

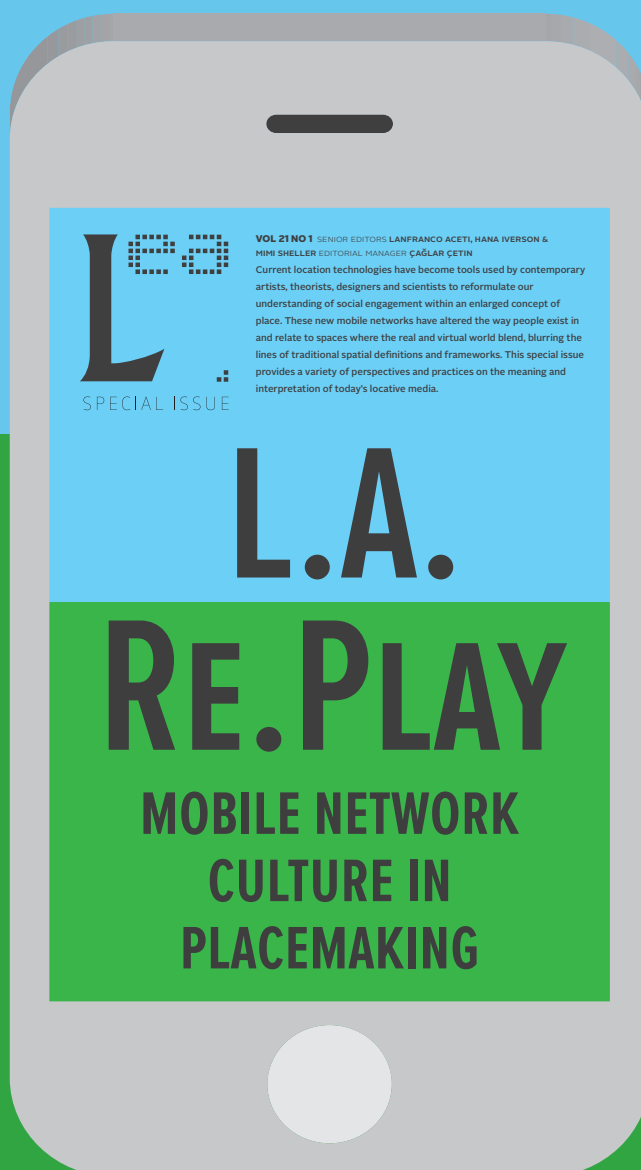
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SPECIAL ISSUE

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Current location technologies have become tools used by contemporary artists, theorists, designers and scientists to reformulate our understanding of social engagement within an enlarged concept of place. These new mobile networks have altered the way people exist in and relate to spaces where the real and virtual world blend, blurring the lines of traditional spatial definitions and frameworks. This special issue provides a variety of perspectives and practices on the meaning and interpretation of today's locative media.



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*To Lorraine and Earle Iverson,
visible in the space of memory.*

LEONARDO ELECTRONIC ALMANAC, VOLUME 21 ISSUE 1

L.A. Re.Play: Mobile Network Culture in Placemaking

SENIOR EDITORS

LANFRANCO ACETI, HANA IVERSON AND MIMI SELLER

EDITORIAL MANAGER

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Meanderings and Reflections on Locative Art

The word 'locative' is often accompanied by the word 'media' as if it were to seeking a legitimacy in its technologic features more than in the artistry of the production of content. Instead, I'd like to

place the word 'art' at the forefront of the argument, and to consider the notion of locative art as art that is spatially contextualized, art that encompasses artistic practices that draw from movement (and/or the lack of it) and location, which is their source of inspiration, content, materiality, and context. This notion can be enlarged to encompass virtual, hybridized, and non-virtual worlds, since there is a notion of spatiality in all of them, although in some artworks this notion may be expressed as an abstraction. The desire is to move away from the word 'media,' and to take a stance that defines artworks on the basis of their aesthetic merit, rather than as being hindered by the accompaniment and masquerade of words such as media, which, far from clearing the field, create complex and unwieldy taxonomies of materials, processes, and aesthetics.

This special issue, which is based on the work done by Hana Iverson and Mimi Sheller, might appear similar to the *Leonardo Electronic Almanac* special issue, Volume 14, No. 3, which was entitled "LEA Locative Media Special Issue," and which hit the 'electronic waves' in 2006. There are several reasons why it was time to produce a new issue on Locative Art, and the most important of these was the new sense of sociopolitical consciousness that pioneers of digital technologies and contemporary artists are bringing

forward. Drew Hemment wrote in his introduction to the "LEA Locative Media Special Issue":

Artists have long been concerned with place and location, but the combination of mobile devices with positioning technologies is opening up a manifold of different ways in which geographical space can be encountered and drawn, and presenting a frame through which a wide range of spatial practices may be looked at anew. ¹

It is instead a step forward in the analysis of what has been produced and what locative art has evolved into over the past 10 years, from a nascence of anxiety and hope for its evolution, to its present form as an artistic medium gaining recognition within the complex world of contemporary fine arts.

This special issue should be read as an analysis of these recent evolutions, and of how locative *media* have engaged the world and mapped their own domains in the process of becoming locative *art*, now embedding itself within the increasingly contested realms of public space and social activism.

The media of the 'locative' experience have become less and less of prominent features of the aesthetic process and now figure as a component, but not as *the* component of spatially located and contextualized works of art.

The aesthetic practices of the contributors to this special issue have defined and continue to redefine the

vision of what locative art should be, as well as in what context it should be 'located,' and – at the same time – have challenged traditional contextual and relational interpretations of the art object and its social and political functions.

The decision to stress the elements of spatially contextualized art resides in the increased importance that public as well as private space have gained following the technological developments that erode both spaces in favor of invasion of privacy, the blurring of public boundaries, and the control of locations, bodies, and identities. This erosion comes at the hands of corporate, state, and military regimes that, by parading ideas of democracy and social wellbeing, flaunt basic human rights while increasingly enacting dictatorial forms of control and surveillance.

The blurring of the boundaries between public and private is such that the idea of concealing one's location becomes an insurrectional act, particularly under oppressive regimes such as Turkey, where knowledge of the citizenry's location is necessary to enforce restrictions on freedom of speech. Movement, speech, media, bodies, and identity appear inextricably interconnected within contemporary societies, in which personal existence is no more, and the idea of switching off – disconnecting oneself from the systems of control and surveillance – is perceived as dangerous, insurrectional, and revolutionary.

The idea of spaces that are and must be contextualized becomes extremely important when bandying about definitions of 'armchair revolutionaries' and 'click activists.' In fact, while it may be possible to recognize and identify these armchair revolutionaries and click activists in the United States and the United Kingdom, applying the label proves more difficult in other contexts; namely, countries in which the erosion of democracy is more pronounced and readily visible. Tweeting is a

dangerous activity in places like Turkey, Iran, or China, where a tweet or a click may quickly lead to the police knocking on the door, ready to enforce restrictions on freedom of speech, or, more accurately, westernized perceptions of freedom of speech disseminated over the internet that do not necessarily correspond or apply to local realities.

The current furor over whether the President of Turkey, Recep Tayyip Erdoğan, looks like Gollum, ² the fictional character in *The Lord of the Rings* by J. R. R. Tolkien, is but one of many forms of control and crackdown. In Turkey, as elsewhere, this has created a sense of panic among the population which, by self-limiting and self-restricting its freedom, has generated a sense that the state possess a kind of digital panopticon, leading to a wide-spreading malaise of self-censorship and obedience.

This continued crackdown follows the protests at Gezi Park in 2013, after which the Turkish government apparatus refined its methods of censorship. During the Gezi Park protests, people tweeting and retweeting the news were arrested and threatened in a sweeping attempt to demonstrate the government's ability to 'locate' individuals. People with roots in the country were identified, located, and expelled by the state apparatus which targeted individuals and families who did not fit within the new neo-Ottoman agenda.

In this conflict between freedom of speech and censorship, the issues of location, as well as those artworks that use location as an aesthetic element, rise to outmost importance. The ability to locate individuals is paramount in exacting retribution, and locative media become a kind of Trojan horse that facilitates the pinpointing and identification of protesters. At the same time, locative media and augmented reality offer the opportunity to flaunt governmental oppression by layering context over controversial spaces. ³

"There is now a menace, which is called Twitter," Erdoğan said on Sunday. "The best examples of lies can be found there. To me, social media is the worst menace to society."⁴

Erdoğan's words are reflected in Amnesty International's report, which reveals the level of intimidation employed by the Turkish government to silence opposition from a variety of sectors within civic society.

"Social media users active during the protests have been prosecuted, while attempts have been made to block the sites that carried their words and videos."⁵

It is the progressively politicized nature of space and location, as well as the act of locating, that makes locative media art political, politicized, and politicizable.⁶ Hence, locative media art must be placed in the context of the political stances and struggles, or lack thereof, that will define its aesthetic, or lack of aesthetic. Conor McGarrigle recalls the Situationist International in his construction of locative situations framed as a form of alternative construction and engaged relation with life, a relation that people can define and not just passively consume.

*To counter what they saw as the banality of everyday life, they proposed actively constructing situations rather than merely passively consuming or experiencing them. Rather than describing and interpreting situations, the situationists would seek to transform them. If, as they believed, human beings are 'moulded by the situations they go through' and 'defined by their situation', then they need the power to create situations worthy of their desires rather than be limited to passive consumers of the situations in which they find themselves.*⁷

In sociopolitical and philosophical terms, this analysis provides the opportunity to perceive life as being

founded on the responsibility and sense of gravitas in human action – *faber est suae quisque fortunae* – which, by stressing the possibility of construction – the *artifex* as creator – reestablishes the Situationist International within a locative art practice that constructs and reshapes life in a social context that no longer appears to afford hope.

*This definition of the participant in the constructed situation as an autonomous agent within the structure of the work and not limited to enacting a predefined script is key. I will identify locative works which exhibit this tendency, which go beyond a model of the participant being defined by the application in favour of an open model, a set of procedures or a toolkit with which participants construct their own situation to be 'lived' independently of the artist.*⁸

The definition McGarrigle proposes creates a dichotomy between the sociopolitical constructs and adopted behavioral models in new media versus the open procedures of engagement that enable the *artifex* to construct situations and therefore construct his/her own destiny.

It is this transformative potential emerging from the construction and/or reconstruction of space that, as editors, Hana Iverson and Mimi Sheller want to present and argue in favor of:

*By considering the practices of process-based, socially engaged, conceptual and performance art and their relationship to activism, design and mobile art, we are able to examine the conditions of how these projects may transform place, politics, and the realm of public art.*⁹

This LEA special issue is a survey that explores and aims to understand the sociopolitical possibilities of

contemporary art, and that delves into the realm of location and its contexts.

My hope is that it may offer readers the opportunity to understand the complexity of materials, processes, and contexts – as well as the contemporary responsibilities – that art practices wield in their location and construction of media outside the limitations that Marshall McLuhan defined as "rear-view mirror" approaches.

... *de meo ligurrire libidost*. Gaius Valerius Catullus, fragments.

Lanfranco Aceti

Editor in Chief, *Leonardo Electronic Almanac*
Director, Kasa Gallery



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L.A. Re.Play: Mobile Network Culture in Placemaking

INTRODUCTION

Artists, social scientists, and theorists have increasingly explored mobile locative media as a new kind of social and spatial interface that changes our relation to embodiment, movement, place and location. Indeed, many artists and theorists have claimed mobile locative art as a crucial form of social experimentation and speculative enactment. In the social sciences recent work especially draws attention to cultural adoption and everyday appropriation of mobile media, the re-emerging significance of place-making and locatability, and the infrastructures, regulatory regimes, and dynamics of power that shape contexts of use.^{1 2 3 4} This work has drawn attention to the intersection of place-making, movement, and political aesthetics. Rowan Wilken emphasizes ideas of “place as relational, as inherently connected to mobility, and as constantly worked out through mundane practice,”⁵ drawing on Tim Cresswell's studies of being “on the move,”⁶ Larissa Hjorth's work on “mobile intimacy,”⁷ Tim Ingold's idea of “ambulatory knowing,”⁸ and Ingrid Richardson's work on interactive media and forms of “visceral awareness,”⁹ amongst others. All of these contributions to theorizing mobile locative media are particularly relevant when it comes to interpreting recent works in mobile locative art.

In the arts and culture fields the debate on mobile media to date has focused on the creative potential of mobile locative media and ubiquitous computing, its cultural impact, and critical responses to mobile digital art.^{10 11 12} Some of the most interesting questions concern how new mobile media can change relations

between embodiment, place, and spatial awareness, echoing these debates in the social sciences. For example, media curator and theorist Christiane Paul highlights the importance of the digitally-enhanced body as a new kind of interface:

[D]igital technologies have expanded the agency enabled by our embodied condition: our bodies can function as interfaces in navigating virtual environments; avatars can be understood as a virtual embodiment; wearable computing can establish a technologized connectivity between bodies; and mobile devices can function as technological extension of embodiment, connecting us to location-based information and enhancing awareness of our environment or “social body.”¹³

Given the significance of artists in the debates about mobile locative media^{14 15} (see Southern in this issue), we believe it is a productive time to further explore how artworks using the new contexts afforded by mobile locative media are engaging new kinds of hybrid embodied/digital interactions with place, location, and movement.

How exactly do mobile digital technologies expand the agency of our embodied condition? In 2002, Australian media theorist Ross Gibson was asked what will be the artistry of the future; he replied that “artists will supply us with the beguiling processes of transformation ... artists won't be fabricating objects so much as experiences – they will offer us intensely ‘moving’ immersion

in (or perhaps beyond) the objective world. This immersion will be so *moving* that the ‘objective world’ will cease to be sensible in the ways we thought normal.”¹⁶ What will exist as art in this future vision? How does mobile art reconfigure objects, subjects, place, space and time? How does mobility extend the discussion around media art through a broader reconfiguration of cognition? As Claire Bishop asks, what does it mean “to think, see and filter affect through the digital”?¹⁷ If the physical world is the ground for the affect produced by the digital, then how do the emerging art practices of mobile locative media immerse participants in site-specificity as well as distant networked places, and unfold local temporalities as well as deeper collective times and histories?

In this special issue we want to argue for the need to radically re-think the genealogy, purposes, and affects of mobile art, in an effort to enlarge the critical vocabulary for the discussion of “digital art,” and the divides that it encounters. Arising out of a double session on *Mobile Art: The Aesthetics of Mobile Network Culture in Place Making*, and the associated mobile art exhibition *L.A. Re.Play*, co-organized and co-curated by Hana Iverson and Mimi Sheller, with assistance from Jeremy Hight – and held at UCLA, the Art Center College of Design, and the Los Angeles Convention Center as part of the College Art Association Centennial Conference (Los Angeles, February, 2012) – this project brought together some of the leading U.S. and international artists working with mobile and geo-locative media today. This concentrated series of events, along with this special issue of LEA, provides a platform and situation to reflect upon mobile media art today: where it has come from, how it is being practiced, and where it is heading.

We intend to move beyond a geo-locational or screen-based focus (that has attracted the attention of some artists due to the proliferation of smart-

phones) to address a body of works that extend outward to collective experiences of place. Mobile media art is one of the key arenas in which emergent interactions with the embodied and sensory dimensions of place, movement and presence itself are being explored. Crucially, it can be understood as connected to wider histories of performance art, relational art, immersive theater, experimental video, sound art, and socially engaged public art. Mobile art includes a diverse set of practices that might involve sound walks, psychogeographic drifts, site-specific storytelling, public annotation, digital graffiti, collaborative cartography, or more complex “mixed-reality” interactions. It tends to engage the body, physical location, digital interface, and social relations both near and distant, sometimes in terms of what one contributor calls “relational architecture.” Through its unique visual, sonic, haptic, social and spatial affordances, mobile art provides a sensory engagement with virtual and material surroundings, mediated through the participant's embodied sensations augmented by digital technology. Featured at international festivals such as the *International Symposium on Electronic Art* (ISEA), *FutureEverything*, *Conflux* and *Radiator*, it also offers an important locus for thinking about new kinds of social engagement with other people, collectives, or publics.

In introducing this special issue we will focus on three key themes that emerge out of this body of work: first, the ways in which mobile art is socially networked and participatory, often involving the creative collaboration between artists, participants and the broader public, and what the implications of this are; second, the crucial ways in which mobile art engages with location, augmented physical presence, and sensory perceptions of place, eliciting new experiences of “hybrid space” as both a bodily and more-than-bodily experience; and third, the political possibilities for mobile locative media to add new dimensionality to public space, and thereby push the boundaries of civic

engagement and politics in mobile network culture beyond its current limits. Interspersed throughout this introductory discussion we describe and locate the specific essays in the special issue, as well as noting some of the art works in the *L.A. Re.Play* exhibition. The issue itself includes a range of materials generated out of the CAA panels, the exhibition, and ongoing discussions amongst the participants, including artists' descriptions (and images) of their own work and reflection on their practice, more theoretical and historically informed analysis of aspects of mobile and networked art, interviews with artists and between co-participants in the project, and creative writing that emerged out of this year-long process.

SOCIALLY NETWORKED AND PARTICIPATORY MOBILE ART

The notion of participatory art has been trying in different ways to enlarge the consideration of art and aesthetics for more than thirty years. Mobile art, like other new media art, has a strong relationship to politically and socially engaged art in that both fields rely on “a highly critical and informed view of interaction, participation and collaboration.”¹⁸ The works we present will examine these conditions in more depth. Mobile art often happens outside the space of the gallery or museum, and without any intervening art object, as such, it may be “locative” yet hard to locate. It may appear on hand-held screens, or computer screens, often with the addition of speakers, headphones, or earbuds, but it might also extend far beyond these devices into a wider experiential realm; it may engage with the “virtual” realm, as well as mobilizing various kinds of narrative imagination and imaginaries of place; it may address the present embodied context, even as it interweaves it with histories or futures.

Emergent mobile art forms are able to take seemingly disparate elements and make sense of them to create a coherent yet unique experience for the viewer, listener, or participant. Many mobile art pieces are collaborative – engaging other artists or audiences in a shared vocabulary, and thereby incorporating their contribution into the whole. Umberto Eco, in his “The Poetics of Open Work” refers to open works “as those which are brought to conclusion by the performer at the same time he (or she) experiences them on an aesthetic plane.”¹⁹ These works are not open, in the sense of open to interpretation; they are open in the way in which they require participation in order to finish the act of the work itself. This is especially true of mobile artworks in which the relational ethics are a key part of the aesthetic.

The “relational turn” across many art activities and creative disciplines favors methodologies that are interactive, process-oriented rather than outcome-oriented, and open in Eco's terms. “Situated engagement,” for example, is a theoretical frame for a participatory design approach that uses mobile technologies to focus on and design with micro-local neighborhoods, in living contexts that invite social participation and are often oriented toward social change and justice. Critic and curator Mimi Zeiger notes the link between “socially engaged art” and “tactical urbanism,” which have also been embraced as more mobile and fleeting engagements with urban space:

[M]any activist designers have embraced “tactical urbanism” as the go-to descriptor (see the recently published and downloadable guidebook Tactical Urbanism 2: Short-Term Action, Long-Term Change.²⁰ [..] these projects are oppositional to the conventional operations – or strategies – of urban planners. Flexible and small scale, often temporary and with limited budgets, tactical projects take advantage of “chance offerings” – public spaces,

empty lots, municipal loopholes. They deploy the fleetness and mobility described in [Michel de Certeau's] The Practice of Everyday Life.²¹

Likewise, mobile art can be said to enter the urban realm in a tactical way, making use of existing spatial patterns and routes, handheld devices and forms of navigation, modes of watching and listening, yet bending these towards other purposes. It creates a new relation to place, drawing the participant into a playful and potentially awakened form of engagement; part serendipity, part chance collage, the accidents of mobilized perception form a newly mediated kind of “exquisite corpse” in a surreal game of adventure as artistic venture.

Many of the works in *L.A. Re.Play*, and those discussed in the essays in this special issue, create new modes of creative co-production and networked participation in the city, and require participation in order to be accessed. Each one depends upon its context in the public realm, and plays upon the interdependence of digital and physical experiences, which activates a renewed sense of place and flexible relationship to cartography. Various kinds of soundwalks, along with mobile Augmented Reality, distribute mobile art across a walkable terrain whereby a series of situated visual and sonic elements can be accessed and experienced by an ambulatory audience. Such works have their roots in both land art and sonic artwork, as explored further in the essay contributed by Ksenia Federova on the “sublime” potential of sound. Artist Teri Rueb, for example, whose work was presented in *L.A. Re.Play* and in an essay here, explores in her mobile auditory works “a thinking and doing landscape... to define a radically expanded field in which to consider embodied interaction and mobile media.” Experiencing her work helps us “to think bodies, sensations, space and time together.”²² Several artists working with mobile media draw on the history of

psychogeography, originally set in motion as a surrealist experiment with the city through the “derive,” a drifting serendipity of encounter, while others lean towards mobile gaming.²³

The artists working with mobile psycho-geography create new ways to navigate choreographies of place, now augmented with mobile and locational technologies. For example, Leila Nadir and Cary Peppermint of *ecoarttech* present their piece “Indeterminate Hikes+,” which “acts as both locative artwork and practice-based inquiry into the imagination of public place and the environment in the context of networked mobility and ubiquitous computing devices.” Aesthetically, though, their work is not about the technology or the mobile experience itself, but takes inspiration from Guy Debord's psychogeography, Felix Guattari's lines of flight, John Cage's random yet structured processes, and Michel Foucault's radical ethics of the self. Likewise, Australian architect Ian Woodcock discusses his collaborative works “PastCityFuture” and “en route,” which “uses locative technologies, psychogeographic techniques and urban choreography to create in participants a heightened awareness of presence and context, the here and now.” So the movements generated in these pieces occur both outside as a transit through space, and inside as a transformative state of being in place.

Choreographies here intersect with cartographies, which emerge as a key terrain for exploration of the digital co-production of space. Once new, but now increasingly routine, digital technologies such as Geo-Positioned Satellite (GPS) navigation systems and popular applications such as Google Earth have transformed the experience of the map as an interactive, dynamic, and multi-scalar interface, as noted especially in the essay by Dutch artists Esther Polak and Ivar Van Bekkum, which describes their project of redeploying Google Earth as an artistic medium. Their

piece A Tom Tom Opera takes the viewer on a drive through a landscape accompanied by a satellite navigation-inspired choral soundtrack, which speeds past with “Doppler effect,” culminating in the visual and sonic crescendo of a crash. They ask: “What happens when people move through public space, listening to an electronic voice which is controlled by an invisible network of information systems?” As a kind of opera situated on the highway, the “visualisation is based on a GPS-track and animated directly in Google Earth, using its digital cartography as a worldwide, spatial opera-stage.” Maps, routes and cartographies are also explored by Robbins and Lambert, whose work “I-5 Passing” represents the atmosphere of a drive along Interstate 5, running between Los Angeles and San Francisco, as a representation of the mobile space of a particular kind of California culture. Both pieces explore the affects of digital cultures blended with cultures of automobility and the re-mixing of past and present temporalities.

Jeremy Hight also contributes to the issue with a meditation on the city of Los Angeles, reminding us of its many pasts, taking its measure, unfurling its maps. Encompassing the geological, the archaeological, the historical, and the creative, this journey through the L.A. of the imagination replays in our minds, transforming the familiar cityscape into a textured urban fabric that is “mutable, surreal, disruptive and often enchanting.”²⁴ There are many ways of moving with and through “virtual” media that when coupled with narrative and stories seek to re-enchant the disenchanting landscape of the technologically-scripted non-place. Hight’s creative writing piece reminds us that cartographies are also closely related to what Sawchuk and Thulin in their contribution refer to as “chorographies”: “conceived of as a way to reconsider the temporal and affective dynamics of place through the practice of writing, reflection, and artistic practice.”

They draw out the tension between this affective dynamics of meaningful place and the “representational fiction of the pinpoint *within* the mapping process and the implications of this fiction for locative media artists, designers and the publics we desire to engage.” To pinpoint a location does not make it a “place” until it is enacted in relation to a temporal and social context, and a single location may be unstable, and part of many such intersecting contexts.

In effect the participatory, experiential realm of mobile, locative, situated engagement not only completes the circuit of the creative act, but also redefines the consciousness, experience and agency of the participant. The artists and theorists included in this special issue engage, subvert and recombine our perceptions of place, building on traditions of Social Practice Art and Relational Art, but also engaging forms of participatory theater, experimental cinema, and collective narrative. Mobile art in this sense incorporates audiences – calling attention to their very corporeality and social/spatial situatedness – often in challenging ways. Many of these works combine evocative digital imagery, sound walks, mobile narrative, and site specificity, yet they do not necessarily require a high-tech “sentient city”²⁵ to make them work. They also can be distinguished from more commercial or simply entertaining forms of mobile pervasive gaming although there can be a blurring of the two areas, as found in the series of immersive theater and mobile game works by the collective Blast Theory.²⁶

In re-configuring contemporary “technoscapes” and “mediascapes” enacted through the relational embodied praxis of mobile art, such works re-set or re-play “modernity at large” in new ways.²⁷ Mobile locative art evokes stories and creates new affordances for people to turn public spaces into meaningful places, to turn designed environments into new kinds of public experience, and to turn software interaction into potentially

critical praxis. This leads to the next key element that we want to highlight: the radical mutation that mobile art can offer to our experience of space itself, through the production of a sense of immersion within digitally networked and “hybrid” place as we move through the physical world.²⁸

HYBRID SPACE AND MOBILE AUGMENTED REALITIES

Mobile media artworks are at once definable and indefinable. They suspend performers and participants in a tension around co-presence and mediated interactions that defy formal modes of presentation. Many works engage, subvert and recombine our experience, perceptions, and interactions with place and location by drawing upon elements of communication and sense perception that are both immediately present and mediated by technology (sight, sound, narrative, affect, memory, history). In this issue, Jason Farman’s analysis of Simon Faithfull’s performance art piece, *0.00 Navigation*, for example, notes the relation between physical objects (such as fences, houses) and virtual objects (such as GPS coordinates, or the Prime Meridian) in a kind of oscillating experiential space. Mobile media artists challenge and equip us to activate new social practices and performances via “hybrid spaces”²⁹ that blur the distinction between physical and digital, bodily and virtual, artwork and everyday space, creator and audience. Practitioners take it as given that through everyday practices with wireless networks and mobile social media, people are creating new ways of interacting with others, with places, and with screens while moving, or pausing in movement. Emerging practices of “mobile mediality” – understood as a new form of flexible, digitally mediated spatiality³⁰ – are accomplished in motion, just as the artworks exploring it are not simply new apps, but are experiential happenings, performative interactional events. As such, they have implications for embodied perception.

Mobile arts practices that engage with our increasingly software-embedded and digitally augmented urbanism help to create a greater awareness of what some describe as “remediated” space,³¹ “networked place,”³² or “hybrid space.”³³ Media theorist Adriana de Souza e Silva, in her studies of mobile locative networks and mobile gaming, argues that “Hybrid space abrogates the distinction between the physical and the digital through the mix of social practices that occur simultaneously in digital and in physical spaces.”³⁴ It is not one or the other, but both at once. Jay Bolter and Richard Grusin in their book *Remediation: Understanding New Media* draw a distinction between immediacy and hypermediacy. The idea of transparent immediacy, or media proposed as “interfaceless” and immersive, occurs in earlier imaginaries of Virtual Reality (VR), imagined as drawing the participant into another world. Hypermediacy, on the other hand, involves a mix or juxtaposition of elements, both digital and physical, being in this sense more like Augmented Reality (AR).³⁵

In contrast to ideas of immersive media, therefore, the experience of hypermediated digital space is that it is rapidly dissolving into or permeating everyday life, especially through mobile devices. Elizabeth Grosz, in her book *Architecture from the Outside: Essays on Virtual and Real Space* argues that this dissolve takes place at the level of the perceptual, where there is a “change in our perceptions of materiality, space and information, which is bound directly to or indirectly to affect how we understand architecture, habitation and the built environment.”³⁶ For artworks created within this hypermediated hybrid environment, the point is to create works that exist in this delimited realm both perceptually and actually. The issues of becoming remain continually processual. Such artworks have a kind of unstable or flickering presence, even while accessing multiple levels of “reality.” They might involve what Paula Levine in her contribution refers

to as “elastic geographies,” in which one cartography is displaced onto another to create a blurred experience of both at once, as in her work *Shadows from Another Place: San Francisco*↔*Baghdad* (2004). Or the materiality of digital media might involve adapting to weather, noise, and gestures within a kinaesthetic field, even as one follows an abstract GPS coordinate depicted as a blinking dot on a screen, as Sawchuk and Thulin explore in their analysis of works like *Lost Rivers* and *Montreal in/accessible*, and contributor Jen Southern explores in works such as *CoMob*.

The mobile media artists who interest us are precisely those who are exploring how to create or move within these hybrid spaces of amplified (hypermediated) reality via new modes of open (yet critically attuned) engagement with embodied experience, with urban and natural landscapes, and with digitally-mediated public space. Southern, in her contribution to this issue, delineates six elements of “locative awareness” that includes a heightened sensitivity to being situated, embodied, relational, networked, experimental, and multiple. These embodied and networked engagements with hybrid experiences transform the familiar cityscape (or, in some cases, non-urban landscape) through an intensified awareness of the urban fabric, its multiple architectures, streetscapes, and social flux, as strangely mutable, perhaps disruptive or uncanny, even enchanting. Ecoarttech’s “IndeterminateHikes+,” for example, re-enchants the city by importing into it an experience of the natural:

This mobile app imports the rhetoric of wilderness into virtually any place accessible by Google Maps, creates hikes, and encourages its hiker-participants to treat the locales they encounter as spaces worthy of the attention accorded to sublime landscapes, such as canyons and gorges. Thus the ecological wonder usually associated with “natural” spaces, such as national parks, is re-appropriated

here to renew awareness of the often-disregarded spaces in our culture that also need attention, such as alleyways, highways, and garbage dumps. This project extends ecological awareness into mobile spaces, into the places humans actually live, democratizing conversations about environmental sustainability and ecological management that too often occur only in a scientific context.

Contributor Martha Ladly also considers how mobile technologies “are grounded in place, creating responsive hybrid spaces in which the real, embodied, personal experiences and stories of the artist and the audience may create a powerful, participatory opportunity.” Mobile art thus addresses crucial theoretical questions about how and where participatory politics takes place, when the relation between physical space, networked space, and the growing experience of hybrid space involves the physical and the digital as co-synchronous sites of engagement, conversation, and responsive communication.

By provoking questions about the possibilities and limits of the new borders between the physical and the virtual, the real and the imaginary, the tactile and the tactical – many mobile artworks reinvent a relationship to aesthetic digital objects, interrogate public presence and memory, and deploy new strategies for intervention. Teri Rueb’s soundwalking piece *Elsewhere : Anderswo* is a site-specific sound installation across two sites. Visitors carry small GPS-equipped computers and wear headphones. Sounds play automatically in response to their movements in the landscape. As they move through layer upon layer of responsive sound, [she writes] “little elsewheres” are grafted onto the landscape in the form of variously local and foreign, synchronous and asynchronous “soundtracks.” Place is a verb. Place making and the meaning of place, “placings,” unfold as a continuous dialogue between the physical and built environment and its inhabitants.

Landscape is a special kind of “placing.” Yet her interventions she argues, are also “displacements,” which introduce multiple sensory and perceptual layers into the temporalities and subjectivities of moving through a landscape.

Participants in soundwalks can experience an embodied engagement with place and, in some cases, a re-mediated performance of everyday actions that reorganize the experience of space and time. This type of work is situated in the embodied sensory experience of landscape, but also lends itself to collective sound-mapping and the production of new mixed-reality soundscapes and mobile acoustic ecologies. Ross Gibson notes that “The rhythms with which and within which a person can *perceive*: the time spans in which we sense our acuity, these time spans are becoming ever more elastic.”³⁷ Mobile art becomes a way to perceive this elasticity of temporality, and reflect upon movement-space as we co-create it. And such elasticity of perception plays upon the “displacements” noted by Rueb and the “entanglements” alluded to by Southern, both of whom use GPS to subtly interfere with perceptions of place and awareness of various kinds of placement.

Locative media art has the capacity to bring together multiple rhythms of landscape that combine the live, temporal, and ephemeral aspects of a socially mapped place-ment. Picking up on Henri Lefebvre’s (2004)³⁸ concept of rhythmanalysis, geographer Tim Edensor argues that “rhythmanalysis elucidates how places possess no essence but are ceaselessly (re) constituted out of their connections... Places are thus continually (re)produced through the mobile flows which course through and around them, bringing together ephemeral, contingent and relatively stable arrangements of people, energy and matter.”³⁹ Through a kinaesthetic sense of bodily motion we apprehend time and space, but through the inter-

ventions of mobile art we also inhabit it differently. Through sensory perception and physical mass, we orient ourselves toward the world, and create both place and displacement through the frictions and rhythms of our mediated movement. Movements have different rhythms, and those rhythms of movement flow through cities and landscapes, shaping their feel, sculpting their textures, and making places.⁴⁰ For Lefebvre such intersecting trajectories and temporalities even included the polyrhythms of trees, flowers, birds, insects, and the movement of the earth, sun and soil down to the molecular and atomic levels.

So it is the coming and going of all of these mobile assemblages and interweaving rhythms that mobile artists are exploring as they experiment with the new “movement-space,”⁴¹ a dynamic digitally-mediated spatial awareness mediating between bodies, architectures, and natures. Social theorists argue that there are ambivalent and contested “affordances” that “stem from the reciprocity between the environment and the organism, deriving from how people are kinaesthetically active within their world.”⁴² “Motion and emotion” are “kinaesthetically intertwined and produced together through a conjunction of bodies, technologies, and cultural practices.”⁴³ The choreographies and choreographies of mobile art become a way of conjoining the affective experience of place and the effects of hypermediated locatability. Highlighting temporality becomes a way of re-thinking location, while the acute awareness of matching a physical location with a virtual object while using mobile locative media assists in a re-thinking of temporality and place. In some cases this new orientation is connected to a politics of place, location, and embodiment. Our final concern is to ask what the political implications are of some of the recent entanglements of mobility, location, and public art.

POLITICAL ART IN NETWORKED PUBLIC SPACE

Mobile artists are exploring how to create hybrid spaces of amplified reality as new modes of open engagement with embodied experience and public space. Ultimately such projects may transform place, politics, social research, and art itself, its modes of practice and forms of dissemination and engagement. Simon Sheikh in his essay “In the Place of the Public Sphere? Or the world in Fragments” refers to “counter-publics” that “entail a reversal of existing practices into other spaces and identities and practices.”⁴⁴ While the notion of counter-publics has a long history⁴⁵ there is a shifting sense of publics today, and a shifting understanding of what is public, due to a blurring of public and private as one enfolds into the other.⁴⁶ Like other critics of the Habermasian public sphere such as Iris Marion Young, Nancy Fraser, Lauren Berlant and Michael Warner, Sheikh goes on to call for this counter-public to be “relational, articulatory and communicatory.”⁴⁷ As new hybrid spaces and networked places emerge from contemporary practice, they have the potential to transform modes of political engagement and participation in the public sphere and to generate transformative hybrid approaches to the natural-social-spatial-cultural matrix in which we move, dwell, and create the future. How does this new public become a platform for different and oppositional subjectivities, politics and economies, and thereby frame a new public art?

One crucial political intervention of mobile art concerns the ways in which it brings the virtual, the augmented, and the digital into conversation with the production of bodies, spaces, sensation and affect. Sarah Drury, in particular, explores in her essay the forms of “body spatiality” that emerge in mobile augmented reality artworks. She draws on Elizabeth Grosz’s work to describe the “zone of sensitivity” that occur between an individual body and the spaces it inhabits.⁴⁸ Mobile AR works can intervene in such internalized body images by reconfiguring

the spaces with which they interact. As geographer Peter Merriman notes, “writings on mobility and non-representational theory” have begun to trace “the more-than-representational, performative, expressive improvisations of bodies-in-movement-in-spaces” by describing “the production of complex entwined performativities, materialities, mobilities and affects of *both* human embodied subjects *and* the spaces/ places/landscapes/environments which are inhabited, traversed, and perceived.”⁴⁹ Mobile augmented reality opens up our perception and bodily experience of the spaces through which we move, allowing the materialities and performativities of buildings, streets, surfaces, and other non-human elements of space to evoke a new kind of body spatiality – which has political implications for individual and collective agency and capacities to mobilize.

Some mobile artworks raise personal and political questions about what constitutes a public space, or a public sphere, while others address the more dystopian elements of surveillance, inclusion/exclusion, and (dis)connection in the digital era. When the group Manifest AR uses site-specific augmented reality digital imaging as an interventionist public art to infiltrate highly regulated public spaces such as Tianamen Square in China, or the US-Mexico border where immigrants are dying in the desert, or even the Museum of Modern Art in an illicit AR exhibit, it engages the overlaying quality of augmented reality to seed our political imagination with new possibilities. As they describe it:

The group sees this medium as a way of transforming public space and institutions by installing virtual objects, which respond to and overlay the configuration of located physical meaning. [...] Whereas the public square was once the quintessential place to air grievances, display solidarity, express difference, celebrate similarity, remember, mourn, and reinforce shared values of right and wrong, it is no

longer the only anchor for interactions in the public realm. That geography has been relocated to a novel terrain, one that encourages exploration of mobile location based public art. Moreover, public space is now truly open, as artworks can be placed anywhere in the world, without prior permission from government or private authorities – with profound implications for art in the public sphere and the discourse that surrounds it.

Other works present other kinds of opportunities to re.think, re.experience, and re.play an awareness of space, landscape and the city that spans the local and the global, the public and the intimate, calling into question the bases for such distinctions and their contemporary blurring. Artist Jenny Marketou, interviewed in this issue, uses “the city as a space and the electronic communication networks as platforms and creative tools for intervention and connection between exhibition space, public space and social interaction.” Notably her work engages with the phenomena of drone-like surveillance cameras floating above public space, closed circuit television, and the mixture of these low-resolution moving image technologies with globally networked computers and social media platforms; all of which are enacted on participating viewers crossing through public spaces of the city. She is concerned with what the new architecture and protocols of wireless networks do in terms of public surveillance, data mapping, knowledge, information and communication, issues which have become central in the field of mobile media studies.⁵⁰ Locatability has become increasingly commoditized (as something apps and big data companies trade in) and politicized (placed under sous-veillance or resisted by masking location); thus mobile locative art can remind us of what is at stake in being un/locatable.⁵¹

Paula Levine’s *The Wall - The World*, which was displayed as part of *L.A. Re.Play*, allows viewers to

transport the “security wall” that Israel built to control Palestinian territories on the West Bank, effecting an imaginary mobility through a transposed experience of the politics of place. Focusing on a small segment of the barrier, about a 15- mile area just east of Jerusalem extending between Abu Dis in the south and Qalandiya in the north, *The Wall - The World* lets the viewer envision this 15-mile segment of the West Bank wall transposed onto any city in the world in Google Earth. The wall appears on the left side of the screen in the West Bank, and on the right side of the screen, in the viewer’s city of choice. Using Google Earth’s navigation tools as a kind of imaginary mobility, viewers can explore the impact of the structure in both areas simultaneously. *The Wall - The World* is part of *Shadows From Another Place*, a series of work that maps the impact of distant events in local terms, on local ground. It produces an effect that Ricardo Dominguez of Electronic Disturbance Theater (EDT) calls “lobal,” in which the global is processed through and tamed within the local, in contrast to either the predominance of the global or even the “glocal,” in which the local is transformed by global networks.⁵²

The Transborder Immigrant Tool by EDT/b.a.n.g. lab (Ricardo Dominguez, Brett Stalbaum, Amy Sara Carroll, Micha Cárdenas, Elle Mehrmand), which was also presented in *L.A. Re.Play*, is a project designed to repurpose inexpensive mobile phones that have GPS antennas to become a compass and digital divining rod of sorts. Through the addition of software that the team designed, it can help to guide dehydrated migrants lost in the deserts of the US-Mexico border to water caches established by activists. It provides poetic nourishment as well, in the form of text messages conveying advice and inspiration. As an actual hand-held device, it serves as a practical and aesthetic intervention in the border, humanizing the harsh politics of the exclusionary international boundary; but it is also a disruption of the political space of the border *and of the*

aesthetics of the border, generating intense debate and critical thought as much as material intervention. It is a clear example of the potential for critical design and its ability to make you think. As Fernanda Duarte has noted in her interpretation of the *Transborder Immigrant Tool* as a kind of tactical media, it “constitutes a model of micropolitics in practice because their subversive and critical poetics invents alternative lines of flight, and proposes temporary and nomadic constructions without making claims for a revolutionary transformation of reality or utopian designs.”⁵³ In this issue, Electronic Disturbance Theater (EDT) have composed another kind of creative tactical intervention in what they name the “trans [] border.” They offer the original piece “Faust y Furioso” as a play that plays with genres, boundaries, borders and crossings. Their work is further contextualized by an interview with Ricardo Dominguez, conducted by *L.A. Re:Play* participant Leila Nadir.

We hope this set of sessions, art exhibition, and this special issue of LEA will begin to lay the groundwork for a more sophisticated critical evaluation of mobile art that is fully situated in its historical context, its contemporary practice and its future potential. By considering the practices of process-based, socially engaged, conceptual and performance art and their relationship to activism, design and mobile art, we are able to examine the conditions of how these projects may transform place, politics, and the realm of public art. Visualizing internal emotional processes and relating them to route or wayfinding; constructing narratives in a virtual and spatial locality that reveal attachments and connections; positioning oneself imaginatively and actually along a continuum of nature and technology; and exploring the ephemeral quality of technologically mediated art work all assume heightened resonance when they are located in place.⁵⁴ Mobile locative media engages strategies that work against the assumptions and stabilities of site and lo-

cation and are articulated through the interdisciplinary engagement of what has become a new entanglement of art with the social, technological, cartographic, and political implications of mobility.

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Figure 1. *Detectors. Tempelhof, Berlin*, Martin Howse, 2010. © Martin Howse, 2010. Used with permission.

ABSTRACT

The telematic prosthesis increasingly reshapes our sense of the self and its relation to its surroundings. Today's tracking technologies (GPS, geotagging) enable mobile, dynamic and more individual mapping that shortens the gaps between the panopticism, universalism and abstraction of classical maps and the real physical experience. Artistic practices employing navigation techniques explore the potential of individual everyday movement to generate and perform new sensory modes of existence and meta-level narratives that can often be referred to as "sublime." Applied to digital practices, this term describes decentering, dislocation, and disruption of conventional contexting cues, challenging the reliability of ordinary senses for locating one's subjective and objective "self," enhancing the feeling of potentia. The sound overlay creates additional interruption of natural expectations, the liminal in-between space within the created mobile soundscape. The paper demonstrates the diversity of artistic strategies in which mediation through geotagged sound constitutes transgression into augmented virtual space.

Sound Cartographies and Navigation Art

IN SEARCH OF THE SUBLIME

by

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INTRODUCTION

The dynamic of auditory knowledge provides then a key opportunity for moving through the contemporary by creating shared spaces that belong to no single public and yet which impart a feeling for intimacy: sound is always already mine and not mine... It exists as a network that teaches us how to belong, to find place, as well as how not to belong, to drift. To be out of place, and still to search for new connection, for proximity.

- Brandon LaBelle ¹

Space and time, the fundamental parameters of the experience of the universe, get their principally new and original treatment in contemporary mobile/ locative arts. Using the simple everyday procedure – movement through space – as an anchoring point, they enrich it with meanings that often can be referred to as "magic," or even "sublime"; that is, meanings that transcend locality. Artistic practices employing navigation techniques explore the potential of the individual everyday movement to generate and perform new embodied sensory modes of existence and meta-level narratives. Can locative media deepen

our sense of embeddedness, recreating those ancient reality-maps where selfhood was co-extensive with community and nature? Or will these media further abstract actual relatedness, narrowing it to more quantifiable and qualifiable instrumental operations? What could be the specificity of auditory perception of space in comparison to more traditional forms of orientation through vision? How is navigation through sonic maps possible and how does it incorporate principles of cartography? Using the examples of works by Evgeny Strelkov, Jens Brand, Martin Howse (micro_research), and Edvin van der Heide, I will try to answer these questions.

CARTOGRAPHIC OPERATIONS

Exploration of spaces and locations has its extensive and intricate history, within which contemporary locative media art is only a small part. To a large extent, today's locative media technologies build upon the age-old tradition of cartography. Mapping has been one of the most significant cultural forms of orienting through space, the one that radically transformed the more primordial and intuitive way of relating to one's surroundings through physical movement. It became the means of extending the self, of getting access to the distant and invisible, to the field of constructed knowledge. A map is inherently a connecting point between the subjective and objective realms, between the real and the abstract. Cartographic doubling of reality may be compared to the romantic quest for building an ideal reality – an aspect that will be relevant for us further in relation to the sublime.

Mapping as a process of map making is both epistemological and ontological: it is that exact juncture where a framework for knowledge intersects with assertions of knowledge itself. Originally based on recordings of individual tours, maps have become more

and more deprived of the “tour experience” component. If medieval maps were full of traces of personal explorations, their later iterations became more and more abstract, which in the end led to today's rigid, static, and formal representations not of the landscapes themselves, but of existing knowledge systems (Foucault), ideologies (Wood, Harley), and social codes (Lefebvre).² The issues of “space” – its mental and social construction and representation – converge on principles of connectivity and heterogeneity. Now, with everyone digitally empowered to be a new cartographer, Gilles Deleuze and Felix Guattari's strategy of “releasing” the territory from its previous mappings (“deterritorialization”) and placing new meanings on it (“reterritorialization”)³ becomes particularly relevant.

The shift from representational to post-representational cartography within the field of cartographic studies has generated a number of approaches towards maps, interpreting them as inscriptions (J. Pickles), propositions (Wood, Fels), immutable mobiles and actants (B. Latour), as well as practices (J. Corner, T. Ingold).⁴ Mapping is understood as actualization, an unfolding potential of a territory, it involves “processes of ‘gathering, working, reworking, assembling, relating, sifting... [that] allows certain sets of possibility to become actual.”⁵ Besides purely “capturing” elements of the real world, maps also “project back a variety of effects through their use.”⁶ It is these effects that emerge through the mobile artistic practice that is at the core of our current interests.

Cartography as a study of maps is challenged today to become a “critical cartography,” that is to engage political and social underpinnings behind the resulting representations. This is complemented by the field known as Critical GIS (Geographic Information System), which adds to the top layer of a map as a visual representation of geographical territory, other layers of meaning, thus giving an ‘exploded-view’ of the ter-

ritory.⁷ These layers may be photos, videos, animations, immersive visualizations, augmented reality (AR) inputs, often with explicit political focus and intention to deconstruct ideological and power implications in spatial representations. For the most part, the sound is used often in an illustrative manner, in addition to other elements, in order to enhance emotional connection with a place. Some of the examples below will illustrate the specificity of critical awareness that can be raised by activating the acoustic layer.

LOCATIVE SOUND ART: CONTEXTS AND STRATEGIES

The telematic prosthesis increasingly reshapes our sense of the ‘self’ and its relation to its surroundings. Today's tracking technologies (GPS, geotagging) enable mobile, dynamic and more individual mapping that shortens the gaps between the panoptism, universalism and abstraction of classical maps, on the one hand, and real physical experience, on the other.

Traditionally, the primary aim of locative media is to (re)introduce additional – latent or neglected – meanings of a place, to raise awareness of spatial context and actively engage with it (that is what de Certeau implied by the notion of space as a “practiced place”).⁸ It resituates media content and interaction into the real world and thereby into everyday action, incorporating techniques of mixed-reality construction (e.g. Augmented Reality).

Sound is an immaterial and invisible matter, yet its impact on the experience of place can scarcely be overestimated. Overlaid with and geotagged to particular locations, it is capable of creating an eerie feeling of defamiliarization and displacement. What are the ways in which sound can serve as an indication of a location? What is the role of an abstract, non-mimetic electronic sound in evoking memories of locations?

Can the term ‘sublime’ be relevant in describing locative/ mobile/ sound artistic practices, and if so why?

There are various strategies that can be distinguished at the intersection between sound and locative art. It is not the aim here to provide any specific classification, which would be a subject of special analysis that can never be complete.⁹ Among the most distinguished are site-specific sounds and sonic interventions (in the style of the pioneers like Max Neuhaus), and soundscapes and field recordings (started by Hildegard Westerkamp). Krzysztof Wodiczko's “Personal Instrument” was one of the first mobile projects that utilized the Sony Walkman (1969, a wearable sound filter based on the intensity of light hitting the user's palms). The advent of GPS-enabled geolocation fostered the development of sound cartography and related collaborative documentary projects. Among the already classic interactive mobile sound projects are “Sonic City” by Ramia Mazé, Lalya Gaye and Lars Erik Holmquist (2003), where music is created in real time as a direct result of the user's movements through the city;¹⁰ “Hlemmur In C” by Pall Thayer, (2004) a sound performance based on relational dynamics; Steve Symons’ “Aura,” (2007) environment of sonic traces left by movements of others, accessed by walking through a space equipped with GPS; Teri Rueb's “Trace” (1999 - ongoing), a site-specific sound route of memorial songs, poems and stories; Atau Tanaka's “Mobile Music Making” (2004);¹¹ “Odd Sympathies” by “Sans façon” (2008), a “concert” where, as an alternate to sitting, the audience walks; reinterpretations and remixes of local soundscapes as in “Noiseman”¹² by Dunne&Ruby (2000), or “Sonic Interface” by Akitsugu Maebayashi (1999); and numerous sound walks through cities like Paris, London, Berlin, New York where both “mimetic” sounds or vocal narration are used here to enhance dynamic geographical visualizations.¹³

SUBLIMINAL QUALITIES OF LOCALIZED SOUND

The sound overlay utilized in many of these projects may seem foreign, out of place and out of sync or registration. In a lot of ways this is due to the principal difference in operation between auditory and visual types of perception of space: what one hears may correspond to a radically different image than what one sees. The sound may alter the perspective of distance or suggest the presence of something obstructed from vision. Finding these discordances, and creating narratives around them, is at the core of locative and mobile sound art. Frauke Behrendt, a historian and theorist studying these artistic practices, points out the fact that “the visual focus in the media world often implies a distant observer – this does not work for sound and locative media as these rely on immersion, not distance.”¹⁴ An argument against this statement could be that vision-based media does not intend to distance, but rather, to connect and absorb the viewer into the mediated reality, even if it appears only on a small screen of a mobile device. The question is where and how we are immersed. In the case of sound it is a certain affective atmosphere, a special field that haunts you and puts you into a specific mood. The emotional shifts, along with the intensification of operations within inner/mental space, including activation of new locations within this space, are the foundations of music art.

Yet, when applied to acoustic perception of a physical location and to the perception of dynamic relations between various locations, these cognitive rules get confused. There is no one particular atmosphere which one is “immersed into.” It is, rather, an immersion into the relational field, the space in between the borders of concrete spatial associations. As Brandon LaBelle poetically puts it, sound “expands and contracts space by accumulating reverberation, relocating place beyond itself, carrying it in its wave, and inhabiting always more than one place; it misplaces and displaces.”¹⁵

This additional distance, gap, interruption of natural expectations, liminal in-between space within the created mobile soundscape, may be interpreted as a reminder of Immanuel Kant’s theory of the sublime. Applied to digital practices, this term describes not so much the dominating power of some kind of absolute (in a sense of omnipresent divinity, or Romanticist Ideal), but the decentering, dislocation, and disruption of conventional contextual cues, challenging the reliability of ordinary senses for locating one’s subjective and objective “self.” Sublime points to the unknown, but not as some kind of unity, or whole; to the contrary, the reality that provokes the feeling of the sublime, by definition, consists of several layers, including one that is in principal unrepresentable and is experienced as a reference to pure negativity. The feeling of being confronted with the unknown is both disturbing and pleasing as it potentiates the otherwise latent abilities of consciousness itself.¹⁶

The experience of the sublime enhances the feeling of potentia, evoking the presence of something, not only awe-inspiring, but uncanny, even frightening, in its unpredictability. The question remains what stimulates and mediates this experience, what constitutes this procedure of transgression into ‘another,’ always larger reality (which in fact is *this* reality since others are not verifiable). Given its emphasis on the processuality and affective side of experience, a theory of the sublime adds a valuable inflection to the perception of space as fluid and mobile (an effect evoked by the augmentation of sound).

Sound is closely associated with continuity, with making perceivable the very flow of time, a flux, to which humans may contribute but which precedes and exceeds these contributions. Sound, thus, connects all the three times – past, present and future – exposing the listener to the “already gone,” or to the “not yet”; both orders are never present, but only latent, or

virtual. Special qualities of sound as an agent of time were well recognized and celebrated throughout the history of music. The twentieth century experiments with sound drew special attention to the phenomenon of *auditory unconscious*, to the *transcendental* domain of “pure sound.”¹⁷ The transcendental, to follow Kant’s definition, lies in between the empirical (the domain of sensory experience) and the transcendent (the realm of what is beyond sensory experience). The transcendental registers the *possibility* of experience, to be more exact, the *conditions* that make the experience possible. Christoph Cox, a philosopher specializing in sound theory, looks for these conditions in noise: “‘noise’ is not an empirical phenomenon, not simply one sound among many. Rather, it is a transcendental phenomenon, the condition of possibility for signal and music.”¹⁸ In the context of locative sound art, street noise forms the initial condition for an experience of urban space. Sounds of different locations, recorded by a device moving at high speed, and then mixed together, would be indistinguishable from one another, i.e. one would hear it as a noise, and following Cox’s logic – as a source of experience of the transcendental and the potential.

Close ties between sonic and spatial dimensions reveal newer conditions for experience as such. Acoustic perspectives have been already thoroughly studied from the physiological and phenomenological points of view, for example, in the field of psychoacoustics. Among the various discoveries in this arena are indeed the highly affective qualities of spatial sound. Omnipresent, pervasive, multilayered, subtle, sound can feel threatening (though still sublime). Artists, in their projects, just amplify what already exists as a ‘background noise.’ Examples of technologies that produce such distressing effect could be LRAD (Long Range Acoustic Devices) and more directed sounds such as “audio spotlights,” or rooftop speakers directed at an individual passerby, following them in space, while

creating the effect that the sound is contained within one’s head.¹⁹ Both technologies are powerful in altering states of mind and inducing certain messages on behalf of controlling institutions.²⁰

The issue of control also comes up, surprisingly, in regard to the allegedly harmless procedure of natural sound mapping where by archiving or selection, the creation of a special aesthetic order becomes the fulfillment of the same desire to inscribe rules, creating a certain subjective lens. One order is changed by another one. Yet, the political point here is freedom of alteration: mapping is part of mobile practice, where the user gets access to a remote location via an alternative perspective (that in its turn can be replaced by another one). The examples below will illustrate some of the multiple strategies for creating these perspectives, the alternative and alternating ways to navigate both through physical and imaginary spaces. This does not present in any way a comprehensive list and should be supplemented by others, which would then allow one to formulate a special taxonomy, specific to practices engaging not only sonification of movement, but with the very concepts of cartography and navigation in a deeper way.

MODELS OF SOUND CARTOGRAPHY

Sound (or “sounding”) cartography can be created while on site, through direct engagement of the user-participant with a spatial environment. A different strategy would be an acoustic interpretation of the already existing maps and their graphic peculiarities. Sound becomes a simple reflection of relationships between lines and other parameters on the map, corresponding to them in a specially coded way.

A project by a Russian artist Evgeny Strelkov, “Sirenes” (2004), acoustically reinterprets a map of the Volga

river water reservoirs. Initially created as an indoor installation, today it exists as a web-based piece. Vocalizations of more than 10 water reservoirs are based on calculations of the distances between the shore and the source point of the Volga. According to the artist, the inspiration for the project came from the history of (industrial) development throughout the Volga basin and the river's unique vocal traditions:

Water storages on the body of the Volga, like swellings, became symptoms of pathology: drowned lands and towns, water blooming, death of fish and toxic wastes in the bottom sludge... Along with that, however, water storages are the personal file of the Volga: the shape of artificial seas reflects the surrounding topography, their size characterizes the human factor. [...] (And the Volga was always full of sound; the required skill of engine men on steamboats of the 19th century was to produce fanciful trills using steam whistles.) [...] the cryptic and chaotic music is filled with fragments of Volga songs pressed with time to

*two or three notes, shadows of steamboat horns, boatswains' pipes, bell tolls... These foghorns, like sirens' voices, are only splinters of the acoustic replica of the Volga culture that is lost and could not be reached again: some fragments seem to be sweet and melodic, but randomness and sharpness of passages reflect the disrupted integrity of the Volga sonata.*²¹

The resulting cacophonous sound is an abstraction that, in playful and artful ways, attempts to address environmental and social issues of the Volga river basin. It is impossible to distinguish any of the sounds that are mentioned above in such a loving and romanticized manner in that they are clearly artificial squeaking sounds.

In 2008, the project was updated to a concert version, created by composers Olga Shaidullina and Anton Cherkassov, and performed by a string quartet. Now becoming a piece within another genre, no longer an interactive computer program, it nonetheless should

Figure 2. *Sirenes*, Evgeny Strelkov, 2004. © Evgeny Strelkov, 2004. Used with permission.

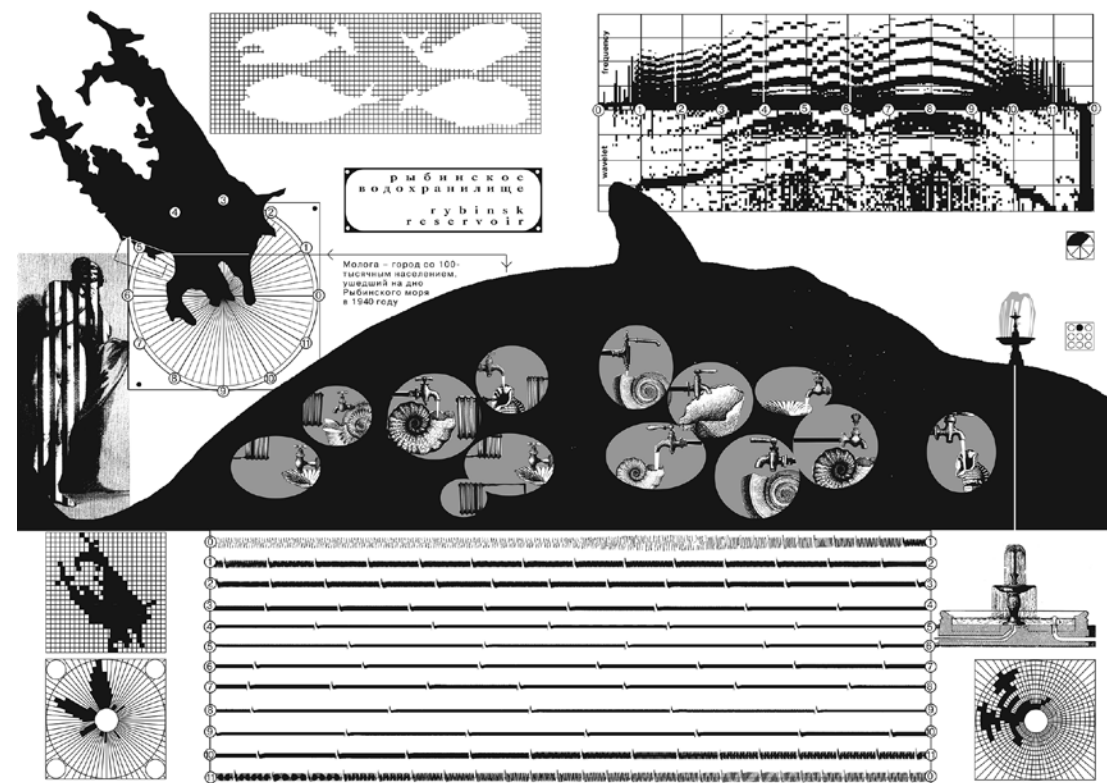
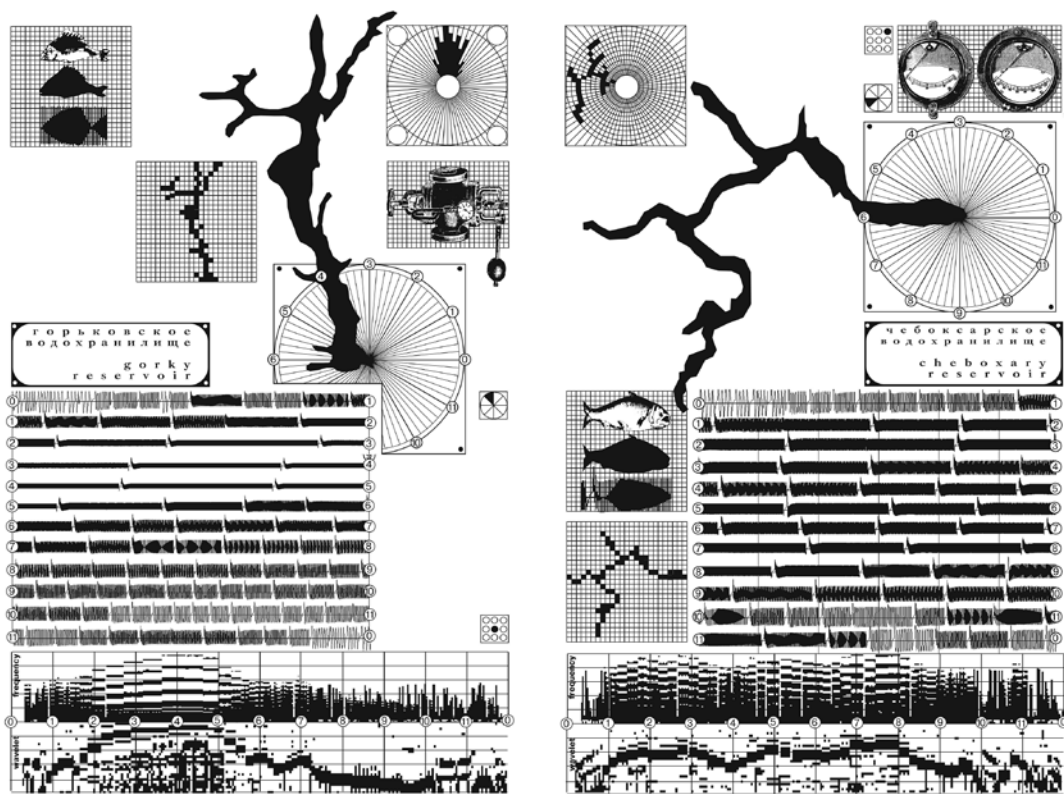


Figure 3. *Sirenes*, Evgeny Strelkov, 2004. © Evgeny Strelkov, 2004. Used with permission.

be treated as part of the same project. Still based on electronic calculations, the sound of the strings imbues the piece with the qualities of a different aesthetic order, more human, more emotionally affective. What causes such an effect? What is subliminal about it? Is it the intensity of the sound and its sudden mysterious harmonies within the composition, or associations with the history of the river, or images of the bygone days and their inhabitants? Or rather, can it be the result of the procedure of cartographic distancing, with its sudden suspension above the realm of the physical? All of the above seem to be relevant and serves as an example of the aesthetic actualization of diverse layers of meanings on the basis of sonifying a cartographic "take" on a particular place. The beholder may remain physically static, but the temporal quality of sound enables an imaginary journey – not only through space – but through historical time and its cultural forms.

Another example of sonic interpretation of spatial

data is "G-Turns" by a German sound artist Jens Brand.²² Space is taken here as a specific and potentially physically approachable territory, yet, our connection to it is mediated by sound. The player constructs an abstract version of a path between particular arbitrary locations on Earth. The visitor (of the installation or the website) can *hear* the chosen route, no matter how long it is (it may go around the globe and contain several "destinations"). The sound would be based on characteristics of the actual topography and be processed using two databases: a topographic database that contains the altitudes of all the mountains, valleys, skyscrapers and gullies; and a dynamic database that allows one to calculate the orbits of any public-use satellite. "The sound is calculated such that the shape of the topography equals the shape of the audio wave, in the same way that one would look at the latter with the aid of a 3D audio program (spectral analysis)."²³ Basically, it is a Hi-Fi product which plays the Earth as a disc.²⁴

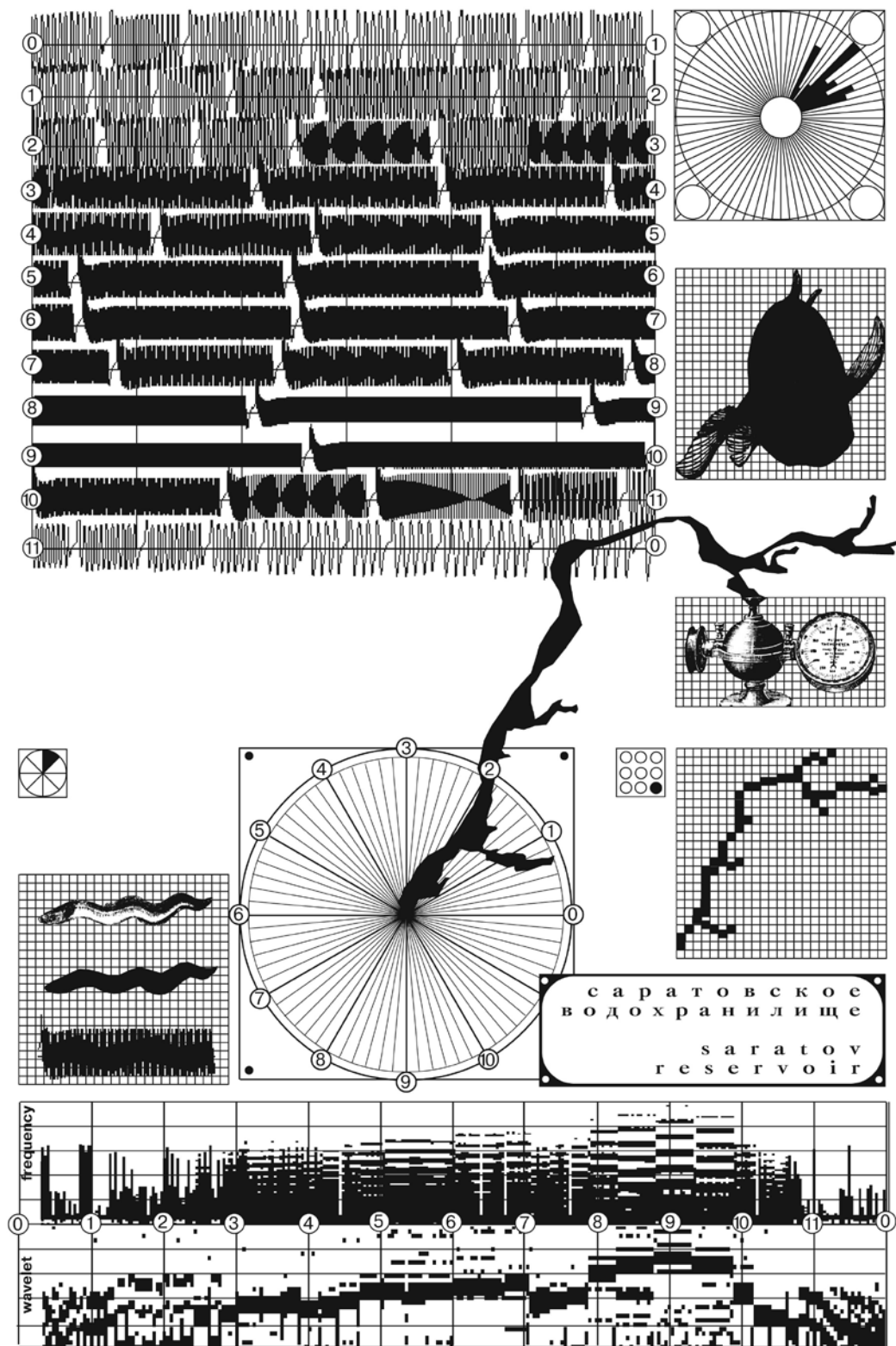


Figure 4. *Sirenes*, Evgeny Strelkov, 2004. © Evgeny Strelkov, 2004. Used with permission.

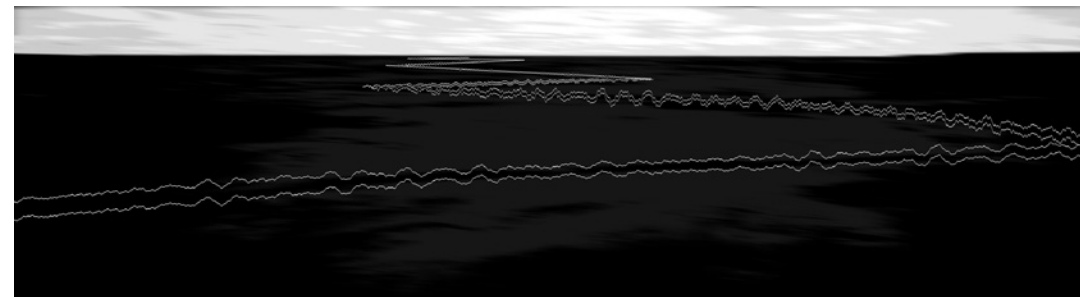


Figure 5. *G-Player*, Jens Brand, 2008. © Jens Brand, 2008. Used with permission.

As in the previous example, mobility in its literal sense is reduced here to mathematical calculations and sound waves. It is the procedure of imaginary travel that makes this experience dynamic. Focusing the mind on an imaginative road may be compared to reading a guidebook or examining a trail map. Simultaneously, we are relocated to the position of a satellite and a geodesic instrument (measuring the altitudes). This is, again, an elevated perspective made possible through mathematical processing. Both traditional cartography and GoogleEarth made possible the access to what otherwise would remain as unrepresentable. Though we can look at the surface of the Earth and zoom in to specific parts, it is the aerial/ satellite perspective, which does not give the view in relief, that is one of the most emotionally affecting characteristics of the experience, and is the most inspirational for artists. This aesthetic tradition, associated closely with the search for sublime experiences, may be called the roots of Brand's piece. The computer program is only a tool to add newer layers of meaning, to remind us of the challenge of representing the dynamic experience of the Earth's shape.

Both Brand and Strelkov ignore the physical, spatial position of the actor/ listener. The experience is individual, not shared, which is the more common experience of spatial sound. How does it relate to other qualities of acoustic experience, by being inclusive, associative and non-dualistic? The associative dynamic of sound lends greatly to triggering associated forms of discourse and knowledge. The artistic choice to isolate the perceiver from the visual characteristics of the surroundings is to emphasize that the visual focus should be generated and directed from within the associative space of the imagination, with the experi-

ence of a sonified map being a key to it. As LaBelle writes, the "associative and connective process of sound comes to reconfigure the spatial distinctions of inside and outside, to foster confrontations between one and another, and to infuse language with degrees of immediacy. In this regard, sound studies and auditory knowledge contribute greatly to understandings of the 'geographic' and the modern legacy of spatial production with a view toward engaging the influential energies and ideological processes that lie in and around what we see and touch."²⁵ In this statement LaBelle follows the observation of Steve Connor, who likewise identified listening as an "act of imaginary projection and transference," but also connected diffusing and associative auditory dynamics to "the switchboard experience" of modern life in general – in early telephone systems, radiophonic broadcasting, and cinematic matter, which would "necessitate a new shuffling between sight and sound."²⁶

Be it conceptual or not, in one way or another, maps reflect actual mobile practices. An aerial perspective gives a quite realistic sense of the land and its surface – you can *feel* it, irrespective of the distance. But it is still sliding along the *surface* – the only procedure that *vision* allows. Beyond the visible surface there are plenty of geological, sociological and historical data to be perceived. One of the metaphors for digging inside those stories could be archaeology. Yet, here we would like to introduce the concept of Martin Howse (UK/DE) and the *micro_research* group – "psycho-geophysics."²⁷ A more familiar term "psycho-geography" is mashed-up here with earth science measurements (site forensics and geophysical archaeology), charting local and global geophysical effects like electromagnetic phenomena on people's lives.



Figure 6. *Detectors. Tempelhof, Berlin*, Martin Howse, 2010.
© Martin Howse, 2010. Used with permission.

Howse is not a pioneer in introducing electromagnetism to sound art, or to mobile practices. The fascination with “deterritorialized sound” available through radio transmission goes back, at least, as far as Schaeffer. One of the most famous recent predecessors is Kristina Kubisch, who since 1980 has been building her own self-designed headsets to provide the viewers/listeners access to their own individual spaces of time and motion.²⁸

Psychogeophysical interventions led by Howse and his colleagues (field-expert practitioners) are usually workshops during which speculative and fictional stories are being constructed, mapped and inscribed based on the detection of hidden environmental data, or *infoscapes*. In 2009, together with Shintaro Miyazaki, Howse developed a concept of “Detektors”, an open, collaborative project which uses sonic strategies and DIY-devices to reveal and archive recordings and cartographies of different “spectral ecologies and trans-sonic machinic assemblages.”²⁹ It is both a cartography and a database of user-generated geolocalized sonic studies of electromagnetic emissions and audible rhythms produced by our everyday electronic

devices. Detection is taken in its widest sense, as a “making sense of that which is”. For instance, in the summer of 2010, the site of the legendary Tempelhof airport in Berlin was explored through “divining”, “plotting”, a radio telescoping evening, “thoughtography” and “qualitative plant investigations” in order to imagine a future electromagnetic architecture of the place. In another project, “Psycho Suffolk” (2011), 17 artists and researchers roamed the east coast of England, exploring connections between the landscapes (Rendlesham forest, Bawdsey Manor, Orford Ness, site of cobra mist) and local folklore (UFOs, CCTV ghosts) using psychogeophysical approaches and finding supporting material for so called “electromysticism.”

The psychic dimension, even based on quantitative analysis of certain geophysical measurements, is still preceded by speculative constructions, imagination and beliefs. Behind the playfulness of these procedures is a premise, which is particularly interesting in this context – of interrelations between material conditions, human perception and the natural need to create imaginary worlds. The last one, then, may carry the same ontological weight as the first one. (It has



Figure 8. *Radioscape*, Edwin van der Heide, 2006. At Electromagnetic Bodies exhibition, V2 & TENT, Rotterdam, NL. © Studio Edwin van der Heide, 2006. Used with permission.

been one of the hardest philosophical questions – to explain the ontological ground behind imaginative events, for instance, illusions.)

In one of his papers, Howse engages rich epistemological and physical connotations about *aether*, ephemeral substance existing between things, a precursor for both electro-magnetism and Einstein’s idea

Figure 7. *Radioscape*, Edwin van der Heide, 2004. Pictogram.
© Studio Edwin van der Heide, 2004. Used with permission.



of interconnection between space and time. It is also a universal reference for the propagation of light, its omnipresence, and thus life existence. In parallel to the growth of scientific analysis, *aether*’s invisible nature has always been inspirational for many myths about the unexplainable and sublime occurrences happening within this enigmatic realm.³⁰ Making manifestations of the imaginary audible and mapping them means not just to acknowledge their existence, but to give them authority, make them your spatial orienteers, and let them guide you.

This experience, like most of the mobile art practices with sound, is purely individual and performative, but it is often also expressly immersive (as was already pointed out). “Radioscape” (2004 - ongoing) by Edwin van der Heide (NL) is an immersive environment that explores the bodily relationship to the medium of radio.³¹

In this piece, sources of sound already exist in the *aether* in the form of fifteen custom developed radio transmitters that are distributed over part of a particular city, each transmitting one layer of a “meta-composition.” The participant navigates this environment and shapes his/her experience through simple movement through space, while using a custom developed

receiver that is able to mix the (received) signals from the individual transmitters and gather multiple signals simultaneously. “By interacting with the environment the visitors become ‘inhabitants’ of the organized transmitted signals. The visitors reorganize the area and assign new meanings to places.”³²

In this case, there is no pre-given map; it was constructed on-site by the participants. Yet, their embodied experience of the sounds affects their vision of the space, leaving traces and impressions in the user-generated 4-dimensional mental map. The volatile qualities of the received radio sounds adds to the open, non-linear and constructed final image.

CONCLUSION

The described projects demonstrate the diversity of strategies in which mediation through geotagged and located sound constitutes a transgression into augmented virtual space. Due to the quality of the sound, which touches upon the abstract zones of pure imaginary, an experience is created of transcending the borders between material reality, into the dimension of the invisible or another, potentially possible, realm. Whether “playing the map,” or physically walking through space, the participant activates the hidden, volatile layers of spatial experience that escape definition. The common media used in these pieces, sound, is presented here in such diverse aspects as a trace of a landscape and its cultural history (Strelkov); as a direct acoustic representation, or acoustic cartography of that which is usually non-representational (Brand); as a way of detecting and representing hidden infoscapes, or sub-levels of the geophysical (Howse and van der Heide).

The associative and relational qualities of sound, intensifying the work of imagination, make us reconfigure not only our relations to particular locations, but the relations between locations themselves. Being part of the bigger and whole surface, locations become more fluid, they move. The experience of the acoustic orients our bodies in space and locates us within our surroundings – both visible and invisible. Thus, it at once immerses us in the physical present and transcends our embodiment, allowing access to some-



Figure 9. *Radioscape*, Edwin van der Heide, 2010. At the Urban Explorers festival, Dordrecht, NL. © Studio Edwin van der Heide, 2010. Used with permission.

thing beyond the physical. Movement (even through virtual maps) and listening, together, orient us to location and beyond it. Sound cartographies are therefore maps of location, but also traces of the hidden and unconscious. The thrust of their experience is to find oneself in a situation of liminality and to rediscover one's surroundings as subliminal. In this way the “total

effect” of geography and place on an individual reveals itself. Totality, in its turn, is a result of an unconscious quest to connect with the unknown in order to rediscover and reconsider not only one's surroundings, but oneself, one's mental map as never fixed, always alive and responsive. ■

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3. Gilles Deleuze and Félix Guattari, *A Thousand Plateaux*, trans. Brian Massumi (Minneapolis, MN: University of Minnesota Press, 1987), 10-11.

4. See John Pickles, *A History of Spaces: Cartographic Reason, Mapping and the Geo-Coded World* (London: Routledge, 2004); Denis Wood and John Fels, *The Natures of Maps: Cartographic Constructions of the Natural World* (Chicago, IL: University of Chicago Press, 2008); Bruno Latour, *Science in Action* (Cambridge, MA: Harvard University Press, 1987); James Corner, "The Agency of Mapping: Speculation, Critique and Invention," in *Mappings*, ed. Denis Cosgrove (London: Reaktion Books, 1999); Tim Ingold, *The Perception of the Environment: Essays in Livelihood, Dwelling and Skill* (London: Routledge, 2000); as discussed in Rob Kitchin, Chris Perkins, Martin Dodge, "Thinking About Maps," in *Rethinking Maps: New Frontiers in Cartographic Theory*, ed. Martin Dodge, Rob Kitchin and Chris Perkins (London: Routledge, 2009), 10-23.

5. Ibid., 18.

6. Ibid.

7. See John Pickles, ed., *Ground Truth: The Social Implications of Geographic Information Systems* (London and New York: The Guilford Press, 1995); Tumasch Reichenbacher, "Adaptive Concepts for a Mobile Cartography," in *Journal of Geographical Sciences* 11, no. 1 (2001): 44-53.

8. "Space is composed of intersections of mobile elements. It is in a sense actuated by the ensemble of movements deployed within it. Space occurs as the effect produced by the operations that orient it, situate it, temporalize it, and make it function in a polyvalent unity of conflictual programs or contractual proximities... In short, space is a practiced place". Michel De Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley, CA: University of California Press, 1988), 117.

9. One of the worthwhile versions of taxonomies for mobile sound art is by Frauke Behrendt: Frauke Behrendt, "Mobile Sound: Media Art in Hybrid Spaces" (PhD diss., University of Sussex, 2010).

10. See Ramia Mazé, Lalya Gaye and Lars Erik Holmquist, "Sonic City: The Urban Environment as a Musical Interface," in *Proceedings of the 2003 Conference on New Interfaces for Musical Expression (NIME-03)*, Montreal, Canada (2003), 109-115.

11. Atau Tanaka, "Mobile Music Making," project website, <http://www.csl.sony.fr/downloads/papers/2004/tanaka-04b.pdf> (accessed January 20, 2012).

12. Anthony Dunne and Fiona Raby, "Noiseman," the website of the artists, <http://www.dunneandraby.co.uk> (accessed July 20, 2012).

13. See the website of *Soundwalk* (2005) (by Oversampling, Inc.), www.soundwalk.com (accessed August 8, 2012); Toby Butler, "A Walk of Art: The Potential of the Sound Walk as Practice in Cultural Geography," in *Social & Cultural Geography* 7, no. 6 (2006): 889-908; Nigel Helyer and Francesca Veronesi, "Artful Media: The Sonic Nomadic: Exploring Mobile Surround-Sound Interactions," in *IEEE Multimedia* 16, no. 2 (2009): 12-15.

14. Frauke Behrendt, "The Sound of Locative Media," in *Convergence: The International Journal of Research into New Media Technologies* 18, no. 3 (2012): 288.

15. Brendon LaBelle, *Background Noise: Perspectives on Sound Art* (New York: Continuum, 2006), xi.

16. This is Kant's famous ethico-aesthetical empowering version of the sublime, whereas the dialectics between positive and negative effects of the sublime were developed even earlier by Edmund Burke, focused more on the effect of overpoweredness, rather than what is discovered in that state.

17. See Christoph Cox, "Sound Art and the Sonic Unconscious," in *Organised Sound* 14, no. 1 (2009): 19-26. An

interesting overview of the geographical unconscious and the "abysmal" in relation to perception of space can be found in Alessandra Bonazzi, "Abysmal: The Unconscious and Cartography," in *Geografiska Annaler: Series B, Human Geography* 89, no. 4 (2007): 384 - 388.

18. Christoph Cox, "Sound Art and the Sonic Unconscious," 20.

19. Andrew Hampp, "Hear Voices? It May Be an Ad," *Advertising Age*, December 10, 2007, <http://adage.com/article/news/hear-voices-ad/122491> (accessed January 20, 2012).

20. Steve Goodman, *Sonic Warfare: Sound, Affect, and the Ecology of Fear* (Cambridge, MA: MIT Press, 2010).

21. Evgeny Strelkov, "Sirenes," the website of Drizhabl, 2005, <http://www.dirizhabl.sandy.ru/project/sir/sir.html> (accessed January 15, 2012).

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24. Another example of 'playing the Earth surface' is "GPS Beatmap: Planet as Control Surface," "a piece of software that uses GPS to assign musical snippets to small circles of land all over the planet. As users walk or drive around, they traverse different circles, creating a beat-matched mix as they move." WV, "Atlas Sound: A Typology of Sound Maps," WeirdVibrations.com, January 10, 2010, <http://www.weirdvibrations.com/2010/01/10/atlas-sound-a-typology-of-sound-maps> (accessed February 1, 2012).

25. Brendon LaBelle, *Acoustic Territories: Sound Culture and Everyday Life*, xxi.

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29. Martin Howse and Shintaro Miyazaki, "Detektors," project website, www.detektors.org (accessed February 1, 2012). See also Shintaro Miyazaki and Martin Howse, "Detektors: Rhythms of Electromagnetic Emissions, their Psychogeophysics and Micrological Auscultation," in *Proceedings of the 16th International Symposium on Electronic Art ISEA2010 RUHR*, eds. Judith Funke, Stefan Riekes and Andreas Broeckmann (Dortmund: Hartware MedienKunst-Verein, 2010).

30. Fascination by the enigmatic character of aether is apparent in the following passage by René Descartes: "... that these souls of material particles are endowed with knowledge of a truly divine sort, so that they may know without any medium what takes place at very great distances and act accordingly." René Descartes, "To Mersenne," in *Descartes, Correspondence*, eds. Charles Adam and Paul Tannery (1893), 396, quoted in Martin Howse, "The Aether and its Double," in *Spectropia*, acoustic.space#7 by RIXC, October 2008, <http://1010.co.uk/spectral-Martin-Howse-eng.pdf> (accessed January 10, 2012).

31. Edwin van der Heide, "Radioscape," the website of the artist, http://www.evdh.net/radioscape/index_more.php (accessed January 20, 2012).

32. Ibid.

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