Probing Mundania: Using Art and Cultural Analysis to Explore Emerging Technologies

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Abstract

This essay will discuss my work in the interstices between art and cultural analysis. I will expound on how I've used a certain concept as part of artistic practice and cultural analytic research. The concept, which I've chosen to call Mundania*, is used to grapple with the role of emerging technologies in everyday life. The concept is used to discharge imaginations about everyday life characterised by a looming uncertainty and the comingling with ungraspable complex technologies that gradually become ordinary. I will show and discuss how the work with the Mundania-concept is based on processes of* probing.

Keywords: art, emerging technologies, digital, media, probing

Introduction

Since the 1990's I've done research around tech-related phenomena and tried to understand the role new digital technologies have in people's everyday life. How do technologies transform everyday life and how does everyday life transform technologies (Löfgren 2015)? How do imaginaries relate to different practices and how is life entwined with infrastructural, technological, corporate, and organisational processes and structures?

I have studied how the first Internet consultants in Sweden during the shift of the Millennium promoted and contributed to the rise of a society permeated by digital technologies in which everyday life is dependent on uninterrupted Internet connections and arcane techno-organisational workings (Willim 2003). As an extension of that work, I have also studied imaginaries about factories and industries in a society that has been promoted as being postindustrial (Willim 2005).

I have gradually developed a strand of artistic practice that has been sometimes entwined with, sometimes semi-detached from my research. This progression of art and a kind of cultural analysis which has been developed within ethnology and related disciplines at Lund University is the focus of this article. I will end by showing how I have been working with art and cultural analysis in relation to research about emerging technologies and the uses of technology in domestic settings.[1]

Before showing and discussing how emerging technologies can be addressed through art and cultural analysis, I will begin to discuss how I approach research, art, and analysis. I will start by referring to a selection of scholarly discussions that are relevant to my approach. I will then go on to discuss some central aspects of my work, before connecting it more specifically to questions about emerging technologies and

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the ways I have engaged with the concept *Mundania*.

Art and Cultural Analysis

It is no exaggeration that a prevailing idea within academia is that the practices of research should follow a linear and rationally consistent trajectory. The idea about a predictable linearity of research, and the possibilities to beforehand design research projects has however also been extensively questioned and discussed, especially within different strands of qualitative research.

In the everyday practice of qualitative research, what takes place is often an interplay between the methodological and the irregular and serendipitous. Plans and commitments are fused with detours, shifts and unexpected iterations (O'Dell and Willim 2011a). It is difficult to separate a cultural analytic research process from external activities. If research is considered as something taking place in a certain imagined space, the border to this space is highly permeable (Wilk 2011). This is especially the case when systematic research is also supposed to be creative or methodologically inventive. In the following part of the article, I will approach these issues by presenting some ways to deal with the interplay between systematic scholarly practice and imaginative creativity when it comes to cultural analysis. I will then relate this to the ways emerging technologies can be studied.

I have a background in ethnological cultural analysis as it was developed at Lund University in Sweden during the 1980's and onwards. The core of these practices has been a heterogeneous approach, using a mix of methods, theories, and material. How to manage the interplay between the serendipitous and the systematic has been a recurring question in this strand of cultural analysis (Ehn and Löfgren 2010, 217ff).

When academic practice is discussed from within different scholarly disciplines there is often a focus on theoretical standpoints, how to describe methods according to roadmaps or flowcharts, or when approached in a broader manner, how "schools" and paradigms shift over time and how so called "turns" take place. Orvar Löfgren has stressed that we should instead focus more on how materials, tools, milieus, and devices influence research practices. "Rolls of maps, boxes of excerpts, filing cabinets, photos and styles of doing fieldwork do something to lofty theories" (Löfgren 2014, 116, see also Lury and Wakeford 2014; Law and Ruppert 2013). This means that the way we engage with the world, with devices, places, and relations is formative for research processes and thereby it influences how knowledge take form.

Similar issues have been discussed recently from different scholarly perspectives. Anthropologist Tim Ingold have for some time developed what he calls an *art of inquiry* to break with ideas about rigid forms of academic research and to acknowledge that much research has similarities with the creative practices of making within for an example art. He promotes an anthropology that is not based on the routinised model through which a first phase of fieldwork and data collection leads to a second phase where the scholar write-up results based on collected material. Instead Ingold's art of inquiry is characterised by a more unpredictable process.

> In this art, every work is an experiment: not in the natural scientific sense of testing a preconceived hypothesis or of engineering a confrontation between ideas 'in the head' and facts 'on the ground', but in the sense of prising an opening and following where it leads. You try things out and see what happens. Thus, the art of inquiry moves forward in real time along with the lives of those who are touched by it, and with the world to which both it and they belong. Far from matching up to their plans and predictions, it joins with them in their hopes and dreams. (Ingold 2018, 218)

This kind of practice is not aimed at collecting or creating data, or at documenting the world by compiling, organising and subsequently analysing material. Instead, it is a transformative practice, related more to practices of making than to documentation. "We need it not to accumulate more and more data about the world, but to better correspond with it" (ibid).

Ingold's thoughts resonates with some recent developments of design anthropology, which explicitly engages with the world. This is an expansion of anthropology that is often coupled to technology studies. It is intended to be used "to create interventions in how possible human futures with emerging technologies are understood and imagined" (Pink et.al. 2020:1, see also Gunn et.al. 2013). These scholars argue that the design anthropological approach can significantly contribute to debate and practice around contemporary social and technological transformations "because it brings a critical theoretical anthropological agenda together with in-depth ethnography and an exploratory, future-focused design research practice" (Pink et.al. 2020, 1).

Another strand within social sciences and humanities that can be associated with both design anthropology as well as my own practices has appeared within cultural or human geography and sociology during the last decades. It has been framed as non (or more than)-representational theories and methodologies. This approach has been developed and advocated by cultural geographers Nigel Thrift (2007) and Hayden Lorimer (2005) as well as sociologist Phillip Vannini (2014) among others. It has also been used to extend media studies to studies of everyday life and the quotidian (Moores 2021, 54).

According to Phillip Vannini, non-representational methodologies are to a lesser degree focused on correct and appropriate representation of empirical material, of life-worlds and events, instead they are used to animate, to enliven, to resonate and create rupture and even to "generate possibilities for fabulation" (ibid:320). This methodological strand is often related to or characterised by fusions with creative practices and creative arts (Boyd & Edwardes 2019).

Another way to reframe qualitative inquiry in a creative manner is by utilising what Annette Markham has called a remix approach or remix methods. It takes the point of departure in bricolage and then shifts to engaging with everyday practices of sense-making.

> The concept of remix highlights activities that are not often discussed as part of a method and may not be noticed, such as using serendipity, playing with different perspectives, generating partial renderings, moving through multiple variations, bor-

> rowing from disparate and perhaps disjunctive concepts, and so forth. (Markham 2013, 65)

The remix methods, as promoted by Markham, have some resemblances with the way ethnologists Billy Ehn and Orvar Löfgren have worked with bricolage and their eclectic cultural analysis. It also resonates with the ways I, together with Tom O'Dell have been discussing ethnography as a practice of composition (O'Dell and Willim 2011b, 2013).[2] A cultural analysis as a practice of composition can be related to the making of worlds and concrete engagement with things and stakeholders, blurring the borders between what is defined as applied and non-applied research.

When I have been developing projects in the interstices between art and cultural analysis the role of traditional ethnographic fieldwork has become less important, even if the engagement with people's stories and doings is still part of my work. Instead, what have become foregrounded are constant movements between art and cultural analysis based on explorative and reflexive practices of making and the engagement with materials, techniques, and technologies in relation to my studies of technology-permeated everyday life in countries like Sweden.

To understand this way of working with art and cultural analysis it is necessary to also look beyond the discussions within scholarly disciplines. The aim for me has been to work along an open-ended path of discovery and experimentation and to also challenge taken for granted routes and forms of academia. When is a book or an article a good way to communicate or to evoke something, and when are other modalities and formats to be preferred? As a researcher I started with ethnology and ethnography some decades ago, but I have then moved more towards mixes of art, making, and various extensions of cultural analysis. I have also worked with people and organisations outside academia, breaking with the preconceived idea about an academic career-track (Willim 2017c).

When developing my work, I have gradually incorporated devices and techniques from beyond the academic world of cultural analysis and the humanities, especially from music production, and artistic work. This is art and research, analysis + making, a practice taking place in different contexts. Sometimes inside the university, sometimes outside.

Probing (and Spawning)

Here I will outline a way to understand the practice I advocate. It will circulate around the word *probing*, but also play with the idea about *spawning*. I will briefly mention a set of older projects, partly because these projects have led to the way I today work with the concept of Mundania.

In 2003 I had researched the way the Internet and associated technologies permeated society for some years. The Internet consultancies and businesses that I had been studying around the turn of the Millennium often rhetorically positioned themselves as part of a new industrial order, part of a knowledge economy and a postindustrial society (Willim 2003; see also Löfgren and Willim 2005). The rhetoric and its associated imaginaries about progression and pioneering endeavours had made me increasingly

interested in the ways imaginaries about factories were going through changes. What is a factory, really? How are ideas about the industrial brought in and out of various contexts? What did the word *factory* mean in societies that were often described as postindustrial? Even if Internet by many proponents was imagined as generating a new world order and new possibilities, it was all very much based on material and labour of other industries. I wanted to grasp the ambiguous relationship between imaginaries about a new tech-infused order and revolutionary businesses and what was framed as traditional industry. While concentrating on the questions about the contemporary role of industry, I came up with the concept *Industrial Cool*. Initially, I used it to loosely refer to ways in which factories became aestheticized.

The concept was there as a point of departure. It was a point from which to initiate something, from which to set something in motion. This was the *spawning* of the concept Industrial Cool, and the beginning of an open-ended process through which I followed and tried different ways to create things and to let subsequent projects grow from the concept. This is the process I call *probing*, a way to engage with provisional renditions and insights.[3]

I started to read and write about industries and factories, in a quite traditional academic way. What were the genealogies of the factory concept and how was it described and used at the beginning of the new Millennium? In combination with this more scholarly approach, I also initiated projects that moved beyond seminar rooms and literature lists, such as the curation and compilation of two electronic music albums and subsequent events and activities. I also made several mostly autoethnographic studies of what I called resurrected factories and staged factories, for an example in the Ruhr-area and in Dresden in Germany and in various places in Sweden and Finland.

I have written some texts based on the Industrial Cool-concept (eg. Willim 2006 and 2008) and presented it in numerous contexts both within and outside academia, and I still follow how the concept develops when other people use it in their work. This way of following and reengaging with the concept is a continuous process of probing. I probe how the concept transforms, and I also revisit the things that have been the result from earlier work. I reflect on earlier parts of the practice. How can the concept be developed and how can I spawn something new that grows from the earlier work when I combine it with new insights and inspiration?

There is an apt tension between the words spawn and probe. Spawning suggests associations to organic processes, to procreation and how something starts to grow, while probing has got a more scientific ring to it, evoking associations to scientific devices, like space probes that are sent away to search or explore something. I find this tension inspirational and possibly productive. A tension that is "good to think and work with," to also explore possible juxtapositions of associated words like "research procreation" or maybe "organic method."

As part of this practice I read and write, I present, learn, and discuss. I collaborate. But foremost, I try things out. I explore and examine during an extensive period. Earlier works, in different formats and modalities, can hereby become steppingstones and parts of new projects. An experiment in sound can lead to arguments and sug-

gestions presented in a text. Conceptual and theoretical development can spark an art installation, and so forth. When working in this way things often happen when practically doing and making things, during the processes of writing and painting, during editing and recording, during collecting, transforming, and composing materials. But likewise, several insights might emerge in the moments in-between, in the situations when seemingly "doing nothing" (Ehn & Löfgren 2010).

Mundania—Where and When Emerging Technologies Disappear from Attention

The last ten years I have been working with the concept Mundania. Mundania is a way to imagine people's everyday life together with complex technologies. I started working with the concept while I was interested in mobile technologies and how satellites could be connected to movements in the landscape.

During the first decade of the 21st Century I started an ethnographic project, studying the practices of *geocaching*, which has been a label describing a multiplicity of treasure hunts, using GPS-technology. At this time, I also initiated several art projects that dealt with the relationships between technologies and geographies. This was during the same period that I was working with Industrial Cool. My research about the visibilities and invisibilities of industries became partly enmeshed with my explorations of GPS use. What were the industries lurking in the background of tech-infused outdoor experiences?

While doing fieldwork with geo-cachers, fascination came up as a topic for discussion and an affective focal point. Stories were told, not about overwhelming and sublime experiences, but more about small thrills. A kind of story that recurred was about the practice of walking through the landscape with a GPS-receiver while looking at the small screen of the receiver. On the screen, an arrow represented the user's location. While walking around, the arrow moved. When the small moving arrow approached some feature on the map, the user could look up from the GPS-receiver and see the actual feature in the landscape. Or hear it. Like a bubbling brook or roaring river. The virtual map on the screen of the device with its' small and animated arrow gave a new dimension to the experience of the landscape.

Like all digital or advanced technologies, a complex infrastructure was supporting this experience of the small moving arrow on a screen. It was the awareness of this opaque complexity that was part of the fascination. It was probably even the awareness about the complexity together with the invisibility of infrastructure that made it fascinating. To engender the small moving arrow and the other features on the screen, an enormously complex (military)-industrial assemblage of technologies and organizations had to be developed and maintained; around 30 satellites orbit the Earth. A number of these would have to synchronize their signals with the GPS-receiver. The absence of these complex and opaque workings standing there by a bubbling brook with the GPS-receiver in hand surrounded by woods and singing birds could enhance the feeling of fascination.

In the first decade of the new Millennium, mobile technologies became more and more widespread. Smart phones like the iPhone were soon introduced. Much of the locative and communicative technologies which were introduced around 2006 were

within some years incorporated in new things. These new phones became key devices that bundled several complex technological systems and services together. The services were soon taken for granted. Much of the technology that could be experienced as fascinating during the first years of geo-caching, wouldn't get any certain attention just a couple of years later. With a smartphone, users could soon use locative services and augmented reality applications on a daily basis. This merged physical surroundings with digital visual layers in complex ways.

When new apps and devices are introduced, they are seldom marketed with a presentation of the infrastructural workings beyond the user interface. Novel technologies are often promoted as something revolutionary, spectacular, and almost magical. GPS, The Internet of Things and various ways to use sensors, radar, AI and other technological tricks and infrastructures are expected to fascinate when they are introduced. This is when technologies are categorized as emerging. The fascination is enhanced by the experience that "it just works" without the visibility of any of the complex systems supporting applications and services. It's like when an illusionist performs for an audience without showing the real workings behind tricks. The audience is captivated by what takes place under the spotlight, suspecting but also ignoring that something is happening beyond their attention (cf. Löfgren and Willim 2005). Digital applications are often promoted as almost magical endeavors supported by an invisible infrastructure.

After a while of use, technologies often lose their aura. Emerging technologies escape out of consciousness and debate. Technologies can become taken-for-granted, infrastructural. This is what has happened with GPS and several associated services. How to capture this gradual shift? When analyzing emerging technologies based on GPS and digital devices, I felt a need to spawn a concept that could capture the process of gradual disenchantment and acceptance of incomprehensibly complex technologies in everyday life. A concept that captured how emerging technologies withdraw and gradually escape attention. A concept that also captured people's acceptance of the fact that it would be impossible to fully grasp the obscure and arcane workings of the techno-organisational amalgamations that make several mundane actions and routines possible (Beyes & Pias 2019; Bridle 2018). After some time, I went for the word *mundanisation*. And what could be a name for this dimension, or this imagined realm of everyday life characterized by mundanisation? *Mundania.* When fascination wears away, when the ungraspably complex become part of the fabric of everyday life, this is how Mundania takes form.

The ideas about Mundania and the mundanisation-concept can be a supplement to media-theoretical ideas about domestication. Since the 1990's the word domestication has been used to describe how technology is incorporated in people's everyday life (Silverstone et.al. 1992; Berker et.al. 2006). It captures how technology is adopted, how negotiations take place, and even how people may affect future strategies of producers. But it doesn't quite capture the processes through which incomprehensible complexity is turned into the ordinary, without really being "tamed." Here, mundanisation can capture how incomprehensible and even ominous complexity is maintained, while yet becoming part of the commonplace infrastructures of everyday life.

Complex technologies are often only seemingly converted step-by-step into controlled parts of everyday life. Where are the ends of control? How are dependencies engendered? Mundanisation is an attempt to address these questions. It is meant to capture how complex arrangements of technologies and human organisation maintain its incomprehensible unmanageability while still being transmuted into the ordinary, the mundane, the commonplace in people's everyday lives. Normalising what before, or at its introduction, was seen as impossible, frightening, or fantastic.

To somewhat simplify it, mundanisation is built on a two-part logic through which complex emerging technologies are transformed into the fabric of everyday life. First the underpinnings of complex technologies are camouflaged for users to integrate them in their lives. A user of GPS-powered services should not have to think about neither satellites nor software. This is obfuscation by design and organisation, or black boxing (Latour 1987; Pasquale 2015). The aim for many producers of products and services is to make the use of technologies simple and smooth at the expense of their inner and distant workings and underpinnings becoming more and more obscure. When these new technologies have become successful, when they are part of routinised everyday life, people normally do not actively think about the workings of the technologies. This is ignorance by routinisation. At this point technologies have become mundanised, and the two parts of the process continue to reinforce each other, engendering the everyday realm of Mundania.

There are of course variations and openings in the process of mundanisation. It is important to not see it as a unidirectional and universal process without discrepancies. The logic described above is a simplification. Incorporation of technologies in everyday life doesn't always happen in a smooth way. Some technologies are never accepted, there is resistance, friction, and debates as well as controversies on issues such as integrity, autonomy, power, and control. Several technologies and services are discontinued and do never reach any larger success. Others are however in various ways becoming enmeshed in people's lives, sometimes in ways not intended by developers, promoters, and planners. At some point in the life cycle of a popular technology, extensive critical reflection and discussion seems to vanish, to then sometimes re-occur. As Frank Trentmann has pointed out: "Rhythms and habits are interspersed with disjunctures and connected via suspensions, interferences and repair work" (Trentmann 2009, 69). Disruption and maintenance as well as failure is intrinsic to and even expected parts of lives with complex technologies (cf. Pink et.al 2017; Appadurai and Alexander 2020). This raises questions how the everyday rhythms between configuration, ignorance and maintenance are engendered and related to processes of mundanisation.

Even though there are obvious uncertainties and even risks, many technologies are still used. They are promoted and then adopted while they also paradoxically introduce new (and reproduce old) problems and risks (Kitchin and Dodge 2019). Taken for granted infrastructures are furthermore almost impossible to even bring up for discussion or small talk. Emerging technologies seem to gradually disappear from the attention of people. We need to know more about when and how this transformation really happens. Despite wide-spread awareness about potential threats or undesirable

circumstances, these are often ignored when emerging technologies are mundanised.

Variations of Mundania

A major part of the work with the Mundania-concept is to relate it to theoretical and cultural analytic discussions on emerging technologies, media, imaginaries, and everyday life. I elaborate on this in publications and talks at conferences and seminars and use the concept in research within various projects. I also probe the concept by testing out different ways to make things that relate to Mundania. Several of the things have been geared towards hybrid forms that could open unforeseen processes. I involve different people in these processes, to gain insights, reflection, and reactions. I also spark related concepts and projects. It is a way to probe the ends and variations of Mundania.

When the pandemic started in 2020, I wanted to quickly respond to the ways domestic life, societal changes and the role of technologies unfolded by creating an online outlet based on the Mundania-concept. I set up a website where I could publish short essays, images, reflections as well as embedded media such as video. I called it *The Mundania Files* and it was framed as a living online archive or book. It was based on the WordPress-platform and was a way to communicate and to create a repository for ideas to further elaborate on. I played with the idea of extensively using presets and templates to probe the tension between uses of the prefabricated and ideas about innovation when it comes to so called digital creative practice. The idea about prefab creativity was something I had explored early in my studies of digital cultures (Willim 2003).

The files were based on a growing number of essays called for an example *Waiting for Events*, *Walled Gardens*, *Curve Surfing* and *Smooth Operations.* These essays meandered between cultural analytic arguments and a serendipitous flow that juxtaposed examples and discussions that could tweak the ideas about Mundania and life during the pandemic. It was a way to communicate with different people in different contexts and a way to test ideas.

During 2020, The Mundania Files became a crucial point of reference for my work with *AI Lund,* an open network for research, education, and innovation in the field of Artificial Intelligence based in southern Sweden. This network gathered scholars from Lund University as well as several people and organisations beyond the university to further the knowledge about AI. The Mundania Files were used as one starting point to discuss societal and cultural dimensions of AI and related technologies, and during the year it became part of the communications from the network.

Before Christmas 2020 I was asked by AI Lund to make a video work that could extend some of the Mundania Files. As a response, I made a video essay titled *Waiting*. I tried to evoke the affective atmosphere amid the COVID-19 crisis. It was a hybrid work that connected occurrences in Sweden related to the virus during the time just before Christmas with the ways author Tom McCarthy in the novel *Satin Island* (2015) had been writing about buffering as a state of mind and as characterisation of contemporary society. I also referred to the book *Doing Nothing* (2010) by Ehn and Löfgren.

The book deals quite thoroughly with ideas about waiting. Foremost, I tried to work with video and sound in an evocative way that would expand ideas and emotions beyond textual articulations and concrete arguments. By composing sound and moving images in conjunction with spoken words, the affective dimensions of buffering and waiting could be probed, and a concept from technological discourse could be applied in relation to the atmospheres that had emerged during the COVID-19 crisis.

When a computer or other digital device buffer data, it stores it in a temporary memory. When for an example streamed online video is played, data is downloaded to a buffer before it is played back. When this process comes to a halt or when the stream of data is choked, the video will pause. The viewer will see an interface feature that show that the data stream does not flow as expected. This feature is often a spinning circle. While the buffering circle spin on a screen, the user is put in a state of idling suspense (McCarthy 2015, see also Appadurai and Alexander 2020). Waiting for something to happen. Knowing that things are not working as expected. The only indicator is the spinning circle. How could the buffering-concept be used to comprehend the uncertainty, the waiting, and the tension between nervosity and boredom that emerged during virus-induced societal lock-downs and restrictions? This was one of the questions raised by the video essay, *Waiting*.

Works such as *The Mundania Files* and *Waiting* are part of an open-ended process of probing. I try to use them as devices to think with, to communicate and to also learn by reflexively engaging with them. During the work with Mundania, I have continued to develop my thinking through processes of making. For some time, I have continuously made artworks and various hybrid works to probe Mundania. Some of these are made as commissions, others are more open-ended explorations and ways to think, reflect and feel through a process of making. I experiment with very different formats. I use sound and video, but I also use other media and materials. For an example, I use construction material for domestic settings to make things that can evoke ideas and emotions about Mundania. I make paintings on cement boards and tiles to address the relationship between mundanisation and distant infrastructures and to evoke images of imaginary landscapes. The very sensory engagement with media and material gives me inspiration and is a way to feel and to contemplate Mundania, but the result can also be exhibited and used as tools for evocation for others while I further explore the ways ungraspable infrastructures are entangled with everyday life.

I refer to the series of paintings as *The Provisional Titles Series*. I continuously attach different names for the series of paintings to probe what names evoke in relation to them. Eg. *Infratopia*, *Floating Points, Erratic Horizons*, or *Provisional Textures of Reality* (see Kokoli and Hiller 2008). How do the different names tweak associations and how do the names make me and others experience new things in the material? Namegiving is an evocative act, a way to spawn possibly also something new (cf. Hagström 2012).

The paintings are based on an open-ended array of materials, standardized components, and make-shift solutions. Industrially produced commodities as well as material extracted from the ground. Industrially produced cement boards, tiles and plywood, adhesives and plaster, a variety of acrylic paint, clay and chalk, spray paint as

well as iron powder and iron oxide pigments and varnishes. This is combined with non-industrially extracted materials like soil, sand and ashes collected from different geographical locations. The plethora of different materials used in the paintings is comparable to the way I imagine Mundania to be comprised. Domestic everyday life with complex technologies is a mix of standardised arrangements and makeshift juxtapositions and entanglements.

During the last years several researchers, designers and artists have done works that address the complexity of infrastructures and technological assemblages. Such as the creative and critical mapping project *Anatomy of an AI System* (2018) by Kate Crawford and Vladan Joler (see also Mattern 2013). Their work is a map depicting the complex arrangements and relations of the voice-controlled device Amazon Echo. My Provisional Titles-series is a kind of counterpoint to this kind of works. The series is not a map, but a messy and open-ended way to probe the infrastructures, relations, and dimensions of domestic technologies.

Mundania and Beyond

While engaging with material and while making and probing as part of my explorations of Mundania I also research and learn from how different artists and creators have approached concepts and how they have developed techniques that can be inspiration for my work. In this practice, learning is much more than reading up on something and collecting empirical material that is then related to what has been read.

This approach to learning also characterizes some probing projects at the borderlands to my work with Mundania. One such project started 2021 was called *Inframuseology*. It was a collaboration with the museum Kulturen in Lund and involved a professional photographer. The idea was to probe museum infrastructures and the dynamics between what is made visible or invisible in the world of museums. In this sense I wanted to create an interplay between my work with mundanisation in domestic settings and the role of infrastructures in a museum. Since major parts of Kulturen, an open-air museum, are reconstructions of living environments and domestic milieus from southern Sweden, it was fruitful to probe how the infrastructural took form in the museum. Which infrastructures are hidden? What are the practices and dynamics of blackboxing, emergences and disappearences in the constructed (domestic) environments of this museum? Here we could for an example learn about different aspects of light and electricity (cf. Bille 2019). When should an electric wire or device be visible? What are the concealment practices and aesthetics when it comes to electric devices and accessories? How should for an example the early electrification of homes be exhibited and shown and how should this relate to novel electrical systems and devices that are installed as part of the present infrastructures of the museum? As an extension of this, should earlier museum infrastructures that were once used as part of exhibitions designs be made visible? When could earlier museum technologies turn from something that is hidden in the background to something at the centre of attention? The project included smaller workshops and visual experiments and it might be continued and further merged with my work with mundanisation.

To extend and probe Mundania I have also used sound and sound art. For an example in an *audio paper* named *Mundania - Just Above The Noise Floor* (2019), made for the journal and platform *Seismograf*. In the audio paper I used sound art and spoken word to evoke ideas about noise and mundanisation. Sanne Krogh Groth and Kristine Samson, who initiated the audio paper series have called the format a way to extend written scholarship with sonic aesthetics:

> Audio papers resemble the regular essay or the academic text in that they deal with a certain topic of interest, but presented in the form of an audio production. The audio paper is an extension of the written paper through its specific use of media, a sonic awareness of aesthetics and materiality, and creative approach towards communication. The audio paper is a performative format working together with an affective and elaborate understanding of language. It is an experiment embracing intellectual arguments and creative work, papers and performances, written scholarship and sonic aesthetics. (Groth and Samson 2016, 1)

The audio papers embrace intellectual arguments and creative work, something that resonates well with the way I work with probes. Several of my probes are based on sound. In October 2021 I made the work *Taking Seat*, for an installation called *The Sound Bench* by organisation Audiorama.[4] The idea with Taking Seat was to concentrate on the mundane practice of sitting. How is it related to mobility as well as politics? And what do practices of sitting mean for the ways in which media and technologies have been conceived and implemented? Computer workstations often require that the user sit down, and the laptop is hard to use while walking or standing. What is the media history of chairs, benches, and sofas?

These are some examples of the ways through which I have been working with art and cultural analysis to probe Mundania. Through this way of working, processes are initiated, thoughts formulated, and things set in motion. It embraces how practices beyond words are entwined with the evolution of concepts.

Conclusion

My use of Mundania was spawned in a certain context. Every time it is used and referred to, the concept mutates, and possibly lives on. It can of course also perish and become forgotten. What take place through the engagement with the concept, through the process of probing, is a gradual metamorphosis. Probings merge the concept with different aspects of the world. Probings are not neutral instruments. They intervene. They transform or rather transmute both that which is probed and the ones involved in the probing. In an open-ended process.

How does probing relate to the methodological and theoretical standpoints of the scholars I mentioned earlier? Probing is not about documentation or about representation of empirical material. In that sense it is aligned with the arguments by proponents of non (or more than) representational methodologies. It is about open-ended experimentation (Ingold 2018, 218). It is about making and generation (Pink et.al. 2020), appreciating remix and iteration (cf. Markham 2013).

Probing is an explorative activity, merging art and cultural analysis. It combines practical and sensory engagement, centred around a specific concept, with theoretical and analytical work. The stories and imaginaries that are transmuted through the processes of probing are also relational. Probing can be used to reflect upon various phenomena, to possibly increase awareness about complex matters, eg. in relation to emerging technologies.

To use probing to explore Mundania has been a way for me to open new ways to analyse, understand, and present the role of technologies in people's lives. When presenting ideas and imaginaries based on the Mundania concept, through the exploratory means of probing I have been able to suggest alternative perspectives and hopefully to also offer possible insights among stakeholders working within eg. the development of technologies and services. Probing can be used to facilitate knowledge exchange and possibly the border between research and practice-based activities can also be challenged. This exploratory transgression of borders raised around academia characterize much of my practice. In this sense I use Mundania not only to learn about emerging technologies but also to challenge what academia is and could become.

Notes

1 My work with emerging technologies has to a large extent been done within the research project "Connected Homes and Distant Infrastructures", financed by The Swedish Research Council (Dnr 2017-00789). The project about *Inframuseology* was supported by the Birgit and Sven Håkan Ohlsson foundation.

2 The way I integrate reflexive processes of making in my work can to some extent be seen as a methodological extension of autoethnography (Bylund et.al. 2021 (in Swedish); Ehn 2011). Recently, there has been some discussion on the role and meaning of the word ethnography. This is not the place where to dive deeper into this debate. I can however shortly note that in my practices, if referring to it as having an (auto)ethnographic feature, I mostly focus on the second part of the word, *graphy* (graphein), and less on the part *ethno* (cf. Ingold 2014; Rees 2018). I see these "graphic" practices as a way to create inscriptions, not just written text, using various media and modalities. There have been several ways in which scholars have moved along with the inscriptive (graphy) aspect of ethnography by playing with different "-graphy-words", such as *praxiography* (Mol 2002), *technography* (Kien 2008), *autotechnography* (Hildebrand 2020), *digital technography* (Berg 2022). Why not also try *hybridography* or *relatiography.* This play with the definition of words can of course also be extended to the word cultural *analysis*. I have discussed the relation between analysis and exploration in other places (Willim 2017 b, 2017c).

3 When I have been using probing as part of art projects I have been using the word art probing (Willim 2017 b and c). Partly to distinguish it from ideas about scientific probes or "cultural probes" (Gaver et.al. 2004). The latter has a more empirical orientation than how I understand my practices of (art) probing as an open-ended and non-representational methodology, even if cultural probes is not about systematic collection of information. Cultural probes have been used eg. as part of design processes to inspire designers. "Probes are collections of evocative tasks meant to elicit inspirational responses from people—not comprehensive information about them, but fragmentary clues about their lives

and thoughts" (ibid:53).

4 The Sound Bench (Ljudbänken) was based on a specially constructed bench with a 4-channel speaker system. More info: https://www.audiorama.se/events/2020/10/12/ljudbnken-co-lund-taking-seat . It was commissioned by The Sound Environment Centre at Lund University.

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