Spatial and Media Connectivity in Urban Media Art

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Abstract

In order to investigate the preconditions of urban media art – in the context of the recent convergence of real and virtual space – it makes sense to focus on art projects and exhibitions that use connectivity as a model for interlaced (not separated) urban media space. Artists intertwine the flows of data and mobility, and reconnect these supposedly immaterial networks to an urban terrain. By comparing urban art projects and exhibitions from the 1990s to some today, this paper shows that similar issues were relevant before the advent of mobile media technology. Moreover, the dialectics of de- and reterritorialization are a valuable analytical tool for urban media art in general.

Keywords:
urban media art, real and data space, connectivity, deterritorialization, reterritorialization, mobility, locative media, locative arts, Lynn Hershman, rude_architecture, Mark Shepard, M+M, Marc Lee, *Connected Cities, Hacking the City*

Urban Media Art, Its Relation to Street Art and Their Dependence on Real and Virtual Space

Besides its strong reliance on urban surfaces and their materiality, street art today is deeply marked by the convergence of real and virtual space. While it is still possible to stroll past street art in urban sceneries – and this remains one of its key characteristics – we have to acknowledge that "most viewers of street art experience it online" (Blanché, 2015: 36).[1] This includes the possibility of uploading geotagged images of dispersed street art pieces, thus transforming the old model of urban flânerie into a kind of scavenger hunt (Blanché, 2015: 37), but also of parallelizing the experience of getting lost in dedifferentiated urban spaces with the disorientation of web surfing or even the loss of any sense of locality. The general hybridization of virtual and real space is a central concern for artists working within and with the city because the city itself is becoming smart and loosening its roots in physical space (Bourdin et al., 2014). However, simultaneously the concept of the "smart city" promises to reconcile the two supposedly antagonistic spheres of urban and media space. This tension grows even more acute when urban artists do not choose spray cans or stencils but new media as their means; these media can bridge distances, compensate for on-site experience, and therefore partake in the general process of obliteration of space. On the other hand, many of them have changed into location-aware technologies, thus generating some sort of net locality (Gordon et al., 2011).

The two related dialectics outlined above can be better understood as processes of dis- and relocation, or of de- and reterritorialization;[2] as fundamental tensions, they underlie every kind of what I call "urban media art" and — as shall be shown — are made productive in some of its convincing examples. I shall focus on exhibitions and works that clearly have their origins in "public art," but undermine the problems of art under public and curatorial mandate with strategies of cultural-digital hacking, thus coming close to the unauthorized tactics of street art. And instead of using the term "urban art" for "street art" that finds its way into museum spaces (Blanché, 2015: 38),[3] I propose a new

concept of "urban media art" that provides for the fundamental dialectics outlined above and shares with street art an interest in ambulatory, nodal spaces constituted by traversal and intersections (Hoppe, 2009). In order to explore the specific preconditions for this kind of urban media art, I shall examine a telling phenomenon that is exceptional in the wide spectrum of public art exhibitions. This kind of exhibition has been established as a promising branch of contemporary art even and precisely at a time when the relevance of urban space as public space was declining (and this correlation persists). Apart from long-term projects such as the *Skulptur Projekte* Münster, numerous new exhibitions are launched every summer, such as the exhibition series *Playing the City* (2009–2011) organized by the Schirn Kunsthalle Frankfurt. It can readily serve as an example of the recent reconceptualization of site-related practices through performance art. By contrast, the pervasion of urban space by new media, as indicated by the subtitle of the exhibition *Sensing place. Mediatising the urban landscape* at the House of Electronic Arts at Basel in 2012 (Buschauer and Himmelsbach, 2013), is often delegated to institutions specialized in new media and digital art.[4]

Some exhibition formats or singular projects have nevertheless experimented with conceptually correlating the urban and the media sphere: one way of doing so can be described as an exploration of the common connectivity characteristic of decentralized urban spaces and media networks. To this extent, I accept the vagueness of concepts such as "network" and "connectivity" in order to make their overlapping usages productive in the various discourses concerned. In such art projects, spatial patterns considered deficient with regard to the ideal city core gain relevance because of the interconnection between physical mobility and mobile communication. Even transit spaces, once the epitome of non-places, can paradoxically engender site-related practices encouraged by a heightened awareness for the aesthetics of infrastructure both in terms of transportation and communication technology.[5] My perspective is in keeping with recent research by Regine Buschauer (2010) and others who want to overcome the separation of the historiographies of media and mobility. They prefer to focus on the interplay of "mobile communications, physical mobility and the city" and pay attention to "the locatedness of mobilities" (Sheller and Urry, 2006: 3). Accordingly, I shall single out artistic examples that interlace the flows of data and mobility. This has two important consequences: it helps to make comparisons between brand new and older new media art with respect to the fundamental dialectic of dis- and relocation and to overcome a narrow, technically determined understanding of locative media.

1. Connected – Telematic Spaces and Bodies

The common connectivity of urban and media spaces is often already stressed by the mottos of exhibitions and their accompanying posters and covers, particularly in the case of those examples that I have chosen from the Ruhr region and its characteristic agglomeration of 53 towns and cities. The idea of using this kind of (traffic) infrastructure in public art projects resonates in exhibitions such as *A 40 – die Schönheit der großen Straße* and *Emscherkunst,* which focuses respectively on a main traffic artery and a river running through this territory; the river is in the process of being restored to its natural state. Moreover, in the same context, namely the context of the European Capital of Culture *Ruhr.2010*, Sabine Maria Schmidt from the Folkwang Museum Essen launched the project *Hacking the City*. It suggested the parallelization of urban spaces with spaces of communication by dedicating both of them to strategies of hacking. Even in 1999, during the heyday of net art and before the advent of location-aware media, the exhibition *Connected Cities* at the Lehmbruck Museum Duisburg started to launch "processes of art in the urban network," which was meant in a double sense. It was the aim of the exhibition, curated by Söke Dinkla, and of many of the participating artists to interweave such post-industrial agglomerations like the Ruhr area and their nodal urban spaces without a center with networked data space. This leads to double connectivity that is more specific, even site specific in a new manner, although the whole exhibition *Connected Cities* remained within the institutional framework of public art, launched by a museum and partly situated in its indoor spaces.
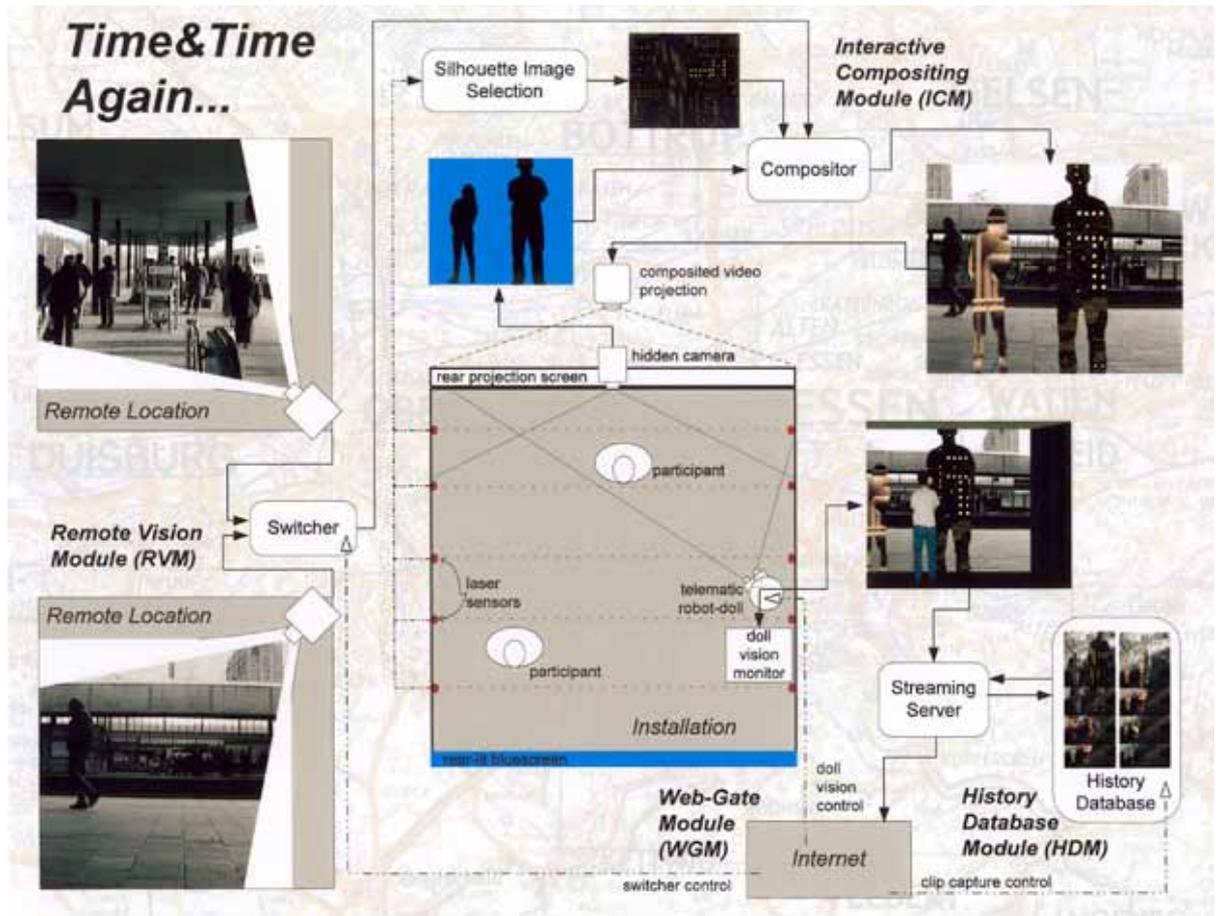
Fig. 1 - Lynn Hershman and Fabian Wagmister: *Time & Time Again*, 1999, telecommunicative installation, internet project and robotic doll, in the context of the exhibition *Connected Cities,* 1999.

Let me focus more closely on the contribution by net art pioneer Lynn Hershman in cooperation with Fabian Wagmister because their networked installation *Time & Time Again* (fig. 1) interconnects the supposedly autonomous detached sphere of the museum with urban and web space. It puts into perspective the paradigm of virtual space as a separated sphere of its own as it was prevalent in the 1990s. By means of a bluebox process, the silhouettes of visitors at the Lehmbruck Museum who were filmed by a camera behind a rear projection screen were inserted as 2D-graphics into live images transmitted from surveillance cameras at the train station (Dinkla, 1999: 134–144). The electronic separation and mixture of images intensified an experience of dislocation in the dark placeless museum space: a feeling of being transported to another place or even of the unreal tele-presence of being at two places at once. On the other hand, the realistic impact of the familiar train station and the live stream heightened the consciousness of the here and now: deterritorialization reverts to a sort of resituating. In addition, the human silhouettes were filled in with emblematic images delivered by a history database presenting connective structures of all kinds such as tubes and circuits. Depending on their position in the room, the visitors could change this content. They thus somehow navigated through the history of the Ruhr region with images amalgamating the old infrastructure of heavy industry and the new one of communication, flanked by an aspect of technoid bodies as the patterns of connectivity turned into arteries of organisms. The involvement of museum visitors was crossed with a second interactive feature engaging an online audience and reinforcing the affinity with gaming. This interface with the web possessed a humanoid form with a robotic puppet surveying the exhibition space. Her eyes could be controlled telematically from the web, thus producing another multi-layered projection of the real visitors in front of their avatar-like data bodies within the composite picture of the remote train station. In the hybrid space of this networked installation, the museum turns into an arena of a corporal skipping backward and forward through past, present, and future, merging urban mobility, actual movement and web activities, while data traffic is governed by gazes that oscillate between surveillance and game control. This fragile balance of activation and subjugation has been later pursued in locative games such as those of Blast Theory, which make use of the implementation of GPS into smart phones in order to root online games in urban real spaces.
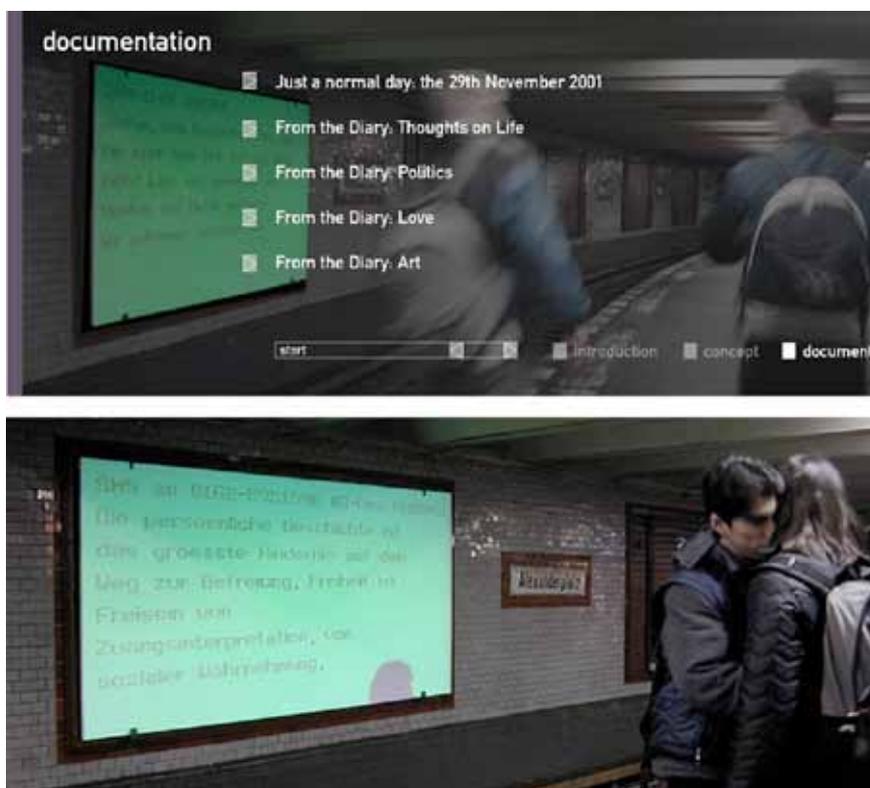

Fig. 2 - rude_architecture (Friedrich von Borries, Gesa Glück, Tobias Neumann): *urban_diary*, Berlin U Alexanderplatz, 2001–2002, sms-diary in public space, two projection screens.

2. Converging the Flows of Mobility and Communication

While Hershman's installation stages the ghostly presence of bodies mobilized in between real and virtual spaces, it has not yet directly converged data flows of communication with flows of mobility as they depart from the train station. Such transit spaces are often seen as antagonistic, i.e. as spaces of non-communication in accordance with Marc Augé's characterization of non-places, that regulate behavior in a non-personal way and therefore create lonely users (Augé, 2000). Numerous art projects try to break up these situations of non-communication. They even reinterpret surveillance cameras, which Lev Manovich mentions as one of the three key elements responsible for the merging of data and real space (Manovich, 2006), as partners in a game that—in contrast to the observational regime in *Time & Time Again*—stresses much more the idea of reciprocity and togetherness. This was the case with Chess for *CCTV Operators*, the contribution of Mediengruppe Bitnik to the exhibition *Hacking the City* in 2010 (Schmidt, 2011: 25–39). Other projects confront the non-communicative character of transit spaces with the simultaneous but closed communication taking place within these spaces via mobile media without addressing what is physically close. This reinforces the indifference among people lacking a sense of community during their daily routine of commuting.

Fig. 3 - Mark Shepard i.a.: *Ad-hoc Dark (Roast) Network Travel Mug* (Concept Sketches), 2010, part of *Sentient City Survival Kit*, 2010, Video documentation, 5:15 min., project website http://survival.sentientcity.net.

This situation was significantly altered by a project realized by the collective rude_architecture in Berlin in 2001–02. It short-circuited the small personal screens of mobile media with the big advertising screens installed in public transportation systems. In this way, *urban_diary* (fig. 2) somehow extends the idea of writing on urban walls, which is at the heart of graffiti and street art, to electronic billboards by opening them for all short private messages in flux. These texts were now readable for everyone around and written in the awareness and with the intention that they would have been made public (Blume, 2004: 39–40).[6] Much like anonymous graffiti, they therefore oscillated between private diary and public utterance. The project explored the site specificity of spaces of mobility in multiple ways: using a 24-hour delay, text messages could be sent out at a precise moment addressed to oneself or to another person who would be there at exactly the same time the next day. The project reflects the time economy and rhythms specific for these transfer points in the network of subway routes. The monotonous regular use of space even inspired

some participants to write mini-serials of ongoing text messages. While it was not a rare thing for singular messages to display the stereotypical communication amplified by all kinds of social media, the continuous linear reception of the *urban_diary* in situ caused a clash of messages which strongly varied in style and content. This corresponded perfectly with the heterogeneity of commuters and their contingent communities, thus underlining the media-site specificity of the project.

Urban_diary still restricts itself to place-bound screens in order to make public a collective hypertext mirroring the distracted thoughts of waiting commuters and tries to spread the online communication over to the silent mass on site. A more recent project is able to make immediate use of the connectivity of mobile media. It raises, in a sense, the concepts of urban creativity and bricolage to the next technological level of a city's infrastructure, which today is increasingly interwoven with the mobile devices of urbanites themselves; the project even freely offers the necessary circuit diagram and source code. The *Ad-hoc Dark (Roast) Network Travel Mug* (2010) is part of the *Sentient City Survival Kit* (Shepard, 2010; Buschauer and Himmelsbach, 2013: 108–112),[7] which Mark Shepard first presented completely at the *ISEA2010 Ruhr* and realized in the public transportation system of New York City. This prototype amalgamates the coffee-to-go cup with the second essential of the morning commuter: It embeds a mobile phone screen in the lid of the mug, together with a small wireless mesh network radio module designed for close range. This kind of network is established among all passengers in one subway train equipped with such a mug, who can thus send messages to the mugs near them by lifting their own up as if to drink (fig. 3). Confined to the immediate vicinity and therefore limited, the network at the same time expands flexibly: it is based on mobile media riding through the subway system of a whole city; mesh networks and related mobile ad-hoc networks are continuously self-generating without any infrastructure. This mug is meant to offer an alternative in the near future of the *Sentient City* "where all network traffic is monitored by smart filters, where access privileges are dynamically granted and denied based on the fly of your credit card transaction history, and where bandwidth is a function of your market capitalization" (Shepard, 2010: 116). In this case, the smart city reveals its dystopian dimension while the "dark network" becomes an emancipatory space of grassroots activism.

The contingent community of daily commuters with their smart phones, which are normally used for distraction or extended work, is reinterpreted as a set of micro-cells in a liberated counter-web. This infrastructureless web thrives parasitically based on the old material-intensive infrastructure of metropolitan transportation. Its dislocating effect is balanced by a locatedness of mobility that starts with the common focal points that the uncontrolled exchanged messages have in the interests shared by citizens of the same city. In addition, it is intensified as the nodes of this web are somehow humanized. We thus have both an aspect of embodiment and an object-turn, which has been qualified as a further stage of locative arts. With this object-turn, according to Marc Tuters, the artistic strategies move away from an absolute concept of proximity as implicated in the GPS technology: they now privilege a relational understanding of nearness (Tuters, 2011), which comes close to my idea of connectedness.

3. Net-Based Orientation and the City – Hacking Google Maps

So far, we have seen how a common connectivity of media and urban space can engender a new site relatedness of urban media art. In the projects from Berlin and New York, it was the constant flow of job mobility within the megastructure of urban transportation that was interlocked with electronic communication supporting the working world as well as recreation. My last two examples envision the tools of net-based orientation itself as a correlate of today's city structures on a regional and global scale. In the media-based performance *Call Sciopero* (fig. 4),

which was part of the exhibition *Hacking the City* at Essen, orientation and mobility primarily serve as methods of investigation and additionally evoke an explicitly political idea of mobilization. With this project, the duo M+M (Marc Weis, Martin De Mattia) experimented with hacking or recoding standard web-based cartography in order to write an alternative version of the history of the Ruhr region. First, their research about the area's neuralgic points was done with help of Google Maps (Hoffmann, 2011), locating not only the well-known spots of the heritage of the industrial era such as the Villa Krupp, but also—more difficult to detect—the head offices of recent regional players such as the WAZ media group, Evonik Industries and the ALDI discounter whose billionaire founders live nearby; they thus retraced hidden power coordinates. Then M+M wove this network by following their self-created heritage route using a navigation system. They drove up in front of these headquarters in a Fiat 600, thus re-enacting a famous scene in Michelangelo Antonioni's movie *The Red Desert* (1964). Whereas their strike call went largely unnoticed in situ, the idea was to complementarily implement videos of these performances back into Google Maps and link them to the relevant company address. The viral potential of web contents would have met the old idea of mobilizing the working class via megaphone if the control mechanisms of Google Maps had not expectedly prevented the unauthorized videos. Thus, both attempts to mobilize and communicate proved futile and reflected on the limitations of political impact today. Nevertheless, this emblematic scene from an old movie shed light on the combative past as a forgotten or even repressed tradition of the region and on the fact that it is lacking completely today. At first glance, restaging a fragment from *The Red Desert* with historical props, the original film monologue, partly in Italian but within an altogether different context, caused a deep disconnection from place and public. However, this displacement again found its counterpart in a relocation: the movie scene acquired a new realism in the banal surroundings of contemporary head offices and underwent a significant form of embodiment.

Fig. 4 - M+M (Marc Weis, Martin De Mattia): *Call Sciopero,* 2010, actions in public places, reconstructed Fiat 600, megaphones, two performers, Essen, 16th of July – 25th of September 2010, in the context of the exhibition *Hacking the City*, 2010 and film still from *The Red Desert/Il deserto rosso* (IT/F 1964, D.: Michelangelo Antonioni) – bottom left.

Conclusion: The Geospatial Web and the Return of VR

As *Call Sciopero* shows, this kind of relocation is not specifically reserved for locative media and locative arts. Similarly, the many-to-many paradigm of the latest forms of online communication can be anticipated by older media as we have seen with *urban_diary*. Their linkage to nodal spaces—such as city agglomerations but also transit spaces of metropolitan transport that can also function as sites—offers telling models for the convergence of media and urban space. A last example is intended to check the thesis that today the virtual is inseparably rooted in physical space. In his media installation *10 000 Moving Cities* (fig. 5), Marc Lee extracts user-generated web content from social media—photos, video clips, and verbal commentaries concerning specific cities (Lutz and Weibel, 2015: 4, 29). They are projected in real time onto empty silhouettes of high-rise buildings, creating a virtual city that can be traversed with a head-mounted display. At the bottom of this display, Google Maps is inserted and used as a navigation tool for choosing another city and uploading new content. Unlike locative media, the geo-coded net contents are not used in this case for annotating real space. Instead, the data sphere is again staged as a virtual space of its own cut off from the (factual) surroundings of the participant. Nevertheless, the simulated world receives feedback from the real one: after all, online navigation with a map is the standard tool that we use today for orientation in real topographies. Moreover, Marc Lee's installation takes account of the fact that the new guiding model of the internet turns out to be geography. Instead of a "'wasteland of unfiltered data' (Stoll, 1995)," it presents us with a "physically contextualized map of information" (Gordon and Silva, 2011: 7). *10 000 Moving Cities* thus examines whether geo-indicated contents detached from the experience of real space can nevertheless evoke some kind of site-related experience. With its offer to select one of 10,000 cities and abruptly switch from one to another, however, this kind of mobility has little in common with that of sedentary inhabitants, but rather reminds us of frequent travellers, tourists or even mere internet surfers. From this point of view, the geospatial web (Varnelis and Friedberg, 2008: 32–35) tends to take priority over the immediate physical environment and—in spite of all aspects of relocation—privileges a life predominantly transferred to the virtual sphere.

Fig. 5 - Marc Lee: *10 000 Moving Cities,* Version 3, 2015, interactive installation based on internet- and telepresence, room 5x 5x 4m, oculus rift-glasses, 4 kinect-sensors, http://marclee.io/en/10-000-moving-cities-same-but-different-vr.

Endnotes

1 - See also Katja Glaser's article in this volume.

2 - The theoretical impact of this de- and reterritorialization will be elaborated in an upcoming research project by the author.

3 - See for example the Museum of Urban and Contemporary Art founded at Munich in 2016 and the Museum for Urban Contemporary Art opening at Berlin in 2017.

4 - The *Skulptur Projekte* 2017 however promise to unite a focus on the body and on performance with digitalization.

5 - See for the focus on media infrastructures Parks, 2015.

6 - See also http://gesaglueck.de/diary/index.html [Accessed: 14/2/2017].

7 - See also http://survival.sentientcity.net/ [Accessed: 14/2/2017].

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