the wild*" [8]. This is an important factor in understanding personal heritage. Studies can be found in other domains, examples of such research are evident in the development of systems for aircraft maintenance [1]; education [9]; ERP implementations [15], and social media systems [4].

Yet, there is little written about the ways autoethnography might inform how ethnography, experience, media and meaning are brought together in respect to personal heritage and place. As Ingold [14] writes "*...based on the premise of our engagement with the world, rather than our detachment from it ...this life process is also the process of formation of the landscapes in which people have lived*". We reflect upon ourselves in and as part of the ongoing construction that is us *being* part of the landscape, and part of that landscape are the experiences and feelings that we attach to the physical tangible and intangible worlds of memories and emotions. There is a genuine case for using an autoethnographic design approach to locate personal media as it goes beyond conventional "*implications for design*" [3], is more

than a "*scenic*" study [10], or an 'imposed' analytic. It is a method of imagination, a lens through which to discover social and personal potentials in design, a way to imagine the intangible in a tangible world, to support a *self-design* agenda and to bring shared meanings and expressions into space; sonically, architecturally, temporally and semantically.

Like Geertz [13] we acknowledge the nature of the ethnographer as an author, and in so doing understand that there is both a literary and narrative nature to the presentation and performance of the ethnographic text. Even the most methodologically dogmatic ethnographies need to 'frame' their writings for an audience, in order to offer some sort of validity to their findings. In this paper we are not on a search for empirical truth, but rather a journey in design that leads the (auto) ethnographer to connect with their own understandings of the world, and in so doing connect with others. However, this is not to say that there are not studies that use autoethnography as a methodological framework. Recent research in regard to the design of mobile technologies [12] and also within the field of media and informatics [2] is heralding a new wave of research, that one would argue is of particular relevance to a range of research communities. Autoethnographies are obviously 'personal' accounts, and they rely on the ability of the ethnographer to connect an autobiographical account with broader cultural formations [11]. As auto*biographical* renderings, they are open to 'vulnerable' narratives that favour affective, felt encounters with our selves engaged in the world. They are ways of seeing our selves engaged in a culture, and as such they are also ways of recognizing (and rendering) experiences that have particular emotional resonances or embodied and affective impacts that 'analytical' ethnographies might not be receptive to.

In the following we use two shorter autoethnographic vignettes to explore connections between memory, sound and place, suggesting that rich personal reflections on one's self as we encounter the world (i.e. 'confessional tales', *see* [18]) can point towards broader conceptual opportunities for designing and locating media. We would ask the reader to appreciate the highly personal nature of some of the work that we present, and in so doing understand its relevance as a way to understand the ways in which people understand and make sense of the world. *Understanding this is key to developing our system design – one in which people leave personal moments, audio vignettes, sonic-memory-scapes for others to find and respond to.*

2 SCENE ONE

"It feels as though I have always been quite sensitive to sad songs. As a child I often had to walk out of the living room when sad (or what I then perceived to be sad) songs were played on the radio, to avoid crying and the ensuing embarrassment. It seems I am (still) a sucker for the nostalgic. There is a song – rather more like a sequence of notes (an 'arpeggio', to be precise, a broken chord) that has stuck in my mind. It's from an old Swedish children's movie that I watched as a child. Later in life, I still recall that modulating arpeggio from the soundtrack. Often when I think of something sad, the sequence of notes (or is it the sound, the 'atmosphere' of the major chord (possibly just

[:c/g/e/g/e/g:]) played on what sounds like a large electric organ or a slightly detuned synthesizer?) plays in my head.

Some time ago my partner played what sounded just like that arpeggio on our old, out-of tune piano. At first, I kept an analytic façade, and we talked briefly about the chord. Soon after I felt the familiar surge of nostalgia, and while I can now keep the tears at bay, my mind was trapped, for a while, in a moving pictures memory-scape of childhood. I watched the movie at the cinema in the small town where I grew up. The cinema is gone, turned into a sports store, and there's a fast food place next to it, by name commemorating the old theatre. I am trying, in my mind to locate the sound. Where does it belong? For some reason, I do not associate sounds with the exact place where I first heard the music. They do not belong in the cinema or even readily call up images from the movie. In my imagination, the sounds latch on to a broader childhood landscape of flat, overcast marshlands. Maybe driving through it, sitting in the backseat of my parents' car, or to the repetitiveness of the wet landscape? I'd like to think that the sort-of-medieval sounding Swedish romanticism could seep out of the ground there too, that other people might share in my experience of the short musical sequence in what has, for me, become the 'proper' setting. Perhaps the music is also meaningful to other people? What would other people make of it? Watching the city, now, from my window, the tones begin to signify a longing towards something that I have lost, but also reflecting on choices that I have made, people and places that I have perhaps neglected and left behind. Some of my fellow city dwellers might harbor similar nostalgias, similar experiences of an uprootedness; a slight feeling of being out of place, a low mood sometimes cured by a particular sound.

2.1 Sound, Scene and Community

My imagined connection of a sound with a place is private, but experiencing such connections between sound and place can be positively communal, a notion deliberated in Truax' work on what he calls 'acoustic communites' [17]. Communal sounds "*are usually acoustically rich and may even have musical value, and therefore they acquire their significance in the soundscape through their ability to make a strong imprint on the mind, an imprint that embodies the entire context of the community. It is the relationship between acoustic richness and functionality within the community that seems to account for the significance and longevity of sound signals*" [17].

The sounds in my mind are not a natural part of the "acoustic community" and the ecological soundscape, but as a cultural artifact, the tones, the slightly scratchy sound and dusty timbre of the instruments, and the recurring detuning of the recording, probably due to tape wear or a slightly detuned analogue synthesizer, contribute to my sense of the sound as appropriate and 'shareable' and meaningful to other people that have a connection to the same landscape. Sound and music can connect us to a memory, a strong nostalgia; a desire for something that feels lost in time. While memories *are* lost in time, they have roots that seem to fix themselves to places and practices, they have a certain materiality that allows us to imagine and feel their

immediate connections to the tangible. Imagining new connections between digital media and archives of digital content such as sounds and music might be a means with which to re-enchant urban or rural sites and the space that exists between such classifications.

3 SCENE TWO

"I go to the same places quite often, I suppose we are all creatures of habit really. I remember going on a certain walk quite often when I was younger, we always said, "we're going up the Red Road". It was a destination, a starting point and ending point. The Red Road began where the path turned red and finished where the redness ended; a point on the horizon that could be seen from my home. It was red, brick red: crushed bricks that had a texture and sound underfoot. I went there with my family, saw relatives and their friends out walking, we knew the local place names, the paths that crossed the road, where they led and who owned the land. We would be told about what used to be there, placed physically and historically, we'd pick wild fruit from the hedges and examine the natural world in detail. The sun seemed to be constantly shining, we'd eat bread and cheese, drink water from glass bottles and listen as the adults chatted in their strong local accents, smoking and laying back on the grass. I remember things being fresher then, there wasn't the continual background hum of traffic, or streetlights that bleach out the natural colours of the world. People knew each other and they knew the place and seemed to be more of a part of it, embedded. It was just ordinary.

I come to this after thinking about my co-ethnographers words, there is something that makes you want to balance ideas when you analyse someone else's world. I look out of the window in my office and see the town – a city full of people, socially aware and connected, and think of personal photographs, I flick through a few and am reminded of the sound of their voices, now distant, of places that are now full of different sounds and spaces to the ones that I knew. My world was a different place then.

3.1 Sharing My World

I know it's odd but I'd like to share those kinds of things about the place that I live now. Just leave an audio trail, a story or a thought that people might come across in the ether. There's a Celtic hill fort next to the town that we walk over and I'd like to leave things for other people that I know to respond to, I have plans to use the defenses of the fort, they are layered like giant steps designed by some ancient architect. I know there are all kinds of people that walk over the fort, from locals to tourists, from ecologists to archeologists. Locating media is about connections, locations and being there. Understanding the dimensions of the place and its possibilities in a very personal way. Humanising content is central to it having impact, being able to understand and share the world, and openly inviting response for others, strangers and friends.

3.2 Self Design

As a design response to this, I think about things I've lost, the sound of the spoke accent and dialect of the area, of the landscape of my family and my early voice. Yet, there are things that I have gained; new social connections, a different appreciation for the place that I now live and another language. Place-making is much more than just a design response though. It is about bringing experience into being and allowing the social 'accretions' into being, allowing them to surface, displaying and articulating the interconnectedness to places that exist for us.

4 AUDIO LANDMARKS

What is the sound of my places? What are my sounds? I know if they aren't there, I notice their removal. Sounds in space are a key feature of space; they are audio landmarks, triggers, markers, relate to people, memories and things. They are an integral part of the landscape, but how do we experience and make sense of a space through sound? Adding audio (media) to a place, understanding its interplay with other features in that context and how, when and who might discover it, is in our opinion key to its impact within a given context. This is particularly pertinent in spaces where the sound is ever changing! There have been artistic experiences such as Blast Theory's *Rider Spoke* [5] an experience that allowed its participants to cycle around the city and listen to messages, and leave their own messages that where located and added to the city by the artists. This was a powerful experience for many involved and created a liminal semi-confessional space for people to leave stories about love, loss and death, but we believe that allowing people to become the architects of their own media experiences through an autoethnographic response could engender emotional and personal responses that would be difficult to design for and engage with – using other qualitative methods.

5 PERSONAL DESIGN AND COMMUNITY RESPONSES

Our studies have started to explore the methods that we might use in order to involve community in the design process and move from a personal response to one that relates to the responses of others. Our earlier work explored the use of large active projected surfaces as community interfaces [6], the role they play and their application. Dynamic maps offered groups the possibility to look at the areas where they live and examine the possibility of both planning the placement of media in the landscape, reflecting on the physical issues that related to this and discussing it as a group. A design possibility that emerged from that scenario was the possible development of tangible artefacts that could:

a) Inter-relate to each other to explore narratives
b) Have media embedded onto them (in this case audio)
c) Be used as part of a mixed media projection system
d) Be used on map interfaces

5.1 Sounding Out Technology

One initial response to these challenges has been to use AudioCubes (Figure 1) (www.percussa.com) for exploring how communities articulate and narrate relations to sounds and places. AudioCubes facilitate an interactive and tactile

environment where sensor-enabled perspex cubes can trigger sounds dependent on how the cubes face each other, distance and so forth.

Figure 1. AudioCubes

Using wide mid/side stereo field recordings of urban and rural soundscapes as material to trigger dialogues, our initial findings from sessions with AudioCubes indicate that manipulating cubes and the sounds we mapped out on them (i.e. associating the faces on the cubes with different soundscapes) allowed participants to openly imagine or narrate connections between soundscapes, places and experience. For instance, by layering different sounds, informal stories about pleasant vs. unpleasant soundscapes, past experiences with sounds, musical qualities (rhythm, pitch, timbre) of environmental sounds, curiosity and 'close listening' practices, as well as questions about the skills associated with creating pleasing and evocative soundscapes arose.

5.2 Future Directions

In our early explorations of the AudioCubes we were able to see that the application of such technologies could be used within a co-located scenario collaboratively, or as an individual. One of the major benefits of using the AudioCubes system is that it allows users to use tangible artifacts to locate and narrate intangible content. As we discussed earlier, we have previously used tabletop mapping systems, and in order to further understand the design of located experiences we will be combining the two systems, and examining the application of live-streamed audio content from distributed, related sites into the system. In order that the users can further understand the context in which their content will be placed. This also opens up opportunities for distributed collaboration and co-curation. With the authors of the paper being based in the UK, Denmark and China we also have the opportunity to explore cultural and individual differences that may 'come to light' when using the system in a distributed fashion, and the role that autoethnography plays in the participants' responses to the system.

6 CONCLUSIONS

Personal archives and infrastructures afforded by digital technologies increasingly allow us to access almost unlimited media anywhere. In this paper we have discussed the use of autoethnography as part of a self-design approach in respect to adding media and media to the city. In addition, we have started to suggest how tangible interactive technology can contribute to community-based (or intersubjective) narratives and foster

collaborative sense making around the merging of place with media. As technologies are emerging there are new and exciting possibilities whereby people can self-design experiences, which can be social, located and mobile, spanning modalities and times. As such systems emerge we hope that the discussions and ideas in this paper will form a platform for future discussion, reflection and debate.

ACKNOWLEDGMENTS

REFERENCES

[1] Atak, A., & Kingma, S. (2011). Safety culture in an aircraft maintenance organisation: A view from the inside. *Safety science*, *49*(2), 268-278

[2] Bødker, M & Chamberlain, A. (2016). Affect Theory and Autoethnography in Ordinary Information Systems, Proceedings of 2016 European Conference on Information Systems, (ECIS 2016), June 12-15th, Istanbul, Turkey. AIS

[3] Button, G. (2000). The ethnographic tradition and design. *Design Studies*, vol. 21, 319-332.

[4] Bucher, T. (2012). A technicity of attention: How software "makes sense.". *Culture machine*, *13*, 1-13.

[5] Chamberlain, A, Oppermann, L., Flintham, M., Benford, S., Tolmie, P., Adams, M., Row-Farr, J., Tandavanit, N., Marshall, J., Rodden, T., (2011). Locating experience: touring a pervasive performance. *Personal Ubiquitous Computing*. 15, Springer, London 717-730

[6] Chamberlain, A., Malizia, A & Dix, A. (2013). Engaging in Island Life: big data, micro data, domestic analytics and smart islands. HiCUE 2013: Workshop on Human Interfaces for Civic and Urban Engagement. Ubicomp 2013, Zurich, Switzerland. ACM

[7] Chamberlain, A., Crabtree, A. and Davies, M. (2013). Community Engagement for Research: contextual design in rural CSCW system development. The 6th International Conference on Communities and Technology 2013, C&T 2013 Munich, Germany, ACM.

[8] Crabtree, A., Chamberlain, A., Grinter, R., Jones, M., Rodden, T. and Rogers, Y. (eds.) (2013). Special issue on "The Turn to the Wild" with authored introduction", *ACM Transactions on Computer-Human Interaction - ToCHI* 20(3), 13:1-13:4

[9] Cunningham, S. J. and M. Jones (2005). Autoethnography: a tool for practice and education. In Proc. 6th ACM SIGCHI New Zealand Conference on Computer-Human Interaction: Making CHI Natural. ACM: 1-8.

[10] Dourish, P. (2006). Implications for design. Proceedings of CHI 2006, ACM Press.

[11] Ellis, C., S. and A. Bochner (2000). Autoethnography, Personal Narrative, Reflexivity: Researcher as Subject. The Handbook Of Qualitative Research. N. Denzin and Y. Lincoln, Sage.

[12] Eslambolchilar, P., Bødker, M and Chamberlain, A (2016). Ways of Walking: Understanding Walking's Implications for the Design of Handheld Technology via a Humanistic Ethnographic Approach. *Human Technology*. Agora Center, University of Jyväskylä

[13] Clifford Geertz (1988) Works and Lives: The Anthropologist as Author, Stanford: Stanford University Press.

[14] Tim Ingold (2000) The Perception of the Environment: Essays in Livelihood, Dwelling, and Skill. London and New York: Routledge

[15] Kidd, T. T., Ashe, C., & Carroll, N. (2013). A Journey through the Wilderness: An Autoethnographic Study of the ERP System Implementation Process As Created by IT Project Managers and Team Members. *International Journal of Information Technology Project Management (IJITPM)*, *4*(4), 1-34

[16] O Riordan, N., (2014). Autoethnography: Proposing a new method for Information Systems research. European Conference on Information Systems (ECIS). Tel Aviv, AIS.

[17] Truax, B. (2001a). Acoustic Communication 2nd edition. Westport, CT: Greenwood Press van Maanen, J. (1988) Tales of the Field. Chicago, Chicago University Press.

[18] van Maanen, J. (1988) Tales of the Field. Chicago, Chicago University Press.