

Judith Ackermann, Andreas Rauscher, Daniel Stein u.a. (Hg.)

Navigationen: Playin' the city

2016

<https://doi.org/10.25969/mediarep/1643>

Veröffentlichungsversion / published version

Teil eines Periodikums / periodical part

Empfohlene Zitierung / Suggested Citation:

Ackermann, Judith; Rauscher, Andreas; Stein, Daniel (Hg.): *Navigationen: Playin' the city*, Jg. 16 (2016), Nr. 1. DOI: <https://doi.org/10.25969/mediarep/1643>.

Erstmalig hier erschienen / Initial publication here:

<https://nbn-resolving.org/urn:nbn:de:hbz:467-10048>

Nutzungsbedingungen:

Dieser Text wird unter einer Creative Commons - Namensnennung - Nicht kommerziell - Keine Bearbeitungen 3.0 Lizenz zur Verfügung gestellt. Nähere Auskünfte zu dieser Lizenz finden Sie hier:

<http://creativecommons.org/licenses/by-nc-nd/3.0>

Terms of use:

This document is made available under a creative commons - Attribution - Non Commercial - No Derivatives 3.0 License. For more information see:

<http://creativecommons.org/licenses/by-nc-nd/3.0>

NAVI GATIONEN

Zeitschrift für Medien- und Kulturwissenschaften

Judith Ackermann / Andreas Rauscher / Daniel Stein (Hrsg.)

PLAYIN' THE CITY

Artistic and Scientific Approaches to Playful Urban Arts



Sicart: Play and the City ► Rauscher: Playing Situationism: Ludic Spaces in Transmedia Contexts ► Stein: Playing the City: The Heidelberg Project in Detroit ► Ackermann/Reiche: Media Interaction in Public (Spaces): Researching Interactive Installations' Support for (Inter-)Human Interaction with Machines and Environment ► Straeubig/Quack: Playful Locative Ensembles in the Urban Soundscape ► Halblaub Miranda/Knöll: Stadtfucht: Learning about Healthy Places with a Location-Based Game ► Hartmann: Die Aneignung von Location Based Mobile Games am Beispiel des Spiels ARTventure (2015) ► playin'siegen Forum I: Game Design for Urban Spaces ► playin'siegen Forum II: (Digitale) Kunst im urbanen Raum

Jg. 16, H.1, 2016

NAVI
GATIONEN



Zeitschrift für Medien- und Kulturwissenschaften

Judith Ackermann / Andreas Rauscher / Daniel Stein (Hrsg.)

PLAYIN' THE CITY

Artistic and Scientific Approaches to Playful Urban Arts

NAVI GATIONEN

Zeitschrift für Medien- und Kulturwissenschaften

IMPRESSUM

HERAUSGEBER:

Prof. Dr. Jens Schröter
Lehrstuhl für Medienkulturwissenschaft
Lennéstr. 1
53113 Bonn (Haupterausgeber)

Dr. Sebastian Gießmann
DFG-Graduiertenkolleg Locating Media
Am Eichenhang 50
57076 Siegen

J.-Prof. Dr. Benjamin Beil
Institut für Medienkultur und Theater
Meister-Ekkehart-Str. 11
50937 Köln

REDAKTION FÜR DIESE AUSGABE:

Dr. Judith Ackermann
PD Dr. Andreas Rauscher
Prof. Dr. Daniel Stein

UMSCHLAGGESCHALTUNG

UND LAYOUT:

Sina Müller (für diese Ausgabe)
Christoph Meibom und Susanne Pütz
(Originaldesign)

TITELBILD:

Sina Müller

DRUCK:

UniPrint, Universität Siegen

Erscheinungsweise zweimal jährlich

universi – Universitätsverlag Siegen
Am Eichenhang 50
57076 Siegen

Preis des Einzelheftes: € 13,-
Preis des Doppelheftes: € 22,-
Jahresabonnement: € 20,-
Jahresabonnement
für Studierende: € 14,-

ISSN 1619-1641

Judith Ackermann / Andreas Rauscher / Daniel Stein (Hrsg.)

PLAYIN' THE CITY

Artistic and Scientific Approaches to Playful Urban Arts

CONTENTS

Judith Ackermann, Andreas Rauscher, and Daniel Stein	
Introduction: Playin' the City	
Artistic and Scientific Approaches to Playful Urban Arts.....	7
Miguel Sicart	
Play and the City.....	25
Andreas Rauscher	
Playing Situationism:	
Ludic Spaces in Transmedia Contexts.....	41
Daniel Stein	
Playing the City:	
The Heidelberg Project in Detroit.....	53
Judith Ackermann and Martin Reiche	
Media Interaction in Public (Spaces):	
Researching Interactive Installations' Support for	
(Inter-)Human Interaction with Machines and Environment.....	71
Michael Straeubig and Sebastian Quack	
Playful Locative Ensembles in the Urban Soundscape.....	85
Marianne Halblaub Miranda and Martin Knöll	
Stadtflucht: Learning about Healthy Places with a	
Location-Based Game.....	101
Anna Lena Hartmann	
Die Aneignung von Location Based Mobile Games	
am Beispiel des Spiels ARTventure (2015).....	119

CONTENTS

playin'siegen Forum I:
Game Design for Urban Spaces..... 137

playin'siegen Forum II:
(Digitale) Kunst im urbanen Raum..... 159

Contributors..... 175

INTRODUCTION: PLAYIN' THE CITY

Artistic and Scientific Approaches to Playful Urban Arts

BY JUDITH ACKERMANN, ANDREAS RAUSCHER, AND DANIEL STEIN

I. THOUGHTS TOWARD A PLAYFUL TURN

»Cities are a focal point in our narratives about history. [...] We look at cities to see where history is taking us. [...] It seems that the future of mankind is somehow connected to cities.« These three sentences, taken, in condensed form, from Miguel Sicart's essay »Play and the City« in this special issue of *Navigationen*, capture the significance and urgency of our heightened interest in the development of cities. Indeed, studies of the history, current state, and potential futures of cities abound (and have done so for decades), occupying the center of some disciplines, such as urban studies,¹ and constituting subfields of other disciplines, such as literary and cultural studies,² media studies,³ and history.⁴ What distinguishes the essays and discussions assembled in this issue from the majority of research on the city, however, is a shared focus on play as a crucial urban element. As Sicart points out in his essay, »playful engagement with urban environments has been a constant mode of resistance and appropriation of cities for their citizens,« and it seems to us that this engagement deserves much deeper and broader analysis than it has been afforded to date.

Thus, this special issue draws attention to the city as a playground: as a space that enables, and perhaps inherently calls for, playful and often creative encounters among inhabitants, visitors, and the urban environment itself. As Bruce McComiskey and Cynthia Ryan note about the urban theories advanced by Henri Lefebvre and Michel de Certeau,

1 Berking/Löw, eds.: *Die Eigenlogik der Städte*; Brenner/Marcuse/Mayer, eds.: *Cities for People, not for Profit*; Farías/Bender, eds.: *Urban Assemblages*; Harding/Blokland: *Urban Theory*; Judd/Simpson, eds.: *The City, Revisited*; Sattler ed.: *Urban Transformations in the USA*.

2 Alter: *Imagined Cities*; Brandt/Fluck/Mehring, eds.: *Transcultural Spaces*; Gaidolfi/Hirschmüller/Wenzl/Wiedemann, eds.: *Metropolen*; Griem/ Scholz, eds.: *Tatort Stadt*; Shiel/Fitzmaurice, eds.: *Cinema and the City*. Gurr/Michel, eds.: *Romantic Cityscapes*; Gurr/Raussert, eds.: *Cityscapes in the Americas and Beyond*; Lehan: *The City in Literature*; Orvell/Benesch, eds.: *Rethinking the American City*; Stevenson: *Cities of Culture*.

3 McQuire: *The Media City*; Townsend: *Smart Cities, Civic Hackers, and the Quest for a New Utopia*.

4 Lenger: *Metropolen der Moderne*.

both describe cities not as »places« that contain people, but as »situations in which people act.« [...] Lefebvre makes an important distinction between »the city, [as] a present and immediate reality, a practico-material and architectural fact, and the urban, a social reality made up of relations which are to be conceived of, constructed, or reconstructed by thought.«⁵

Playful engagements with the city, the essays collected in this issue suggest, frequently strive to create (or construct and reconstruct) new ways of imagining and experiencing the city, both as a present and immediate reality and as a social reality whose everyday rules and norms can become unhinged – and thus productive – through the activity of play. In and through play, the city space can become an urban playground that has the potential to transform people's sense of themselves as human actors in an urban network of spatially bound and socio-economically grounded actions.⁶

In the narratives we tell about ourselves, the city frequently appears as a serious place: as the center of rising and falling empires, as the seat of power wielded by the modern nation-state, as a space in which the upper tenth (or the one percent, in more recent conceptions) thrive and the poor masses are forced to live in slums or ghettos, as a jungle, Moloch, or a hotbed of sin, crime, and pollution, but also as a multicultural melting pot, the birthplace of avant-gardes, and a focal point for both dystopian scenarios of human demise and utopian visions of human progress.⁷ Despite these rather serious conceptions, however, the editors of this issue of *Navigationen* believe that the city has always challenged people to transform their urban surroundings into a more playful environment. Yet for the longest time, playful activities were confined to specific places reserved for these activities, which led to a visible distinction between play and non-play actions inside the city (e.g. work vs. leisure). This development culminated in the creation of specifically marked play areas governed by rules and regulations that shaped the modalities of entry and the conduct during attendance. We already find such rules and regulations in many of the predecessors of these play areas: the *Volks-wiese*, *Volksgarten* (late 18th century), and the athletics field (early 19th century), all of which were generally located outside of the city gates, sometimes as fenced in areas in the woods.⁸ Nonetheless, people always seem to have tried to loosen the borders between play and non-play, thereby transforming the urban environment into a potentially boundless playground (perhaps a liminal space).⁹ It is this pro-

5 McComiskey/Ryan: »Introduction,« I.

6 Sutton-Smith: »Play Theory,« III, 95, 100.

7 Lenz/Ulfers/Dallmann, eds.: *Towards a New Metropolitanism*; Prakash, ed.: *Noir Urbanisms*; Drennig: »Cities of Desire«; Brandt/Fluck/Mehring.

8 Ackermann: »Mobile Location Based Gaming in der Stadt,« I76.

9 Brandt: »The City as Liminal Space.«

cess of loosening up encrusted notions of play as an ultimately meaningless (i.e., merely escapist, entertaining) and non-play as an ultimately serious endeavor that this journal issue seeks to challenge.

A critical awareness concerning the playful exploration of urban spaces traces back to 20th-century avant-garde movements from the French philosopher Guy Debord and the Situationists in Paris in the 1950s and 1960s to the Fluxus movement of the 1960s and the London punk scene interventions of the Sex Pistols in the 1970s. The Situationist technique of *dérive* provided a new way of experiencing the city physically as well as mentally. In a 1956 article, Debord defined the *dérive* as

one of the basic situationist practices [...], a technique of rapid passage through varied ambiances. *Dérives* involve playful-constructive behavior and awareness of psychogeographical effects, and are thus quite different from the classic notions of journey or stroll.¹⁰

A second concept developed by the Situationist Movement is psychogeography, understood »as the study of precise laws and specific effects of the geographical environment, consciously organized or not, on the emotions and behavior of individuals.«¹¹ Like a speed-run variation of Walter Benjamin's *flâneur* adjusted to the fragmentation and dynamics of high modernism, *dérive* formed the basis for a change in consciousness and perceptiveness. As Stephen Duncombe points out in his study *Dream: Re-Imagining Progressive Politics in an Age of Fantasy* (2007), the Situationists considered those potential predecessors to urban games to be a subversive prelude to their revolutionary agenda:

The Situationists saw it as their mission to fight against »the society of the spectacle,« but they also felt a responsibility to set something else in motion to replace it [...]. The Situationists encouraged people to *dérive* – drift through unfamiliar city streets. [...] These situations, it was hoped, would create »collective ambiances,« which encouraged participants to break out of the soporific routine of the society of the spectacle and participate in the situation enfolding around them: to make sense of new streets and sights.¹²

The Situationists were not the only group blurring the differences among urban art, analysis, and activism in a playful way. As early as the 1960s, the avant-garde movement of Fluxus aimed at crossing the borders between art and non-art by presenting

10 Debord: »Theory of the *Dérive*.«

11 Debord: »Introduction to a Critique of Urban Geography.«

12 Duncombe: *Dream*, 130.

a specific practice aimed at the trivialization of the aesthetic, and the infiltration of art by the everyday. [...] Fluxus was a hybrid form or *intermedia*, and so it could be music, performance, dance, and literature at the same time.¹³

Fluxus is often viewed in connection with *Happenings*, a term coined by artist Allan Kaprow when describing his 1959 performance *18 Happenings in 6 Parts*.

Happenings are events that, put simply, happen. Though the best of them have a decided impact – that is, we feel, »here is something important« – they appear to go nowhere and do not make any particular literary point.¹⁴

Nonetheless, happenings influenced the culture of political protest and intervention of the 1960s and 1970s that focused on a collective production of reality through performance and embraced the opposition between transitory actions and their lasting effects.¹⁵

In the 1970s, London punk scene pop activist and entrepreneur Malcolm McLaren adapted several of Debord's strategies, aiming to create situations that would challenge people's perception of everyday life. As manager of the seminal punk band Sex Pistols, McLaren reverse-engineered the strategies of the culture industry and the spectacle surrounding the celebrations around the jubilee of Queen Elizabeth II. Performing »God Save the Queen (The Fascist Regime)« on a rented boat outside the Houses of Parliament on Jubilee day, the Sex Pistols crossed the line between playful political and cultural intervention to initiating a Do-It-Yourself-pop mythology around the city of London that was adapted by several first generation British punk groups. At the same time, the vast variety of literature and films from Jon Savage and Greil Marcus to Julien Temple and John Robb covering those events demonstrates how pop culture creates a mental map of the imaginary city comparable to the New York of Andy Warhol's factory in the 1960s or South Central Los Angeles in the gangsta rap scene of the late 1980s. Digital open-world games like the recreations of New York, Miami, and L.A. in the popular *Grand Theft Auto*-series (since 1998) pick up those urban pop mythologies and turn them into adventure playgrounds. Instead of bringing about revolutionary action that, in the context of Debord's dogmatism, would not have been playful very long, the techniques of *dérive* and the idea of psychogeography created a link between urban pop history, political activism, and performance art. With respect to urban gaming and/or cruising through the open-worlds of digital game cities inspired by popular culture, those loose joints gain new relevance beyond avant-garde nostalgia.

13 Schmidt-Burkhardt: *Maciunas' Learning Machines*, 9.

14 Kaprow, Allan: »Happenings in the New York Scene,« 16.

15 Van Eikels: *Die Kunst des Kollektiven*, 217.

In our present time of heightened digitization, new conceptions of the city and a new desire to reconnect digital spaces with physical places in order to counteract tendencies toward the disembodiment and the disembedding of the post-modern individual have emerged. De Souza e Silva and Hjorth suggest, for instance, that »[m]obile phones may overlay a fictitious narrative as well as virtual game elements onto urban spaces,«¹⁶ while scholars like Michiel de Lange and others have already begun to offer alternatives to the popular notion of the digitized *smart city*. De Lange views the »playful city« as a substantial alternative:

The use of play and games can get people involved with their city. Game[s] spark different people to participate actively and offer agency to experiment in a safe environment. Some games provide insight into rules, procedures and parameters, others encourage players to develop team strategies and mutual trust to build. Play and games make an appeal to creativity, innovation and learning. It seems a promising way to address and strengthen the cleverness of citizens. The truly smart city is a playful city.¹⁷

In the same vein, Steffen Walz introduces the neologism »playce« to highlight the increasing appearance of intersections between play and places.¹⁸ Ingrid Richardson identifies a »playful turn« for our present media culture, while Joost Raessens speaks of a widespread »ludification of culture,« promoted by digital technologies, such as computer games and mobile phones, which »seem to stimulate playful goals and to facilitate the construction of playful identities.«¹⁹ We take these assessments as a foundation for our own conceptions of the playful urban arts, which we will develop in this introduction and which frame the essays and discussions to follow.

16 De Souza e Silva/Hjorth: »Playful Urban Spaces,« 603.

17 De Lange: »The Truly Smart City Is Hackable and Playful«. See also the work of the research project »The Mobile City: Mobile Media & Urban Design« founded by Martijn de Waal and Michiel de Lange, including de Lange, »Playing Life in the Metropolis«; de Lange, »The Playful City.« For studies of smart cities, see, among others, Townsend: *Smart Cities*; Deakin, ed.: *Smart Cities*; Deakin and Al Waer, eds.: *From Intelligent to Smart Cities*; Campbell: *Beyond Smart Cities*; Araya, ed.: *Smart Cities as Democratic Ecologies*.

18 Walz: *Toward a Ludic Architecture*.

19 Richardson: *Ludic Mobilities*, 445; Raessens: *Playful Identities, or the Ludification of Culture*, 53.

2. PLAYING THE CITY/PLAYFUL URBAN ARTS

2.1 PLAY VS. PLAYFUL

Our conceptual framework for this special issue follows Miguel Sicart's definition of play as »a human mode of being in the world, a particular phenomenological stance to the world.«²⁰ Moreover, we embrace Sicart's distinction between play and playfulness, according to which play is an »activity in the world, while playfulness is an attitude toward the world.«²¹ As an activity, to borrow an insight from play theorist Brian Sutton-Smith, »play [is] contained by frames« while a playful attitude may be »disruptive of frames.«²²

The distinction between play and playfulness adds a deeper understanding to established terminologies. Contrasting the rather improvisational free form of play with the rule- and goal-driven game corresponds with the difference between *paidia* and *ludus*, according to cultural theorist and philosopher Roger Caillois.²³ In *Understanding Video Games*, Simon Egenfeldt-Nielsen, Susana Tosca, and Jonas Heide Smith explain the difference as follows:

In a *paidia* activity, one is not bound by rigid rules. *Ludus*, by contrast, refers to systems with formalized rules like chess, soccer, or backgammon. Although winning or losing is not anathema to *paidia*, these goals are not always present [...] in *ludus* play forms. There are rules that must be adhered to and winning is a result of meeting these specific conditions.²⁴

The difference between *ludus* and *paidia* could also be compared to the acting out of a pre-scripted role in contrast to performing improvisational theater, which often just creates a situation for the participants to appropriate. Applied to urban spaces, the idea of play can have a similar effect as on a theatrical space. In his pioneering study *The Image of the City* (1960), Kevin Lynch already compared the participatory aspects of urban life to being on a stage:

Moving elements in a city, and in particular the people and their activities, are as important as the stationary physical parts. We are not simply observers of this spectacle, but are ourselves a part of it, on the stage with other participants.²⁵

20 Sicart, in this volume, 28. See also Sicart: *Play Matters*, 19-34.

21 Ibid, 31.

22 Sutton-Smith: *The Ambiguity of Play*, 196.

23 Caillois: »The Definition of Play and Games.«

24 Egenfeldt-Nielsen/Tosca/Smith: *Understanding Video Games*, 27.

25 Lynch: *The Image of the City*, 2.

In that sense, urban games, or various forms of playing the city, appear as performative processes that hold substantial transformative potential. As Judith Ackermann and Martin Reiche argue in their essay in this volume,

games are connected to performativity and in that sense equipped with a transformative quality. [...] They are able to alter players' perception of reality as well as their relations to others. Triggered by a different view of the world and its modified meaning for the players, they even result in a transformation of the world itself.²⁶

This assumption follows play theorist Brian Sutton-Smith's argument that

play as we know it is primarily a fortification against the disabilities of life. It transcends life's distresses and boredoms and, in general, allows the individual or the group to substitute their own enjoyable, fun-filled, theatrics for other representations of reality in a tacit attempt to feel that life is worth living. [...] In many cases as well, play lets us exercise physical or mental or social adaptations that translate – directly or indirectly – into ordinary life adjustments.²⁷

Such adaptations, we may note, often occur in specific spaces, or places transformed into play spaces, frequently through particular media. As Judith Ackermann and Martin Reiche note about the role of media in the playful urban arts:

media interaction in public (spaces) can be utilized to reclaim formerly or usually functional space to become a space that inherits a narrative [...] by creating new thoughts, allowing for encounters between otherwise unknown inhabitants (interaction ensembles) or becoming associated with the joy the people felt while interacting with the art that was temporarily installed at these locations.²⁸

The connection between a space, or location, and play as it is outlined in this assessment (and appears in several other essays in this volume) harks back, at least in some way, to the idea of the game as a magic circle as it was originally conceived by Johan Huizinga in *Homo Ludens* (1938), one of the founding texts of Game Studies. Game designers and scholars Katie Salen and Eric Zimmerman updated the concept in 2004:

In a very basic sense, the magic circle of a game is where the game takes place. To play a game means entering into a magic circle, or

26 Ackermann/Reiche, in this volume, 73. See also Weiß, »Sich verausgabende Spieler und andere vereinnahmende Falschspieler.«

27 Sutton-Smith: »Play Theory,« 116.

28 Ackermann/Reiche, in this volume, 82.

perhaps creating one as the game begins. The magic circle of a game might have a physical component, like the board of a board game or the playing field of an athletic contest. But many games have no physical boundaries.²⁹

Using the urban landscape for the creation of site-specific art allows us to draw upon a complex system of signs and spaces for establishing a unique condition of reception.³⁰ In this context, the notion of the presence of an art piece, be it an interactive installation, a performance in the public sphere, or an urban game, creates a sense of being located in a safe room, thereby facilitating experiments with civic actions and training collective acting and subjectivization.³¹ This safe room heavily supports the occurrence of playfulness and thus also brings the argumentation back toward the Fluxus movement, which also tended to be described as an attitude.³² As Kaprow elaborates in his 1983 article »The Real Experiment,« we need to distinguish between so-called *avant-garde artlike art* and *avant-garde lifelike art*. While the first is heavily connected to seriousness and continues rather mainstream art-historical traditions, *avant-garde lifelike art*, including Futurism, Dada, Fluxus, and Happenings, »is not nearly as serious as *avant-garde artlike art*. Often it is quite humorous.«³³ This presents a fruitful basis for combining site-specific art and playfulness for a meaningful transformation of the urban environment, merging in the idea of playful urban arts.

2.2 URBAN PLAYGROUNDS/THE PLAYABLE CITY

Several essays in this volume pick up the notion of the city, or particular sections or spaces of the city, as a playground for exploring alternative visions of urban life. In the artworks and games discussed in these essays, the built environment serves as a setting and framework for different kinds of play that offer creators and players new ways of viewing and experiencing urban space.

Michael Straeubig and Sebastian Quack's »Playful Locative Ensembles in the Urban Soundscape,« for instance, introduces the concept of the Playful Locative Ensemble, understood as »a group of players [...] who create a common soundscape by moving in an urban environment.«³⁴ Exploring the role of »private auditory spaces embedded in a multi-sensorial public space,« the authors analyze the ways in which games such as *A Folded Path* (Circumstance), *Phantom Synchron – Soundtrack Weimar* (Daniel Ott, Sebastian Quack, Kirsten Reese, and Enrico

29 Salen/Zimmerman: *Rules of Play*, 95.

30 Kaye: *Site-Specific Art*, 33.

31 Van Eikels, 202.

32 Smith: *Fluxus*.

33 Kaprow: »The Real Experiment,« 203.

34 Straeubig/Quack, in this volume, 87.

Stolzenburg), and *KlingKlangKlong* (Michael Straeubig) transform a musical soundtrack selected by the game creators into a soundscape emerging from the players' encounters with the soundtrack in a specific form (ensembles) and a specific (locative) urban environment. As the authors suggest, »[a]ll three projects invite participants to experience the relationship between sound and place and to navigate an urban soundscape through movement,« while »the movement of ensembles of players within the ensemble of the cityscape constitutes play.«³⁵

Daniel Stein's »Playing the City: The Heidelberg Project in Detroit,« turns to Detroit's most controversial outdoor art installation, started by the African American resident-artist Tyree Guyton in 1986. The article reads the Heidelberg Project as a prominent example of playing in and with the city, interpreting its use of abandoned houses and empty lots in a predominantly African American neighborhood as an attempt to transform a bleak environment into a creative, potentially magical, space that challenges dominant conceptions of urban decay and disillusion. The article further suggests that the project's playful transformation of cast-off everyday items from shoes to shopping carts into culturally meaningful artifacts on conspicuous display functions as an example of an urban form of »playful politics« that aims to work as a »catalyst for change« by redefining the discourse of Detroit as the paradigmatic failing American postindustrial city into a discourse of neighborhood resilience and of art as a means of imagining a better world.

2.3 TRANSMEDIA PSYCHOGEOGRAPHY

The legacy of Situationist concepts and their potential for exploring open-world games are discussed by Andreas Rauscher in »Playing Situationism: Ludic Spaces in Transmedia Contexts.« Without the goal-driven ideological agenda of Debord's original concept, *dérive* becomes a technique of connecting the digital spaces of games like *GTA* and *Red Dead Redemption* to the mental maps created by the archives of cinematic, ludic, and musical pop history. As Rauscher suggests, the notion of playfulness as introduced by Sicart also hints at possibilities for turning genre settings into adventurous playgrounds reflecting the semantics and syntax of genres. From a playful perspective, the references to popular culture in many open-world games are no longer generic window dressing but can be regarded as a hermeneutic tool in the larger network structure of a transmedia psychogeography. In contrast to Debord's original concept's restriction to the urban space of mid-20th-century Paris, the study of the precise laws and specific effects of the environment can be expanded upon navigating and toying around with standard situations in digital spaces.

Anna Lena Hartmann's »Die Aneignung von Location Based Mobile Games am Beispiel des Spiels ARTventure (2015)« also deals with a form of playfully navigating a city. Researching the appropriation of the self-designed location based

35 Straeubig/Quack, in this volume, 96.

mobile game *ARTventure* in the context of the playin'siegen festival, she identifies the challenges of hybrid space navigation and the possibilities of influencing a person's behavior in a rather familiar physical space by enhancing it with a digital layer. Recalling the *dérive* strategy of rapidly passing through different ambiances in the *dérive*, the mobile game is able to offer a hybrid space realized individually via each player's movement, resulting in an only partially shared drift experience that can update former psychogeographical experiences with a certain environment on a personal level.

2.4 THE DIGITAL CITY

Considering the potential of games to connect the physical spaces of a city with a digital, smartphone-based, virtual world, Marianne Halblaub Miranda and Martin Knöll's »Stadtflucht: Learning about Healthy Places with a Location-Based Game« turns to a game specifically designed to activate players in their built environment in order to promote healthy exercise and increase city dweller's awareness of, and future participation in, urban planning processes. The authors use the prototype for their game *Stadtflucht* (urban flight) as a case study, assessing the results of a test run staged in the east side of Frankfurt am Main. Based on the data they collected (GPS coordinates, heart rate, photographs gathered as the players navigated their way through the six stations of the game), Halblaub Miranda and Knöll conclude that games like *Stadtflucht* can indeed increase and transform city dweller's awareness of their surroundings and instill in them a heightened interest in the urban planning process. Moreover, they suggest that the data produced by such games could also be used to give city planners a better understanding of how people understand and experience the city.

In »Media Interaction in Public (Spaces): Researching Interactive Installations' Support for (Inter-)Human Interaction with Machines and Environment,« Judith Ackermann and Martin Reiche introduce the concept of »media interaction in public« to describe »a complex communication scenario combining interhuman and human-machine interaction that gives rise to flexible actor-spectator constellations at the junction of digital and physical spaces.«³⁶ The authors identify the potential of urban interactive installations to initiate this type of mediatized interaction. Their analysis of two art pieces curated at the playin'siegen festival focuses on the multiple activities these pieces facilitate. Their empirical findings indicate that media interaction in public spaces can create new interaction ensembles and affect people's environmental awareness. The attitude of playfulness is a key factor in the appropriation of the artworks' grammar of interaction bridging digital and physical spaces and in establishing a heightened receptivity for those effects.

The critical reflection on the extension of playfulness from analogue urban environments to their digital counterparts is also an important aspect of Miguel

36 Ackermann/Reiche, in this volume, 72.

Sicart's »Play and the City.« Sicart's provocative article challenges scholars as well as designers to think about playful interactions as a useful interface and design practice. Instead of remaining exclusive for corporations or opaque because of their amount and complexity, interactions with the open-data created by smart cities can provide access to information-heavy urban environments on the level of human-scaled experiences. As Sicart concludes: »the data produced and used in smart cities should not necessarily be presented as a utility for citizens. It should be presented as a prop for play, as games but also as the source for toys and playgrounds. Data-rich cities can become playable cities, and, by becoming such, they can become more human, more inclusive spaces.«³⁷

2.5 PLAYIN'SIEGEN: INTERNATIONAL URBAN GAMES FESTIVAL

This journal volume emerges from the international urban games festival playin'siegen, which premiered in Siegen, NRW (Germany), in April 2015. The festival was designed as an artistic-scientific project, with a particular focus on playful urban arts. It combined the areas of science, gaming, exhibition, and performance to highlight their intersections and acknowledge the various possibilities of design as research as well as performative research. The project was mainly organized by Judith Ackermann, Anke Lenk, and a group of Master's students in the field of Media Culture based at the University of Siegen.

The idea behind the festival was to employ games, performances, art, and science into the urban space in order to create new approaches toward participation, civic action, and intercultural dialogue. The overall aim was to experience modern forms of gathering in the public space not only from a practical-experimental point of view but also by reflecting on and analyzing them in a theoretical-scientific manner. All parts of the festival called for direct (inter-)action by the visitors, allowing them to experience alternative forms of self-efficacy bound to an environment identified as familiar. Therefore, all games, performances, and exhibitions curated at the festival were designed not only to make use of the surrounding space but also to transform passersby into interactors by requiring communication, interaction, and negotiation among people who neither knew each other nor had any prior knowledge of the field.

The nearly thirty different games played during the festival were mainly designed for a particular venue or adjusted in accordance with the specificities of Siegen, a city with a population of approximately 100.000. The selection contained games by widely known international (urban) game designers invited to participate in the festival, but also games developed by students from the University of Siegen as part of a Bachelor's degree course on Location Based Mobile Gaming and a Master's class on Urban Gaming run by Judith Ackermann. In addition, the festival organizers launched a call for games advertising certain places to

37 Sicart, in this volume, 27.

be transformed into playgrounds during the event. As part of this spatial transformation, game designer Zack Wood (on behalf of the *Church of Play*) created a *Playance* for the Upper Castle in order to remind people that the castle once was created as a fortress in times of war and renewing the emotions tied to that historical space by transforming the site of war into a site of joy and play. During the *Playance*, the participants performed five rituals to help them engage playfully with the fortress, while the gardens of the castle were nevertheless crowded with tourists and festival visitors.

While the *Playance* temporarily conquered one specific space in a playful way through the activities unfolding there, other games used single objects from the city (callboxes, fountains, designated sitting areas) and transformed them into game elements. In the game *Die acht menschlichen Kreise*,³⁸ designed by Sebastian Nentwig and Julia Ollertz from the *playin'siegen* team, two teams of initially five people swarmed the city in search of different objects found on a set of play cards. Once they had reached a location, they had to build a circle around it and take a picture of it in order to gain points. As the objects grew in size with each round, there was no way of winning the game but by making passersby join the circles, resulting in much interaction between unfamiliar people close to certain spots in town and in creating a positive community feeling after having managed to build and document a circle together. The games and performances were deliberately located in abandoned properties or in hot spots of the city in order to establish a constant move between these two poles and in order to promote the experimentation with rather unfamiliar routes for the visitors. This was additionally supported by the location based mobile games specifically designed for the festival, each of which overlaid the city with a particular narrative and invited people to playfully explore the urban environment by following the paths proposed by the designers and engaging in a hybrid-reality experience connected to the town.

The festival organizers received very positive reactions from the visitors of the event, the different actors of the town and the county, and their national and international funding partners. In addition, the festival garnered substantial media feedback, including radio, TV, print, and web coverage. Since April 2015, the festival activities have been thematized in academic conferences in Germany as well as abroad. Furthermore, the *playin'siegen*-team was invited to conduct urban gaming workshops for different organizations and purposes throughout Germany. Thanks to the huge success of the festival, the organizers have decided to continue *playin'siegen* on a biannual basis.

3. FORUM: PANEL DISCUSSIONS

In the forum section of this issue, we print revised transcripts of the two panel discussions from the »Digital Spaces: Game, Design, Art« conference that was or-

38 The title translates to »The eight human circles.«

ganized by Judith Ackermann, Andreas Rauscher, and Daniel Stein as part of the playin'siegen international urban games festival 2015. The discussions were recorded on video, transcribed, and then edited by the panel contributors and the editors of this volume. The first panel, titled »Game Design for Urban Spaces,« is moderated by Andreas Rauscher (Media Studies, University of Siegen) and features Judith Ackermann (Media Studies, University of Siegen), Marianne Halblaub Miranda (Urban Games for Health, TU Darmstadt), Christiane Hütter (Invisible Playground, Berlin), Gwyn Morfey (Fire Hazard, London), Michael Straeubig (Game designer, University of Plymouth), and Philipp Ehmann (The Street Game Conspiracy, Vienna). The discussion addresses a number of important issues at the crossroads of urban and game studies, including the suggestion that play can be quite serious and transformative in an urban context, the particular ways in which games can connect players and spectators into an urban community (however temporary that community may end up being), differences between site-specific and site-generic games, the interdisciplinary challenges of urban game design, the possibility (and perhaps even inevitability) of creative appropriations of games by those who play them, and the challenges of securing public and/or commercial funding for playful urban arts.

The second panel discussion, »(Digitale) Kunst im Urbanen Raum,« is moderated by Judith Ackermann and Stephan Schwingeler (Art Historian, Zentrum für Kunst- und Medientechnologie Karlsruhe). It brings together Katja Glaser (Graduate School Locating Media, University of Siegen), David Penndorf (Hackspace Siegen), Jonas Hansen (Media Artist, Kunsthochschule für Medien, Cologne), and Martin Reiche (Media Artist, Berlin). Their discussion revolves around the connection between art (including street art and interactive installations) and games, the significance of space for artistic engagements with spectators who can become players by playfully engaging with specific art installations, the Situationist influence on contemporary playful urban arts, hacking as a playful appropriation of urban spaces and structures, the influence of commercial (i.e., capitalist) forces on the creation of urban games and digital urban art, and the complex connections between digital and physical city spaces.

Overall, both panel discussions and the essays collected in this volume seek to bridge the gap between »artistic and scientific approaches« to the playful urban arts. That is to say, they connect perspectives by artists with those of researchers, feature the work of artist-researchers (or researcher-artists), and train a scholarly gaze on playfully artistic/artistically playful interventions into common conceptions and prominent discourses about the meanings and significances of cities for our past, present, and future.

ACKNOWLEDGMENTS

The playin'siegen urban games festival would not have been possible without the help of many students and teachers of several university courses: Timo Schemer-

Reinhard's web project course that prepared the project's website and created the various social media channels, Jürgen Müller-Stephan's class on print creation, which took care of the multiple publicity materials, Judith Ackermann's TV-project class that produced all of the audiovisual material, the participants of her two game design courses on the Bachelor and Master levels, who created location based mobile games and site-specific urban games for the festival, and the Master's project class responsible for the organization and the operation of the festival itself, co-taught by Anke Lenk and Judith Ackermann.

Special thanks go to Sina Müller, who designed the festival's logo and the cover for this special issue and provided us with design support, and to Nicole Schneider for designing the conference program and poster for the »Digital Spaces: Game, Design, Art« and for copyediting and formatting the manuscript for this issue.

In addition, as a project like playin'siegen cannot be realized without sufficient financial resources, we also thank all of our funding partners and sponsors: Bundeszentrale für politische Bildung, Brillen Fuchs, British Council, City of Siegen, County Siegen-Wittgenstein, Ctrl-blog.de, Fachstelle für Jugendmedienkultur NRW, Graduate School Locating Media, Kellershohn, Lasertag Arena Siegen, modulbüro, Österreichisches Kulturforum Berlin, Scoutopia, Sparkasse Siegen, Stiftung Digitale Spielekultur, Südwestfalen Agentur, University of Siegen, and Wissenschaftsjahr 2015: Zukunftsstadt. Daniel Stein thanks the Deutsche Forschungsgemeinschaft (DFG) and the Bundesministerium für Bildung und Forschung for financial support of the Digital Spaces conference.

Furthermore, our thanks go to Nina Voigt for transcribing the English panel discussion and to Daniel Parlow for transcribing the German panel discussion. Last but not least, we thank all of the contributors for supporting this journal issue with their ideas and Jens Schröter for accepting this manuscript for *Navigationen*.

REFERENCES

- Ackermann, Judith (2014). »Mobile Location Based Gaming in der Stadt: Spielerische Eroberung des urbanen Raums und Hybrid Reality Theatre.« *Mobile Medien – Mobiles Leben: Neue Technologien, Mobilität und die mediatisierte Gesellschaft*. Ed. Thomas Bächle and Caja Thimm. Münster: Lit, 2014. 104-130.
- Alter, Robert. *Imagined Cities: Urban Experience and the Language of the Novel*. New Haven: Yale UP, 2005.
- Araya, Daniel, ed. *Smart Cities as Democratic Ecologies*. Houndmills: Palgrave Macmillan, 2015.
- Berking, Helmuth, and Martina Löw, eds. *Die Eigenlogik der Städte: Neue Wege für die Stadtforschung*. Frankfurt/Main: Campus, 2008.

- Brandt, Stefan L. »The City as Liminal Space: Urban Visuality and Aesthetic Experience in Postmodern U.S. Literature and Cinema.« *Amerikastudien/American Studies* 54.4 (2009). 553-81.
- Brandt, Stefan L., Winfried Fluck, and Frank Mehring, eds. *Transcultural Spaces: Challenges of Urbanity, Ecology, and the Environment*. Tübingen: Narr, 2010.
- Brenner, Neil, Peter Marcuse, and Margit Meyer, eds. *Cities for People, not for Profit: Critical Urban Theory and the Right to the City*. London: Routledge, 2012.
- Busse, Beatrix, and Ingo H. Warnke, eds. *Place-Making in urbanen Diskursen*. Boston/Berlin: de Gruyter, 2014.
- Caillois, Roger. »The Definition of Play and Games.« *The Game Design Reader*. Ed. Katie Salen and Eric Zimmerman. Cambridge: MIT, 2006. 122-155.
- Campbell, Tim. *Beyond Smart Cities: How Cities Network, Learn and Innovate*. Milton Park: Earthscan, 2012.
- Deakin, Mark, ed. *Smart Cities: Governing, Modelling and Analysing the Transition*. Milton Park: Routledge, 2014.
- Deakin, Mark, and Husam Al Waer, eds. *From Intelligent to Smart Cities*. Milton Park: Routledge, 2012.
- Debord, Guy. »Theory of the Dérive.« 1956. <http://library.nothingness.org/articles/SI/en/display/314>.
- Debord, Guy. »Introduction to a Critique of Urban Geography.« 1955. <http://library.nothingness.org/articles/SI/en/display/2>.
- De Lange, Michiel. »The Playful City: Using Play and Games to Foster Citizen Participation.« *Social Technologies and Collective Intelligence*. Ed. Aelita Skaržauskiene. Vilnius: Mykolas Romeris University, 2015. 426-434.
- De Lange, Michiel. »Playing Life in the Metropolis: Mobile Media and Identity in Jakarta.« *Playful Identities: The Ludification of Digital Media Cultures*. Ed. Valerie Frissen et al. Amsterdam: Amsterdam UP, 2015. 307-320.
- De Lange, Michiel. »The Truly Smart City Is Hackable and Playful.« Universiteit Utrecht: News and Events. June 1, 2015. Web. 2/15/2016.
- De Souza e Silva, Adriana, and Larissa Hjorth. »Playful Urban Spaces: A Historical Approach to Mobile Games.« *Simulation & Gaming*, 40.5 (2009). 602-625.
- Drennig, Georg. »Cities of Desire: Ecotopia and the Mainstreet Cascadia Imaginary.« *Transcultural Spaces: Challenges of Urbanity, Ecology, and the Environment*. Ed. Stefan L. Brandt, Winfried Fluck, and Frank Mehring. Tübingen: Narr, 2010. 145-58.
- Duncombe, Stephen. *Dream: Re-Imagining Progressive Politics in an Age of Fantasy*. New York: The New Press, 2007.
- Egenfeldt-Nielsen, Simon, Susana Tosca, and Jonas Heide Smith. *Understanding Video Games*. London/New York: Routledge, 2008.

- Fariás, Ignacio, and Thomas Bender, eds. *Urban Assemblages: How Actor Network Theory Changes Urban Studies*. London: Routledge, 2009.
- Gaidolfi, Susanna, Tobias Hirschmüller, Gerhard Wenzel, and Julia Wiedemann, eds. *Metropolen: Politik – Kultur – Imagination*. Würzburg: Königshausen & Neumann, 2014.
- Griem, Julika, and Sebastian Scholz, eds. *Tatort Stadt: Mediale Topographien eines Fernsehklassikers*. Frankfurt/Main: Campus, 2010.
- Gurr, Jens, and Berit Michel, eds. *Romantic Cityscapes*. Trier: WVT, 2013.
- Gurr, Jens, and Wilfried Raussert, eds. *Cityscapes in the Americas and Beyond: Representations of Urban Complexity in Literature and Film*. Trier: WVT & Tempe, AZ: Bilingual Press, 2011.
- Harding, Alan, and Talja Blokland. *Urban Theory: A Critical Introduction to Power, Cities and Urbanism in the 21st Century*. London: Sage, 2014.
- Judd, Dennis R., and Dick Simpson, eds. *The City, Revisited: Urban Theory from Chicago, Los Angeles, and New York*. Minneapolis: U of Minneapolis P, 2011.
- Kaprow, Allan. »Happenings in the New York Scene.« 1961. *Allan Kaprow: Essays on the Blurring of Life and Art*. Ed. Jeff Kelley. Berkeley/Los Angeles/London: Cambridge UP, 1993. 15-26.
- Kaprow, Allan. »The Real Experiment,« 1983. *Allan Kaprow: Essays on the Blurring of Life and Art*. Ed. Jeff Kelley. Berkeley/Los Angeles/London: Cambridge UP, 1993. 201-218.
- Kaye, Nick. *Site-Specific Art: Performance, Place and Documentation*. London/New York: Routledge, 2000.
- Lefebvre, Henri. *Writings on Cities*: Trans. and ed. Eleonore Kofman and Elizabeth Lebas. Cambridge: Blackwell, 1996.
- Lehan, Richard. *The City in Literature: An Intellectual and Cultural History*. Berkeley: U of California P, 1998.
- Lenger, Friedrich. *Metropolen der Moderne: Eine europäische Stadtgeschichte seit 1850*. Munich: C.H. Beck, 2013.
- Lenz, Günter H., Friedrich Ulfers, and Antje Dallmann, eds. *Towards a New Metropolitanism: Reconstituting Public Culture, Urban Citizenship, and the Multicultural Imaginary in New York and Berlin*. Heidelberg: Winter, 2006.
- Lynch, Kevin, *The Image of the City*. Cambridge: MIT, 1960.
- McComiskey, Bruce, and Cynthia Ryan. »Introduction.« *City Comp: Identities, Spaces, Practices*. Ed. Bruce McComiskey and Cynthia Ryan. New York: SUNY P, 2012. 1-17.
- McQuire, Scott. *The Media City: Media, Architecture and Urban Space*. London: Sage, 2010.
- Orvell, Miles, and Klaus Benesch, eds. *Rethinking the American City: An International Dialogue*. Philadelphia: U of Pennsylvania P, 2014.

- Prakash, Gyan, ed. *Noir Urbanisms: Dystopian Images of the Modern City*. Princeton: Princeton UP, 2010.
- Raessens, Joost. »Playful Identities, or the Ludification of Culture.« *Games and Culture*, 1.1 (2006). 52-57.
- Richardson, Ingrid. »Ludic Mobilities: The Corporealities of Mobile Gaming.« *Mobilities*, 5.4 (November 2010). 431-447.
- Salen, Katie, and Eric Zimmerman. *Rules of Play – Game Design Fundamentals*. Cambridge: MIT, 2004.
- Sattler, Julia, ed. *Urban Transformations in the USA: Spaces, Communities, Representations*. Bielefeld: transcript, 2016.
- Schmidt-Burkhardt, Astrit. *Maciunas' Learning Machines: From Art History to a Chronology of Fluxus*. Vienna: Springer, 2011.
- Shiel, Mark, and Tony Fitzmaurice, eds. *Cinema and the City: Film and Urban Societies in a Global Context*. Malden: Blackwell, 2001.
- Sicart, Miguel. *Play Matters: Playful Thinking*. Cambridge: MIT, 2014.
- Smith, Owen F. *Fluxus: The History of an Attitude*. San Diego: San Diego State UP, 1998.
- Stevenson, Deborah. *Cities of Culture: A Global Perspective*. London: Routledge, 2014.
- Sutton-Smith, Brian. *The Ambiguity of Play*. 1997. Cambridge: Harvard UP, 2001.
- Sutton-Smith, Brian. »Play Theory: A Personal Journey and New Thoughts.« *American Journal of Play* 1.1 (2008). 80-123.
- Townsend, Anthony M. *Smart Cities, Civic Hackers, and the Quest for a New Utopia*. New York: Norton, 2013.
- Van Eikels, Kai. *Die Kunst des Kollektiven: Performance zwischen Theater, Politik und Sozio-Ökonomie*. Munich: Fink, 2013.
- Walz, Steffen P. *Toward a Ludic Architecture: The Space of Play and Games*. Pittsburgh: ETC Press, 2010.
- Weiß, Gabriele. »Sich verausgabende Spieler und andere vereinnahmende Falschspieler: Das Spiel zwischen Möglichkeit und Wirklichkeit in ästhetischen Lebensformen.« *Spiel*. Ed. Alfred Schäfer and Christiane Thompson. Paderborn: Schöningh, 2014. 35-61.

PLAY AND THE CITY

BY MIGUEL SICART

ZUSAMMENFASSUNG

Der Artikel wirft einen kritischen Blick auf die Beziehung zwischen Spiel und urbanen Räumen und fokussiert auf den Bereich der sogenannten *smart cities*. Er möchte DesignerInnen und WissenschaftlerInnen dazu anregen, über Möglichkeiten der Transformation von Städten durch Spiel zu reflektieren. Der Text überträgt einen romantisch geprägten Spielbegriff auf das Informationszeitalter und argumentiert, dass Städte zu Datenproduktionsstätten werden, in denen die Daten der BürgerInnen mit unklaren Zielen erhoben und ausgewertet werden. Die resultierenden Daten-Netzwerke gelten als Motor der Entwicklung von *smart cities*. Jedoch sind Zugang und Nutzung der Daten häufig Firmen und Regierungsinstitutionen vorbehalten, oder es stehen im Falle einer Veröffentlichung als *open data* kaum nutzbare Interfaces für den Umgang mit dem Material zur Verfügung. Spielelemente bzw. spielerische Interaktion (*playful interaction*), so die These, kann als ein solches Interface fungieren und dazu beitragen, die Informationsdichte in *smart cities* für Menschen erfahrbar zu machen. Der Artikel präsentiert keinen spezifischen Lösungsansatz, sondern zeigt vielmehr eine Möglichkeit für DesignerInnen und WissenschaftlerInnen, spielerisch über *smart cities* nachzudenken.

ABSTRACT

This article is a critical reflection on the relation between play and urban environments, with a particular focus on so-called *smart cities*. It is also intended as a provocation for designers and scholars to think about the possibilities of transforming cities through play. Based on a romantic theory of play adapted to the information age, this article argues that cities are becoming data production centers in which citizens are datamined for unclear purposes. The resulting data networks are supposedly meant to fuel the development of smart cities. However, access to and use of this data are often either exclusive for corporations and opaque governments or published directly as open data with few useful interfaces to experiment or engage with. This article argues that play, via playful interactions, can become a useful interface and design practice to turn smart cities into human-scaled experiences of information-heavy urban environments. This article does not propose any specific solution but more of a perspective that, if successful, should inspire designers and scholars to think playfully about *smart cities*.

1. INTRODUCTION

Cities are a focal point in our narratives about history. We define cultures and civilizations by their capacity to accumulate wealth and population in limited geographical spaces. Culture and economy thrive in these human dwellings, and so we look at cities to see where history is taking us, from the ruins of the first Babylonian metropolis to the crowded challenges to western-centric globalization that Lagos or Mexico DF pose. As much as we might dream of pastoral romantic communities, it seems that the future of mankind is somehow connected to cities.

Urban planning, then, is more than a discipline of design and architecture: It is a way of addressing current problems and shaping the future. Even though planners have been historically interested and aware of the implications of their work,¹ developing a nuanced vocabulary and methodology to engage with these problems,² their challenges keep on growing as culture, society, and technology evolve.³ One of the most recent challenges for urban planning is that of the augmentation of urban environments through computation.⁴

Cities are not just cities anymore. With the increasingly cheaper price of computation and the technology required to deploy it, we have seen a surge of digitized citizen services. Cities have always produced and stored data in the form of educational, economic, and political infrastructures. However, the scale of data production afforded by cheap, networked computation has turned cities into massive data producing hubs, scaling from institutions to the individual citizen as contributors to this data production. To live in a modern city in the western world is to engage with different instances of government and services via computerized systems, as well as engaging with an urban environment that is increasingly designed to gather data from the portable computing devices we carry around. From open, citywide wireless networks to experiments with the Internet of Things and the digitalization of archives and services, cities are now complex assemblages of humans, architectural infrastructures, and networked databases.⁵

However, these assemblages⁶ are seldom transparent for citizens. Occasionally, we will hear talk about *smart cities*, a rhetorical transformation of the city into the equivalent of an app: a city that is immediately tailored to its citizens' uses, easy to interface with, and that solves all problems by effectively deploying cus-

1 Rittel/Webber: »Dilemmas in a General Theory of Planning.«

2 Alexander: *Pattern Language*.

3 Andersen/Polk: »FCJ-133 the Scripted Spaces of Urban Ubiquitous Computing.«

4 Dirks/Keeling: »A Vision of Smarter Cities«; Caragliu/Del Bo/Nijkamp: »Smart Cities in Europe.«

5 Gaspar/Glaeser: »Information Technology and the Future of Cities«; Harrison/Donnelly: »A Theory of Smart Cities.«

6 Latour: *We Have Never Been Modern*; Latour: »Where Are the Missing Masses?«; Latour: »A Cautious Prometheus?.«

tom-made, »user-driven« technical solutions.⁷ But cities are old, dumb beasts, and they seem to be refusing to become smarter.

In this article, I want to grapple with this refusal and reflect on how we can engage with the technocultural assemblage that cities are in order to make cities, if not smarter, then at least more playful, and therefore more human. My argument is simple: The data produced and used in smart cities should not necessarily be presented as a utility for citizens. It should be presented as a prop for play, as games but also as the source for toys and playgrounds. Data-rich cities can become playable cities, and, by becoming such, they can become more human, more inclusive spaces.

Of course, this requires first a theory of play that allows for this rhetoric to be meaningful. Thus, I will extend my own theory of play⁸ and adapt it to the specific challenges that modern urban environments present. Second, I will trace a brief and partial history of play in the city in order to substantiate the argument that playful engagement with urban environments has been a constant mode of resistance to, and appropriation of, cities for their citizens.

This article does not want to provide definite, finished arguments but a reflection that will hopefully provoke digital designers and urban planners to think about urban spaces and their technologies as places where playful engagement can have a humanizing effect. Play will not solve the problems of cities, as much as technology won't. But it can be one of many different patterns or solutions that can be applied to think about urban problems in order to help us challenge assumptions or effectively use new technological developments for the creation of pleasurable, meaningful experiences in the city.

2. A RHETORIC OF PLAY

Before we can understand the relation between play and cities, I need to explain what I mean by play and playfulness and why it is a relevant concept to invoke when facing the challenge of rethinking urban spaces and urban planning. The concept of play in which I will anchor my reflections is based on my own work, which should be read in this case as a rhetoric of play in the romantic tradition of Kant and Schiller, but also in the tradition of Sutton-Smith and Hendricks.⁹

Play is almost as difficult to conceptualize as the city. Both a human and an animal activity, play can be used to explain and understand developmental stages, learning processes, psychological patterns, cultural phenomena, emotional states, and objects of affection. Such is the complexity of this concept that the most important play theory work of the 20th Century, Brian Sutton-Smith's *The Ambiguity*

7 Giffinger et al.: »Smart Cities«; Batty et al.: »Smart Cities of the Future.«

8 Sicart: *Play Matters*.

9 Kant: »Critique of Judgement«; Schiller: *On the Aesthetic Education of Man*; Sutton-Smith: *The Ambiguity of Play*; Hendricks: *Play Reconsidered*.

of *Play*, proposes not to define what play is but to present a number of different rhetorics that can be used to explain play without making strong ontological claims. In this sense, my own theory of play is also a particular rhetoric of play, and, as such, it needs to be defined as an epistemology with a series of characteristics that allow us to use »play« as a concept for cultural, social, and technical analysis.

This rhetoric of play understands play as a human mode of being in the world, a particular phenomenological stance toward the world.¹⁰ In this sense, this rhetoric of play is exclusively human and discards animal play. The play mode of being in the world is appropriative, expressive, personal, and autotelic. Play is appropriative in the sense that it wants to take over the world in order to manipulate it. This manipulation is expressive, that is, conducive to the creation of new things, actions, or behaviors. These are of a personal nature since playing is first and foremost an individual expression that can be collectively cohesive by mutually binding yet flexible agreements, materialized in games, toys, playgrounds, or other playful props. Finally, play is autotelic in that it has its own purpose, a purpose defined by the very activity of play but in constant negotiation while this mode of being in the world is dominant.

Play has two other important characteristics. First, it is carnivalesque in that it can harness its appropriative capacities to identify and subvert sociocultural structures. Bakhtin's concept of the carnivalesque¹¹ represents a foreshadowing of secular, anthropocentric modernity, and so carnivalesque play can be similarly understood as a force of resistance toward authorities and structures. Second, play is always in precarious balance between creation and destruction – play has a compulsion for disorder that is closely related to its capacity to create order.¹² To play is to keep a balance between the sublime creation of order and pleasurable destruction. These ongoing temptations structure the activity of play and often can be identified as the source of play's expressive and creative capacities.

This compact, flexible rhetoric of play also allows us to make a critical distinction between play and playfulness, a distinction that is extremely relevant for understanding the potential of play in urban environments. Basically, play is activity *in the world*, while playfulness is an attitude *toward the world*. That is, play takes over the world with a purpose of its own (and hence it is an autotelic activity), but playfulness is an attitude that takes over a particular situation, context, or material yet still respects its purposes and intentions. In other words, it does not have an autotelic nature. Play often occurs with objects or contexts designed specifically for it, like arenas, playgrounds, games, and toys. Playfulness is often the playfication of objects or situations to allow for appropriative, personal expression, even if the purpose of the activity is respected.

10 Sicart: *Play Matters*.

11 Bakhtin: *Rabelais and His World*.

12 Henricks: »Orderly and Disorderly Play.«

This distinction is crucial because it allows us to articulate two different ways of thinking about play in the urban environment. One is the design of play spaces and situations, that is, the creation of objects and locations that afford engagement in the activity of play; playfulness, in turn, opens up the possibility of designing spaces for appropriation without necessarily conforming to traditional methods for designing the play activity. In that sense, playfulness allows us to think about the activity of play in the city beyond parks and recreation.

This rhetoric of play will allow an analysis of the challenges of creating play and playfulness in urban environments, particularly when I focus on the information revolution in urbanism. Before I turn to this issue, I need to give a brief overview of some of the work done on the intersection of play and the city and reflect on it in order to then think about play in the informational city.

3. WE HAVE ALWAYS PLAYED IN THE CITY

From the early dwellings of Babylonia to the cradles of modernity in the Renaissance, cities have always been fascinating, attracting poets, revolutionaries, and dictators. The city perhaps best embodies the fundamental role that technological development played in modern culture. The big urban centers were perfect sources of cheap labor, as they were also instruments of control that allowed the industrial revolution to take place. Cities were also glimpses of the future, the center of universal exhibitions and experiments in urbanism that wanted to reconcile massive populations with high quality standards of living. Cities were the *locus* of the bright future, either as the compact, upward looking metropolis or as sprawling environments structured around private transportation. Cities are, to a certain extent, the psychogeographical testimony of how we think as a culture, as a society.

Cities also attracted the attention of poets and revolutionaries. Baudelaire's *flâneur*, who strolls the city in awe of its new kind of sublime, articulates the soul of the new cities. The *flâneur* could be seen as a dark player¹³ who aimlessly wanders and wonders about the city, without the purpose of all those other citizens immersed in commerce and the strife of urban life. Benjamin quickly certifies the demise of the *flâneur* due to the development of commercial capitalism,¹⁴ a new stage in urban and social development in which the city becomes not a place to walk, discuss, and contemplate, but a place to trade and do commerce with goods that flock to the city.

Yet cities were also places of art and resistance to the establishment. Cities allowed minorities to gather and be stronger in number. Cities allowed artists to meet, collaborate, and become mainstream. Cities pampered the mainstream arts while feeding the underground. Cities were places of student revolt, of citizen re-

13 Schechner, *Performance Theory*.

14 Benjamin: *Illuminations*.

volt, of theaters of the oppressed¹⁵ and oppression of the dissidents. Europe still lives, and is ruled by, the revolting students of 1968 and their oppressors. We still think that all art comes from New York and audiovisual culture is a thing from Los Angeles. Berlin is both our conscience and our subconsciousness. And we are fascinated by new models of cities, from Dubai to Singapore, built on material wealth posed against hostile nature. We are the cities we live in. Our *bildungsroman* always takes place in the move from the idyllic countryside to the cities where we belong. Those are also the cities that define us.

We live in the cities, but are we *alive* in them? Are cities open for more than just commerce and industry? From architects to playground designers and artists, the dilemma of how to make the city *livable* has troubled many urbanist programs and aesthetics.¹⁶ Precisely because of this playful aspect, it is interesting to consider play in the city. Urban planners and well-meaning architects would probably think about the development of playgrounds, sports arenas, and other organized, regulated spaces for play. However, there are two different ways of playing in the city that I would like to invoke here to help us think about the challenges of play in the informational city.

First, street sports like skateboarding and parkour show how the activity of play, and particularly the appropriative, expressive type of play I am advocating in this article, can serve as urban appropriation activities that draw new spaces of play in the city beyond those designed and determined by urban planners.¹⁷ Despite the success of city and state-sponsored skate parks, a big element of skateboarding's identity relies on the possibility of performing anywhere in the city. The parks are not places apart from the rhythm of the city, but training locations. Similarly, parkour sees the city as a place for performance of acrobatic movement in constant motion. Both show how play can operate a kinaesthetic, performance-based appropriation of the world that radically changes its identity and structure to become more playful and expressive.

A second way of playing in the city that illustrates the possibilities of play for challenging and rethinking urban development is the Situationists' urban *dérive*.¹⁸ Situationism revolted against the commercial, capitalist spaces of cities, and one of its instruments was the *dérive*. Wandering in the city just by being driven by its geography helped develop intimate, authentic experiences. While these experiences were hardly »play« in the canonical sense of the Situationist International, they were an aesthetically-driven, ideologically meaningful playful rejection of the city and an appropriation of it for a different purpose. Rather than just accepting

15 Boal: *Theatre of the Oppressed*.

16 Christopher/Ishikawa/Silverstein: *Pattern Language*; Debord/Wolman: »Directions for the Use of Détournement.«

17 Dumas/Lafores: »Intergenerational Conflict«; Geyh: »Urban Free Flow.«

18 Knabb: *Situationist International Anthology*; Debord/Wolman; Wark: *The Beach Beneath the Street*.

or mindlessly living in these urban structures, the *dérive* allows practitioners to discover a new city, to make a space that is not supposed to be personal but a new environment for expression and collective and individual identity.

These two forms of playful appropriation of the cities are clearly inspirational, but they remain confined to the material architecture of urban environments. Both forms playfully take over the spaces created to massively inhabit cities that define the 20th century. However present and inspirational these two forms of appropriation can be, they are limited when it comes to playing in smart cities, as the computational layer of these geographies presents new challenges and opportunities.¹⁹

Nonetheless, it is still worth recalling that cities have always been spaces for play. Not only because they can host different forms of play spaces, from playgrounds to arenas, but also because, as particularly ordered spaces, as architectures, they can lead to expressive appropriation. Thus, we can see a new challenge emerge: Cities are no longer merely conglomerates of people and materials. Cities are now also computational centers, locations of production and consumption of computer-created, computer-processed data. Parkour and skateboarding, *dérive* and the arts, they all still understand playful appropriation as happening in an exclusively physical, material space. However, contemporary cities are more than just that. In order to understand how play can happen in cities, we first need to understand what these cities are.

4. SMART AND DUMB: ON INFORMATIONAL CITIES

Thus far, I have been using the concept of *smart cities*²⁰ to focus my interest on play in modern urban environments. However, I will now use the concept of *informational cities* instead, for two reasons. First, it allows me to invoke a series of relevant intellectual traditions, from information theory to the philosophy of information, that can contribute to a deeper understanding of these new urban environments. Second, I am unconvinced by the unabashedly positive sound of »smart« cities. It seems that computation makes »dumb« cities »smarter« and that this is a mark of progress. I doubt that this is the case, at least not without a reflection on which technologies, infrastructures, and activities make cities »smart.« On that view, »informational cities« seems a more neutral starting point for the kind of reflection I am proposing in this article.

What is an *informational city*? More importantly, why do we need to give such importance to the impact of computer technology in urban environments? Computers have changed society, and, for some, we are living in a revolutionary moment when knowledge, culture, society, and science will forever change who we are and how we live. But they have also changed the arguments we make about

19 Psarras: »Emotive Terrains.«

20 Chourabi et al.: »Understanding Smart Cities.«

the world. Everything seems new, relevant, important, different because of computers. Claiming that cities are different because we live in a digital era, because we are witnessing the fourth revolution,²¹ might be just an empty claim, another sensationalist argument for hyping an argument.

This might be true, but I think there are abundant examples suggesting that cities are no longer merely architectonic, spatial organizations of human dwellings, but that they are also informational environments, or infospheres,²² on their own. The most significant of these examples is perhaps the abundance of open data that anybody can access from many cities around the world. There is data about population, air quality, traffic, income, education levels, etc.; almost anything one can imagine has been neatly packaged and released as open data. Of course, this amount of data only makes sense in the era of *big data*, that is, in an era of writing algorithms that can quickly enough make any sense of all that data. But the crucial thing is not to make sense of it, but to acknowledge its existence. Cities produce data.²³

Another example, partially derived from the previous one, is the infrastructure of distributed surveillance that has become an unavoidable characteristic of modern cities.²⁴ CCTV cameras are everywhere, but now more advanced systems of surveillance operate, again, on the massive amounts of data that are generated and transmitted in an urban setting.²⁵ Surveillance is no longer the task of those placed in a space to observe, or even of those looking at image feeds on a monitor: Surveillance is now the (attempted) processing of some of the data produced in a city.

A third and last example that takes us back to the beginning of this section is the current trend of imagining the future of cities as smart cities. Even though one could argue that, since the 18th century, the dream of all urban planners has been to create smart cities, this concept has been developed as an ideal to leverage the data production that happens in cities with the optimization of services and infrastructures. Smart cities are those in which the data produced greases the machines for living: cities that enjoy their wealth of data to make life more bearable, less confined to obsolete structures and arrangements. Smart cities are the technical solutions to the human problems of urbanism.

All these examples have two things in common: First, they are understandable only if we look at how cities are data producers; second, they see this data as an instrument for making urban planning decisions, powered by computational

21 Floridi: *The Philosophy of Information*.

22 Floridi: »On the Intrinsic Value of Information Objects and the Infosphere«; Floridi: »A Defence of Constructionism.«

23 Pan: »Trace Analysis and Mining for Smart Cities.«

24 Côté-Boucher: »The Diffuse Border«; Albrechtslund/Lauritsen: »Spaces of Everyday Surveillance«; Klauser/Albrechtslund: »From Self-Tracking to Smart Urban Infrastructures.«

25 On legal aspects concerning this issue, see Valverde: »Seeing Like a City.«

models and processing of this massive amount of information. Informational cities are, then, hybrid constructs of data and physical environments, informationally rich environments of exceptional depth.²⁶ An informational city is an infosphere generated by an urban environment – and by this I am referring to the data produced, but also to the systems and infrastructures needed, to produce data, process it, store it, and manipulate it.²⁷

So why is it so important to look at informational cities from a play perspective? There are many ways of dealing with data-rich environments. Some involve the design of usable systems that ease the access and manipulation of information. Others involve the automatization of data processing and its location in the background of life experiences, so that nothing changes for users/ citizens even though everything has changed.²⁸ Fundamentally, the problem is that we don't know what to do with all this data. Releasing open data is a great initiative, but it leads nowhere, as big data is overwhelming. Furthermore, even if we make this amount of data visible and understandable, what is our motivation, as inhabitants of a city, to engage with the informational aspect of it? Why should we care? We should care because we can play with it and, by doing so, can change the nature and relation of the information we are producing, and consuming, as part of the city. In short, play can be an interface²⁹ with the data produced by and in informational cities.

5. PLAY AS A CITY INTERFACE

To live in a city no longer means to occupy a space in an urban environment, to engage in urban dwelling, to enjoy the multiple pleasures and suffer the inevitable pains of cohabitation. Cities have ceased to be machines for massive living. Cities are now data producers. We all supposedly enjoy the ideal easiness of online transactions, the casual engagement with services and government through apps and websites – even though those interactions are often painful due to the poor design of those interfaces. But the key is that those interfaces are a consequence of the massive amounts of data produced and broadcast by inhabitants that cities can gather.

Cities have become contexts for data production – data about how we live, where we live, and what we do. But this data does not have a human scale. The problem is that this data is encapsulated from the world, processed by algorithms

26 Thrift/French: »The Automatic Production of Space«; Miller/Goodchild, »Data-Driven Geography.«

27 See also Kitchin/Dodge: *Code/Space*; Kitchin/Lauriault: »Small Data in the Era of Big Data.«

28 Graham: »Beyond the »Dazzling Light««; Borning/Kahn: »Designing for Human Values in an Urban Simulation System«; Bell/Dourish: »Getting Out of the City«; Brewer/Dourish: »Imaging and Imagining the City.«

29 Dourish: »Seeing Like an Interface«; Galloway: *The Interface Effect*.

and presented in API friendly fire hoses that do not necessarily engage with citizens. We all have access to the data produced in cities, but it is presented in such a way that we do not know what we can do with it. It is both a problem of accessibility and presentation: The data is made accessible through interfaces that do little to help users engage with it productively. Much like modern urbanism strove to make citizens engage with their cities, we are facing the challenge of engaging citizens with the data layer of the cities they inhabit. This is an alternative, hidden architecture of unmapped locations, a geography of inaccessible, incomprehensible, inhuman data in search of interfaces to bring it back to where it originated.

For these reasons, I propose to think about play, in this case computational play, as an interface to engage with this data. This is not a radically innovative idea, as it builds on a history of playful appropriations of the city, but it constitutes a suggestion for developers and urban planners to think about the ways in which access to this data can be possible and beneficial.

Play has been seen as a way of making urban environments more human, more open to creative expression and less functional. From playgrounds to playful spaces, urbanists have looked at play as an instrument to bring back the human scale in urban design. Similarly, the Situationists tried to re-engage with the alienating spaces of the city – the problem being the same, the dissonance between the scale of the city and the scale of human life and expression.

A more recent example is the Bristol-located Playable City organization,³⁰ which annually supports one project that augments a public space through play. These projects need to be creative, playful, illuminating; they need to make the city better and more livable. But they also need to be open for everybody, they need to be accessible, and, if possible, they need to work in places where the city might benefit from them. Playable Cities has an interest in making the city more vibrant by occasionally allowing play to take over its environment.

The challenge I would like to highlight here, however, is different in nature. Even though it is a good thing to make cities more playful, we're still doing it on the old paradigms of physical environments, forgetting how important the informational layer is for the future of cities. The Smart Cities initiatives are all attempts at making this informational layer more human, more useful. But the problems are being solved by adding more technical solutions that produce more data.

What I advocate here is a way of thinking about play as an interface toward the data that constitutes the infrastructure of the city. Take that data and make it playful, allowing citizens to use the data they produce to better engage with their surroundings, with their environments, to have a better understanding of what it means to live in a particular city. This also means: Make them play *with it*. Do not give in to the temptation of making commercial controlling devices in the shape of

30 <http://www.watershed.co.uk/playablecity/>.

pre-made games. This is a call not for *gamification* as a form of control, but for playification as a form of living in the city.

Most of the examples I can provide for the use of play as an interface with public open data come from cartography. There are now available at least two different applications that allow users to navigate through the different layers of a city, navigating them in time. Using online services like Google Maps and the data from pictures and other sensors, applications like *What Was There*³¹ offer a glimpse of the history of a city, a playful reminder that we live in strata of past lives. Being able to browse the city's history, to observe it change with a swift movement of the mouse, allows for a different engagement with the urban space.

This means that we can imagine a different, bolder take on playable cities. We need to start thinking about these urban spaces as the locations of lives and data, as the crossroads of a new way of being a citizen – a consumer and producer of data.

As citizens, we need to make the open data about us *ours*; we need to be able to see the patterns in the data, the structures that we help build. It is not enough to have access to it – access needs to be meaningful so that meaningful lives can be lived. And what better way to interact with this data than playing with it, than making it pleasurable to access, manipulate, and share? I advocate a playable city in which the re-ontologization process that leads to massive data production is not opaque, but interfaced through play.

A play interface for cities acknowledges that there is no way back, that cities are data production engines. This data should be accessible in such a way that we can appropriate it, that we can play with it. We therefore need to design services that are open for interpretation, that allow for the curious investigation of the user. We need to realize that citizens need more than information. They need involvement, they need to be able to use the data they produce, and they need to set it in the contexts and uses they find appropriate.

In this way, playable cities are not smart cities. They are not designed by remote architects or even by co-design processes. Playable cities should be messy affairs, not necessarily smart, not necessarily official – they should be a consequence of the citizens' acts of appropriating the data layer of the city. Playable cities should be expressive, images of their users, places in common to live together.

Therefore, I call for playable cities to be like modern public spaces, engineered open spaces that nevertheless host the rebellious activities of street artists, skateboarders, traceurs, and other people who see those spaces, those contexts, as spaces for playful expression.

What would these playable cities be like? Imagine a city square, once the space for public gathering and now just another place to stare at our phones. Now imagine a city square that changes depending on the data flow in its location: If many people access the square's wifi hotspot, then the geography of the space

31 <http://www.whatwasthere.com>.

will change, the sitting spaces will come closer to each other, forcing people to share physical space, to connect again. And make this process transparent, so that a clever tinkerer can download dozens of torrents from that location, forcing everybody to stay together.

Or imagine a counter, like the one in the main square in my home town of Copenhagen, that measures how many cyclists go through each day. Instead of making it a boring number counter, make it inflate a balloon a bit every time a biker passes by, hopefully creating a nice flock of balloons that, at the end of the day, are set free, so citizens can see what they have done.

Or envision the data for air pollution not to be just an abstract .csv file that only statisticians will admire, but as the nourishment for artificial beings. Let's imagine plant-like statues that will die the more polluted the city is, and then give citizens access to a tool so they can change the variables in air quality conditions in their living quarter – changes that they will be able to see in the dying plants around them. Citizens could be able to affect their environment, but also document the scale of local challenges. Of course, people will abuse the system, people will break it – but if that happens, we should rejoice, for breaking is indeed a sign of play, a sign of engagement. Nobody breaks anything in smart cities.

These examples are mostly combinations of information visualization and visual aesthetics. However, I believe they hold the promise of thinking playfully about cities. Imagine that users could not only see the traffic information, but also *engage* with it. For example, a tamagotchi-type physical toy could be linked to a car, and every time the car is driven, that action would have a direct influence on the creature as well as on all the other creatures installed in all other cars in that city. These creatures need not be nice – they may be screeching trolls that enjoy traffic chaos, and so the best way of not feeding them is not driving.

To imagine the future of playable cities, we need to think about the playful attitude as an inherently valuable approach to life. In fact, I would argue that playfulness should be a key element in understanding the citizen who does more than just »live« in a city but inhabits it, who critically contributes to living in it. Playful cities, then, need to foster the playful attitude. They need to nudge and suggest other ways of participating, or inhabiting, of traversing these spaces so that we can start thinking playfully about the environments we live in. This includes making the data we produce easier to appropriate, more open to fostering the playful attitude.

The promise of playable cities is complicated, and I can be accused of being both romantically optimist and designerly naïve, claiming that playful design can tackle the wicked problems of urbanism. I take both accusations as compliments. Cities are not good spaces to live and thrive. They are engines of data production, of commerce, and of disempowerment. Yet they can also be spaces for organization, for collective action, and for play. Playable cities can be instruments to get back our cities and turn away from the incorporated structured dreams of smart cities so that we can make our own spaces livable again.

6. CONCLUSIONS

What is a playable city? In this position paper, I have tried to argue that using play as an interface for engaging with the informational city can help make the data production layer of cities not only visible, but also open for citizen engagement. For doing so, playable cities need to think about informational urbanism through the interface of play, a challenge that this article has only started to address.

I would like to close by reminding the reader that to play has always been a form of collective action that has had a strong effect on how we plan cities and live together. I have focused here on how to think about informational cities through the lens of play, but, ultimately, it is not any technology, gadget, or clever design application that will allow us to do this. To play in the city simply requires a playful attitude, the will to take over the world and express ourselves in it in search of pleasure. We too often forget while living in cities that we can search for pleasure, that life can be more than traversing spaces, that we can play, and that play is precisely what makes the world ours. So don't wait for the app, the service, the cleverly designed instrument: Open the door, get out on the street, and play.

REFERENCES

- Albrechtslund, Anders, and Peter Lauritsen. »Spaces of Everyday Surveillance: Unfolding an Analytical Concept of Participation.« *Geoforum* 49 (2013). doi:10.1016/j.geoforum.2013.04.016.
- Alexander, Christopher, Sara Ishikawa, and Murray Silverstein. *Pattern Language: Towns, Buildings, Construction*. Oxford: Oxford UP, 1977.
- Andersen, Christian Ulrik, and Søren Pold. »FCJ-133 the Scripted Spaces of Urban Ubiquitous Computing: The Experience, Poetics, and Politics of Public Scripted Space.« *The Fibreculture Journal* 19 (2011).
- Bakhtin, Mikhail. *Rabelais and His World*. Bloomington: Indiana UP, 1984.
- Batty, M., K. W. Axhausen, F. Giannotti, A. Pozdnoukhov, A. Bazzani, M. Wachowicz, G. Ouzounis, and Y. Portugali. »Smart Cities of the Future.« *The European Physical Journal Special Topics* 214.1 (2012). doi:10.1140/epjst/e2012-01703-3.
- Bell, Genevieve, and Paul Dourish. »Getting Out of the City: Meaning and Structure in Everyday Encounters with Space.« *Ubiquitous Computing on the Urban Frontier*. Ubicomp, 2004.
- Benjamin, Walter. *Illuminations*. London: Pimlico, 1999.
- Boal, Augusto. *Theatre of the Oppressed*. London: Pluto, 2008.

- Borning, Alan, Batya Friedman, and Peter H. Kahn. »Designing for Human Values in an Urban Simulation System: Value Sensitive Design and Participatory Design.« *Proceedings from the Eighth Biennial Participatory Design Conference* (2004).
- Brewer, Johanna, and Paul Dourish. »Imaging and Imagining the City.« *Computer/Human Interaction: Imaging the City* (2007).
- Caragliu, Andrea, Chiara Del Bo, and Peter Nijkamp. »Smart Cities in Europe.« *Journal of Urban Technology* 18.2 (2011). doi:10.1080/10630732.2011.601117.
- Chourabi, Hamed, Taewoo Nam, Shawn Walker, J. Ramon Gil-Garcia, Sehl Mellouli, Karine Nahon, Theresa Pardo, and Hans Jochen Scholl. »Understanding Smart Cities: An Integrative Framework.« *45th Hawaii International Conference on System Science (HICSS)* (2012).
- Côté-Boucher, Karine. »The Diffuse Border: Intelligence-Sharing, Control and Confinement along Canada's Smart Border.« *Surveillance & Society* 5.2 (2002). 142-165.
- Debord, Guy, and Gil J. Wolman. »Directions for the Use of Détournement.« *Appropriation*. Ed. David Evans. Cambridge: MIT, 2009.
- Dirks, Susan, and Mary Keeling. »A Vision of Smarter Cities.« *IBM Institute for Business Value* (2009).
- Dourish, Paul. »Seeing Like an Interface.« *Proceedings of the 19th Australasian Conference on Computer-Human Interaction: Entertaining User Interfaces* (2007).
- Dumas, Alex, and Sophie Laforest. »Intergenerational Conflict: What Can Skateboarding Tell Us about the Struggles for Legitimacy in the Field of Sports?« *Idrottsforum* (Sept. 4, 2008).
- Floridi, L. »A Defence of Constructionism: Philosophy as Conceptual Engineering.« *Metaphilosophy* 42.3 (2011). 282-304.
- Floridi, Luciano. »On the Intrinsic Value of Information Objects and the Infosphere.« *Ethics and Information Technology* 4.4 (2003). 287-304.
- Floridi, Luciano. *The Philosophy of Information*. Oxford: Oxford UP, 2010.
- Galloway, Alexander R. *The Interface Effect*. Cambridge: Polity, 2012.
- Gaspar, Jess, and Edward L. Glaeser. »Information Technology and the Future of Cities.« *Journal of Urban Economics* 43.1 (1998). 136-156.
- Geyh, Paula. »Urban Free Flow: A Poetics of Parkour.« *M/C Journal* 9.3 (2006).
- Giffinger, Rudolf, Christian Fertner, Hans Kramar, Robert Kalasek, Natasa Pichler-Milanovic, and Evert Meijers. »Smart Cities: Ranking of European Medium-Sized Cities.« Centre of Regional Science, Vienna UT, October 2007.
- Graham, S. »Beyond the 'Dazzling Light': From Dreams of Transcendence to the 'Remediation' of Urban Life: A Research Manifesto.« *New Media & Society* 6.1 (2004). doi:10.1177/1461444804039905.

- Harrison, Colin, and Ian Abbott Donnelly. »A Theory of Smart Cities.« *Proceedings of the 55th Annual Meeting of the ISSS*, Hull 2011.
- Henricks, Thomas S. »Orderly and Disorderly Play: A Comparison.« *American Journal of Play* 2 (2009). 12-40.
- Henricks, Thomas S. *Play Reconsidered: Sociological Perspectives on Human Expression*. Urbana/Chicago: U of Illinois P, 2006.
- Kant, Immanuel. »Critique of Judgement.« Trans. Eric Matthews and Paul Guyer. *The Cambridge Edition of the Works of Immanuel Kant*. Cambridge: Cambridge UP, 2001.
- Kitchin, Rob, and Martin Dodge. *Code/Space: Software and Everyday Life*. Cambridge: MIT, 2011.
- Kitchin, Rob, and Tracey P. Lauriault. »Small Data in the Era of Big Data.« *GeoJournal* 80.4 (2014). doi:10.1007/s10708-014-9601-9607.
- Klauser, Francisco R., and Anders Albrechtslund. »From Self-Tracking to Smart Urban Infrastructures: Towards An Interdisciplinary Research Agenda on Big Data.« *Surveillance & Society* 12. 2 (2014). 273-286.
- Knabb, Ken. *Situationist International Anthology*. London: Bureau of Public Secrets, March 1, 2007.
- Latour, Bruno. »A Cautious Prometheus? A Few Steps Towards a Philosophy of Design (with Special Attention to Peter Sloterdijk).« Keynote Lecture, Networks of Design, Falmouth, Cornwall, Sep. 3, 2008. CP, 2008.
- Latour, Bruno. *We Have Never Been Modern*. Cambridge: Harvard UP, 1993.
- Latour, Bruno. »Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts.« *Shaping Technology/Building Society: Studies in Sociotechnical Change*. Ed. Wiebe E. Bijker and John Law. Cambridge: MIT, 1992. 225-258.
- Miller, Harvey J., and Michael F. Goodchild. »Data-Driven Geography.« *GeoJournal* 80.4 (2014). doi:10.1007/s10708-014-9602-6.
- Pan, Gang. »Trace Analysis and Mining for Smart Cities: Issues, Methods, and Applications.« *IEEE Communications Magazine* 121 (2013).
- Psarras, Vasileios. »Emotive Terrains: Exploring the Emotional Geographies of City Through Walking as Art, Senses and Embodied Technologies.« Doctoral Thesis. Goldsmiths: University of London, 2015.
- Rittel, Horst, and Melvin Webber. »Dilemmas in a General Theory of Planning.« *Policy Sciences* 4 (1973). 155-169.
- Schechner, Richard. *Performance Theory*. New York: Routledge, 1988.
- Schiller, Friedrich. *On the Aesthetic Education of Man*. Trans. Reginald Snell. Mineola/ New York: Dover, 2012.
- Sicart, Miguel. *Play Matters: Playful Thinking*. Cambridge: MIT, 2014.
- Sutton-Smith, Brian. *The Ambiguity of Play*. Cambridge: Harvard UP, 1997.

MIGUEL SICART

- Thrift, Nigel, and Shaun French. »The Automatic Production of Space.« *Transactions of the Institute of British Geographers* 27.3 (2002). 309-335.
- Valverde, Mariana. »Seeing Like a City: The Dialectic of Modern and Premodern Ways of Seeing in Urban Governance.« *Law & Society Review* 45.2 (2011). 277-312.
- Wark, McKenzie. *The Beach Beneath the Street: The Everyday Life and Glorious Times of the Situationist International*. New York: Verso, 2011.

PLAYING SITUATIONISM

Ludic Spaces in Transmedia Contexts

BY ANDREAS RAUSCHER

ZUSAMMENFASSUNG

Der Artikel untersucht die Aktualität der Konzepte des *dérive* und der Psychogeographie als Methoden, mit denen die Erfahrung von Open-World-Videospielen besser verstanden und genauer erfasst werden kann. Diese Begriffe für eine subjektive Wahrnehmung der urbanen Dynamik wurden ursprünglich von dem Philosophen und Politaktivisten Guy Debord und der Situationistischen Internationalen in den 1950er Jahren geprägt. Sie verwandten Praktiken der modernen Avantgarde, um gegenüber dem gewöhnlichen Alltag eine subversive Haltung einzunehmen. In einem zweiten Schritt thematisiert der Beitrag den Begriff der cineludischen Form als Bezeichnung für die Verknüpfung von Settings und Sequenzen, die mit bekannten Filmgenres assoziiert werden, mit unterschiedlichen Gameplay-Konzepten. In Verbindung mit Miguel Sicarts Konzept der Playfulness bietet die Wiederentdeckung des *dérive* und der Psychogeographie eine hermeneutische Strategie zur Erkundung und kritischen Reflexion der mentalen Landkarten, die Videospiele, Popkultur und das Kino verbinden.

ABSTRACT

This article examines how the concept of *dérive* and the idea of psychogeography can be reactivated to explore and understand the experience of open-world games. These terms for a subjective way of perceiving the dynamics of urban life were originally introduced in the 1950s by philosopher and political activist Guy Debord and the movement of the Situationist International. They employed practices of the Modernist avant-garde as subversive approaches toward everyday life. In a second step, this article introduces the idea of the cineludic form, which connects settings and sequences typical of film genres to gameplay concepts. Combined with the idea of playfulness challenging the routines of algorithmic culture introduced by Miguel Sicart, the rediscovery of *dérive* and psychogeography offers a hermeneutic strategy to explore and critically reflect the mental maps that link video games, pop culture, and cinema.

I. SPACE (RE)INVADERS – SITUATIONISM REVISITED

In recent years, the ideas of Situationism, one of the key concepts of artistic counter-cultural approaches toward urban spaces, seemed to have migrated to the museum, or at least to have been delegated to printed volumes of oral cultural

histories covering the avant-garde movements from the streets of 1960s Paris to the interventions of the London punk scene in the late 1970s. But, at a second glance, Situationism, which had already seemed to be close to the nostalgic old school anarchism of another Sex Pistols reunion tour, who updated Situationist ideas in the context of the late 1970s British punk scene but not any more in the 1990s and 2000s, has gained an extra life within the realm of digital spaces. In 2009, the Game Studies blog *Subject Navigator* asked in what ways a dead continental philosopher by the name of Guy Debord, who was one of the driving theoretical minds behind the Situationists, could help us in understanding video games.¹ The gaming culture website *Rock, Paper, Shotgun* featured a series by Hannah Nicklin on the Situationist concept of psychogeography applied to video games and their designers.² Debord had defined the term *psychogeography* in 1955 »as the study of precise laws and specific effects of the geographical environment, consciously organized or not, on the emotions and behavior of individuals.«³ Through the tactic of *dérive*, the Situationists produced mental and emotional maps of urban cities. They promoted a new way of perceiving the city with a rhythm that contradicted the logic of late capitalism. In his study *Avant-Garde Video Games: Playing with Technoculture*, digital media scholar Brian Schrank comments on the intentions behind psychogeography and *dérive*:

The Situationists went beyond entertainment to remix urban space and reclaim the public sphere as a place for collective play with reality. They would drift through a city in a game they called the *dérive*. A *dérive* is a spontaneous journey in which travelers allow the aesthetics of the architecture and geography to affect them emotionally as well as subconsciously, and direct them so that they might foster new relationships with space.⁴

Debord had originally intended to bring about a change in perception resulting in revolutionary actions. Even though the *dérive* did not result in the radical utopia predicted by 1968, it provided a profound method to document the dynamics and pop-cultural mental images of famous cities that could be employed in works of cultural studies. Greil Marcus wrote *Lipstick Traces*, a vast history of the phantom avant-gardes in the 20th century. Jon Savage structured his epic history of the British punk scene, *England's Dreaming*, around the several epicenters of the punk movement around London, while director Julien Temple, closely associated with the Sex Pistols since the late 1970s, used the psychogeographic approach for a documentary on the founding members of the seminal punk band in 2007. He ar-

-
- 1 Golding: »How Guy Debord Can Help Us Understand Video Games.«
 - 2 Nicklin: »A Psychogeography of Games.«
 - 3 Debord: »Introduction to a Critique of Urban Geography.«
 - 4 Schrank: *Avant-Garde Videogames*, 123.

ranged the interviews with Ex-Pistols John Lydon, Steve Jones, Paul Cook, and Glen Matlock around their home districts of London. It is no coincidence that the navigational menu on the Sex Pistols DVD *There'll Always Be an England* is reminiscent of the board game *Scotland Yard*, in which a group of players chases a villain who went into hiding across the map of London. As a playful form of improvisational hermeneutics, the tactic of *dérive* is very well suited for the exploration of open-world structures in which the once abstract city of the game board turns into an urban playground for enacting drama as well as performing playfulness.

The following article will discuss the renewed relevance of Situationist concepts in combination with the idea of playfulness suggested by Miguel Sicart as a basis for exploring new modes of approaching virtual worlds and genre settings. First, I will regard the development of video game spaces in connection to cinematic forms and place it in the context of *dérive*. In a second step, I will consider the transformation of the virtual game board into a stage for performance and playfulness, before a concluding outlook will discuss perspectives on a transmedia psychogeography that offers new modes of aesthetic experience and appropriation by performance.

2. GAME-PARCOURS AND CINELUDIC FORMS

The development of sandbox and open-world games setting up a promenade for play and emergent *dérives* is closely connected to the development of simulated environments. In other words, the spectacle of three-dimensional virtual cities had to be created first before it could be appropriated and transformed by the players. Traditional arcade games and side-scroller platform games only hint at the possibility of detours resulting in *dérive*. In many cases, they are left to the imagination, like the rumor started in the early 1980s that you could discover a secret lair within the tank simulation *Battlezone* (1980) if you moved long enough in a certain direction. The evocative potential of the game space was established by additional information like the decoration of the arcade machine or the manuals from the video game box. Role-Playing Games (RPGs) like *The Bard's Tale* (since 1985), *Ultima* (since 1981), or the post-apocalyptic scenario in *Wasteland* (since 1988) already hinted at the possibilities featured in the open-world structure of the *Elder Scrolls* (since 1994) and the *Fallout* (since 1997) series, but the representations in those early RPGs and adventure games were restricted to statistics and the redundant surroundings of invariable depictions of houses and landscapes. You had the freedom to move around those vast empty spaces, but there was not much aesthetic material to inspire the psychogeographic experience of the abstract setting.

One of the most disappointing gaming experiences I can recall were games based on the cult TV neo(n) noir detective series *Miami Vice* (1984-1989) and the fantasy epic *Lord of the Rings* in the 1980s. Far from the colorful recreation of Mi-

ami in *GTA – Vice City* (2003), the top-down perspective in *Miami Vice* (1987) did not feature any details, and the avatar's sports car exploded as soon as you hit the sidewalk. Contrary to the love of detail in J.R.R. Tolkien's novel, the first adventure game based on *Lord of the Rings* consisted of standardized text descriptions without any details or background story. The interaction was reduced to typing in walking directions through regions that felt like the backwoods of Middle-Earth. Any intention of *dérive* in those environments turned into a minimalist abstract performance and would have been analogous to the psychogeography of a chess board. On the other hand, games with more pronounced graphics like arcade, action, and platform games followed a strict rhythm that did not leave enough time for moving outside the designated frame. In a side-scroller, you could not leave the track defined by the designer and the game mechanics. In his study *Video Game Spaces*, media scholar Michael Nitsche refers to the concept of the tracks and the rail as a »distinguished spatial form in video games.«⁵ He points out the ongoing implicit legacy of this structure, since »so-called rail-shooters move or guide the player along invisible tracks that allow little divergence from a given path. The world might appear to be accessible but can be navigated only in the confines of a very limited set track.«⁶ In other words, games with elaborate graphics like the *Medal of Honor* (since 1999) and *Call of Duty* (since 2003) franchises are not too far away from the scenery in traditional arcade games like *Moon Patrol* (1984), which suggested futuristic cities in the background that you could never reach during the game. The pattern of movement along the tracks in a jump'n'run game could be compared to a parcour without the improvisational freedom of its real-life counterpart. The difference can be experienced in playing the ludic adaptation of the memorable stunt sequence from the James Bond movie *Casino Royale* (2006) that was included in the game accompanying the following film, *Quantum of Solace* (2008). This game demonstrates quite well that the restrictions prohibiting the application of psychogeography and *dérive* are not only linear narratives but also hard-rail gameplay mechanics following an algorithm enforcing strict rules. The opposite to this philosophy of design can be found in the experimental little red riding hood variation *The Path* (2009), which encourages you to go exploring in the forest.

The potential for *dérive* in single-player games improved with the inclusion of additional options in the gameplay and hidden extras. Regardless of its rather sarcastic and violent tone, the post-apocalyptic racing game series *Carmageddon* (since 1997) creates an interesting combination of *ludus* and *paidia*. Instead of winning a race by completing the track in time, you can also leave the road behind, cruise through the run-down city, and complete a level by attacking all the other vehicles. It is no coincidence that this concept is very much reminiscent of the *Grand Theft Auto* (GTA) franchise, which paid tribute to *Carmageddon* in nam-

5 Nitsche: *Video Game Spaces*, 171.

6 Ibid, 175.

ing a mission in *GTA – Vice City* adequately *Cabmageddon*. The affective appeal of playing against the norm in *Carmageddon* by going on a rampage, hitting passengers and destroying the surroundings, corresponds with those seductive techniques of gameplay that film scholar Marcus Stiglegger calls the Promethean impulse. It is also reminiscent of the experience that Miguel Sicart terms dark play:

Play is a movement between order and chaos. Like tragedy, it fulfills its expressive purpose when it manages a fragile, oscillating balance between both. This echoes the concept of dark play, exploring the boundaries between play and not play, between performance and secrecy. Dark play, with its potential dangers and exhilarating results, is another example of the nature of play as a way of being in the world.⁷

There is a dialectical association between the promises of the Promethean impulse, laid out by the game designers in order to seduce the players to influence the game »with their own decisions and, in a radical step, even modify [it] according to their own ideas,«⁸ and the players' decision to give in to the desire to leave the pedestrian walkways leading through the gameworld. A playful approach can result in a fulfillment of ludic and/or cinematic genre conventions as well as their deconstruction. In contrast to the clumsy idea of overemphasizing Anakin Skywalker's long-awaited turn to the dark side in *Star Wars III – Revenge of the Sith* (2005) by having him slaughter a full kindergarten of innocent young Jedi kids, taking a walk on the dark side in the *Star Wars* video games can turn out to be quite fun. If you behave contrary to the etiquette of most first-person shooters in the game *Jedi Knight* (1998), you will turn to the dark side and earn the special skill of firing lightning bolts like Emperor Palpatine in the *Star Wars* films. Observing the events from the original trilogy from the wrong side of the tracks through the prism of the Empire provides an experience that is not featured in the *Star Wars* movies yet but is well established in the Expanded Universe. In contrast to a game of *Star Wars* chess, the decision to go to the dark side has an aesthetic and emotional effect in games like *Jedi Knight* and *Knights of the Old Republic* (2004). It is almost reminiscent of choosing Darth Vader and Boba Fett instead of Luke Skywalker and Princess Leia action figures on the playground in the late 1970s and early 1980s. In the space combat simulation *Tie Fighter* (1994), you witness the hunt for the rebellion featured in *Episode V – The Empire Strikes Back* (1980) from the perspective of an Imperial tie fighter pilot. Instead of praising Luke, Leia, Han, and their colleagues as heroic freedom fighters throughout the game, they are referred to only as mean terrorists. In the game's final stages, you may even act as the wingman to arch-villain Darth Vader. Those experiences are not exactly a free form of play, but they add to the psychogeography of the *Star Wars* saga in a play-

7 Sicart: *Play Matters*, 3.

8 Stiglegger: »The Promethean Impulse in the Interactive Feature Film,« 34.

ful way of switching sides. These examples indicate that the promises of play as a departure from the conventional formulas are not restricted to art and indie games but can also be found in mainstream titles like some of the *Star Wars* games.

3. GRAND THEFT GENRE PLAYGROUNDS

A promising backdrop for the dance between acting according to the implied rules and letting go by performing play can be found within the realms of genre concepts. Many gameworlds are built upon genre settings. According to game designer and scholar Richard Dansky, »the setting defines the world that the action of the game takes place in, including character races, languages, laws of physics and metaphysics [...] and pretty much everything else necessary to define the game world.«⁹ Genre-coded open-world games like the *GTA* series, *Red Dead Redemption* (2010), and *L.A. Noire* (2011) offer free roaming play as an additional alternative to the obvious hiking trail through the genre setting.

In 1999, Rick Altman suggested a pragmatic genre model for film studies that can be modified for game studies.¹⁰ In contrast to essentialist notions of genres, Altman understands the dynamics of genre as an interplay between the aesthetic semantics, that means the iconography associated with a genre like laser swords and space ships with the science-fiction space opera, and the structuring syntax, for example the standard situation of a chase in an action thriller.¹¹ The family likeness to game rules becomes quite obvious when you consider the third element Altman added to his genre model. As a third component, the semantics and syntax get reconfigured and renegotiated according to the feedback of the audience.

The transmedia dialogue between artists and audience, game designers and players, as well as directors and their viewers, defines what I call cineludic forms. Within those non-essentialist dynamic structures, the genre discourse becomes part of a larger discussion involving ludic and narrative tropes, character iconography, the topography of settings and their staging in *mise-en-scène* as well as *mise-en-game*, and, especially relevant for this article, the psychogeographic mental maps of pop culture. They connect the *Resident Evil* films (since 2002) with George A. Romero's *Dawn of the Dead* (1978) and the popular horror carnival of zombie-walks that turn inner cities into a performance space for genre fans. They translate the death traps of the *SAW* franchise to the emotional challenges in a situation similar to the *SAW* films (since 2004) in the action-adventure *Heavy Rain* (2010) and create an associative addition to escape-the-room games. They also inspire the world-building of *Star Wars* (since 1977), *Star Trek* (since 1966), and

9 Dansky: »Introduction to Game Narrative,« 3.

10 For a more detailed discussion, see Rauscher: *Spielerische Fiktionen*.

11 Altman: *Film/Genre*, 219.

Lord of the Rings (2001-2003) by a vast variety of video games and influence the do-it-yourself-stardom and creativity of cosplayers attending conventions in their stylized self-made costumes.

Cineludic forms pick up settings, situations, and character types from films and combine them with ludic operations like goals, challenges, rules, and obstacles. Instead of adapting a certain licensed film as a whole, they take inspiration from stock scenes, which of course are predictable (who would not expect a series of henchmen waiting around the next corner in an underground villain's lair) and are also inspired by cues from characters that might appear stereotypical in their habits and appearance but offer perfect material for action toys as well as avatars in video games because of their skills and equipment.

A significant example of the transfer processes of cineludic forms would be the new wave of comic book adaptations from the *Marvel* universe. Characters like Wolverine, Iron Man, and Captain America already provided perfect source material for video game adaptations on the Super Nintendo System before there were any major film adaptations. After one and a half decades of *Marvel* adaptations creating a meta-genre of their own,¹² the all-star-company outing *The Avengers* (2012) featured the game literacy of director and author Joss Whedon prominently. During a meeting of the superhero team, a character in the background is caught playing the prototypical space shooter *Galaga* (1981). In contrast to forced cross-referencing that treats its material as a retro-postmodern joke as it happened in the Adam Sandler vehicle *Pixels* (2015), Whedon uses the arcade video game classic in the same way in which Peter Greenaway would include references to high art and Quentin Tarantino would employ samples from Hong Kong films, Italian action movies, and Blaxploitation films from the 1970s. In the film's spectacular showdown, Captain America, Black Widow, Iron Man, the Hulk, Thor, and Hawkeye battle several waves of alien invaders, turning Manhattan into an arcade setting for creative urban gaming. The scenario builds upon the template from *Galaga*, featuring alien invaders that even occasionally fly in the same formation as the enemies in the game. *The Avengers* demonstrates how a cineludic form is defined in video games from the early 1980s and is then integrated thirty years later into a cinematic scenario.

Game genres as well as cinematic genres can provide different levels of meaningful experiences. These experiences can be brought about by taking the challenge of fulfilling the rules as well as trying to break away from the monorail of generic narrative. An example of following the rules for affective surprises would be the cineludic form found in many survival horror games.

The fun of encountering what lurks behind the next door is an essential part of the experience of survival horror. The creaking doors in *Resident Evil* (since 1996) presented during the loading screens have become iconic for the experi-

12 Rauscher: »Auteuristische Strategien der Adaption und Appropriation in Superhelden-Comieverfilmungen.«

ence of horror action-adventures. In the games from the *Silent Hill* franchise (since 1999), diving into the buried secrets of the protagonists is directly linked to descending into the mists of the endless fog surrounding the isolated ghost town. There can be pretty memorable jump-scares like the dog coming through a window in the first installment of *Resident Evil* or the invincible brutal Pyramid Head representing the self-denial and guilt of the widowed protagonist in *Silent Hill 2*. Nevertheless, the player experience in a survival horror game is closer to a fun-house ride in an amusement park (*Resident Evil*) or to the psychological subtext of the haunted house trope (*Silent Hill*) than to a playground. There is not much room for play with the scripted events unleashing the next zombie-in-a-box. And there are not many options to choose from in performing the main characters. They either offer exciting action figures with special skills as in *Resident Evil*, or you try to figure out their trauma in *Silent Hill* in the same way in which you would try to find out who murdered Count Eutin in a game of *Clue*. The traces of play can rather be found in games like *Ghost Master*, a strategy game by Chris Bateman reminiscent of Tim Burton's bio-exorcist comedy *Beetlejuice* (1988), in which you command the monsters and the undead trying to get rid of their uninited annoying human housemates. But in order to choose between game track and playground you have to leave the house and roam around the city.

4. PERFORMING PAIDIA AND TRANSMEDIA PSYCHOGEOGRAPHY

In contrast to the hard-rail haunted houses and ghost towns of *Resident Evil* and *Silent Hill*, the open-world structures of recent action-adventures like the *GTA* series, *Red Dead Redemption*, and *L.A. Noire* or role-playing games like *Fallout* and the *Elder Scrolls* series offer the player alternative roads through the simulated world. Characteristically, the games produced by developers Rockstar Games and Bethesda encourage different forms of gameplay. They can be navigated in quite linear fashion in a straight play through, but they also allow for detours that may never return to the main plot.

A psychogeographic experience can be achieved in both ways, either as a tour through the tropes and settings of genre cinema by following the main quest, or by finding your own way through the simulated gangster metropolis of *GTA*, the Western after its heyday and the closing of the frontier in *Red Dead Redemption*, or the *Mad Max*-inspired post-apocalyptic wastelands of *Fallout*. The first approach accentuates a love for detail that could not be provided by cinema. In *GTA – Vice City*, you can conquer the drug kingpin's villa as your headquarter, and it looks exactly like the domicile owned by Al Pacino's Tony Montana in Brian De Palma's *Scarface* (1982). The final missions during *GTA – San Andreas* take place during the L.A. riots of 1992, and *GTA IV* is set in the milieu of Eastern European immigrant mobsters in New York. Like classic gangster films, the games are set within a stylized variation of real cities featuring locations taken from films and TV series. In *Vice City* the look of the nightclubs is inspired by Michael Mann's cult se-

ries *Miami Vice* (1984-1989), and in all installments of the *GTA* series, you can switch between the sounds of different radio stations providing the soundtrack to your missions. With a variety of musical styles, ranging from underground hip hop and commercial gangsta rap to techno, country music, classic rock, and speed metal, you can create a psychogeographical experience by choosing different musical modifications of your game experience. The second approach is based upon thinking outside the (sand)box and leaving behind the role for the avatar laid out by the main quest.

Miguel Sicart comments on the games from the *Fallout* and *GTA* series, that, »although the game wants us to follow its linear, narrative structure, the storytelling nodes that move the plot forward are in fact props [...] The narrative takes us into a game with form and structure, but we don't need to engage with it.«¹³

The varying experiences of the game can be compared to the difference between acting and performing that film scholar James Naremore discusses in his study *Acting in the Cinema*.¹⁴ He defines acting as »a special type of theatrical performance in which the persons held up for show have become agents in a narrative.«¹⁵ When acting, you follow the guidance of a screenplay, or, in the case of a video game, you execute the actions implied by the game's narrative architecture and by the attributes given to your avatar by the designer. In the neo-noir shooter series *Max Payne* (since 1999), you can very well experience the rooms of the run-down city in much greater detail than in any film, but you cannot change the character's behavior and development defined by the conventions of hardboiled literature and cinema. In the *GTA* series, you cannot change the plot points concerning the protagonist. No matter how hard you try, you will always be betrayed by your former friends in *San Andreas*, and in *GTA IV*, you have to go into hiding after a certain number of missions. The concept of performance, on the other hand, comes into play, according to Naremore, »when people are caught unaware by a camera, they become objects to be looked at, and they usually provide evidence of role-playing in everyday life.«¹⁶ The idea of performance can be found in acting styles that take the character only as a starting point to find additional idiosyncratic elements that were not included in the script.

The sandbox provided by *GTA* and other open-world games can include this opportunity as well. The freedom of play is not only enabled in regard to movement through the gameworld but also in discovering the dimensions of play by performing the avatar outside of the acting routines connected with the goals given by the missions. When integrating elements of performance, you convert the props into toys. The psychogeographical experience is, then, no longer restricted to immersing yourself in the atmosphere of a pop-cultural epoch or the setting of

13 Sicart, 56.

14 Naremore: *Acting in the Cinema*.

15 Ibid, 23.

16 Ibid, 15.

a well-known gangster drama like the 2006 video game based on Francis Ford Coppola's *The Godfather*, in which you cross the key events of the classic mafia drama on several occasions. Instead of following the generic patterns established by the original context of the cineludic form, you discover the possibilities of playfulness in a similar way to children making up their own variations of films by playing with action figures.

The productions by *Rockstar Games* explicitly provide room for play. In *GTA – San Andreas*, the activity of car surfing became a popular trend. Instead of taking control of California's underworld, the players began to jump onto driving cars and try to remain on top of them during a drive along the freeway for as long as possible. Playing *GTA – Vice City* with a neighbor who had an impressive knowledge of video games a few years ago, I discovered a way of infiltrating an enemy's cocaine factory not in the standard gangster limousine that was designated for this operation by the quest design but by hijacking a tourist bus. The hit squad entered the alternative vehicle nonetheless. The drive-by turned into a sightseeing tour through 1980s Miami accompanied by the thumping beats of 1980s synth-pop, which is closely associated with the *Miami Vice* soundtracks. Another similar experience was to play the cop drama *L.A. Noire* in the way you would act in *GTA*. Of course, the accompanying cop being a non-player character with a scripted behavioral routine and strict moral values will not stop complaining when you leave the freeway to take a short cut through the park. Gaming experiences like this infiltration of hard-boiled gangster dramas by absurd actions recall what Miguel Sicart calls playfulness, »a way of engaging with particular contexts and objects that is similar to play but respects the purposes and goals of that object or context.«¹⁷ The objects and the setting of *GTA – Vice City* and *L.A. Noire* remained intact. After cruising around the city in the tourist bus for some time, the hit squad even managed to conquer the hostile cocaine factory. Nevertheless, the action played out as if the director's chair had been turned over from Michael Mann and Brian De Palma to movie satire specialist Mel Brooks.

In comparison to their predecessors in the avant-garde like the Dadaists, Brian Schrank observes about the Situationists: »Rather than starting with art, the Situationists began by hacking entertainment.«¹⁸ Concerning subverting the mechanics and toying around with the implicit rulebook of the depicted world, the idea of hacking art can be very well applied to the system of genres in a trans-media context. If the gameplay and the mechanics include the potential, the player can become more deeply involved with the role indicated by the avatar and use his or her own emotional experience in order to plunge into immersive acting like a method actor would. But he or she can also break away from the recognizable dramatic pattern and turn the stage of the game into a vaudeville show of sophisticated rage against the algorithm.

17 Sicart, 21.

18 Schrank, 122.

The transmedia passages of cineludic forms thus include the potential of affirmation as well as deconstruction. Game developers like Rockstar Games seem to be aware of the potential and the meaningful experiences created by both approaches. Their games improvise upon templates provided by well-known gangster dramas and thrillers. Instead of simply emulating the values implied by the films, they create sandbox cities that include the adventure playground as well as hard-rail *parcour* installments. The most obvious example of how Rockstar Games extend the psychogeographic experience of film historical predecessors is their 2005 variation of Walter Hill's influential action drama *The Warriors* (1979), which inspired the video clip *100 Miles and Running* by the seminal gangsta rap group N.W.A. As in the film of the same title, a New York gang that gets wrongfully accused for the murder of a gang leader has to travel from Central Park to Coney Island during one memorable night in the late 1970s. The passage through hostile territory is combined with several challenges. Options like smashing in shopping windows and stealing car radios provide the seductive opportunity for dark play. Play becomes a hermeneutic approach for navigating the mental maps of imaginary cities from films and TV series.

The situationist strategy of *dérive* is not directly linked to real-life urban politics as Guy Debord originally intended. Nevertheless, it can be an enlightening tool for playing experiences beyond the invisible rail. The strict organization of a virtual theme park turns into an adventurous playground. The scripted routine of acting makes room for the performance pleasure of play. This shift also puts the aesthetic individual responsibility into the hands of the player, including the experience of the same unpleasant feelings an actor would discover on researching an ambivalent character. The risk of play is connected with pleasure as well as pain.

To find out about the creative as well as the destructive side of simulated playgrounds, recreating the mental maps of popular culture can be a very valuable hermeneutic approach that goes beyond the closed circuits of a singular work of art or the mechanics of an algorithm. A question that is open to further discussion would be how the *dérive* from virtual game worlds could use the performance quality of play to find new ways for reaching back into real urban spaces. That cineludic forms can develop subversive qualities has been demonstrated by Darth Vader running for mayor in the election in the Ukrainian city Odessa and Chewbacca being arrested during a protest rally in the same town. Actions like these prove that there is potential to rediscover the political side of Situationism and the *dérive*. The psychogeography of the fictional and the fantastic can be brought into a dialectical dialogue with the reality that initiated the alternative drafts found in worldbuilding as a utopian impulse.

In his 2007 book *Dream: Re-Imagining Progressive Politics in an Age of Fantasy*, the historian and media scholar Stephen Duncombe discusses the *GTA* series as an inspiration to rethink progressive politics from the quality of gameplay. For Duncombe, the appeal of the game lies in the popular desire to rebel and the fascinat-

ed approach toward the Other of the cinematic gangster culture.¹⁹ The perspective of playfulness suggested by Miguel Sicart would provide an important addition to Duncombe's conclusions on the lessons that can be learned from Rockstar Games: »It is not the job of progressives to condemn popular fantasy and desire. It is our job to pay careful attention to them, learn from them, and perhaps – God forbid! – even enjoy them ourselves. Then carjack these desires and fantasies and drive them someplace else.«²⁰ The practice of *dérive* offers an effective toolbox for finding alternative ways to experience the cineludic forms of open-world games. Those experiences can be appropriated for playful gateways leading into real urban spaces.

REFERENCES

- Altman, Rick. *Film/Genre*. London: British Film Institute, 1999.
- Dansky, Richard. »Introduction to Game Narrative.« *Game Writing: Narrative Skills for Video Games*. Ed. Chris Bateman. Boston: Course Technology, 2007.
- Debord, Guy. »Introduction to a Critique of Urban Geography.« 1955. *Nothingness.org*. 11/18/2015.
- Duncombe, Stephen. *Dream: Re-Imagining Progressive Politics in an Age of Fantasy*. New York: The New Press, 2007.
- Golding, Daniel. »How Guy Debord Can Help Us Understand Video Games.« *subjectnavigator.wordpress* (2009). 11/18/2015.
- Naremore, James. *Acting in the Cinema*. Oakland: U of California P, 1988.
- Nicklin, Hannah. »A Psychogeography of Games.« *Rockpapershotgun* (2015). Web. 11/18/2015.
- Nitsche, Michael. *Video Game Spaces*. Cambridge: MIT, 2008.
- Rauscher, Andreas. »Auteuristische Strategien der Adaption und Appropriation in Superhelden-Comicverfilmungen.« *Daumenkino* (2014). Web. 11/18/2015.
- Rauscher, Andreas. *Spielerische Fiktionen: Transmediale Genrekonzepte in Videospielen*. Marburg: Schueren, 2012.
- Schrank, Brian. *Avant-Garde Videogames: Playing with Technoculture*. Cambridge: MIT, 2014.
- Sicart, Miguel. *Play Matters: Playful Thinking*. Cambridge: MIT, 2014.
- Stiglegger, Marcus. »The Promethean Impulse in the Interactive Feature Film.« *Films and Games, Interactions, Exhibition Catalogue*. Ed. Andreas Rauscher and Eva Lenhardt. Berlin: Bertz, 2015.

19 Duncombe: *Dream*, 56.

20 Ibid, 77.

PLAYING THE CITY

The Heidelberg Project in Detroit

BY DANIEL STEIN

ZUSAMMENFASSUNG

Dieser Artikel widmet sich dem Heidelberg Project, einer seit 1986 von Tyree Guyton in einer vornehmlich afroamerikanischen Gegend in Detroit angesiedelten Freilicht-Installation aus Fundstücken, verlassenen Häusern und leeren Grundstücken. Das Heidelberg Project ist ein prominentes Beispiel für das Spiel in und mit der Stadt; es ist ein Versuch, eine trostlose Gegend in einen kreativen Ort zu verwandeln, der sich dominanten Vorstellungen des städtischen Verfalls und urbaner Desillusion widersetzt. Der Artikel nutzt verschiedene Ansätze aus der Spieltheorie – u.a. aus Huizingas *Homo Ludens*, Neumann und Morgensterns *Theory of Games and Economic Behavior* und Sutton-Smiths *Ambiguity of Play* – um zu belegen, dass die im Heidelberg Project realisierte spielerische Transformation weggeworfener Gegenstände des alltäglichen Lebens in kulturell signifikante Artefakte auf eine Umdeutung weit verbreiteter Diskurse über das Scheitern der postindustriellen amerikanischen Stadt abzielt.

ABSTRACT

This article reads the Heidelberg Project, an outdoor art installation created from found objects, abandoned houses, and empty lots in a primarily African American neighborhood in Detroit that was started by artist Tyree Guyton in 1986, as a prominent example of playing in and with the city: as an attempt to transform a bleak environment into a creative space that challenges dominant conceptions of urban decay and disillusion. The article uses various approaches from play theory – drawn, among others, from Huizinga's *Homo Ludens*, von Neumann and Morgenstern's *Theory of Games and Economic Behavior*, and Sutton-Smith's *Ambiguity of Play* – to suggest that the project's playful transformation of castoff everyday items into culturally meaningful artifacts aims to redefine popular discourses about the failing American postindustrial city.

I. MAGICAL PATHS, IMPROVISING PLAYGROUNDS

It's hard to fathom if you haven't been there. And even if you have, it might have already changed its appearance because it is a work in constant progress, always evolving, always changing form. When you encounter this massive and multifaceted artwork, you will most likely be overwhelmed by its scale and the ways in which it completely envelops its environment – houses, trees, the street –

with found objects: castoff items from daily life, such as stuffed animals, vacuum cleaners, shoes, and TVs, as well as other kinds of »urban detritus,«¹ such as street signs, car hoods, and old window frames. Variouslly described as »giant works of assemblage art« and a »one-man adaptive reuse program,«² an »interactive sculpture park«³ and a provocative example of »outsider art,«⁴ a »fantasyland of twentieth-century detritus,«⁵ a place of »multisensual visual, aural, and tactile stimulation,«⁶ and a »cacophonous outpouring of colors, shapes, and forms and surprising juxtapositions of discarded objects,«⁷ Tyree Guyton's Heidelberg Project is truly a sight to behold. It is perhaps »Detroit's most acclaimed – and most maligned – installation of art.«⁸

And yet, it is more than that. As Jerry Herron suggests in his introduction to *Connecting the Dots: Tyree Guyton's Heidelberg Project*, »what you see is not all of the project;«⁹ as Richard Marback notes, the Heidelberg Project is »[m]ore than the sum of its material parts.«¹⁰ Indeed, the Heidelberg Project you see when you visit the site is only the physical manifestation of its originator Tyree Guyton's artistic vision, his »mission to change [his] environment« through art and to »tell [...] a story – my story, your story – about life and what I see in the world.«¹¹ Since 1986, the Heidelberg Project has been »an example of place making [...] where meaningfulness is achieved through multiple objects, actions, and discourses« as well as »a physical space that exerts force on those discourses.«¹² As a form of neighborhood assemblage art that draws inspiration from a range of sources, including street art (especially graffiti), African American folk art, objet trouvé, and Pop Art, the Heidelberg Project has served, and continues to do so, a

-
- 1 Stryker: »New Tyree Guyton Exhibit Explodes with Optimism.«
 - 2 Beardsley: »Art or Eyesore,« 40.
 - 3 Allen: »Arson Investigators on Scene after Heidelberg Project's ›Doll House‹ Burns.«
 - 4 Wheaton: »Heidelberg and the City,« 81.
 - 5 Kadogo: »Heidelberg Art and About,« 102.
 - 6 Jackson: »Trickster in the City,« 35.
 - 7 Ibid, 24.
 - 8 Wasacz/Krieger: »Heidelberg Turns 21.« My views about the Heidelberg Project have been shaped by my personal impression of the project and through my reading of the available secondary literature. I visited the project twice, for the first time in the summer of 2002, and then again in the summer of 2011. I want to thank Sara Talpos for introducing me to the project. I also thank the members of the Literatur- und kulturwissenschaftliches Kolloquium at the University of Siegen for their critical feedback and many useful suggestions, as well as Lukas Etter for his comments.
 - 9 Herron: *Connecting the Dots*, 1.
 - 10 Marback: »Speaking of the City and Literacies of Place Making in Composition Studies,« 148.
 - 11 Guyton: »From the Artist,« vi, vii.
 - 12 Marback, 147-48.

crucial function for negotiations of Detroit as a city in decline, indeed as perhaps the paradigmatic case of American postindustrial urban failure.¹³

Located in Detroit's East Side in a neighborhood predominantly inhabited by low-income African Americans and characterized by a high density of abandoned homes, the Heidelberg Project constitutes »a microcosm of managing change that is forced upon you.«¹⁴ The project receives the name from its location, Heidelberg Street, a street name that foregrounds the area's changing ethnic makeup from a traditionally heavily German to an African American neighborhood. This »street [turned] into a project«¹⁵ seeks to reconceive and reconstruct the neighborhood's status as an urban near-wasteland into what Jenenne Whitfield, the executive director of the Heidelberg Foundation, describes as an »outdoor art environment«¹⁶ that comes nothing short of being »a magical place.«¹⁷ It is this view of the Heidelberg Project as a magical place, a view that Guyton himself has often encouraged and that has seeped into the popular and academic discourses about the project, that resides at the center of the following investigation.¹⁸

I am particularly interested in the nexus between the alleged magic of this long-term art project and the notion of playing the city: of the Heidelberg Project as a powerful example of the playful urban arts evoked in the title of this special issue. Surprisingly, the terms play and playfulness seldom enter the public discourse about the Heidelberg Project.¹⁹ Marion E. Jackson, for instance, characterizes the first forays into remaking the run-down street into an assemblage of castoff items by Guyton, his grandfather Sam Mackey, and then-wife Karen in the 1980s as »creat[ing] magical paths of crushed rock [...] and improvi[sing] playgrounds,«²⁰ while *Detroit Free Press* writer Mark Stryker calls the project »two blocks of reclaimed abandoned homes [...] turned into a joyous urban playground of wit and whimsy with paint, urban detritus and [Guyton's] signature

13 Walters: »Turning the Neighborhood Inside Out,« 78.

14 Gabriel: »Tyree Guyton Has Coined a New Word.«

15 Marback, 149.

16 Whitfield: »A Letter from Jenenne Whitfield Executive Director.«

17 Whitfield: »Inside View,« 109.

18 Cf. Guyton's recollection of his childhood epiphany that his art has »revealed to me [...] true magic beyond my human intellect« (»From the Artist,« vi) and that beginning to paint when he was nine years old »was like magic« (qtd. in Shine, 16). Hodges maintains that the Heidelberg »project works its most remarkable [...] magic, in its uncanny ability to melt suburban apprehension about down-at-the-heels black neighborhoods« (59). See also Shapiro and Brantley-Newton's children's book *Magic Trash: A Story of Tyree Guyton and His Art*.

19 The term does appear in contemporary discussions of urban »protest events« that use »spatial tactics,« »playful maneuvers,« Situationist practices, and a generally carnivalesque approach as means of contesting public policies (Hind). Hind discusses anti-globalization and anti-capitalist protests in Seattle (1999), Prague (2000), and other places in these terms.

20 Jackson, 26.

polka dot motif.«²¹ Magical paths and joyous playgrounds readily suggest a notion of play, or playfulness, as they reference a realm of childhood (painting on pavement) and a mode of child-like creation unbound by conventional rules and decorum (painting polka dots on the walls and roofs of buildings). Perhaps not surprisingly, then, Linda McLean, author of the picture book *Heidelberg Project: A Street of Dreams*, states that she »saw a children's book in this place.«²² Indeed, Guyton attributes the polka dot-motif to his grandfather's love of jellybeans, and thus to candy we would usually associate with children. Moreover, Mackey's encouragement to the young Guyton to »paint the world«²³ evokes a sense of child-like innocence and expectation. At the same time, however, the polka dots connect such youthful innocence and expectation with the racial antagonisms that Guyton witnessed as he was growing up on Heidelberg Street – Guyton explicitly connects the dots and jellybeans with the struggle for civil rights, evoking Martin Luther King Jr.'s sentiment that »[w]e are all the same color on the inside.«²⁴ Yet the question remains why this motif and the use of discarded everyday items (often viewed as trash) as a three-dimensional canvas would unfold a specific magic that can be usefully conceived through conceptions of play and playfulness.²⁵

2. PLAYING THE CITY

I want to begin to answer this question by connecting Jackson's phrases »creat[ing] magical paths« and »improv[ising] play-grounds«²⁶ with Johan Huizinga's observations about what he calls the »magic circle« in his classic study *Homo Ludens: A Study of the Play Element in Culture*:

All play moves and has its being within a play-ground marked off beforehand either materially or ideally, deliberately or as a matter of course. Just as there is no formal difference between play and ritual, so the »consecrated spot« cannot be formally distinguished from the play-ground. The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function play-grounds, i.e. forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are

21 Stryker.

22 McLean: *Heidelberg Project*, v.

23 Guyton, vi.

24 Qtd. in Buffington: »Art to Bring about Change,« 26.

25 Guyton frequently describes the whole neighborhood around Heidelberg Street as his canvas, such as when he speaks of his creative transformation of »the detritus, or discards,« as a means of »giv[ing] life back to the canvas« (»From the Artist,« vi). Critics have embraced this term as well (Walters, 68).

26 Jackson, 26.

temporary worlds within the ordinary world, dedicated to the performance of an act apart.²⁷

As should be obvious from this quotation, the magic circle is not a full-fledged theoretical concept for Huizinga but only one among many places that can become a playground, defined as a temporally limited world of play within the larger world of everyday life.²⁸ Nonetheless, the notion of the magic circle can serve as an entry point for my discussion of the Heidelberg Project as a prominent example of playing the city. For one, it resonates with the project's mission to turn the otherwise bleak ordinariness of a run-down neighborhood into a temporary world of magic: into an »act apart« that is grounded in a specific materiality and locale but also communicates specific ideas and »ideals« about urban life. This act apart may not make the ordinary world disappear. Many visitors will eventually leave the project to resume their regular lives, and not all of the Heidelberg Street residents are necessarily better off economically because of the project, even though the case can be made that the project has had a positive influence on the development of the neighborhood.²⁹ But Andrew Herscher has a point when he discerns a »shift [of] attention« away from the Heidelberg Project as merely an art installation to its »status as [an] urban intervention [...] that assume[s] a certain urban condition and propose[s] a certain urban transformation.«³⁰

Huizinga's point that any place can potentially function as a playground, as a magic circle that players may enter in order to enjoy the temporary transformation from everyday life experience into a play experience, resonates with the Heidelberg Project. Consider, for instance, the fact that this formerly dreary street, lined with abandoned houses and neglected by former residents, has evolved into an excessively colorful and vibrant space, transitioning from an urban problem zone into a space to which thousands of visitors from all over the world flock each year. Moreover, we certainly encounter a space »within which special rules obtain,« a place where ostensibly useless castoff domestic items are displayed on the outside of houses and gain new value as part of Guyton's art installation, as well as a place that may be »hallowed«³¹ precisely because it suspends conventional logic and offers itself as »a sacred battleground« for competing ideas

27 Huizinga: *Homo Ludens*, 10.

28 For a more elaborate treatment of the magic circle, see Salen and Zimmerman, *Rules of Play*. An alternative to the magic circle would be to conceive of the Heidelberg Project as a heterotopian space in the Foucauldian sense.

29 The benefits and drawbacks of the Heidelberg Project for the neighborhood have been debated for almost as long as the project exists. Initially, many residents objected to the display of found items, which many deemed to be trash, as well as to the growing stream of visitors, often from affluent suburban areas. For coverage of this debate, see Beardsley; Hodges; Walters.

30 Herscher: »Detroit Art City,« 67-68.

31 Huizinga, 10.

about the city.³² However, the project is not so much »isolated« and »hedged round« as it is loosely framed by permeable borders between the artwork and the surrounding streets and properties. Bradley L. Taylor rightly notes that it is »difficult [...] to distinguish where the Project proper begins and ends« because there is »no entrance point, no visitor center, no way-finding materials, no suggested route, no exhibit labels or other didactic materials.«³³ The project seeps out into the neighborhood at large, absencing clear demarcation lines between itself and its surroundings, serving as a nexus, or node, that draws attention to the failure of politicians and city planners to sustain a livable environment for Detroit's underprivileged citizens. As such, it also invites visitors to enter this playground and find personally and perhaps politically meaningful ways of navigating both its material manifestations (its signifiers, so to speak) and its conceptual, indeed spiritual, implications (its signifieds).

Thus, the Heidelberg Project foregrounds its double dimension as a street subject to urban policies and municipal regulations and as a hallowed space, a potential magic circle, an act apart from its dismal surroundings as a playground for the artistic imagination. It does so by collecting, arranging, and displaying everyday items thrown out or abandoned by those who left the city in search for a better life, transforming and reframing the items from meaningless trash into meaningful remnants of a past that many would rather forget.³⁴ Following Michael Thompson's »rubbish theory,« we may note here that Guyton's project transposes originally transient objects, for instance toys, shoes, or television sets, into durable objects, (re)moving them from discarded object-state (and thus trash, or rubbish) to the realm of regarded (or displayed) object-state and thereby enacts a transvaluation of the surrounding community that no longer appears as a social outcast but regains a sense of social worth. Of course, many of the Heidelberg Project's installations are only durable in a limited sense, being exposed to the weather and

32 Whitfield, »A Letter«; cf. Guyton's statements about the suspension of logic as a prerequisite for the creation of his art: »There was nothing logical about the Heidelberg project«; »I'm making lemonade with no lemons«; »Two plus two equals eight« (*Annual Report* 2013/14). I cannot go into detail about Guyton religious rhetoric, which appears in statements such as, »I believe that I was called by the Heavenly Father to go beyond and explore the unseen« (»From the Artist,« vi), and in his characterization of his childhood decision to »paint the world« as a »divine vision« (qtd. in Wheaton, 72). Yet I do want to point out that such statements underscore a self-understanding of the Heidelberg Project as a hallowed spot. Cf. also Guyton's recollection of the moment in which he first conceived of the project: »I had a vision, a greater power talked to me [...]. I stepped out of that house, across the street on Heidelberg, and heard God calling to me. I thought I'd lost it. But I saw the project unfolding before my eyes« (qtd. in Wasscz and Krieger).

33 Taylor: »Negotiating the Power of Art,« 51.

34 Many critics have discussed this transformation; see, for instance, Jackson, 25; Marback, 148-50. Walters argues that the project displays »mundane objects [that] can testify to a buried history« (70); Herron reads the arrangement of castoff items as »the magma of discarded lives« and »visible tokens of a humiliated history« (*Afterculture*, 199).

subject to razing by Detroit authorities and recent fires caused by an unknown arsonist. But as Neal Shine paraphrases Sam Mackey: »the problem with people was that when they looked at an old, broken-down house, all they saw was an old, broken-down house.«³⁵ What Mackey laments here is essentially a lack of the urban imagination – an inability to see the houses as more than architectural structures, and an attending unwillingness to see struggling urban neighborhoods as more than a case of urban decay.³⁶

3. FRAMING, UNFRAMING, AND PLAYING THE GAME

The Heidelberg Project is framed by the surrounding neighborhood, by city politics, and, at the same time, unframed, because it resists confinement to mere art status as well as to being simply a collection of abandoned buildings. As such, it reminds visitors of the art objects' socially determined former meanings as first consumer goods and then trash and thus of Guyton's attempt to revalidate them as part of his creative community uplift program. Perhaps the project even playfully reframes what we think of as the postindustrial city. If, as Brian Sutton-Smith claims, »play [is] contained by frames and playful [is] disruptive of frames,«³⁷ then we might argue that the Heidelberg Project as a form of playing the city continuously extends itself into the mode of the playful, seeking to disrupt its public framing as a pile of trash, an eyesore, a partially illegal appropriation of city-owned properties, or a nuisance for neoliberal conceptions of gentrification and urban renewal.

Indeed, the issue of frames and framing is central to the project (and also to the notion of play within the magic circle), as it raises questions about its status as a particular type of urban art that resists easy confinement within the conventional framework of the museum as a physical place as well as an ideologically charged site of cultural remembrance and aesthetic canonization.³⁸ In the Heidelberg Pro-

35 Shine: »Remembering Sam Mackey,« 14.

36 Note also the distinction between »city« (here: architectural structures) and »urban« (here: life on Heidelberg Street) as proposed by Henri Lefebvre and Michel de Certeau. As Bruce McComiskey and Cynthia Ryan note, »both describe cities not as ›places‹ that contain people, but as ›situations‹ in which people act. [...] Lefebvre makes an important distinction between ›the city, [as] a present and immediate reality, a practico-material and architectural fact, and the urban, a social reality made up of relations which are to be conceived of, constructed, or reconstructed by thought.« (McComiskey/Ryan, »Introduction,« 1. The authors cite from Lefebvre's *Writings on Cities*).

37 Sutton-Smith: *The Ambiguity of Play*, 196.

38 This is not to say that Guyton or the Heidelberg Project are antithetical to logic of museums and exhibitions. Guyton has repeatedly displayed his work in museums, most recently at the University of Michigan Museum of Art as part of the exhibition »The Art of Tyree Guyton: A Thirty-Year Journey« (Aug. 22, 2015 – Jan. 3, 2016; see also MaryAnn Wilkinson's introduction to the exhibition and statements by Guyton and Whitefield at www.youtube.com/watch?v=TP3z49T3nZs). Taylor even suggests that the Heidelberg Project is »closely aligned« with the »institutional model« of the museum (53).

ject, frames certainly exist, but they emerge from the urban environment itself (Guyton's three-dimensional canvas): the walls, roofs, porches, and yard spaces of individual houses and lots serve as frames for Guyton's exploration of specific themes; streets and pavement frame these lots but also serve as navigable »connective tissue«³⁹ between them, being subjected to profuse polka-dotting and other artistic transformations; trees work as natural sculptural frames for discarded objects like shoes, stuffed animals, or shopping carts.

Spinning this argument even further, we may cite Paola de Sanctis Ricciardone's assertion that »the question of the frame is central in the study of collecting. Inside the ›magic circle‹ of a collection something happens to the objects. Even the most mundane and trivial ones become different from what they were in their original context and enhance their value.«⁴⁰ Drawing on the work of philosopher and historian Krzysztof Pomian, Ricciardone observes about collections: »objects become semiophores, [...] that is to say ›meaning carriers.‹ They cease to be useful and mere ›things‹ and become material words of special discourses and esthetic constructs.«⁴¹ Take the *Tree of Toys* and the *Party Animal House* (fig. 1a/b and fig. 2), both of which use collections of stuffed animals as a means of foregrounding the devastating effects that neighborhood dissolution has on the lives of children but also remind onlookers of what may have been happy childhoods experienced in these now-abandoned houses.⁴² After all, toys (and arguably stuffed animals) are »play equipment,«⁴³ and as semiophores, they transcend confinement to an ideologically and physically predetermined space. They travel through culture, becoming »immutable mobiles« in the Latourian sense (in addition to the Thompsonian rubbish-oriented sense): objects that can be playfully re-assembled as part of Guyton's installations in order to maximize their effect on the viewer.⁴⁴

Moreover, the installations suggest not only a playful approach on the part of the artist but also the physical traces of pre-abandonment moments of children's play (the shopping carts on the tree top referencing the negative impact of

39 Walters, 69.

40 Ricciardone: »Collecting as a Form of Play,« 286.

41 Ibid, 286.

42 About the *Baby Doll House*, which was bulldozed in 1989, Siebers suggests: It »attracted such violence because [...] the broken, naked dolls hanging out of windows and off the roof addressed too directly the issues of child abuse, abortion, and prostitution plaguing the urban poor in Detroit neighborhoods« (»What Can Disability Learn from the Culture Wars?« 198).

43 Sutton-Smith: *The Ambiguity of Play*, 6.

44 See Latour, »Visualisation and Cognition« for further details on »immutable mobiles«; see also Schüttpeitz, »Die medientechnische Überlegenheit.«



Fig. 1a and b. *The Party Animal House*, full image and detail, Heidelberg Project, © Heidelberg Foundation (photos by Daniel Stein, 2011). Used with permission.

capitalism and consumerism on the neighborhood).⁴⁵ Pinning down any singular meaning to these and other installations is problematic, as several critics have pointed out, and it makes more sense to recognize the palimpsestic nature and the playful exuberance⁴⁶ that characterize these artworks as incitements to reconsider, and ideally reassess, stereotypical notions of urban poverty and blight.⁴⁷

Of course, the Heidelberg Project hardly constitutes a collection in the conventional sense. Guyton displays these stuffed animals and other discarded items systematically and chaotically at the same time, giving them meaning precisely because they do not cater to the key values of collecting (completeness, pristine condition of the items) but rather to the creative logic of artistic reuse and bricolage.⁴⁸ Yet I believe that the connection between play, the magic circle, and the

45 Children are, in fact, a crucial part of the project, as kids from the neighborhood frequently help with the artwork and participate in art programs organized by Guyton and his associates.

46 Walters, 79.

47 Herron refers to the project as a palimpsest («Introduction,» 8); Jackson calls the project «a fluid and contested arena of knowledge» (30); according to Whitfield, «the Heidelberg Project cannot be squeezed into a single definition» («Inside View,» 109). Cf. also Marback, 148-49; Taylor, 50; Herscher, 73.

48 Guyton emphasizes that «order is needed in the world» but also insists that the project (at least initially) had «no plan and no blueprint, just the will and determination to see beauty in the refuse» («From the Artist,» v, vii). Whitfield describes a typical scene at the project as «[c]hildren are playful and delighted at the array of objects brightly colored and systematically arranged» («Inside View,» 109), while Kadogo discerns «beautiful, chaotic order» (102). Guyton further defines the project as «a new creation out of chaos» (qtd. in Marback, 152), endorsing an understanding of African American art that recalls the philosophy of Ralph Ellison. On Guyton's connections with various African American artistic traditions, see Walters, 75-76.

DANIEL STEIN

transformation of discarded objects into meaning carriers aptly describes the project's creative recycling of urban trash as an intervention into Detroit politics. Moreover, following Brian Sutton-Smith, if a game consists of a potentially unlimited »series of plays [...] and a series of playful alternatives,«⁴⁹ then the Heidelberg Project emerges as a powerful and widely recognized instance of playing the city and an endeavor to produce playful – imaginative, magic – alternatives to postindustrial decay and neoliberal urban renewal. In other words: The Heidelberg Project ceases to be confined to the magic circle, in which play is generally played for play's sake, disseminating its message into other neighborhoods, throughout the city, the country, and indeed the world.



Fig. 2. *The Tree of Toys*, with the *Obstruction of Justice House* in background, Heidelberg Project, © Heidelberg Foundation (photo by Daniel Stein, 2011). Used with permission.

49 Sutton-Smith: *The Ambiguity of Play*, 196; more on the distinction between game and play below.

Huizinga's notion of the »play-ground« as the space in which a temporary world can emerge that will allow those who enter it as players to transcend, if only temporarily, the conundrums of ordinary life, connects with Sutton-Smith's play theory, according to which

play as we know it is primarily a fortification against the disabilities of life. It transcends life's distresses and boredoms and, in general, allows the individual or the group to substitute their own enjoyable, fun-filled, theatrics for other representations of reality in a tacit attempt to feel that life is worth living. [...] In many cases as well, play lets us exercise physical or mental or social adaptations that translate – directly or indirectly – into ordinary life adjustments.⁵⁰

Here, then, the applicability of play theory to the Heidelberg Project becomes fully apparent. The disabilities and distresses for the members of the surrounding Black Bottom neighborhood in Detroit, where the project is located – as well as for Guyton, his grandfather, and his then-wife as they were beginning to transform the neighborhood in 1986 – were effects of Detroit's decline from a metropolitan area with over 1.5 million inhabitants and a flourishing automobile industry to a shrinking city ravaged by growing unemployment and poverty, white flight to the suburbs, the 1967 race riots as an indicator of racial tensions, and searing crime rates.⁵¹ Whether the Heidelberg Project can be justly described as »enjoyable, fun-filled, theatrics« and whether it is capable of initiating »physical or mental or social adaptations that translate [...] into ordinary life adjustments« remains to be seen.⁵² Marion Jackson's suggestion that »the Heidelberg Project creates a liminal space in which daily life and the normal roles and obligations of the visitor are momentarily forgotten«⁵³ certainly heads in this direction.

4. PLAYFUL POLITICS, POLITICAL PLAYFULNESS

Central to my argument is the distinction between play and game, which I take from John von Neumann and Oskar Morgenstern's classic study *Theory of Games and Economic Behavior* (1944). The authors write: »The *game* is simply the totality of the rules which describe it. Every particular instance at which the game is played – in a particular way – from beginning to end, is a *play*.«⁵⁴ As Paola De Sanctis Ricciardone notes about this distinction, »the game is an ›abstract concept«

50 Sutton-Smith: »Play Theory,« 116.

51 For more information on Detroit's decline and its connection to art, see Herscher, »Detroit Art City«; on the American city as a transforming as well as transformative space, see Sattler, *Urban Transformations in the USA*.

52 Sutton-Smith: »Play Theory,« 116.

53 Jackson, 35-36.

54 Neumann/Morgenstern: *Theory of Games and Economic Behavior*, 49.

and play is one of the endless concrete, indexical reifications generated by the rules of such a game.«⁵⁵ If we wish to make this distinction productive for a reading of the Heidelberg Project, we could view the rules and regulations that determine life in a neighborhood like the surrounding Black Bottom area and the politics through which such rules and regulations are debated, contested, and often modified, as an urban game that the Heidelberg Project and those involved with or contesting it – the players: neighbors, city residents, government officials, and (mostly) suburban visitors⁵⁶ – have to play in order to produce or destroy art and promote or prevent certain kinds of urban change. Playing the urban game can mean having to deal with the city's repeated decisions to bulldoze several of the houses and installments or with the federal laws, state laws, and county and city ordinances that impinge on the project's ability to exist.⁵⁷

So far, so good. One may wonder, however, whether the concept of playing the city really rings true for what the Heidelberg Project represents (or claims to represent), how it creates its art, and how the public reacts to this art. Indeed, associating the project with a sense of playfulness might come across as too light-hearted, as perhaps sounding too much like a self-gratuitous exercise of pleasure disinvested from the harsh realities of urban life or like a form of escapism into a magic circle that does not change anything outside of its bounds. As I have already pointed out, and as publications like Jane McGonigal's *Reality is Broken: Why Games Make Us Better and How They Can Change the World* (2011) and Judith Ackermann and Ilaria Mariani's »Re-Thinking the Environment through Games« (2015) underscore, such an understanding of play is reductive. Sutton-Smith accordingly views »play as emotional survival« and argues that »[p]lay's positive pleasure typically transfers to our feelings about the rest of our everyday existence and makes it possible to live more fully in the world,« with »the play experience transfer[ring] to other social relationships.«⁵⁸

Moreover, there is another element of the Heidelberg Project, exemplified by the notion that Guyton »ha[s] not played by the rules,«⁵⁹ as Marilyn Wheaton characterizes Detroit then-mayor Dennis Archer's assessment of the Heidelberg Project in the late 1990s.⁶⁰ Guyton had installed parts of the project on properties either owned by the city or abandoned by owners who had ceased paying

55 Ricciardone, 280.

56 Herron: »Introduction,« 2.

57 For an account of the legal questions concerning the project, see Hoops: »Defending the Heidelberg Project.« For a different conceptualization of the play/game distinction, see George Herbert Mead's theories of role play and the generalized other.

58 Sutton-Smith: »Play Theory,« 111, 95, 100.

59 Wheaton, 74.

60 The city bulldozed parts of the project in 1981, 1991, 1999; repeated acts of arson destroyed several houses between 2013 and 2015.

taxes, to which the city also held claim.⁶¹ John Beardsley speaks of »unsanctioned creations [...] of dubious legality« and »an instance of artistic ›squatting,‹ or occupation of condemned property,«⁶² while Michael H. Hodges notes the resulting perennially precarious nature of the project as art that is »always under the threat of extinction.«⁶³ In that sense, intervening in the urban game entails more than simply playing along with its rules and restrictions: It entails an effort to bend, circumvent, and break, even at the risk of ultimate destruction, those rules deemed detrimental to the community's interests.

To conclude that the Heidelberg Project has always been a highly politicized space and that its tendency to play with the rules has turned it into »a political football«⁶⁴ and »political hot potato«⁶⁵ may be stating the obvious. Yet what kind of an urban political player is the Heidelberg Project, and how does it make its political moves? First, we may note that, according to a Wayne County Circuit Court decision, »Guyton's artwork is ›political speech‹ and [...] the display of his artwork [...] is not subject to the city's regulation if it is displayed on private property.«⁶⁶ On that view, we could characterize the project as an artistic speech act aimed at changing the discourse about the neighborhood, about Detroit, and perhaps even about the postindustrial American city after abandonment.⁶⁷ Richard Marback makes the case for such a reading of the project:

To the extent that the Heidelberg Project has generated a search for a new language of place making, to the extent that it has fostered among Detroit-area residents a discussion about the meanings of urban renewal, Guyton has transformed rhetorics with which we speak for and about inner cities. Making his street in particular into a different place, he has reconnected the experience of inner city life with the material conditions of life under late capitalism, disorganizing the spatial relationship between objects of consumption and acts of living in and around a postindustrial city.⁶⁸

61 Wheaton, 74-75.

62 Beardsley, 42.

63 Hodges: »Heidelberg and the Community,« 68.

64 Wheaton, 73.

65 Whitfield: »Inside View,« 120.

66 Hoops, 97.

67 I take the phrase »city after abandonment« from Dewar and Thomas's similarly titled essay collection. Note that »play consist[s] of ideas, not just of actions« (Sutton-Smith, »Play Theory,« 82) in the same way that speech can convey an idea as well as constitute an action.

68 Marback, 150.

Examples of such transformed rhetorics are the already mentioned recalibration of Heidelberg Street from a problem zone to an art installation and the redefinition of urban detritus as outdoor art, both of which also transform the neighborhood from a hopeless case of urban blight into a hopeful case of creative renewal (a story that is deeply ingrained in various American mythologies).

Second, the Heidelberg Project appears as a prominent example of »the city as a repository of disparate and small-scale enclaves of cultural production,« as Andrew Herscher maintains.⁶⁹ The project does not only provoke the city and its residents to reconsider the status quo and search for unconventional ways to remake itself into a more livable and sustainable environment, but it does so by insisting on the significance of specific neighborhood histories, including a racialized history that witnessed the destruction of many homes during the 1967 race riots and the white flight patterns in their wake. Such insistence stands in stark opposition to neoliberal approaches, characterized by a »drive toward demolition, as opposed to renovation,«⁷⁰ that tend to obliterate or at least disregard those histories and that have caused substantial parts of old downtown Detroit to disappear. What is more, many of Guyton's artworks indicate a profound sense of African American history as it bears on the present and future of the neighborhood as well as of Detroit: The polka dot-covered People's House pays tribute to Martin Luther King, Jr.'s civil rights activism (fig. 3), the shoes hanging high up in a tree recall American histories of lynching in the Soles of the Most High installment, the polka-dot covered 1955 bus gestures toward the Montgomery Bus Boycott of the same year in the Move to the Rear installment, and the House of Soul with its walls covered by musical records celebrates the heights of Motown fame.

Third, and finally, the fact that the Heidelberg Project claims the »freedom to make the world contrary« and pits »originality against conventional commonsense and righteousness«⁷¹ constitutes its greatest political move. If play indeed enables the emergence of »shared subjective worlds« within the »play frame,«⁷² then the project's stated goal of being a catalyst for change and a source of medicine for its creators and visitors alike⁷³ comes close to what may be designated as the »healing function« of play.⁷⁴

69 Herscher, 73. Other renegade art projects in Detroit are Object Orange, the Motor City Blight Busters' Artist Village, and Mitch Cope and Gina Reichert's Power House. For further analysis, see Herscher, 74-82.

70 Walters, 67.

71 Sutton-Smith: »Play Theory,« 94.

72 Greta Fein qtd. in *ibid.*, 118.

73 Whitfield: »An Inside View,« 13.

74 Sutton-Smith: »Play Theory,« 122.



Fig. 3. The People's House aka »Dotty Wotty,« with Tree of Toys in foreground, Heidelberg Project, © Heidelberg Foundation (photo by Daniel Stein, 2011). Used with permission.

DANIEL STEIN

REFERENCES

- Ackermann, Judith, and Ilaria Mariani. »Re-Thinking the Environment through Games: Designing Location Based Mobile Games in Higher Education for Environmental Awareness.« *Innovation in Environmental Education: ICT and Intergenerational Learning: International Conference Proceedings*. Firenze: IBIMET-CNR, 2015. 73-78.
- Allen, Robert. »Arson Investigators on Scene after Heidelberg Project's 'Doll House' Burns.« *Detroit Free Press*. 7 Mar. 2014.
- Beardsley, John. »Art or Eyesore?« *Connecting the Dots: Tyree Guyton's Heidelberg Project*. Ed. Jerry Herron. Detroit: Wayne State UP, 2007. 39-47.
- Buffington, Melanie L. »Art to Bring about Change: The Work of Tyree Guyton.« *Art Education* 60.4 (2007). 25-32.
- Dewar, Margaret, and June Manning Thomas, eds. *The City after Abandonment*. Philadelphia: U of Pennsylvania P, 2013.
- Gabriel, Larry. »Tyree Guyton Has Coined a New Word: Heidelbergology.« *Detroit Metro Times*. 24 June 2014.
- Guyton, Tyree. »From the Artist.« *Connecting the Dots: Tyree Guyton's Heidelberg Project*. Ed. Jerry Herron. Detroit: Wayne State UP, 2007. v-vii.
- Heidelberg Project. »2013-2014 Annual Report.« *heidelberg.org*.
- Herron, Jerry. *Afterculture: Detroit and the Humiliation of History*. Detroit: Wayne State UP, 1993.
- Herron, Jerry, ed. *Connecting the Dots: Tyree Guyton's Heidelberg Project*. Detroit: Wayne State UP, 2007.
- Herron, Jerry. »Introduction.« *Connecting the Dots: Tyree Guyton's Heidelberg Project*. Ed. Jerry Herron. Detroit: Wayne State UP, 2007. 1-9.
- Herscher, Andrew. »Detroit Art City: Urban Decline, Aesthetic Production, Public Interest.« *The City after Abandonment*. Ed. Margaret Dewar and June Manning Thomas. Philadelphia: U of Pennsylvania P, 2013. 64-83.
- Hind, Sam. »Maps, Kettles and Inflatable Cobblestones: The Art of Playful Disruption in the City.« *Spaces of Protest*. Ed. Alston D'Silva and Greg Burris. Special issue of *Media Fields Journal* 9 (2015).
- Hodges, Michael H. »Heidelberg and the Community.« *Connecting the Dots: Tyree Guyton's Heidelberg Project*. Ed. Jerry Herron. Detroit: Wayne State UP, 2007. 49-68.
- Hoops, Daniel S. »Defending the Heidelberg Project.« *Connecting the Dots: Tyree Guyton's Heidelberg Project*. Ed. Jerry Herron. Detroit: Wayne State UP, 2007. 85-99.
- Huizinga, Johan. *Homo Ludens: A Study of the Play Element in Culture*. Boston: Beacon 1955.

- Jackson, Marion E. »Trickster in the City.« *Connecting the Dots: Tyree Guyton's Heidelberg Project*. Ed. Jerry Herron. Detroit: Wayne State UP, 2007. 23-37.
- Kadogo, Aku. »Heidelberg Art and About.« *Connecting the Dots: Tyree Guyton's Heidelberg Project*. Ed. Jerry Herron. Detroit: Wayne State UP, 2007. 101-105.
- Latour, Bruno. »Visualisation and Cognition: Thinking with Eyes and Hands.« *Knowledge and Society: Studies in the Sociology of Culture Past and Present*. Ed. Henrika Kuklick. Greenwich: Jai, 1986. 1-40.
- Lefebvre, Henri. *Writings on Cities*. Trans. and ed. Eleonore Kofman and Elizabeth Lebas. Cambridge: Blackwell, 1996.
- Marback, Richard. »Speaking of the City and Literacies of Place Making in Composition Studies.« *City Comp: Identities, Spaces, Practices*. Ed. Bruce McComiskey and Cynthia Ryan. New York: SUNY P, 2012. 141-155.
- McComiskey, Bruce, and Cynthia Ryan. »Introduction.« *City Comp: Identities, Spaces, Practices*. Ed. Bruce McComiskey and Cynthia Ryan. New York: SUNY P, 2012. 1-17.
- McGonigal, Jane. *Reality Is Broken: Why Games Make Us Better and How They Can Change the World*. New York: Penguin, 2011.
- McLean, Linda K. *The Heidelberg Project: A Street of Dreams*. Northville: Nelson, 2007.
- Mead, George Herbert. *Mind, Self, and Society: The Definite Edition*. Ed. Charles W. Morris. Annotated ed. Daniel R. Huebner and Hans Joas. Chicago: Chicago UP, 2015.
- Ricciardone, Paola De Sanctis. »Collecting as a Form of Play.« *Play: An Interdisciplinary Synthesis*. Ed. Felicia F. McMahon, Donald E. Lytle, and Brian Sutton-Smith. Lanham: UP of America, 2005. 279-290.
- Salen, Katie, and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. Cambridge: MIT, 2004.
- Sattler, Julia, ed. *Urban Transformations in the USA: Spaces, Communities, Representations*. Bielefeld: transcript, 2016.
- Schüttpelz, Erhard. »Die medientechnische Überlegenheit des Westens: Zur Geschichte und Geographie der *immutable mobiles* Bruno Latours.« *Mediengeographie: Theorie – Analyse – Diskussion*. Ed. Jörg Döring and Tristan Thielmann. Bielefeld: transcript, 2009. 67-110.
- Shapiro, J.H., and Vanessa Brantley-Newton. *Magic Trash: A Story of Tyree Guyton and His Art*. Watertown: Charlesbridge, 2011.
- Shine, Neal. »Remembering Sam Mackey.« *Connecting the Dots: Tyree Guyton's Heidelberg Project*. Ed. Jerry Herron. Detroit: Wayne State UP, 2007. 11-21.
- Siebers, Tobin. »What Can Disability Learn from the Culture Wars?« *Cultural Critique* 55 (fall 2003). 182-216.

DANIEL STEIN

- Sutton-Smith, Brian. *The Ambiguity of Play*. 1997. Cambridge: Harvard UP, 2001.
- Sutton-Smith, Brian. »Play Theory: A Personal Journey and New Thoughts.« *American Journal of Play* 1.1 (2008). 80-123.
- Stryker, Mark. »New Tyree Guyton Exhibit Explodes with Optimism.« *Detroit Free Press*. 17 Oct. 2014.
- Taylor, Bradley L. »Negotiating the Power of Art: Tyree Guyton's Heidelberg Project and Its Communities.« *Museums and Communities: Curators, Collections, and Collaborations*. Ed. Viv Golding and Wayne Modest. London: Bloomsbury, 2013. 48-58.
- Thompson, Michael. *Rubbish Theory: The Creation and Destruction of Value*. Oxford: Oxford UP, 1979.
- Von Neumann, John, and Oskar Morgenstern. *Theory of Games and Economic Behavior*. Princeton: Princeton UP, 1944.
- Walters, Wendy S. »Turning the Neighborhood Inside Out: Imagining a New Detroit in Tyree Guyton's Heidelberg Project.« *The Drama Review* 45.4 (2001). 64-93.
- Wasacz, Walter, and Dave Krieger. »Heidelberg Turns 21.« *Model D*. 28 August 2007. Web. 6/22/2015.
- Wheaton, Marilyn L. »Heidelberg and the City.« *Connecting the Dots: Tyree Guyton's Heidelberg Project*. Ed. Jerry Herron. Detroit: Wayne State UP, 2007. 71-83.
- Whitfield, Jenenne. »A Letter from Jenenne Whitfield Executive Director.« *heidelberg.org*. Nov. 13, 2013. 1/23/2016.
- Whitfield, Jenenne. »An Inside View.« *Connecting the Dots: Tyree Guyton's Heidelberg Project*. Ed. Jerry Herron. Detroit: Wayne State UP, 2007. 107-27.
- Wilkinson, MaryAnn. »UMMA Dialogue: A Thirty-Year Journey with Tyree Guyton and Jenenne Whitfield.« *YouTube*. Sept. 30, 2015. 1/23/2016.

MEDIA INTERACTION IN PUBLIC (SPACES):

Researching Interactive Installations' Support for
(Inter-)Human Interaction with Machines and
Environment

BY JUDITH ACKERMANN AND MARTIN REICHE

ZUSAMMENFASSUNG

Der Artikel behandelt öffentliche Medieninteraktion, im Sinne eines komplexen Kommunikations-Szenarios, das Mensch-Mensch- und Mensch-Maschine-Interaktion verbindet und flexible Akteur-Zuschauer-Konstellationen an der Schnittstelle von digitalen und physischen Räumen entstehen lässt. Diese Faktoren finden sich insbesondere in interaktiven Installationen, die dadurch ein optimales Szenario für die Erforschung öffentlicher Medieninteraktion darstellen. Die AutorInnen analysieren zwei interaktive Installationen aus den Bereichen Spiel und kritische Medienkunst und liefern Ergebnisse zur Aneignung der Interaktionsgrammatik der Kunstwerke, ihren Potentialen für die Generierung neuer Interaktionsensembles und ihrem Einfluss auf das Umgebungsbewusstsein der Beteiligten.

ABSTRACT

This paper deals with media interaction in public, understood as a complex communication scenario combining interhuman and human-machine interaction that gives rise to flexible actor-spectator constellations at the junction of digital and physical spaces. These features coincide especially in interactive installations, which therefore provide a fruitful scenario to research media interaction in public. The authors analyze two interactive installations in the domains of gaming and critical new media art, offering insights into the appropriation of the artworks' grammar of interaction, their potential for the rise of new interaction ensembles, and the associated influence on people's environmental awareness.

I. INTRODUCTION

Digital media has become well established in public spaces, be it devices such as smartphones and laptops, digital advertising efforts, or interactive media art installations. The mediatization of communicative actions increasingly influences interaction practices in public spaces. The three types of mediatized communication, (a) mediated dialogical communication, (b) mediated monological communication, and (c) mediated interactive communication, as described by Krotz,¹ therefore

1 Krotz: »Konnektivität der Medien.«

need to be extended by one other form we call »media interaction in public.« We understand this form as a complex communication scenario that combines inter-human and human-machine interaction and gives rise to flexible actor-spectator constellations at the junction of digital and physical spaces.

Interactive installations in particular provide a fruitful scenario to research media interaction in public as they do not present a completed product to be regarded but a communication structure transforming visitors into co-creators,² relying on and requiring their participation in the process. »Interactive arts mediated by digital technologies are obviously rooted in these previous moments, which explored participation and bodily experience in group, human-to-human interaction or human to object/machine interaction.«³ These actions are heavily linked to performances due to the liveness of the process and the spatio-temporal co-presence of actors and spectators.⁴ With her concept of Hybrid Reality Theater, Ackermann⁵ establishes a connection between digital media usage and theater studies, acknowledging the fact that digital gaming is per se located in a hybrid space⁶ and performed in a live situation, enhancing the factor of co-presence toward the inclusion of avatars.

Schechner elaborates on the different layers of seeing connected to performances:

A person sees the event; he sees himself; he sees himself seeing the event; he sees himself seeing others who are seeing the event and who, maybe, see themselves seeing the event. Thus there is the performance, the performers, the spectators; and the spectator of spectators; and the self-seeing-self that can be performer or spectator or spectator of spectators.⁷

Interactive installations or games in public space offer a protective frame to the interactors to step out of their assumed role and diverge from their learned behavior in order to be able to fully experience interactivity. In that sense, interaction in public space offers new ways of experiencing by allowing people to act differently. Highlighting the visibility of that frame enables people to take on an attitude of playfulness⁸ by generating a feeling of belonging to a group and also of acting and

2 Ascott: »Behaviourist Art and the Cybernetic Vision«; Simanowski: *Digitale Medien in der Erlebnisgesellschaft*.

3 Pais: »The Sense Making Process in *The Legible City*,« 105.

4 Fischer-Lichte: *Die Entdeckung des Zuschauers*.

5 Ackermann: »Meaning Creation in Digital Gaming Performances.«

6 De Souza e Silva: »From Cyber to Hybrid.«

7 Schechner: *Between Theater & Anthropology*, 297.

8 Sicart: *Play Matters*.

performing in a protective frame.⁹ The frame is not at all persistent, but it exists only for a certain period of time, following self-referential rules. One way of supporting the frame's visibility is by connecting it to a special and extraordinary context, like a festival.

According to Kirchner, festivals provide situational promoters for the occurrence of so-called post-traditional communities.¹⁰ The term was introduced by Hitzler in 1998 to describe conscious community building that does not rely on tradition but is based on the knowledge about one's own individuality. It places the aspiration for a renewed communitization independent of biographical options and socio-moral milieus into the center of the process.¹¹ These bonding moments can outlast the festival duration many times over. Festivals focusing on performative media like games and interactive art even multiply this potential. Even though games are often described as an end in itself, without material consequences for the attendant's life outside of the festival, the meaning of a game is inseparable from its context and its players.¹² Games are connected to performativity and in that sense equipped with a transformative quality.¹³ They are able to alter players' perception of reality as well as their relations to others. Triggered by a different view of the world and its modified meaning for the players, they even result in a transformation of the world itself.¹⁴

Our study investigates the role of interactive installations in this field by showing observations from two artworks located in the sphere of gaming and the domain of critical new media art.

2. METHOD

Our research focuses on two interactive installations curated at the playin'siegen international urban games festival in April 2015. The art pieces originate from two different spheres: critical new media art and digital gaming. Their similarities, however, suggest a parallel analysis. This section begins with a short introduction to the two installations and continues by presenting our research design and our methodology.

9 Ackermann/Mariani: »Re-Thinking the Environment through Games,« 76.

10 Kirchner: *Eventgemeinschaften*, 24.

11 Hitzler/Pfadenhauer: »Eine posttraditionale Gemeinschaft,« 88.

12 Koubek: »Zur Medialität des Computerspiels.«

13 Fischer-Lichte: *Performativität*; Ackermann: »Meaning Creation in Digital Gaming Performances«; Reichert: »Fan-Made Transmedia Storytelling.«

14 Weiß: »Sich verausgabende Spieler und andere vereinnahmende Falschspieler.«

2.1 CCTV2.0

CCTV2.0 (a neologism derived from the abbreviation of *closed circuit television* and 2.0 as an advanced version of such) is an interactive video installation developed by the German media artist Martin Reiche in 2015, debuting at playin'siegen in April 2015 (fig. 1). The installation falls into the domain of critical new media art and is set up in (semi-)public spaces, where it is automatically detecting passersby via face recognition software, associates the detected faces randomly with profiles from a huge database of social media profiles, and displays the results of this association prominently on a TV screen to catch public attention. The results of this detection process are also fed back into the corresponding social networks (Facebook; Twitter) in an attempt to propagate the potentially false information about »detected« people in order to raise awareness of the inherent danger of »black box« algorithms used in privacy-relevant computational contexts.¹⁵

The installation garnered substantial attention internationally and has been shown at various festivals in Europe since its initial showcase in Siegen.



Fig.1: CCTV2.0 installation (a) detail and (b) exhibition setup at a public street in Siegen (Courtesy of the artist).

2.2 FENTRIS

The *Fentris* installation was developed by the Hackspace Siegen initiative (HaSi e.V.) for the urban games festival playin'siegen. The term »Fentris« is a portmanteau of the German word »Fenster« (window) and the name of the game *Tetris*, which was popularized by Nintendo. It was coined because the installation presents a large-scale *Tetris*-like game to be played in a shop window, using rear projection material for the visualization and arduino-based interaction controllers built out of large neon-colored mops. Even though they do not look like it, the interaction possibilities resemble those from the Nintendo Game Boy, imitating the

¹⁵ Reiche: »CCTV2.0.«

control cross and the a and b buttons (fig. 2). The game installation was placed in a shop window; the controllers were deposited in front of it on a table in the public space. Through this arrangement, the installation attracted passersby either through the visuals, the untypical mop setting, or people already interacting with the game installation.

As *Tetris* is a classic computer game, taking a glimpse at the tetraminos already refreshes memories of previous gameplay experiences for many people. Concerning the visibility of the protective frame provided by the installation, *Fentris* reaches a high level by relying on its decidedly playful appearance, which makes it easy for passersby to identify it as an extraordinary setting in the urban landscape.



Fig. 2. *Fentris* Installation - shop window visualisation and input devices built from mops (2015, HaSi @ playin'siegen international urban games festival, photos by Martina Kaiser/playin'siegen).

2.3 METHODOLOGY

During the playin'siegen festival, the interaction with both installations was recorded via audio-visual observation. In the case of *Fentris*, it was realized by means of an overt observation with a visible camera and a written piece of information; in the case of *CCTV2.0*, the camera was integrated into the installation itself.

The data consists of a total of 3 hours and 15 Minutes of *Fentris*-observation recorded in the early evening of the first and the second day of the festival, covering more than one hour of the first day and more than two hours of the second day. The material is evenly distributed over 14 video files, with a duration of up to 15 minutes each. The data concerning *CCTV2.0* covers 1 hour and 28 Minutes on six video files recorded in the early afternoon of the second day of the festival.

The data was analyzed with a combination of qualitative content analysis, conversation analysis, and video interaction analysis. In a first step, interaction se-

quences were identified in the material. For *Fentris*, 45 sequences were detected. For *CCTV2.0*, 11 interaction sequences were found. The explorative study focused on the following three aspects and their intersections:

- (1) Appropriation of the grammar of interaction
- (2) Rise of specific interaction ensembles
- (3) Influences on environmental awareness

The aim of the study was to understand (a) in how far the artworks generate not only multiple human-machine and interhuman interactions but also interactions with the environment in which they are placed; and (b) what influence the different artworks' contents and modes of interactions have on these factors.

3. APPROPRIATION OF THE GRAMMAR OF INTERACTION

Dealing with the appropriation of media, one can locate the moment and production of an (at least basic) understanding of the medium at the very beginning of the process.¹⁶ In the field of interactive art and public gaming, with interventions requiring people's participation and very often using input devices and material in an unfamiliar way, understanding the *grammar of interaction*¹⁷ becomes a key factor. The term was introduced by Fujihata in 2001 to describe the interaction possibilities the designer/artist implemented into the installation to organize user interaction. According to Simanowski, »the specific interaction that interactive art allows and requires itself represents a message and a call for understanding and decoding.«¹⁸ Yet allowing the user to actively interfere with the installation opens up room for »cases where the interactors use the grammar of interaction in a way the author did not have in mind, thus appropriating the generated space-time of interhuman experiences according to their own desires.«¹⁹

The two artworks chosen for this study differ substantially in their grammar of interaction: *Fentris* adopts the interfering modes of *Tetris*, which is why the designers built the unique input devices as an analogon to the arrangement of the Game Boy. The game itself in most cases does not need to be understood by the people via intense cognitive analysis. It is rather the input devices that need to be appropriated. *CCTV2.0*'s mode of interaction visually interferes with public space by providing unsolicited information about a passerby on a screen for public display, hoping to catch the attention of the passersby as well as anybody within visibility range of the screen. The installation does not make any effort to detect

16 De la Rosa: *Aneignung und interkulturelle Repräsentation*, 16.

17 Fujihata: *On Interactivity*.

18 Simanowski, 127.

19 Ibid.

people correctly (which is not publicly revealed), thus leaving the interactors alone with their own assumptions.

In addition to providing a comprehensible and clear grammar of interaction, *Fentris* comes with a sheet of paper offering some written instructions about the handling of the game. This paper can – especially on the first day, shortly after the set-up – be identified as a first and very low-threshold entry toward interacting with the installation. Especially in times when no person is actively interacting with the installation, people recognizing the visuals tend to turn to the written instruction to read it but (in a first step) refuse to interact with the installation (F01_IS2, F01_IS3, F01_IS5, F01_IS6, F02_IS6, F04_IS2).²⁰ The recordings documented no moments in which a single person approached the installation, read the instructions, and immediately started to play, when no other person was already interacting with the installation. Only a few people addressed the installation in order to start interacting with it directly, and those were young adults approaching the installation in teams of two (F03_IS01, F07_IS02). These sequences also showed a very intuitive access to the installation, working with the instructions in a mostly self-determined way, only looking at them when problems in handling the installations occurred.

It was much more the fact of finding other people playing the installation and watching them for a while that enabled new players to easily gain an understanding of the grammar of interaction and seemed to trigger an urge to start interacting. Having a person actually play *Fentris* changes the way of approaching the installation. In that case, approximating the players and observing their actions is the most prominent start to appropriate the grammar of interaction.

In a similar way, people very much support each other in understanding how to handle the installation – especially after having played for a certain time. This pattern occurred in the majority of analyzed interaction sequences. It included not only explaining the rules and the grammar of interaction in general (F01_IS3, F02_IS1, F02_IS5, F03_IS2, F03_IS, F05_IS3, F05_IS4, F06_IS2, F09_IS1) but also supporting others in their gameplay by giving hints (F02_IS3, F02_IS5, F03_IS2, F06_IS2, F07_IS2, F11_IS1, F11_IS2). These findings underscore the enormous potential of media interaction in public.

In the case of *CCTV2.0*, a very low-threshold way of first access can be identified in people turning toward the installation while still walking through the pedestrian area at their regular pace with no change in walking direction (see C2_IS1). A somewhat more intense access results from a change in pace and a slight change of direction toward the installation, but without stopping (see C2_IS2). Pausing in front of the installation represents the next higher degree of interaction (C4_IS2).

20 The abbreviations refer to the collected data, identifying the installation (F = *Fentris*, C = *CCTV2.0*) and the video number as well as the number of the specific interaction sequence (IS) containing the finding.

Again, we can find mostly groups of young adults who approach the installation quite directly and start to interact with it almost immediately (C1_IS2, C3_IS1, C4_IS1). Yet, as in the case of *Fentris*, already finding an interactor present seems to encourage other people to approach the installation (C1_IS3, C1_IS4, C5_IS1, C6_IS1).

Another important finding during the exhibition of *CCTV2.0* was the urge for some people to experiment with the means of face detection, ranging from standing still in various locations of the street to find the physical boundaries of the cameras and therefore of the detection to jumping and moving fast in order to evade the detection, resulting in play-like scenes unfolding in front of the installation (C6_IS1). While trying to experiment with the installation in order to understand all possible ways of interaction, the spectators were perverting the statement of the work (raising awareness for the general problem of extensive surveillance) by offering themselves as victims of the surveillance over and over again (see *C5_IS1: The interactor tries out different positions in front of the camera and checks TV visualisation for right face recognition; a passerby approaches the installation. spectator: »Does this work?«; interactor: »No, it repeatedly identifies me as the wrong person. I give him the best chance«; spectator: [laughs]*). These individuals were unconsciously providing the installation with the necessary amount of interaction in order to create data that can be spread on the social networks again to raise awareness not only on-site at the festival but also on the Internet.

This way of appropriation stood in contrast to people who tried to stand as still as possible (C4_IS1, C5_IS1) in the hope of increasing the accuracy of the detection system – hoping to find their own social media profile displayed on the screen. However, people were specifically happy about being detected as somebody completely different (opposite sex, indiscernible social media profile picture, etc.), deriving their joy out of the unexpected detection and the narrative that comes with it (see *C1_IS2: A group of young adults approaches the installation pretty fast. A young woman runs toward it and jumps in front of the TV visualization, interactor one [ironically]: »Look, that's me. Definitely« [laughs]*).

Even though *CCTV2.0* was rather inconspicuous as it was placed behind a shop window, its physical interaction space encompassed the whole width of the street, meaning that interaction was possible directly in front of the window frame as well as at the opposite side of the street. This allowed people not only to interact with the installation as such, but also to explore the boundaries of the interaction space itself in an effort to evade or to trick the installation. The attempt to subvert their functionality is a common reaction to interactive works²¹ and can be understood as a way to explore the interaction possibilities. Moreover, it shows that an awareness of the space that the installation occupies has already been established.

21 Stober et al.: »Hacking as a Playful Strategy for Designing Artistic Games«; Rodriguez: »The Playful and the Serious.«

4. RISE OF SPECIFIC INTERACTION ENSEMBLES

Both installations are stationary and invite people to participate in them, requiring a certain amount of time to become familiar with the grammar of interaction and the specifics of the artworks. They break up people's routines of traversing a city at a certain pace, following a certain goal, causing them to remain at a certain space for a certain period of time, going beyond the time span expected for window shopping.

People know the untold interaction and behavioral rules of city life by heart and immediately recognize when people behave in a different way. As already suggested, highlighting the visibility of the protective frame in which people act makes it easier not only for the interactors to perform accordingly but also for the passersby to interpret the actions they witness.

In this context, the two installations we analyzed differ in crucial aspects. While *Fentris* is accompanied by an outdoor control table that immediately distinguishes the installation from the standard shop window decoration, the different parts of *CCTV2.0* are located inside the shop window. Therefore, nothing raises attention as long as people only walk through the pedestrian area. In addition, the interaction unfolds only via webcam registration and TV output. In this way, even if a person is actually interacting with the installation, this does not obviously appear to be suspicious for third parties. That is why – other than in the case of *Fentris* – *CCTV2.0* did not gather very many people together at once who were not familiar with each other before. Exceptions were cases where people experimented with the installation in a somewhat expressive way (see previous paragraph).

Furthermore, the installations differ in terms of the duration of interaction: *Fentris* requires more committed interaction, which can lead to longer activities with the installation, supplying greater potential for the rise of new interaction ensembles emerging from jointly turning towards the artwork. One young boy interacted with the installation for more than one hour in different constellations and with varying intensity (see F09-F13). By contrast, the longest interaction sequence with *CCTV 2.0* was eight minutes (C6_IS1).

Another reason for an increased interhuman interaction at the *Fentris* installation can be found in the two artworks' different grammars of interaction: Unlike with *CCTV2.0*, it is actually possible for the interactors to understand *Fentris*' grammar of interaction just by using the installation. Through the process of playing, people almost automatically gain knowledge highly relevant for future players, functioning as a perfect common ground to start interacting with former spectators.

Additionally, the fact that *Fentris* contains a point of disruption, the game over element, constitutes a predetermined moment to hand over the control and start interacting with each other (see F03_IS2, *player reacting to game over message*: »Ahhhh! (turning to a spectator) Do you also want to?«). At the same time, the short break that is generated by the game over situation presents an opportunity

to take over the controls without invitation (see F02_IS2), resembling the strategy of turn-taking in conversations and therefore being part of interhuman interaction as well. The predetermined moments to change turns are so obvious that spectators are not prepared to be invited to play at other times (see F09_1, *player, not even almost game over, turns to spectator: »Do you also want to play?«; spectator: »After«; player: »You can also now – if it doesn't bother you« (referring to the actual game state, spectator starts to play).*

As *CCTV 2.0* does not include predetermined moments where it is obvious that a change of interactors makes sense, there were no events of actively passing on the turn between interactors and passersby. More prominent was the fact that spectators started to interact with the installation in a parallel fashion, something that was supported by the setup with a camera covering a huge part of the pedestrian area to operate the face recognition, allowing people to interact with the installation without being immediately in front of it (CI_IS2, CI_IS3, C5_IS1). Through this setting, people were not as heavily encouraged to interact with other people as in the case of *Fentris*. They rather waited until the former interactors had left to increase their own activity with the installation (CI_IS3).

5. ENVIRONMENTAL AWARENESS

As Ackermann/Mariani suggest, public art and gaming interventions that actively rely on the surrounding space are equipped with certain heterotopian qualities, opening up »a time slot of increased opportunities for environmental learning.«²² The interactive theatricality functions as a mediator between the digital and the physical world²³; the body becomes the interface between the two spheres.²⁴ A new intensity of body perception is gained.²⁵

Even though *Fentris* does not actively aim at raising a specific awareness about people's environment but rather proposes a general invitation to playfully reclaim certain parts of the surroundings in an irregular manner, it creates new collaborative experiences for the people with their environment and can function as a tool for bonding. People interact with each other, using the installation as a common ground, spending a certain period of time at a certain spot in the city they would not normally recognize as specifically and as intensively. The installation is located at the entrance of a vacant retail store at the beginning of a pedestrian area's side street that is usually not traversed by passersby. During the festival, the building was used as an event location, not only presenting the described installation but also for several performing activities inside. This enabled

22 Ackermann/Mariani, 73.

23 Leeker: »Theater, Performance und technische Interaktion.«

24 Obermaier: »Interactivity in Stage Performances.«

25 Angerer: »I am suffering from a spatial hangover.«

the passersby to spend some time at the location and recognize it anew, raising awareness for its spatial specificities.

CCTV2.0 aims to raise environmental awareness on a more abstract level. An explicit goal of the installation is to point people's attention to a societal problem and to establish a critical attitude toward technology by directly confronting the spectator with an unexpected situation: *CCTV2.0*'s face recognition does not make any effort to *correctly* associate the person detected in the public space with a person in its own database and therefore constantly creates false information. This is directly obvious to the spectator who is standing in front of the installation while the association is happening. Together with a general public understanding of the workings of reconnaissance systems through current mass media (movies as well as news), this creation of obviously false information is used as a trigger to drive the passersby's attention away from the installation itself and toward a bigger problem: the ethics of surveillance (and the problems resulting from it) and the violation of trust that comes with an obviously wrong association to a different person's online profile.²⁶ The point is to question the overall trust that we allot to algorithms and digital technology in general.

This new awareness is an irreversible intervention in the mental space of the spectator as much as it is an intervention in the physical space occupied by the installation: For the spectator, this very physical space will now be associated with the space in which the aforementioned awareness was raised. The location of the installation has gained a new quality for this person that will outlast the duration of the festival itself.

Another problem is inherent to the topic of surveillance and therefore should be discussed in this context as well: Overt surveillance (or fear thereof) is changing the way how people act in the surveilled space.²⁷ For *CCTV2.0*, though, obviously being an interactive installation artwork, this factor is replaced by people interacting not because of the assumption of surveillance but because of the assumption of a playful experience designed for them as well as the urge to understand the deeper meaning of the work. For the latter, this urge to understand is not directly caused by the installation's interactivity but by the label of »criticality« given to the work in the context of the festival itself.

6. DISCUSSION

Our observations suggest that highlighting the visibility of the protective frame provided by an interactive installation supports people in entering the mode of playfulness. This attitude »of engaging with particular contexts and objects that is similar to play but respects the purposes and goals of that object or context«²⁸

26 Marx: »An Ethics for the New Surveillance.«

27 Lohr: »How Surveillance Changes Behavior.«

28 Sicart, 21.

serves as an intuitive way of appropriating an artwork's grammar of interaction and simultaneously offers possibilities for interhuman interaction during a collective interaction with the installation. We have especially seen that being able to understand the grammar of interaction in combination with the integration of predetermined moments to pass over the control of an installation (e.g. a game over screen) encourages the emerging presence of interaction ensembles, while even when lacking this feature, an interactive installation can still bring people together on the level of questioning the functionality of the installation collectively without necessarily having shared a collective interaction with the work itself.

Furthermore, our findings suggest that playful strategies of interacting with art installations in public can be used to reclaim spaces in a city that are currently mainly serving one specific function: consumerism. *CCTV2.0* was located behind a shop window, thus being hardly discernable from other shops in this street. Yet once recognized, it made unmistakably clear that it did not belong there – breaking with the expectations of passersby. Drawing a connection to Augé's thoughts on non-places,²⁹ we can see how media interaction in public (spaces) can be utilized to reclaim formerly or usually functional space to become a space that inherits a narrative³⁰ or a playful experience. They can do so by creating new thoughts, allowing for encounters between otherwise unknown inhabitants (interaction ensembles) or becoming associated with the joy the people felt while interacting with the art that was temporarily installed at these locations.

As our explorative study has shown, media interaction in public (spaces) can function as a powerful tool to alter people's perception of their environment and their relations to others in manifold ways. Nevertheless, only little research in the domain has been conducted to date, leaving much potential for further investigation.

REFERENCES

- Ackermann, Judith. »Meaning Creation in Digital Gaming Performances: The Intra-Ludic Communication of Hybrid Reality Theatre.« *Dichtung Digital: Journal für Kunst und Kultur digitaler Medien* 44 (2014).
- Ackermann, Judith, and Ilaria Mariani. »Re-Thinking the Environment through Games: Designing Location Based Mobile Games in Higher Education for Environmental Awareness.« *Innovation in Environmental Education: ICT and Intergenerational Learning: International Conference Proceedigs*. Ed. Francesca Ugolini, Antonio Raschi, and Fouli Papageorgiou. Firenze: IBIMET-CNR, 2015. 73-78.

29 Augé: *Non-places*.

30 Ibid, 81.

- Angerer, Marie-Luise. »I am suffering from a spatial hangover: Körper-Erfahrung im NeuenMedienKunst-Kontext.« *Formen interaktiver Medienkunst. Geschichte, Tendenzen, Utopien*. Ed. Peter Gendolla, Norbert M. Schmitz, Irmela Schneider, and Peter M. Spangenberg. Frankfurt/Main: Suhrkamp, 2001. 166-182.
- Ascott, Roy. »Behaviourist Art and the Cybernetic Vision.« *Multimedia: From Wagner to Virtual Reality*. Ed. Randall Packer and Ken Jordan. New York/London: Norton, 2001, 95-103.
- Augé, Marc: *Non-Places*. London: Verso, 1995.
- De la Rosa, Sybille. *Aneignung und interkulturelle Repräsentation: Grundlagen einer kritischen Theorie politischer Kommunikation*. Wiesbaden: Springer, 2012.
- De Souza e Silva, Adriana. »From Cyber to Hybrid: Mobile Technologies as Interfaces of Hybrid Spaces.« *Space and Culture* 9.3 (2006). 261-278.
- Fischer-Lichte, Erika. *Die Entdeckung des Zuschauers: Paradigmenwechsel auf dem Theater des 20. Jahrhunderts*. Tübingen/Basel: Francke Verlag, 1997.
- Fischer-Lichte, Erika. *Performativität: Eine Einführung*. Bielefeld: transcript, 2012.
- Fujihata, Masaki. »On Interactivity.« *Takeover: Who's Doing the Art of Tomorrow*. Ed. Gerfried Stocker and Christine Schöpf. Vienna: Springer, 2001. 316-319.
- Hitzler, Ronald: »Posttraditionale Vergemeinschaftung: Über neue Formen der Sozialbindung.« *Berliner Debatte INITIAL* 9.1 (1998). 81-89.
- Hitzler, Ronald, and Michaela Pfadenhauer. »Eine posttraditionale Gemeinschaft: Integration und Distinktion in der Techno-Szene.« *Verlust der Sicherheit?* Ed. Frank Hillebrandt, Georg Kneer, and Klaus Kraemer. Opladen: Westdeutscher Verlag, 1998. 83-102.
- Leeker, Martina. »Theater, Performance und technische Interaktion: Subjekte der Fremdheit. Im Spannungsgefüge von Datenkörper und Physis.« *Formen interaktiver Medienkunst: Geschichte, Tendenzen, Utopien*. Ed. Peter Gendolla, Norbert M. Schmitz, Irmela Schneider, and Peter M. Spangenberg. Frankfurt/Main: Suhrkamp, 2001. 256-287.
- Lohr, Steve. »How Surveillance Changes Behavior: A Restaurant Workers Case Study.« *The New York Times*. 26 Aug. 2013. Web. 11/15/15.
- Kirchner, Babette. *Eventgemeinschaften: Das Fusion Festival und seine Besucher*. Wiesbaden: Springer VS, 2011.
- Koubek, Jochen. »Zur Medialität des Computerspiels.« *Spielkulturen: Computerspiele in der Gegenwartskultur und im Alltagsdiskurs*. Ed. Jochen Koubek, Michael Mosel, and Stefan Werning Glückstadt: VWH, 2013. 17-32.
- Krotz, Friedrich. »Konnektivität der Medien: Konzepte, Bedingungen und Konsequenzen.« *Konnektivität, Netzwerk und Fluss: Konzepte gegenwärtiger Medien-, Kommunikations- und Kulturtheorie*. Ed. Andreas Hepp, Friedrich Krotz, Shaun Moores, and Carsten Winter. Wiesbaden: Springer VS, 2006. 21-42.

- Marx, Gary T. »An Ethics for the New Surveillance.« *The Information Society* 14.3 (1998). Web. 2/16/2016.
- Obermaier, Klaus. »Interactivity in Stage Performances.« *Interface Cultures: Artistic Aspects of Interaction*. Ed. Christa Sommerer, Laurent Mignonneua, and Dorothee King. Bielefeld: transcript, 2008. 257-264.
- Pais, Filipe. »The Sense Making Process in *The Legible City*.« *Arts and Technology: Third International Conference, ArtsIT 2013, Milan, Bicocca, Italy, March 21-23, 2013. Revised Selected Papers*. Ed. Giorgio De Michelis, Francesco Tisato, Andrea Bene, and Diego Bernini. Berlin/Heidelberg: Springer, 2013. 105-112.
- Reiche, Martin. »CCTV2.0.« *Martinreiche.com*, Nov. 2015. 1/23/2016.
- Reichert, Ramon. »Fan-Made Transmedia Storytelling.« *Creative Crowds: Perspektiven der Fanforschung im deutschsprachigen Raum*. Ed. Vera Cuntz-Leng. rev. ed. Darmstadt: BÜCHNER-Verlag, 2014. 94-112.
- Rodriguez, Hector. »The Playful and the Serious: An Approximation to Huizinga's Homo Ludens« *The International Journal of Computer Game Research* 6.1 (2006).
- Schechner, Richard. *Between Theater & Anthropology*. Philadelphia: U of Pennsylvania P, 1985.
- Sicart, Miguel. *Play Matters*. Cambridge/London: MIT, 2014.
- Simanowski, Roberto. *Digitale Medien in der Erlebnisgesellschaft: Kultur – Kunst – Utopien*. Reinbek bei Hamburg: Rowohlt, 2008.
- Simanowski, Roberto. »Interactive Installations.« *Digital Art and Meaning: Reading Kinetic Poetry, Text Machines, Mapping Art, and Interactive Installations*. Ed. Roberto Simanowski. Minneapolis: U of Minnesota P, 2011. 120-157.
- Stober, Jens, Steffen P. Walz, and Jussi Holopainen. »Hacking As a Playful Strategy for Designing Artistic Games.« *Context Matters: Exploring and Reframing Games and Play in Context*. Ed. Konstantin Mitgutsch, Simon Huber, Jeffrey Wimmer, Michael Wagner, and Herbert Rosenstingl. Vienna: New Academic, 2013. 308-321.
- Weiß, Gabriele. »Sich verausgabende Spieler und andere vereinnahmende Falschspieler: Das Spiel zwischen Möglichkeit und Wirklichkeit in ästhetischen Lebensformen.« *Spiel*. Ed. Alfred Schäfer and Christiane Thompson. Paderborn: Schöningh, 2014. 35-61.

PLAYFUL LOCATIVE ENSEMBLES IN THE URBAN SOUNDSCAPE

BY MICHAEL STRAEUBIG AND SEBASTIAN QUACK

ZUSAMMENFASSUNG

In diesem Beitrag stellen wir das Konzept des Spielerischen Ortsbasierten Ensembles (Playful Locative Ensemble) vor. Dazu geben wir drei Beispiele und unterscheiden diese Form des Ensembles von anderen ortsbasierten Klangprojekten im öffentlichen Raum. Wir diskutieren die Organisation der Spielerrollen, die Beziehung zur städtischen Umgebung und die spielerischen Aspekte des Konzepts.

ABSTRACT

In this paper, we introduce the concept of the Playful Locative Ensemble, present three recent projects as examples, and distinguish its form from other sound-focused projects in public space. We also discuss the organization of player roles within the ensemble, the relation to the urban environment, and the aspect of playfulness.

1. INTRODUCTION

Since the introduction of the Walkman in the 1980s, more and more people move through cities while listening to music or audiobooks. This practice has created millions of private auditory spaces embedded in a multi-sensorial public space. Despite technological efforts to keep out the latter, both constituents, the intentionally selected soundtrack and the environmentally created soundscape,¹ blend, producing what Thibaud calls »interphonic knots.«²

Intersections of location, environment, and sound pose aesthetic challenges³ and offer creative spaces for artistic experimentation at the same time. Prominent examples are audio walks, where the audience moves to a soundtrack⁴ along a

1 Schafer: *The Tuning of the World*; Wrightson: *An Introduction to Acoustic Ecology*.

2 Thibaud: *The Sonic Composition of the City*.

3 Truax: »Sound, Listening and Place.«

4 This distinguishes audio walks from soundwalks, a creative form explored by R. Murray Schafer (*The Tuning of the World*) and defined as »any excursion whose main purpose is listening to the environment« (Westerkamp: »Soundwalking,« 49). In terms of our initial distinction, soundwalks and the related practice of field recording focus on the soundscape and do not include a soundtrack.

pre-determined path or within certain geographical boundaries.⁵ Elements of the soundtrack are either played back automatically, activated manually by a performer,⁶ or triggered at specific locations, e.g. by GPS signals.⁷ Some of these projects focus on narration,⁸ while others question the relationship of public/private space⁹ or add a layer of interaction between the participants.¹⁰ Some location based games use audio as their primary interface.¹¹ Other artistic projects place audio sources such as loudspeakers,¹² orchestras,¹³ hot air balloons,¹⁴ a siren,¹⁵ or ship horns¹⁶ into the environment. A number of these works transform energy from the surroundings into sound¹⁷ or sonify movement¹⁸ or environmental data.¹⁹ These projects can be described as pervasive and might cause irritation for an unsuspecting general public.²⁰ Yet the intended audience is usually aware of the artwork, and the traditional distribution of roles between artist and audience is preserved. A significant body of artistic research and practice has answered the rapid development of mobile devices and the exponential growth of their usage: Through mobile music²¹ and mobile orchestras,²² various technological and social aspects of networked music, mobile sonic performances, and sound art have been explored.²³ An example from the context of academic research is the *GangKlang*

-
- 5 *Forest Walk*, Janet Cardiff, 1991. Janet Cardiff coined the term »audio walk« and later expanded the concept to »video walks.«
 - 6 *Remote X*, Rimini Protokoll (Stefan Kaegi/Jörg Karrenbauer), 2013.
 - 7 *Trace*, Teri Rueb, 1999; *Radio Aporee ::: Miniatures for Mobiles*, Udo Noll, 2011.
 - 8 *Wasser*, Stefan Schemat, 2004; *Craving, a Spatial Audio Narrative*, Bernhard Garnicnig/Gottfried Haider, 2007; *The Walk, Six to Start and Naomi Alderman*, 2013; *High: Views from Above*.
 - 9 *Radio Ballet Leipzig*, Ligna, 2003.
 - 10 *Wondermart*, Silvia Mercuriali/Matt Rudkin/Tommaso Perego, 2009.
 - 11 Ekman et al.: »Designing Sound for a Pervasive Mobile Game.«
 - 12 *Memoryloops*, Michaela Melián, 2008.
 - 13 *Musical Flashmob*, Copenhagen Phil, 2011.
 - 14 *Sky Orchestra*, Luke Jerram, 2003.
 - 15 *Hearing Sirens*, Cathy van Eck, 2005. The term siren is used in a double meaning in this artwork – the siren of the Greek mythology as well as the alarm device.
 - 16 *Stockholm Harbour Symphony, Interactive Agents* (Robin McGinley), 2011.
 - 17 *Audible Forces*, Mark Anderson/Mike Blow/Jony Easterby/Max Eastley/Dan Fox/Kathy Hinde/Nathaniel Mann/Peter Petravicius/Ed Holroyd, 2012.
 - 18 *Hlemmur in C*, Pall Thayer, 2004.
 - 19 *The Singing Trees of Tremough*, Stanza, 2013.
 - 20 Montola et al.: *Ethics of Pervasive Gaming*.
 - 21 Behrendt: *Handymusik*; Kirisits et al.: *Creative Interactions*.
 - 22 Wang/Essl/Penttinen: »Do Mobile Phones Dream of Electric Orchestras?«
 - 23 Gopinath/Stanyek: *The Oxford Handbook of Mobile Music Studies*.

project,²⁴ which seeks a deeper understanding of flow²⁵ by applying sonic interaction design to enable flow experiences while walking.

In order to achieve some orientation within this vast field, we have introduced the initial distinction between soundtrack and soundscape. There are many other possible distinctions to choose from, like the one between »the music one listens to [and] the music one plays,«²⁶ between aesthetics and environment,²⁷ music and noise, intentionality and contingency, improvisation and determinism, perception and generation,²⁸ location and movement, and between space and place.²⁹ In what follows, we restrict our discussion to a particular kind of mobile, locative sound making: The Playful Locative Ensemble.

2. THE PLAYFUL LOCATIVE ENSEMBLE

The term »ensemble« is commonly used in two different ways. The first one denotes a group of performers, musicians, or actors (the ensemble of a symphony orchestra). The second one describes a spatial relationship or arrangement of items (an ensemble of rocks in Yosemite Park).³⁰ We will use both meanings: An ensemble in the first sense is a group of players³¹ who create a common soundscape by moving in an urban environment. These ensembles are playful; they exhibit what Katie Salen and Eric Zimmerman call »free movement within a more rigid structure.«³² The more rigid frame in which they operate is twofold. On the one hand, there is, to different degrees, the musical structure prepared by the composition. This structure is also locative,³³ which relates to the ensemble in the

24 Hajinejad et al.: »GangKlang: Designing Walking Experiences.«

25 Csikszentmihalyi: *Flow*.

26 Barthes: »Musica Practica.«

27 Truax: »Sound, Listening and Place.«

28 For instance, when someone raises the volume of his or her music player in the subway and thereby inevitably becomes a musician for the others.

29 Cornelio/Ardévol: *Practices of Place-Making through Locative Media Artworks*.

30 In a metaphorical sense used by Monterde/Postill: »Mobile Ensembles,« based on the notion of »media ensembles« in Bausinger: »Media, Technology and Daily Life.« In neuroscientific terms, a neural ensemble is a group of functionally related neurons. Such an ensemble of 24 (simulated) neurons is the basis for the multi-site, networked musical artwork *The Fragmented Orchestra* by Jane Grant, John Matthias, and Nick Ryan. The idea of distances, proximities, and neural fields is further discussed in Grant et al.: »Sound Navigations.«

31 We use the terms »player« and audience interchangeably to denote the interactive nature of the role and to distinguish it from the role of the professional musician.

32 Salen/Zimmerman: *Rules of Play*, 304.

33 We use the term »locative« to denote projects that derive their meaning primarily from the location of the participants. This includes site-specific artworks as well as augmented reality and locative media using positioning technologies like GPS. Hemment (»Locative Arts«) classifies locative media and locative art into three modes: mapping, geo-

second sense. This is the architectural structure, the cityscape, in which the first, more ephemeral ensemble is moving. In other words, both the musical space and the physical space constitute media in which the form of the artwork appears.³⁴

One of the earliest works representing the idea of the Playful Locative Ensemble was Ian Mott's *Sound Mapping: An Assertion of Place*. In this performance, the participants walked with four sound-generating suitcases that were equipped with GPS and motion sensors.³⁵ The composition is site-specific and anchored in geographical space, but not in time. The intention of the project was »to assert a sense of place, physicality and engagement to reaffirm the relationship between art and the everyday activities of life.«³⁶ Placemaking can also be vehicular: During a period of ten years, the Bicrophonic Research Institute (BRI) created and refined the *Sonic Bike*,³⁷ a platform for participatory sound-based projects for cyclists. The *Sonic Bike* has been deployed in a multitude of projects as an »outdoor listening experience for all, the antithesis of headphones.«³⁸ Furthermore, collaborative locative music making with smartphones has been explored in a number of projects, for example *Sonic City*,³⁹ *Malleable Mobile Music*,⁴⁰ and *Net_Dérive*.⁴¹

In the following sections of the article, we describe three recent projects that exemplify the Playful Locative Ensemble.⁴² In each of these projects, the participants create sound by moving in the urban environment. Yet they differ in the way the audience is framed and in the types of interactions with which the players are offered to engage during the shared experience. The projects are *A Folded Path* by Circumstance, *Phantom Synchron* by Sebastian Quack et al., and *Kling-KlangKlong* by Michael Straeubig.

3. A FOLDED PATH

Circumstance describe their participatory musical performance *A Folded Path* (fig. 1) as a »pedestrian speaker symphony.«⁴³ The work has been presented at a vari-

annotation, and ambulant. The projects we discuss here are based on walking and would fit the ambulant category.

34 Luhmann: *Die Kunst der Gesellschaft*, 165–214.

35 *Sound Mapping: An Assertion of Place*, Ian Mott, 1998.

36 Mott/Sosnin: *Sound Mapping, an Assertion of Place*.

37 *Sonic Bike*, Bicrophonic Research Institute (Matthews/Griffiths), 2005.

38 Matthews/Griffiths: »Bicrophonic Research Institute.«

39 Gaye/Mazé/Holmquist: »Sonic City.«

40 Tanaka: »Malleable Mobile Music.«

41 Tanaka/Gemeinboeck: »Net_Dérive.«

42 Both authors of this paper have been directly involved in each of the three projects, either as (co-)creators or as part of the audience. In addition, Michael Straeubig conducted a one-hour interview with Duncan Speakman of Circumstance on November 20, 2015.

43 *A Folded Path*, *Circumstance* (Sarah Anderson/Duncan Speakman/Emilie Grenier), 2013.

ety of festivals, including Visualise (Cambridge), Kontraste (Krems), Natural Circuits (London), Auricle (Christchurch), ScreenCity (Stavanger), Playable City (Bristol), and Microwave (Hong Kong). For each of the locations, a site-specific variant was created.

In *A Folded Path*, approximately 30 participants are equipped with portable, location-aware loudspeakers that use GPS for positioning. The audience is then separated into three sub-ensembles. Each group is led by a »conductor,« who is tasked with controlling the temporal aspect of the symphony.



Figure 1. *A Folded Path*. Credits: *Circumstance*. Used with permission.

While the ensembles are following their conductors along pre-planned paths through the city, music is emanating from the speakers. This music can be described as a multi-channel phase composition that combines ambient, minimal, and classical elements.⁴⁴ The soundscape is widely audible in the city, which may result in various reactions from the public, ranging from enthusiasm to anger.⁴⁵

During the performance, which lasts approximately one hour, the groups move along at varying speeds, converge at certain locations, and diverge again. These intermediate encounters let the players experience the other groups' arrival and departure. Technically, they also serve as hold points to re-synchronize the ensembles.

A Folded Path puts its audience in the role of urban instrumentalists: They perform music by moving through space, while the routes, the multi-channel composition, and its timing have been meticulously prepared by the artists. While music »traditionally structures events in time rather than space to form what is a linear narrative,«⁴⁶ in *A Folded Path*, the parts of the composition are linked to sections of the routes, triggered by information from the GPS receivers. To unfold the symphony, the role of the conductor consists in steering the instrumentalists through space at certain speeds.

Still, contingencies in the environment may manifest themselves and interfere with precise timings. A group might have to wait longer than expected before crossing a street, or a pre-planned route might be blocked by a construction site that popped up overnight. Moreover, the spatial coherence of the ensembles is changing frequently during a walk. The challenge for the conductors is to accomplish a flexible way of synchronization between timing and location, in the words of Duncan Speakman, to keep the ensembles on an »elastic band.«

4. PHANTOM SYNCHRON – SOUNDTRACK WEIMAR

Developed for the »Kunstoff Weimar« art festival, *Phantom Synchron* (fig. 2) consists of a series of six participatory musical performances.⁴⁷ The site-specific project was performed over a 24-hour period on the 4th and 5th September 2015 in various locations in the German city of Weimar.

44 A specially prepared stereo version of the soundtrack of *A Folded Path* is available at <http://wearecircumstance.com/exchange>.

45 A particular example of a problematic encounter was witnessed during a performance in Bristol, where a group of fishermen were visibly aggravated by the sound. Other members of the public observed during that event reacted puzzled, curious, amused, or delighted.

46 Mott/Sosnin: *Sound Mapping, an Assertion of Place*.

47 *Phantom Synchron – Soundtrack Weimar*, Daniel Ott/Sebastian Quack/ Kirsten Reese/Enrico Stolzenburg, 2015.



Figure 2. *Phantom Synchron – Soundtrack Weimar*. Credits: Merlin Nadj-Torma for Kunstfest Weimar / via nova e.V. Used with permission.

Starting from a central meeting point, an audience of 10-40 people is equipped with »sound boxes« consisting of a built-in MP3-player and loudspeakers. At the beginning of each performance, the production team synchronizes the MP3-players, with each device playing back one voice in a multichannel acoustic composition.

The audience then follows a large, mobile digital clock to one of six sites: a stadium, a parking garage, a decommissioned jail, a park landscape, a castle courtyard, and the central city square. During the walk, sounds are played from the speakers, alternating atmospheric sound loops with instructions and exercises on how to use the sound boxes, how to hold them, how to move, and what to listen for.

Upon arrival at the respective site, each player is shown an individual graphical score, assigning him or her specific positions within the site at certain times and depicting ways to hold the sound box. Between these precisely defined actions, the audience is invited to explore the site and experiment with the sound boxes. Referencing the world of cinema, this collective activity is framed as creating a live »soundtrack« that adds a special layer to the action at a specific location.

The audience members act as instrumentalists joining an ensemble that includes 12 professional musicians and a large number of community performers (hobbyists, such as athletes, skaters, RC car enthusiasts). This large ensemble collaboratively performs a complex musical soundscape that evolves in time and

across a spatial structure for over 90 minutes, radically changing the atmosphere of the location and reinterpreting the space acoustically.

At times, all speakers emit the same sound; at other times, each speaker plays individually. Sometimes the sounds reproduce and relocate acoustic events taking place in the physical space; sometimes they introduce completely new elements that only exist in the imagination. The soundscape alternates between different qualities, including contemporary and historical music, abstract noise, and identifiable sounds, such as a helicopter, fire, chatter, footsteps, etc.

The fact that the audience has no influence over the fixed soundtracks emitting from the boxes allows for an alternation of precisely timed group events and phases of individually placed spatial events. The exact timekeeping for the musicians and community performers is achieved through radio-controlled watches, while the players receive their timings from the large digital display. The result is a series of carefully crafted landscape compositions that are performed and simultaneously playfully explored by the participants.

5. KLINGKLANGKLONG

KlingKlangKlong (fig. 3) is a location-based multiplayer experience informed by the concept of a »playful system.«⁴⁸ The project is currently being developed by Michael Straeubig as part of his PhD thesis.⁴⁹ Prototypes of *KlingKlangKlong* and of a variant called *neurotic* were demonstrated at Playpublik festival in Krakow in September 2014, Plymouth Book Festival in October 2014, Prototype Dublin in October 2014, playin'siegen in April 2015, and MediaCity Plymouth in May 2015.

KlingKlangKlong is played with smartphones that translate the players' locations into sound. This is achieved in a straightforward manner: By moving through the physical space, the players simultaneously move on the surface of a virtual sequencer. One dimension (usually the latitude of the player) corresponds to pitch, the other dimension (longitude) is mapped to the time-position on the sequencer. The interface allows a manual switch to other audio parameters, although this feature is experimental. Each device receives the location and state changes of the currently active players almost instantly. The devices are connected by a central server, which also sets the boundaries of the playing field and manages the virtual players.

KlingKlangKlong serves as an experimental arrangement to explore the idea of playful (social) systems, a construction where human and virtual subsystems play with each other. In addition to the human participants, it therefore deploys a number of virtual players (»Virtuals«). Humans and Virtuals meet each other in

48 *KlingKlangKlong*, Michael Straeubig, 2014.

49 Straeubig: »Designing Playful Systems in Mixed Reality,« CogNovo. Available at: <http://www.cognovo.eu/project-9>, 11/26/2015.



Figure 3. *KlingKlangKlong*. Credits: Martin Christopher Welker for Playpublik. License: Creative Commons (CC BY-NC 2.0).

mixed reality, a concept that was realized in early locative games.⁵⁰ The commonly created soundtrack is the primary medium of communication between the players. Musical structures may temporarily arise through synchronized movements or be destroyed by any player's intervention.

There are no rules, no inherent goals, and, in principle, no beginning or end in *KlingKlangKlong*. In the context of mixed-reality games, this concept has been described as design for emergence: »to provide just enough of a game context and challenge for people to be creative, to extend and enrich the experience of play through their interaction in the real world.«⁵¹ The approach encourages meta-gaming and emergent gameplay that is created by the players,⁵² which suits the systems-theoretic design goals for *KlingKlangKlong*.

50 For example, in the location based game *Can You See Me Now?* by Blast Theory, a virtual avatar interacts with the players. This avatar is controlled by another human player. In contrast to this, virtual players in *KlingKlangKlong* are controlled by the computer.

51 Vogiazou et al.: »Design for Emergence.«

52 Schell: *The Art of Game Design*, 171-174. An example of emergent gameplay observed during playtesting came up when players started to chase other players, switching from collaborative sound making to free play behavior.

6. DISCUSSION

We have briefly described the three projects in order to discuss four questions that are relevant to the concept of Playful Locative Ensembles: 1) In which way are the three projects »locative«? 2) What constitutes the participatory »ensemble« in each case, and how are the player roles framed? 3) How does the movement of participants translate into a musical experience, and how does it interact with the urban soundscape? 4) Where does playfulness arise in the projects?

6.1 LOCATION-AWARENESS AND SITE-SPECIFICITY

Art projects that make use of urban environments and digital technology⁵³ can be analyzed in terms of location-awareness and site-specificity. These are distinct concepts that have evolved independently from each other in different fields. Location-awareness describes how a system makes use of location data, for example through GPS-enabled smartphones or other mobile devices. Site-specificity refers to experiences or aspects of a place that the artist takes into account when producing her work.

A Folded Path uses location-aware GPS technology built into the mobile speakers, which allows the composition to adapt to the players' locations in real-time. In terms of site-specificity, the work takes into account the architectural setup needed for groups moving along diverging and converging paths. For each new performance location, the routes are chosen and the musical material is rearranged to fit the spatial layout. We might say that *A Folded Path* is a site-adaptable composition, reacting to certain aspects of the location while remaining customizable to be performed elsewhere.

Phantom Synchron does not use location-aware technology. Instead, it relies on the participation of the players to move the pre-produced soundtracks around. The time structure of the performance is fixed to the second – allowing for precise, site-specific interactions between the playing audience, the professional musicians, and the community performers.⁵⁴

Like *A Folded Path*, *KlingKlangKlong* uses location-aware technology to react to the players' movements. However, starting an instance of *KlingKlangKlong* only requires the definition of an area for playing. There is no preconceived relation to the environment. While the ensemble of the city restricts the possible space for sound generation, *KlingKlangKlong* is conceptually site-generic.

53 Buschauer/Willis: *Locative Media*; Silva/Sheller: *Mobility and Locative Media*; Wilken/Goggin: *Locative Media*.

54 An example: An audience member approaches the long jump facility in the stadium, where members of a local sports club take turns jumping. From the sound box, you can hear a coach shouting encouraging remarks to the jumpers, »hepp!«, »well done« ... while a percussion player accompanies the event rhythmically on a metal structure next to the jumping pit.

6.2 PLAYER ROLES AND THE ENSEMBLE

Both *A Folded Path* and *Phantom Synchron* provide the participants with opportunities to enact and play with pre-composed musical patterns in space. Yet they do not offer any way to determine or deliberately select what is emitted from the speakers. This allows for a strong measure of artistic planning and control over the soundscape created during each performance. At the same time, the players experience a mode of listening that is free, even meditative, which is characteristic of music involving random elements or environmental sounds outside the listener's control.

In contrast, *KlingKlangKlong* invites players individually to appropriate the city as a shared platform for a distributed composition, consciously reacting to each other's musical choices in real time. *KlingKlangKlong* is thus closer to improvisational play modes⁵⁵ than *A Folded Path* and *Phantom Synchron*. This is especially highlighted by the introduction of computer controlled Virtuals in the *KlingKlangKlong* system. The interaction between human and non-human players is designed as communication between equally entitled systems, rather than as an interaction between a player and a pre-composed system, or a geo-spatial musical structure created by an artist.

A Folded Path and *Phantom Synchron* frame players as an ensemble of instrumentalists who re-create, discover, or interpret a pre-defined musical score created by composers. *KlingKlangKlong* frames players as an ensemble of improvising musicians or collaborative composers who create a new musical score through play.

6.3 INTERACTION WITH THE URBAN SOUNDSCAPE

All three projects invite participants to experience the relationship between sound and place and to navigate an urban soundscape through movement. In *A Folded Path*, player movement is primarily tied to manipulating time. The system uses the GPS coordinates of players to trigger musical events. By moving along a predefined path, the audience determines the timing of musical events. Moving from place to place actively advances the musical performance. In *Phantom Synchron*, player movement is primarily tied to manipulating place. Sounds will happen at a certain time – no matter what – but players are responsible for spatial interpretation. Their movement allows players to experience a sound placed in a certain way by the composers or to situate sounds in locations not determined by the composers. In *KlingKlangKlong*, player movement is primarily tied to manipulating a musical score. Players move through the city in order to write notes into a looping musical pattern. Moving from place to place rewrites the loop.

55 A musical performance that blends improvisation and real time signaling between musicians is *Creative Construction Set TM* by George Lewis, performed by Splitter Orchester, 2015.

6.4 PLAY AS FREEDOM WITHIN BOUNDARIES

Play permeates all three projects. We postulated above that the movement of ensembles of players within the ensemble of the cityscape constitutes play. Therefore, unlike professional orchestras, our ensembles perform autotelic acts of play. In their double role as performers and audience, they play for play's sake.

In *A Folded Path* and *Phantom Synchron*, players are invited to experiment with their instruments by holding the sound boxes in different directions, against objects or body parts, or by covering the speaker to reduce volume. They also explore space, moving around with the sound boxes in relation to other players while the environment affects the collective soundscape.

Phantom Synchron features an additional element of abstract puzzle solving when players try to decipher their individual score in order to be precisely at the right place at the right time. In addition, it provides space for expressive performances to take place, such as mimicking the imagined source of the sound (for example, pretending to be a graffiti artist when spray-painting noises come from the box). This sometimes leads to spontaneous player-to-player interactions. Such interactions also occur in *KlingKlangKlong*, for example, when players decide to give up the idea of generating music and start chasing each other through the city instead.

7. SUMMARY

If the Walkman »functions like a technological device which introduces the senses within the urban territory,«⁵⁶ we can ask what it is that introduces the actuators, entities that actively create, express themselves, and perform in the public space. Our answer is that this role can be achieved by Playful Locative Ensembles through their specific relationships among composers, performers, listeners, and the environment.

We have discussed three recent projects that exemplify the notion of Playful Locative Ensembles, with both overlapping and diverging approaches, production processes, and player experiences. Out of the multitude of relations between these projects, we have focused on four central aspects: location-awareness and site-specificity, player roles and framing of the ensemble, player interaction with the soundscape through movement, and play as free movement within more rigid boundaries.

While there are many questions to explore, both on the artistic side⁵⁷ as well as on the level of analytical language, we can observe that a common form of the

56 Thibaud: *The Sonic Composition of the City*.

57 An aspect that is notably absent in the present paper is an in-depth discussion of the musical dimension of the three projects. After some initial discussions, we decided to focus on the non-musical attributes that characterize the Playful Locative Ensemble. A comparative musical analysis could be undertaken in a future study.

Playful Locative Ensemble in the urban soundscape is taking shape, differentiating itself from general locative artworks while combining diverse influences ranging from locative game and interaction design, participatory and site-specific performance art, to contemporary musical composition and sound installations and even architecture and urban design.

This emerging form provides creators and participants with experiential qualities that other types of sound-based works rarely tap into: the satisfaction of reconnecting the environment of the city with the joys of collective music making, the excitement of moving music out of dedicated and often commercialized spaces into the contested and unpredictable realm of the commons, the pleasure of playing a creative role in a movement and forming a diverse ensemble, and the direct emotional impact that only music can achieve.

ACKNOWLEDGEMENTS

Michael Straeubig's work is funded as part of Marie Curie Initial Training Network FP7-PEOPLE–2013-ITN, CogNovo, grant number 604764. We wish to extend special thanks to Duncan Speakman (Circumstance), Judith Ackermann, and the team of playin'siegen.

REFERENCES

- Barthes, Roland. »Musica Practica.« *Image, Music, Text*. London: Fontana Press, 1987. 149-154.
- Behrendt, Frauke. *Handymusik: Klangkunst und ›mobile devices‹*. Osnabrück: epOs-Music, 2004.
- Bausinger, Hermann: »Media, Technology and Daily Life.« *Media, Culture & Society* 6.4 (1984). 343-351.
- Buschauer, Regine, and Katharine Willis, eds. *Locative Media: Multidisciplinary Perspectives on Media and Locality*. Bielefeld: transcript, 2013.
- Cornelio, Gemma San, and Elisenda Ardévol. »Practices of Place-Making Through Locative Media Artworks.« *Communications* 36.3 (2011). 313-333.
- Csikszentmihalyi, Mihaly. *Flow: The Psychology of Optimal Experience*. New York: Harper, 1991.
- Ekman, Inger et al. »Designing Sound for a Pervasive Mobile Game.« *ACE '05 Proceedings of the 2005 ACM SIGCHI International Conference on Advances in Computer Entertainment Technology*, ACM, 2005.
- Farman, Jason. *The Mobile Story: Narrative Practices with Locative Technologies*. New York: Routledge, 2014.

- Gaye, Lylya, Ramia Mazé, and Lars Erik Holmquist. »Sonic City: The Urban Environment as a Musical Interface.« *Proceedings of the 2003 Conference on New Interfaces for Musical Expression*. National University of Singapore, 2003. 109-115.
- Gopinath, Sumanth S., and Jason Stanyek, eds. *The Oxford Handbook of Mobile Music Studies*. New York: Oxford UP, 2014.
- Grant, Jane, John Matthias, and Matt Wade. »Sound Navigations: Distances, Proximities and Neural Fields.« *CR12: PRESENCE IN THE MINDFIELD: Art, Identity and the Technology of Transformation*. Lisbon: Portugal, 2011.
- Hajinejad, Nassrin, Heide-Rose Vatterrott, Barbara Grüter, and Simon Bogutzky. »GangKlang: Designing Walking Experiences.« *Proceedings of the 8th Audio Mostly: A Conference on Interaction with Sound, AM '13*. Piteå: Sweden, ACM, 2013.
- Hemment, Drew. »Locative Arts.« *Leonardo* 39.4 (2006). 348-355.
- Hight, Jeremy. »Views from Above: Locative Narrative and the Landscape.« *Leonardo Electronic Almanac* 14.7-8 (2006). 1-9.
- Kim-Boyle, David. »Network Musics – Play, Engagement and the Democratization of Performance.« *Proceedings of the International Conference on New Interfaces for Musical Expression*. Genoa, 2008. 3-8.
- Kirisits, Nicolaj et al. *Creative Interactions – The Mobile Music Workshops 2004-2008*. Vienna: Univ. für Angewandte Kunst Wien, 2008.
- Luhmann, Niklas. *Soziale Systeme: Grundriss einer allgemeinen Theorie*. Frankfurt/Main: Suhrkamp, 1984.
- Luhmann, Niklas. *Die Kunst der Gesellschaft*. Frankfurt/Main: Suhrkamp, 1997.
- Matthews, Kaffe, and Dave Griffiths. »Bicrophic Research Institute.« *sonicbikes.net*, n.d. 11/25/2015.
- Monterde, Arnau, and John Postill. »Mobile Ensembles: The Uses of Mobile Phones for Social Protest by Spain's Indignados.« *The Routledge Companion to Mobile Media*. Ed. Gerard Goggin and Larissa Hjorth. New York: Routledge, 2014.
- Montola, Markus, Annika Waern, Jussi Kuitinen, and Jaakko Stenros. *Ethics of Pervasive Gaming*. D5.5. Integrated Project on Pervasive Gaming, 2006.
- Mott, Iain, and Jim Sosnin. »Sound Mapping, an Assertion of Place.« *Proc. of Interface*, 2013. Web. 11/20/2015.
- Salen, Katie, and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. Cambridge: MIT, 2003.
- Schafer, Murray R. *The Tuning of the World*. New York: Knopf, 1977.
- Schell, Jesse. *The Art of Game Design: A Book of Lenses*. Boca Raton: CRC, 2015.
- Silva, Adriana de Souza e, and Mimi Sheller, eds. *Mobility and Locative Media: Mobile Communication in Hybrid Spaces*. New York: Routledge, 2015.

- Tanaka, Atau. »Malleable Mobile Music.« *Adjunct Proceedings of the 6th International Conference on Ubiquitous Computing (UBICOMP)*, 2004.
- Tanaka, Atau, and Petra Gemeinboeck. »Net_Dérive: Conceiving and Producing a Locative Media Artwork.« *Mobile Technologies: From Telecommunications to Media*. Ed. Gerard Goggin and Larissa Hjorth. London: Routledge, 2008. 174-186.
- Thibaud, Jean-Paul. »The Sonic Composition of the City.« *The Auditory Culture Reader*. Ed. Michael Bull and Les Back. Oxford: Berg, 2003. 329-342.
- Truax, Barry. »Sound, Listening and Place: The Aesthetic Dilemma.« *Organised Sound* 17.3 (2012). 193-201.
- Vogiazou, Yanna et al. »Design for Emergence: Experiments with a Mixed Reality Urban Playground Game.« *Personal and Ubiquitous Computing* 11.1 (2006). 45-58.
- Wang, Ge, Georg Essl, and Henri Penttinen. »Do Mobile Phones Dream of Electric Orchestras?« *Proceedings of the International Computer Music Conference*, 2008.
- Westerkamp, Hildegard. »Soundwalking.« *Autumn Leaves: Sound and the Environment in Artistic Practice*. Ed. Angus Carlyle. Paris, France: Association Double-Entendre in association with CRISAP, 2007. 49.
- Wilken, Rowan, and Gerard Goggin, eds. *Locative Media*. New York: Routledge, 2015.
- Wrightson, Kendall. »An Introduction to Acoustic Ecology.« *Soundscape: The Journal of Acoustic Ecology* 1.1 (2000). 10-13.

ARTWORKS

- A Folded Path, Circumstance*. Sarah Anderson/Duncan Speakman/ Emilie Grenier, 2013.
- Audible Forces*. Mark Anderson/Mike Blow/Jony Easterby/Max Eastley/Dan Fox/Kathy Hinde/Nathaniel Mann/Peter Petravicius/Ed Holroyd, 2012.
- Can You See Me Now?* Blast Theory, 2001.
- Craving, a Spatial Audio Narrative*. Bernhard Garnicnig/Gottfried Haider, 2007.
- Creative Construction Set TM*. George Lewis and Splitter Orchester, 2015.
- Forest Walk*. Janet Cardiff, 1991.
- Hearing Sirens*. Cathy van Eck, 2005.
- Hlemmur in C*. Pall Thayer, 2004.
- KlingKlangKlong*. Michael Straeubig, 2014.
- Memoryloops*. Michaela Melián, 2008.

MICHAEL STRAEUBIG/SEBASTIAN QUACK

- Musical Flashmob*. Copenhagen Phil, 2011.
Oscillating Cities. Christopher Wood, 2014.
Phantom Synchron – Soundtrack Weimar. Daniel Ott/Sebastian Quack/Kirsten Reese/Enrico Stolzenburg, 2015.
Play Me, I'm Yours. Luke Jerram, 2008.
Radio Aporee ::: Miniatures for Mobiles. Udo Noll, 2011.
Radio Ballet Leipzig. Ligna, 2003.
Remote X, Rimini Protokoll. Stefan Kaegi/Jörg Karrenbauer, 2013.
Sky Orchestra. Luke Jerram, 2003.
Sound Mapping: An Assertion of Place. Ian Mott, 1998.
Stockholm Harbour Symphony, Interactive Agents. Robin McGinley, 2011.
The Fragmented Orchestra. Jane Grant/John Matthias/Nick Ryan, 2008.
The Singing Trees of Tremough. Stanza, 2013.
The Walk, Six to Start. Naomi Alderman, 2013.
Trace. Teri Rueb, 1999.
What Sound is Space?/Stadtklang Erlangen. Mikromakrowelt, 2013.
Wasser. Stefan Schemat, 2004.
Wondermart. Silvia Mercuriali/Matt Rudkin/Tommaso Perego, 2009.

STADTFLUCHT

Learning about Healthy Places with a Location-Based Game

BY MARIANNE HALBLAUB MIRANDA AND MARTIN KNÖLL

ZUSAMMENFASSUNG

Das ortsbezogene Smartphone-Spiel *Stadtflucht* ist ein explorativer Prototyp, konzipiert als Forschungswerkzeug, um die Wahrnehmung von Stadträumen zu analysieren. Unsere Forschung über Spielerfahrungen in Stadträumen zielt darauf ab, aktive Erholung zu fördern, die Bemessung von Nutzer-Raumwahrnehmung zu erleichtern und ihre Beteiligung an Stadtplanungsprozessen zu fördern. Dieser Beitrag untersucht, wie der Prototyp TeilnehmerInnen einer Studie in Frankfurt am Main auf spielerische Weise eine Auseinandersetzung mit der gebauten Umwelt ermöglichte. Zunächst stellen wir ortsbezogene Spiele als geeignete Forschungswerkzeuge vor, die diese Form der Auseinandersetzung mit gesundheitsförderndem Städtebau unterstützen. Wir präsentieren dann den theoretischen Rahmen für die Nutzung von Smartphone-Technologien zur Aufzeichnung von Verhaltensdaten und Messung von physiologischen Reaktionen, die in dem Prototyp verwendet wurden. Wir skizzieren eine Reihe von Aufgaben, die die Interaktion mit der gebauten Umwelt unterstützen, und schließen mit Beobachtungen und Vorschlägen für mögliche zukünftige Forschung ab.

ABSTRACT

The location-based smartphone game *Stadtflucht* (German for *urban flight* or *city escape*) is an explorative prototype conceived as a research tool to analyze the perception of urban space. Our overall research on game experiences aims to foster active recreation in urban environments, facilitate the assessment of users' perception, and encourage their participation in urban planning processes. This article assesses how the prototype was able to engage participants in a playful manner with the built environment in a study in Frankfurt am Main, Germany. First, we introduce location-based games as a suitable research tool to achieve this type of playful interaction. We then present the theoretical framework for the use of smartphone technology to record behavioral data and measurements of physiological reactions used in the prototype. Finally, we outline a set of tasks that support interaction with the built environment and conclude with observations and suggestions for future research.

1. INTRODUCTION

Location-based games, as described by Avouris and Yiannoutsou, are games facilitated by mobile devices in such a way that the game activity evolves according to the players' location. The authors write: »Inherent in these games is the fact that some activity takes place in physical space« and, »[a]t the same time, some other part of the action takes place in virtual space.«¹ They argue that mobile location-based games interleave physical and virtual spaces in order to support the creation of a game space where the game takes place. The authors further suggest that although the game space would be strongly supported by the two interconnected physical and virtual spaces, it would be mostly created and supported in the player's mind. This recalls Huizinga's definition of the »magic circle«² in games, which Salen and Zimmerman later extended and modified for games supported by digital media. Salen and Zimmerman define the magic circle as »the idea of a special place in time and space created by a game.«³

In the following, we present a location-based game conceived as a research tool to expand the analysis of urban spaces through new media technologies. We will argue that the created game space, a combination of physical elements and choreographed (game) activities, is a suitable experimental setup to study users' perceptions of real-world urban environments.

We present our theoretical framework in section 2, followed by the research questions in section 3. In section 4, we will focus on one specific station in the game in order to highlight the potential of the conceptual framework developed for *Stadtflucht* to raise awareness about healthy places. Here, we discuss users' inter-actions in the featured game station as well as environmental characteristics in relation to the task and its outcomes. The evaluation is based on participants' statements of their game experience. We present the results of the evaluation of the proto-type, under specific discrete aspects, in section 5 and will end with concluding remarks in section 6.

2. THEORETICAL FRAMEWORK

2.1 THE HYBRID SPACE

Telecommunications and new media technologies allow us to adjust and almost instantaneously transcend space and time barriers,⁴ placing these technologies among the most significant determinants of contemporary society. These technologies influence our understanding, experience, and production of the urban environment. Graham describes the contemporary city as an »amalgam« of urban

1 Avouris/Yiannoutsou: »A Review,« 2120-2121.

2 Huizinga: *Homo Ludens*, 10.

3 Salen/Zimmerman: *Rules of Play*, 95.

4 Graham/Marvin: *Telecommunications and the City*.

places and electronic spaces, »whereby the fixed, tangible and visible aspects of life in urban places interact continuously with the intangible, electronically-mediated transactions, operating across wider and wider scales.«⁵

Increasingly, geographical locations are being tied to digital spaces. The built environment, with its physical infrastructure, social interactions, and diverse local cultures and identities, is not only being overlaid with electronic communication-, information-, and observation networks; these technologies are becoming inseparable from the city's material form, social patterns, and experiences, making them dominant features of urban life.⁶ Graham and Marvin advocate an understanding of this interaction in a non-linear cause and effect manner: Technologies, their users, and cities influence each other, producing and shaping space and structure. De Souza e Silva names the connection between physical and digital spaces supported by mobile technologies »hybrid spaces.«⁷

As a consequence, new opportunities for researchers focusing on the urban environment arise. Not only do these technologies allow researchers to gather data about the city and its users – such as the collection of behavioral data, which is linked to space and time⁸ – but they also allow researchers to create a hybrid space corresponding to specific research questions.

2.2 URBAN AND LOCATION-BASED GAMES

Borries et al. argue that urban games can be a crucial element in the relationship between cities and human beings⁹; a game experience could modify the link between the city and its inhabitants, making it richer, more interesting, and more involving. Walz expands on this notion by awarding games the ability to engage users in a specific behavior within a specific context thanks to their playful and entertaining properties.¹⁰ We understand location-based games in particular as suitable tools to do so. Advanced location-sensing capabilities, such as satellite positioning, effective sensor technology, large amounts of memory, and fast processors, make smartphones an attractive platform for the development of location-based games. The use of the context awareness of the device to guide participants through physical space and facilitate interactions with it through existing technologies is a potential for the recording of useful geospatio-temporal data for intense analysis.

In recent years, location-based games have found the most diverse applications revolving around and concerning the city. Some are being used as

5 Graham: »Telecommunications and the Future Cities,« 27.

6 De Lange: *Moving Circles*.

7 De Souza e Silva: »From Cyber to Hybrid,« 262.

8 See Girardin et al.: »Digital Footprinting«; Schlieder/Matyas: »Photographing a City.«

9 Borries/Walz/Böttger: *Space Time Play*.

10 Walz: »Toward a Ludic Architecture.«

tools to foster city exploration¹¹ or tourism,¹² and others are simply produced for entertainment.¹³ An additional purpose of these games can be educational. Avouris and Yiannoutsou reviewed specifically location-based games for learning across physical and virtual spaces.¹⁴ Some of the identified main objectives meant to support orientation of new university students¹⁵ or encourage social interaction and physical activity.¹⁶

Tóth and Poplin have developed various games that aim to involve children and teach them about the built environment, urban planning, and participation processes.¹⁷ These games are conceived as giant board games or are desktop-based; the interaction with the built environment is metaphorical. While these approaches have been fruitful, the question of how to create an engaging game space to raise awareness about urban characteristics and gain data on perception in real-world urban environments with a group of people remains open.

2.3 URBAN DESIGN, RECREATION, AND HEALTHY PLACES

How people interact in and perceive their environment is a vast research area. In an urban context, citizens' experiences and behavior will vary depending on the setting, i.e., its morphology and environmental characteristics. The way the elements of the built environment are configured, formed, and transformed is referred to as morphology. The urban morphology describes the formal and spatial dimensions of the urban environment (metropolitan areas, cities, and towns). The way urban morphology affects human behavior translates to e.g. the type of activities urban spaces allow or discourage. Previous research has shown that the built environment influences its users' behavior in many ways. Some of the related questions have been: How does the built environment influence the way people *move*, as in the theory of natural movement?¹⁸ How do they *feel* in a certain context, e.g. the *emotions* evoked by it?¹⁹ And which environmental and spatial parameters do they experience as *stressful* or *relaxing*?²⁰

11 See the Dérive app: <http://deriveapp.com>.

12 See Ballagas et al.: »REXplorer.«

13 See Benford et al.: »Uncle Roy All Around You.«

14 Avouris/Yiannoutsou: »A Review.«

15 See Schwabe et al.: »Mobile Learning«; Göth et al.: »Requierements for Mobile Learning Games.«

16 See Verhaegh et al.: »On the Design of Camelot«; Soute et al.: »Head Up Games.«

17 See Poplin: »Playful Public Participation«; Tóth/Poplin: »Pop-up Pest«; Tóth/Poplin: »ParticiPécs.«

18 Hillier et al.: »Natural Movement.«

19 Kuliga et al.: »Aesthetic and Emotional Appraisal of the Seattle Public Library and Its Relation to Spatial Configuration.«

20 Knöll et al.: »Using Space Syntax to Analyze Stress Perception in Open Public Space.«

To leverage healthy activities, the built environment must be designed in such a manner that it invites people to become active in various ways.²¹ By inviting people to walk, climb the stairs, or relax, urban design can have positive effects on health and well-being. A playground can afford activities like swinging, jumping, and climbing; a bicycle path facilitates bicycle riding. Physical activities carried out as leisure are understood as »active recreation.«²² In past decades, many urban planners and city stakeholders awarded active properties to the most various spaces without them necessarily being *recreational* in the formal context of land use laws. Recreational contexts are discrete places, as understood by the modernist idea of the division of land use in cities, like parks, playgrounds, sports facilities, and so on, where recreation takes place. This means that any space in the city has the potential to be recreational and foster active recreation.

Cohen and Evans examine »how the concept of stress has been used to specify environmental characteristics that may lead to physical or psychological discomfort and, in some cases, ill health.«²³ The authors refer to such factors as environmental stressors: physical characteristics of the environment that produce stress. A setting is thought to be healthy the fewer stressors it possesses. Knöll and colleagues have shown that people do perceive established factors of environmental stress, such as noise, high exposure to motorized traffic, and lack of green space, as *maximal stressful* when using public space as pedestrians.²⁴ In interviews, local residents largely agreed in their assessment of familiar public spaces from which specific *stress profiles* of locations can be drawn.

Generally, planning will aim to reduce environmental stressors to promote healthier public spaces that encourage social interaction as well as physical and sportive activities. However, in order to develop site-specific solutions and also moderate conflicting interests in the planning process, it is necessary to enable users to articulate detailed health promoting effects and gain data in high spatial resolution. One way of doing so could be to enhance health literacy. Health literacy is people's ability to read and understand basic health-related information; new tools to improve one's literacy can be acquired. This concept was introduced in the *Ottawa Charter for Health Promotion*²⁵ in 1986 and has been supported by the World Health Organization (WHO) and the European Union until today. High health literacy not only entails a better understanding of health-related information but a clearer articulation of the strengths and shortcomings of urban spaces.

21 Gehl: *Cities or People*.

22 City of New York: *Active Design Guidelines*.

23 Evans/Cohen: »Environmental Stress,« 571.

24 Knöll, Martin et al. »Einflussfaktoren der gebauten Umwelt auf wahrgenommene Aufenthaltsqualität bei der Nutzung städtischer Räume.«

25 WHO: *Ottawa Charter*.

2.4 SPATIAL PERCEPTION AND COGNITION

Spatial perception encompasses the ability to sense spatial properties, such as size, distance, shape, separation and connection, or orientation of the objects, among others. The knowledge and beliefs about space and the acquisition, storage and retrieval, manipulation, and use of this knowledge²⁶ is referred to and specified as spatial cognition. This is the integration and processing of the perceived spatial properties into knowledge about space. We will review the topics within spatial perception and cognition relevant to the case study – navigation and orientation – along with the behavioral measures used to study each one of them.

Navigation is the ability to travel through space in a coordinated manner to reach a goal. As Basso explains:

Spatial navigation is a particular process because it produces an exploration of the environment, that is, a series of motor actions coordinated at a high cognitive level and aimed at performing other actions: collecting information, visiting other places, performing tasks, etc.²⁷

According to Montello, navigation consists of two components: locomotion and wayfinding. Locomotion refers to the movement through space, based not on prior knowledge of it but on local sensorimotor information, e.g. being able to avoid obstacles and moving toward visible landmarks. Landmarks, as indicated by Lynch, are particularly distinctive objects from the built environment, such as buildings, towers, or signs.²⁸ Wayfinding refers to the planning and decision making that allows an agent to reach a destination that is not immediately available to the sensorimotor system, such as when choosing efficient routes, orienting oneself by reference to nonlocal features, and interpreting route directions, e.g. finding one's way to an unknown location in a new city.

Orientation, Montello maintains, is key to the aim of reaching a destination while navigating: knowing *where you are*. The precision and comprehensiveness of this *knowing* varies according to different situations and for different people. Two types of processes are involved in orientation during navigation. The first, and relevant one to this study, involves recognizing external features or landmarks that may serve as a key to knowledge of spatial relationships: The reference point is the built environment. This is called *piloting*. The second is based on the integration of information about movement, direction, and/or acceleration, without reference to recognized features of the built environment. This is called *dead reckoning* or *path integration*.

26 Montello: »Spatial Cognition.«

27 Basso: »Spatial Navigation,« 227.

28 Lynch: *The Image of the City*.

2.5 STADTFLUCHT'S CONCEPTUAL FRAMEWORK

Spaces with the above-mentioned stressors are often uninviting to citizens. The *urban flight* taking place in the game is triggered by the need to escape or learn to cope with urban stressors. An explicit objective of *Stadtflucht* is to foster as much interaction with the built environment as possible. The implicit outcome of the interaction is to learn about the featured spaces, specifically about their potential to promote health and well-being to the users. In order to learn about urban morphology and its influence on health, the game must be able to include information about the built environment, on the one hand, and health-related data, on the other. Information about health was delivered, for example, through the measurement and visualization of participants' bio signals, which could point toward stressful or relaxing effects of the settings and the given tasks. In order to include information about the built environment, researchers analyzed the chosen area with a special focus on whether the built environment could potentially foster physical activation and relaxing activities.

The conceived prototype is based on the results of a preliminary spatial analysis of the urban context, during which the researchers observed and assessed spatial and environmental characteristics. As a result, settings featured in *Stadtflucht* were categorized into two types: stressful and relaxing. Subsequently, tasks searching to potentiate or counterbalance the given characteristics of the built environment were assigned to the settings in order to augment active recreation. This was done by supporting the positive aspects of physical spaces by overlaying a virtual space, which aims to encourage physical activity, social interaction, and recovery. The use of a smartphone game allowed the conceptual creation of a new layer of information: the game space. In this »hybrid space,« participants have the opportunity to navigate and explore the urban context in a playful manner.

In *Stadtflucht*, researchers emphasized piloting through the game design and chose to record the path taken by a person in physical space. The first was done by offering participants support through the game interface so as to achieve wayfinding and piloting. This support occurred in the form of 2D maps showing the route to take (fig. 3) and presenting participants with landmarks that facilitated orientation. To record the chosen path, participants' movements were tracked with the device's GPS sensor.

3. RESEARCH QUESTIONS

Stadtflucht is a treasure hunt with a scripted and linear game play. It is structured as a route, along which six stations, each prompting different activities, are located. In the following, we will present one of the stations and explore its outcomes based on three research questions:

1. How can we design a game feature that invites users to experience potentially healthy environments as part of a location-based game?
2. Do participants engage in such a feature, and what are the levels of acceptance?
3. Which lessons may be learned from testing a prototype?

4. METHOD AND DESCRIPTION OF THE CASE STUDY

4.1 URBAN CONTEXT

Stadtflucht is custom-made for Frankfurt's neighborhood Ostend, an area undergoing an urban planning change. The neighborhood is developing toward an attractive mix of residential, cultural, commercial, and open space areas next to the river Main. The change is tightly paired with the influx of jobs brought upon by the new headquarters of the European Central Bank (ECB).

The chosen area is mainly of industrial use, very much influenced by the harbor located on the south side. It is dominated by commercial spaces and offices, with little residential housing and only some spaces for culture and leisure. Aside from the changes taking place because of the ECB's new headquarters being built on the southwestern side, the area offers different urban qualities. Our motivation was to feature some of the interesting existing spaces and offer citizens a different view of the changing neighborhood. Since the Ostend is not a tourist destination, it was very important to offer an experience that would be attractive and easygoing but would still raise awareness for the activating qualities of the environment. Some of the spaces featured of the setting are: a renewed open space, industrial buildings – some refurbished and repurposed, others still in industrial use –, main streets with high traffic volume, and quiet but lively inner courtyards.

4.2 THE GAME

The story of the game was embedded in a series of urban artistic events titled *evakuieren*, planned by the Mousonturm in coproduction with Port B and other regional partners of the Rhine-Main region. The event, conceived and curated by Japanese theater maker and urban intervention artist Akira Takayama, aimed to reveal unfamiliar spots in the urban territory of the Rhine-Main region and lend

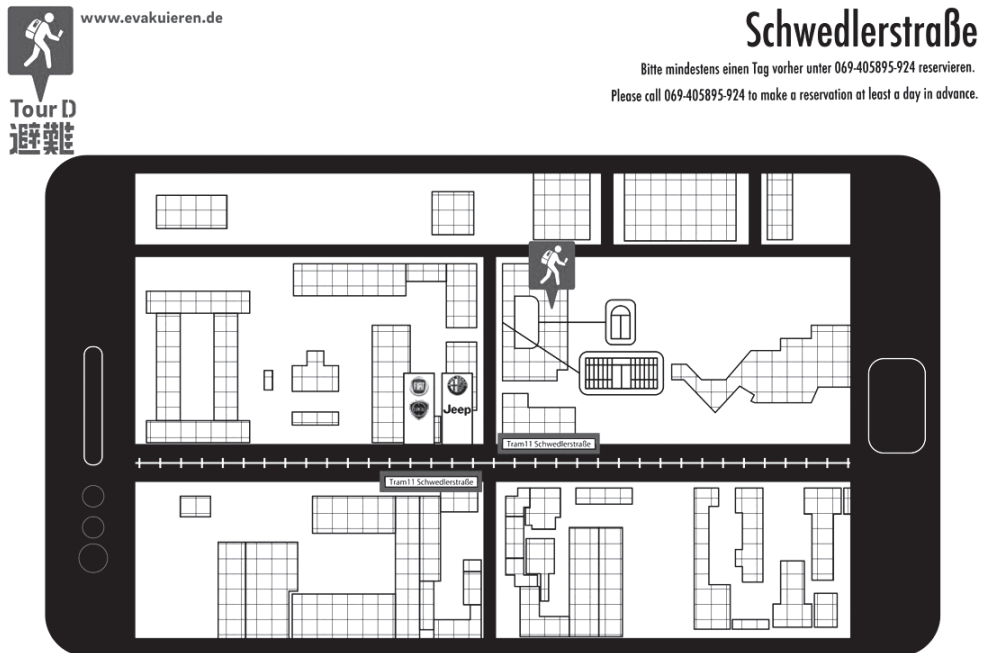


Fig. 1. Map with the station Schwedlerstraße (here highlighted in red) and the starting point (in blue). Picture courtesy of Fumiko Toda.

new meaning to the term evacuation. The project was an adaptation of the *The Complete Manual of Evacuation*,²⁹ first developed and released in 2010 as part of the Festival/Tokyo, an annual performing arts event that takes place in the city of Tokyo. *Stadtflucht*, originally born from previous research activities of the Urban Health Games research group,³⁰ was well fitted to the event.

Via a simple and short online questionnaire, visitors could ascertain their personal degree of everyday frustration and urban fatigue. A customized escape route was then distributed. The route depicted only the starting point »for a journey with unexpected encounters on unknown paths.«³¹ Participants were guided to stations of the local transport association RMV to later reach the places where different activities, such as theatrical ready-mades, artistic interventions, and urban games, awaited them.

The escape route given to participants for *Stadtflucht* provided them with instructions of how to get to the station *Schwedlerstraße* and indications to the starting point (fig. 1). No further information was supplied. Once they arrived at the marked spot, they were informed by the researchers about the goal of the game

29 <http://www.hinan-manual.com>.

30 Knöll et al.: »Urban Exergames«; Knöll et al.: »Einflussfaktoren der gebauten Umwelt.«

31 <http://blog.evakuieren.de>.

– to »escape« from stressors through relaxation, physical activity, and exploration. A first survey was filled out; participants received a smartphone and were brought to the starting point of the route.

During the game, the area was transformed into a game space. The virtual space – contained and expressed through the mobile device – supported the game narration in the following three aspects:

1. guide participants through the game board (i.e., the built environment): navigation,
2. announce and explain the game tasks, and
3. give participants visual feedback of their reactions to the carried out task.

The game started in front of the entrance of ATELIERFRANKFURT, where participants signed in to get a smartphone with the android application and filled out the first part of the survey. The user interface guided participants through a 30-minute circuit (about 900 m), engaging them in different challenges and getting them into contact, often unaware, with the different environmental characteristics that were investigated. The six different stations are located along the route and are not visible from the beginning to encourage exploration (for example in fig. 3). Figure 2 presents the route overview with the six stations. Stations with green bubbles feature relaxation and concentration tasks; tasks allocated to blue bubble stations intended to draw attention to certain aspects of the built environment and engage participants in contemplation/inspection; red ones featured physically activating tasks.

Each participant had to reach the six stations and complete the tasks featured in them. Each task served a different purpose and was located in an environment that supported the activity. Participants were guided and instructed through a direct imperative narrative, which supplied textual information about the route and described the tasks at each station. The goal of the game was to complete the tasks on each one of the six stations.

While moving from one station to another, data about navigation and time (GPS coordinates with time-stamp), bio data (heart rate measured with the help of the smartphone camera), and perception (photographs) were collected. After completing the task in station 6, participants were guided back to the starting point, where they delivered qualitative ratings of the area, i.e., their perception of the spaces. We will review the first station, which was located next to the harbor basin and featured a relaxation task.



Fig. 2. Route overview: stations (1) Harbor basin, (2) Loading dock, (3) Lindleystraße, (4) Inner courtyard – spiral staircase, (5) Alley, (6) Hanauer Landstraße. Yellow play button: starting point of the route.

4.3 STATION I: HARBOR BASIN

The first task took place at a recently renewed open square, characterized by greenery and sufficient seating options and located between the Lindleystraße and the waterfront.

Our preliminary analysis emphasized visibility, proximity to water, availability of seating and greenery, lack of transit, and low levels of noise. This was classified as a relaxing setting, and the given task consisted in relaxing.

The first step was searching for a quiet place to sit. To include information about the built environment into the gameplay, we chose landmarks that supported navigation. Navigation was provided by the means of a first look at the map with a section of the route (fig. 3) and the attendant depiction of the aimed destination (fig. 4). This was followed by the introduction to the task (fig. 5).

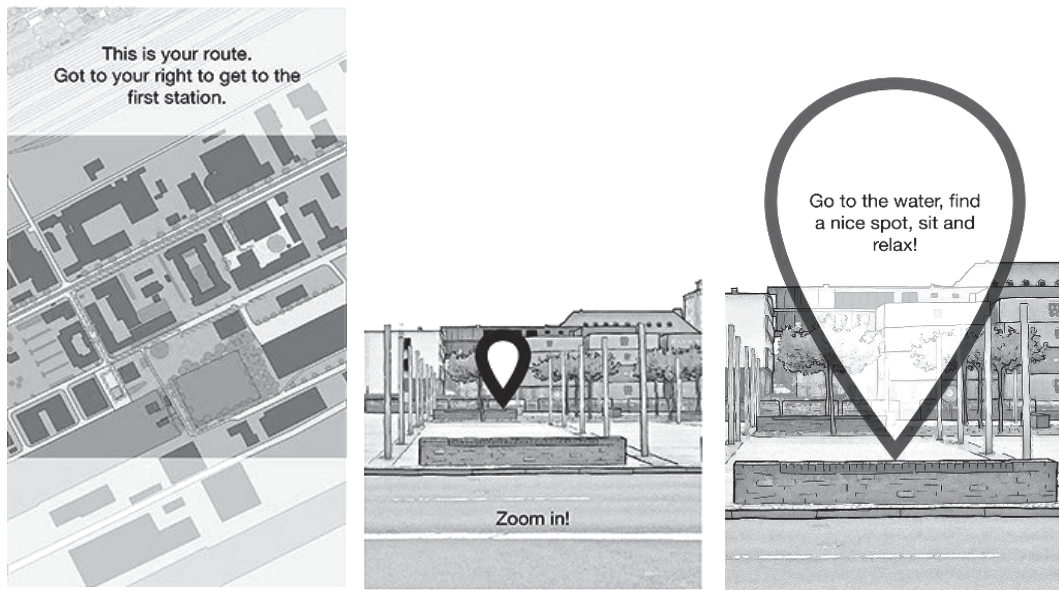


Fig. 3; 4; 5. Screens of the Android App.

Once seated, participants were asked to measure their heart rates with help of the smartphone camera (fig. 6). The application asked them to place their index finger on the smartphone camera, from which it calculated the skin color and visualized the player's pulse, giving an immediate visual feedback about the effects (fig. 7). Afterwards, participants conducted a breathing exercise as explained in figure 8. Participants pursued a relaxed and deep respiration for the duration of one minute with the help of a dot bouncing up and down at a certain speed (fig. 9). This was followed by a second heart rate measurement and feedback.

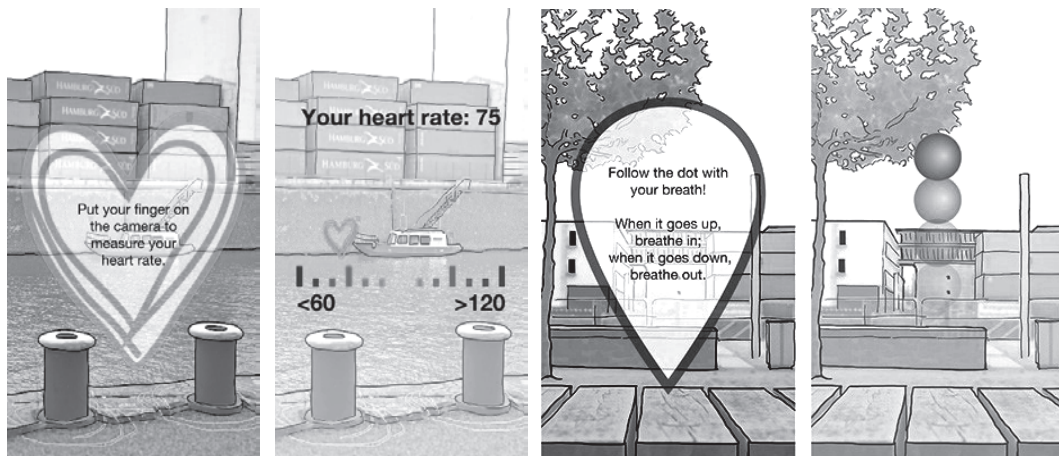


Fig. 6; 7; 8; 9. Screens of the Android App.

The question concerning urban design in this station is whether it fulfills its intent as recreational open space. Positive effects of water bodies on human behavior have been reported.³² Bio data recorded could deliver evidence about users' physical state, before and after effects of the exercise, and be paired with users' statements about their rating as stressful or relaxing. In a further step, participants could relate their experience to the urban context while filling out the second survey on their perception of the area.



Fig. 10; 11. Participant carrying out the breathing exercise; participants contemplating the harbor.

5. RESULTS/OUTCOMES

The game was tested by the public, $n=42$, on-site on two consecutive Saturdays. Participants were recruited via the online questionnaire provided by Mousonturm, an online advertisement on the university's webpage, and by approaching passersby. All 42 participants completed the six stations and delivered positive feedback about the game. The game gained high acceptance throughout the different user groups. Within the limited data of this small study, *Stadtflucht* attracted a considerably high number of female participants (61,9 %). Despite reported hiccups, it proved to be fit for users of a wide spectrum of ages.³³

In addition to the development of orientation and exploration skills and social interaction, *Stadtflucht* aims to raise awareness about the participants' reaction to environmental stimuli, e.g. participants' heart rate in a specific spot before and after the given task. Participants saw the immediate visual feedback as a nice feature, but the technical execution received criticism: The smart-phone camera would overheat after an extended period of time. This reflects on the gathered data: Participants would cancel the measurement because of the technical mishap

32 See Giles-Corti et al.: »Increasing Walking«; Watts et al.: »Predicting Perceived Tranquility.«

33 Knöll: »Bewertung von Aufenthaltsqualität.«

or the finger was not placed correctly over the camera, rendering recorded measurements unreliable for further analysis.

For the presented station, navigation tracking was of particular interest, since the apriori hypothesis was that participants would choose to move through, toward, and stay at areas with high visibility, which are spacious and bright, with enough seating available, well maintained, and with low traffic. Participants were free to decide how and where to move to, and for how long they wanted to stay there. And they did. The mean time spent in other stations was 125 seconds, while the mean time spent on the harbor was 580 seconds. This has to do with the chosen activities for the other stations and the affordance of each physical context: All other stations were *pass-through* places, and the given tasks encouraged rather fast physical activity. Nevertheless, the proposed activity in the harbor could have easily been concluded in about 120-160 seconds. Users recalled staying in the harbor contemplating and enjoying the unexpectedly relaxing spot long after finishing the task.

The evaluation concentrated on demonstrating the feasibility of such an approach for research purposes, rather than on the evaluation of the tasks in particular. After evaluation, we observed the unfolding of an open discussion about specific features perceived in the urban spaces as part of the game experience. Through participants' statements, we were able to conclude that:

- users enjoyed engaging in and with the context;
- users enjoyed the different tasks;
- users familiar with the environment mentioned that they recognized new locations and architectural features of which they had not been aware before;
- users returned more aware about the built environment but not of their bodily reactions to certain tasks;
- a wide range of age groups participated;
- an all-around experience is important: A game may not stand alone. A follow up, in form of e.g. surveys, workshops, open discussions, etc., allows researchers to gain qualitative information for further analysis;
- after becoming aware of and learning new content, people enjoy exchanging ideas, views, and thoughts;
- qualitative measures gained from the study can be linked with quantitative data (time spent in the harbor linked to visibility and morphological variables such as green, water, noise, etc.), but as soon as more complex correlations must be created, new methods have to be conceived.

6. CONCLUSION

In the future, the core game mechanics must be polished. Furthermore, research on how to include storytelling features in the overall experience is necessary. We must assess to which extent players seem to be able to draw conclusions about the relationships among physical behavior, their body's reaction, game data, and external stimuli. The game feature of immediate visual feedback must be studied further, since we gathered neither solid results nor reliable data about whether the game supports learning about healthy places. In the future, the integration of participants' bio data as agent into the gameplay may bring us closer to an answer. To do so, some technical improvement is needed, such as the smartphone flash not overheating during measurements. Whether this type of interaction enhances participants' health literacy emerges as a relevant research question for further study.

City planners and designers can learn from game design the conception of spaces that allow a playful and free interaction with the built environment. As de Lange maintains:

Perhaps this is a contribution architects and other urban designers can make to the world of new media design: to design truly accessible and inclusive urban interfaces that engage citizens with particular issues and allow [...] them to organize themselves and act.³⁴

Since various games have demonstrated the suitability of urban space as game space, it is of great interest for us to investigate in a next step multifunctional urban spaces conceived by urban planners and designers that fulfill the demands of the more common land use – residential, commercial, business, and so on – and at the same time are designed with affordance to play, be active, and support healthy behaviors: urban spaces designed as game spaces.

REFERENCES

- Avouris, Nikolaos, and Nikoleta Yiannoutsou. »A Review of Mobile Location-Based Games for Learning across Physical and Virtual Spaces.« *Journal of Universal Computer Science* 18.25 (2012). 2120-2142.
- Basso, Demis. »Spatial Navigation.« *Cognitive Processing* 9.4 (2008). 227-228.
- Ballagas, Rafael, Rafael Ballagas, Steffen P. Walz, and Jan Oliver Borchers et al. »REXplorer: A Pervasive Spell-Casting Game for Tourists as Social Software.« *CHI 2006 Workshop on Mobile Social Software (MoSoSo)*, Montreal, 2006. Web. 5/2/2015.

34 De Lange/de Waal: »Owning the City.«

- Benford, Steven, Martin Flintham, Adam Drodz, Nick Tandavanitj, Matt Adams, and Ju Row Farr. »The Design and Experience of the Location-Based Performance Uncle Roy All Around You.« *Leonardo Electronic Almanac* 14.3 (2006).
- Bogost, Ian. *Persuasive Games: The Expressive Power of Video Games*. Cambridge: MIT, 2007.
- Borries, Friedrich von, Steffen P. Walz, and Matthias Böttger. *Space Time Play: Computer Games, Architecture and Urbanism*. Basel: Birkhäuser Architecture, 2007.
- Burney, David, Thomas Farley, Janette Sadik-Khan, and Armanda Burden, eds. *Active Design Guidelines: Promoting Physical Activity and Health in Design*. City of New York. New York, 2010.
- De Lange, Michiel. *Moving Circles: Mobile Media and Playful Identities*. Erasmus MC: University Medical Center Rotterdam, Rotterdam, 2010 (Diss).
- De Lange, Michiel, and Martijn de Waal. »Owning the City: New Media and Citizen Engagement in Urban Design.« *First Monday* 18.11 (2013). Web. 5/4/2015.
- De Souza e Silva, Adriana. »From Cyber to Hybrid: Mobile Technologies as Interfaces of Hybrid Spaces.« *Space and Culture* 9.3 (2006). 261-278.
- Evans, Gary W., and Sheldon Cohen. »Environmental Stress.« *Handbook of Environmental Psychology*. Ed. Daniel Stokols and Irwin Altman. New York: Wiley, 1987. 571-610.
- Gehl, Jan. *Cities for People*. Washington/Covelo/London: Island, 2010.
- Graham, Stephen. »Telecommunications and the Future of Cities: Debunking the Myths.« *Cities* 14.1 (1997). 21-29.
- Graham, Stephen, and Simon Marvin. *Telecommunications and the City: Electronic Spaces, Urban Spaces*. London/New York: Routledge, 1997.
- Giles-Corti, Billie, Melissa H. Broomhall, Matthew Knui-man, Catherine Collins, Kate Douglas, Kevin Ng, Andrea Lange, and Robert J. Donovan. »Increasing Walking: How Important Is Distance to, Attractiveness, and Size of Public Open Space?« *American Journal of Preventive Medicine* 28 (2005). 169-176.
- Girardin, Fabien, Francesco Calabrese, Filippo Dal Fiore, Carlo Ratti, and Josep Blat. »Digital Footprinting: Uncovering Tourists with User-Generated Content.« *IEEE Pervasive Computing* 7.4 (2008). 36-43.
- Göth, Christoph, Urs-Peter Häss, and Gerhard Schwabe. »Requirements for Mobile Learning Games Shown on a Mobile Game Prototype.« *Proceedings of the MLearn 2004 Conference*, Rome, 2004.
- Hillier, Bill, Alan Penn, Julianne Hanson, Tadeusz Grajewski, and Jianming Xu: »Natural Movement: or, Configuration and Attraction in Urban Pedestrian Movement.« *Environment and Planning* 20 (1993). 29-66.

- Huizinga, Johan. *Homo Ludens: A Study of the Play-Element in Culture*. 1938. Boston: Beacon, 1955.
- Knöll, Martin, Tim Dutz, Sandro Hardy, and Stefan Göbel. »Active Design: How the Built Environment Matters to Mobile Games for Health.« *Context Matters: Exploring and Reframing Games and Play in Context*. Ed. Konstantin Mitgutsch, Simon Huber, Jeffrey Wimmer, Michael Wagner, and Herbert Rosenstingl. Vienna: New Academic, 2013. 181-193.
- Knöll, Martin, Tim Dutz, Sandro Hardy, and Stefan Göbel. »Urban Exergames: How Architects and Serious Gaming Researchers Collaborate on the Design of Digital Games That Make You Move.« *Virtual, Augmented Reality and Serious Games for Healthcare I*. Ed. Minhua Ma, Lakhmi C. Jain, and Paul Anderson. London: Springer, 2014. 191-207.
- Knöll, Martin, Katrin Neuheuser, Joachim Vogt, and Annette Rudolph-Cleff. »Einflussfaktoren der gebauten Umwelt auf wahrgenommene Aufenthaltsqualität bei der Nutzung städtischer Räume.« *Umweltpsychologie* 18.2 (2014). 84-102.
- Knöll, Martin, Yang Li, Katrin Neuheuser, and Annette Rudolph-Cleff. »Using Space Syntax to Analyze Stress Perception in Open Public Space.« *Proceedings of the 10th International Space Syntax Symposium*. London: UCL, 2015. 123:1-15.
- Knöll, Martin. »Bewertung von Aufenthaltsqualität durch Location-Based-Games: Altersspezifische Anforderungen in der Studie ›Stadtflucht‹ in Frankfurt am Main.« *MATI Mensch – Architektur – Technik – Interaktion für demografische Nachhaltigkeit*. Ed. Gesine Marquardt. Dresden: Fraunhofer IRB, 2016. 266-277.
- Kuliga, Saskia, Ruth Conroy Dalton, and Christoph Hölscher. »Aesthetic and Emotional Appraisal of the Seattle Public Library and Its Relation to Spatial Configuration.« *Proceedings of the International Space Syntax Symposium 2013*. Ed. Y.O. Kim, H.T. Park, and K.W. Seo. Seoul: Sejong University, 2013. 077:1-17.
- Lynch, Kevin. *The Image of the City*. Cambridge: MIT, 1960.
- Montello, Dan. »Spatial Cognition.« *International Encyclopedia of the Social & Behavioral Sciences*. Ed. Niel Joseph Smelser and Paul B. Baltes. Amsterdam: Elsevier Science, 2001. 14771-14775.
- Poplin, Alenka. »Playful Public Participation in Urban Planning: A Case Study for Online Serious Games.« *Computers, Environment and Urban Systems (CEUS)* 36.3 (2012). 195-206.
- Salen, Katie, and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. Cambridge: MIT, 2013.
- Schlieder, Christoph, and Christian Matyas. »Photographing a City: An Analysis of Place Concepts Based on Spatial Choices.« *Spatial Cognition & Computation: An Interdisciplinary Journal* 9.3 (2009). 212-228.

MARIANNE HALBLAUB MIRANDA/MARTIN KNÖLL

- Schwabe, Gerhard, and Christoph Göth. »Mobile Learning with a Mobile Game: Design and Motivational Effects.« *Journal of Computer Assisted Learning* 21.3 (2005). 204-216.
- Soute, Iris, and Panos Markopoulos. »Head Up Games: The Games of the Future Will Look More Like the Games of the Past.« *Human-Computer Interaction-INTERACT 2007*, 2007, 404-407.
- The Ottawa Charter for Health Promotion*. World Health Organization: Geneva, 1986. Web. 11/11/2015.
- Tóth, Eszter, and Alenka Poplin. »Pop-Up Pest: An Educational Game for Active Participation of Children in Urban Planning.« *Proceedings of Real CORP 2013*, 2013.
- Tóth, Eszter, and Alenka Poplin. »ParticiPécs: A Cooperative Game Fostering Learning about the Built Environment and Urban Planning.« *17th AGILE Conference on Geographic Information Science (AGILE 2014)*, Workshop Geogames and Geoplay, 2014.
- Verhaegh, Janneke, Iris Soute, Angelique Kessels, and Panos Markopoulos. »On the Design of Camelot, an Outdoor Game for Children.« *Proceedings of the 2006 Conference on Interaction Design and Children*, 2006. 9-16.
- Walz, Steffen: *Toward a Ludic Architecture: The Space of Play and Games*. Pittsburgh: ETC, 2010.
- Watts, Greg R., Rob J. Pheasant, and Kirill V. Horoshenkov. »Predicting Perceived Tranquillity in Urban Parks and Open Spaces.« *Environment and Planning B: Planning and Design* 38.4 (2011). 585-594.

DIE ANEIGNUNG VON LOCATION BASED MOBILE GAMES

am Beispiel des Spiels *ARTventure* (2015)

VON ANNA LENA HARTMANN

ZUSAMMENFASSUNG

Dieser Artikel thematisiert die Aneignung des selbst konzipierten Location Based Mobile Game *ARTventure* (2015). Im Rahmen des playin'siegen Festivals 2015 wurde dazu eine empirische Untersuchung durchgeführt. Diese umfasst die mediale Aneignung des Spiels *ARTventure* und die damit verbundene Raumerfahrbarkeit der Spielenden. Diese ist vor allem durch das gemeinschaftliche Spielen in Gruppen und die individuelle technische Handhabbarkeit von mobilen Medien gekennzeichnet.

Über die Verbindung von virtuellem und physischem Raum schaffen Location Based Mobile Games hybride Spielerlebnisse. Der Beitrag betrachtet den Umgang mit ortsbasierten mobilen Spielen unter Fragestellungen der Medienaneignung am Beispiel von *ARTventure*. Präsentiert wird eine explorative, qualitative empirische Untersuchung, die die Aneignung einzelner Akteure, innerhalb von Gruppen oder allein, in den Blick nimmt. Fokussiert werden die Kommunikation während des Spiels und die Spielaktivitäten der AkteurInnen. Weitergehend wird eine mögliche veränderte Erfahrbarkeit des virtuellen und reellen Raumes untersucht. Es soll festgestellt werden, ob sich Aspekte über das Spiel hinausgehend aneignen lassen.

ABSTRACT

This paper deals with the appropriation of the self-designed Location Based Mobile Game *ARTventure* (2015), based on an empirical study conducted in the context of the 2015 playin'siegen festival. This study highlights strategies of appropriation on the part of the players and examines how they experienced physical space by using hybrid space navigation. In this process, the paper argues, the ability to experience space depends on social structures while gaming in groups and dealing with mobile media based on technical skills.

1. MEDIENANEIGNUNG

Medienaneignung wird häufig im Kontext des Heranwachsens und der Bildung einer sozialen Identität von Kindern und Jugendlichen betrachtet,¹ wenngleich auch empirische Arbeiten zur Medienaneignung und -rezeption von Erwachsenen existieren.² Obwohl für die Betrachtung von Rezeption und Verinnerlichung medialer Inhalte im Laufe der Zeit eine Vielzahl von Begriffen entwickelt wurde, hat sich mit Blick auf die zunehmende Komplexität von Medien und ihrem Verhältnis zu NutzerInnen »in neuerer Zeit der Begriff Medienaneignung durchgesetzt«.³

Neben der Berücksichtigung des Alltags spielen die Umwelt und Kultur des Subjekts entscheidende Rollen bei der Aneignung von Medien.⁴ Medienaneignung lässt sich als Prozess fassen, der zum einen die »Nutzung, Wahrnehmung, Bewertung und Verarbeitung von Medienangeboten« enthält.⁵ Zum anderen umfasst er aber auch »Nutzungsstrukturen, z.B. Medienauswahl, Zuwendungsfrequenzen, Akzeptanz und Präferenzen«.⁶ Dem Menschen wird »als aktiv Handelnde[m] die Führungsrolle zugesprochen«.⁷ Er wird als ein aktives, mit seiner Umwelt agierendes und Medien in seinen Alltag integrierendes, Wesen betrachtet. Neben dem Menschen als Subjekt des Aneignungsprozesses und den Medien als den Objekten, die es anzueignen gilt, unterliegt die Aneignung einem gesellschaftlichen Rahmen. Dieser umfasst Bedingungen, die »die Akzente für die Angebote der Medienwelt und für die Bedeutung, die diese im individuellen, sozialen und gesellschaftlichen Leben haben[, setzen]«.⁸ Auch aus soziokultureller Sicht lässt sich die Aneignung als ein Prozess verstehen, der dem Individuum ein »aktives Handeln« unterstellt und darüber hinaus »ineinander verschachtelte Rückkopplungsschleifen beherbergt«.⁹ Diese Rückkopplung kann etwa im Falle des Computerspiels mitunter »Eingriffe in den Spielraum bis hin zu dessen vollständiger Umarbeitung, der stärksten Form der Aneignung«,¹⁰ nach sich ziehen.

Die Medienaneignung kann (vor allem bei Heranwachsenden) entscheidend zur Bildung einer Weltanschauung und eigenen Identität beitragen.¹¹ Diese Weltanschauung ist geprägt von dem jeweiligen Lebenskontext und, damit verbundenen, bereits gemachten Erfahrungen der RezipientInnen. »Um die subjektiven

1 Theunert: »Konvergenzbezogene Medienaneignung«, 176.

2 Charlton: »Rezeptionsforschung als Aufgabe«, 23.

3 Schorb: »Medienaneignung und kontextuelles Verstehen«, 253.

4 Theunert: »Medienaneignung in der konvergenten Medienwelt«, 128.

5 Ibid, 129.

6 Theunert/Wagner: »Konvergenzbezogene Medienaneignung«, 2.

7 Schorb, 253.

8 Theunert: »Qualitative Medienforschung«, 303.

9 Knorr: »Trickjumping«, 219.

10 Ibid.

11 Schorb/Theunert: »Sozialisation, Medienaneignung und Medienkompetenz«, 249.

Prozesse der Medienaneignung nachzuzeichnen, sind die Lebenskontexte der untersuchten Subjekte und die medialen Kontexte ihres Medienhandelns die entscheidenden Schlüssel«. ¹²

Für Andreas Hepp ist Aneignung »die Artikulationsebene im Kreislauf von (Medien-) Kultur, die das sowohl kulturell kontextualisierte als auch Kulturen (re)artikulierende ›Sich-zu-Eigen-Machen‹ von (Medien-)Produkten fasst«. ¹³ Dabei unterscheidet er drei Phasen von Aneignung: die »prä-kommunikative Phase« (Medienauswahl), die »kommunikative Phase« (Medienrezeption) und die »post-kommunikative Phase« (Medienaneignung). Diese Einteilung lässt Medienaneignung als Schritt nach der eigentlichen Rezeption verstehen. ¹⁴ Allerdings betont er auch, dass »Aneignung sowohl vor als auch während der Rezeption ablaufen« kann. ¹⁵

Für die durchgeführte Untersuchung wurde der Fokus auf die Aktivitäten innerhalb der kommunikativen Phase gelegt, die im Falle des ortsbasierten Mobilspiels Handlungen im virtuellen und physischen Raum umfasst. Dabei wird in erster Linie die Aneignung des städtischen Raums während der Rezeption herausgestellt. Eine post-kommunikative Betrachtung der Spielenden auf das Spiel bleibt in Anbetracht des Festival-Rahmens in der Untersuchung unberücksichtigt.

2. LOCATION BASED MOBILE GAMES

In der Literatur lassen sich verschiedene Begrifflichkeiten für die unterschiedlichsten Formen von Mobile Games finden. Hierbei unterscheiden Adriana de Souza e Silva und Larissa Hjorth beispielsweise drei verschiedene Arten von Mobile Games: *Urban Games*, *Location Based Mobile Games* und *Hybrid Reality Games*. ¹⁶ Unter *Urban Games* verstehen sie Spiele, die innerhalb von städtischen Räumen gespielt werden und diese als Spielfeld nutzen. ¹⁷ *Urban Games* sind in der Regel Multiplayer Games. Mit *Hybrid Reality Games* bezeichnen die Autorinnen Spiele, die gleichzeitig im physischen und digitalen Raum im Rahmen einer 3D-virtuellen Welt stattfinden. ¹⁸ Sie finden ebenfalls hauptsächlich in Städten statt, und es müssen sich mehrere SpielerInnen am Spiel beteiligen. Damit greifen sie zwei wesentliche Aspekte der *Urban Games* auf. Zur Nutzung des Spiels werden Mobiltelefone mit mobilem Internetzugang und der Möglichkeit zur Positionsbestimmung verwendet. Diese Eigenschaften erfüllen auch die im Folgenden ausführlicher beschriebenen *Location Based Mobile Games*.

12 Theunert/Wagner, 17.

13 Hepp: »Kommunikative Aneignung«, 68, Herv. im Orig.

14 Ibid.

15 Ibid.

16 De Souza e Silva/Hjorth: »Playful Urban Spaces«, 612ff.

17 Ibid.

18 Ibid.

Entscheidend für diese Games sind die Nutzung von GPS-Daten, sowie die Datenübertragung über das Internet. Dadurch wird es möglich, virtuellen und physischen Raum zu kombinieren. Die eigentliche Spieltätigkeit findet im realen Raum statt. Die mobilen Endgeräte ergänzen diesen Raum mit virtuellen Elementen.¹⁹ Des Weiteren handelt es sich bei Location Based Mobile Games häufig um Spiele, »die in Echtzeit ablaufen und von mehreren Personen gemeinschaftlich gespielt werden«.²⁰ Damit setzen sie sich dem weitläufigen Trend von mobilen Spielen, konzipiert als Single-Player Games, entgegen.²¹

Urbane Räume eignen sich besonders gut als überdimensionale Spielfelder.²² Spiel ermöglicht es in diesem Zusammenhang, »to transform physical ›serious‹ spaces into playful spaces«.²³ Location Based Mobile Games durchbrechen die Grenzen der bisherigen Spielmöglichkeit, begrenzt auf einen festen Bildschirm von (mobilen) Endgeräten: »LBMGs change the concept of what a mobile game is, relocating the game space from the traditional tiny screen to include the urban space around it«.²⁴ Während mobile Spiele im öffentlichen Raum bisher eher als Flucht aus der »echten« Welt galten, eröffnen Location Based Mobile Games vollkommen neue Möglichkeiten: Hier findet das Spiel nicht nur *im öffentlichen Raum* statt, sondern in gewisser Weise *mit dem öffentlichen Raum*. Durch die Ergänzung von Informationen, Objekten und Erscheinungen auf virtueller Ebene, die im Kontakt zum realen Raum stehen, werden neue Erfahrungs- und Wahrnehmungsräume bei den RezipientInnen geschaffen.²⁵ Durch die Bewegung im Raum »ist das Spielerleben untrennbar mit dem eigenen Erfahren des physischen Raums verbunden«.²⁶ Dadurch haben diese ortsbasierten, mobilen Spiele einen entscheidenden Einfluss auf die Alltagsumgebung von NutzerInnen. Bei ortsbasierten, mobilen Technologien, wie den LBMGs, geht es immer auch um »connecting people to physical places«.²⁷

Das Location Based Mobile Game *ARTventure* wurde von drei Studentinnen der Universität Siegen für das internationale Urban Games Festival playin'siegen entwickelt. Es ist speziell auf die Stadt Siegen zugeschnitten und wurde auf Basis des Spieleeditors ARIS designt. ARIS arbeitet mit Google Maps und ermöglicht so die Verortung von Spielen im virtuellen und realen Raum. Dies wird entweder über GPS-Koordinaten oder mittels Taggings über QR-Codes (Quick Response-Codes) realisiert. ARIS stellt somit die Rahmenbedingung des zu untersuchenden

19 Ibid.

20 Ackermann: »Mobile Location Based Gaming in der Stadt«, 158.

21 De Souza e Silva: »Alien Revolt«, 20.

22 Ibid, 18.

23 De Souza e Silva/Hjorth, 603.

24 De Souza e Silva, 18.

25 Ackermann, 155.

26 Ibid.

27 De Souza e Silva/Frith: »Locative Mobile Social Networks«, 485.

Spiels *ARTventure* dar. Neben dem Zugang über GPS muss den mobilen Endgeräten eine ausreichende Internetverbindung zur Verfügung stehen. Die Anwendung der ARIS-Spiele ist zudem bis zum jetzigen Zeitpunkt einzig und allein auf iOS-basierten mobilen Endgeräten (iPhone und iPad) möglich. Das Spiel ist so programmiert, dass es sich von jedem Ort starten lässt. *ARTventure* ist in erster Linie als Single-Player Game konzipiert, lässt sich jedoch auch in Teams spielen. Im Mittelpunkt des Spiels stehen die in der Siegener Oberstadt befindlichen Kunstwerke und das Siegener Museum für Gegenwartskunst. Bei diesem ist es im Rahmen der Spielhandlung zu einem Wasserschaden gekommen, wodurch die Farben aller ausgestellten Bilder ausgewaschen wurden. Ziel des Spiels, das sich als eine Mischung aus Abenteuerspiel und Schnitzeljagd präsentiert, ist es, die ausstehenden Farben der Bilder wiederzufinden.

3. METHODE DER UNTERSUCHUNG

Um Aussagen über die Aneignung des Location Based Mobile Games *ARTventure* treffen zu können, wurde eine explorative, qualitative Studie durchgeführt. Untersucht wurden unterschiedliche EinzelspielerInnen und Gruppen mit maximal vier TeilnehmerInnen (Abb. 1). Mithilfe der Capturing-App *Show* wurden die Bildschirmaktivitäten an mobilen Endgeräten mit dazugehörigen Audioaufnahmen aufgezeichnet. Mimik und Gestik der Personen sind nicht Bestandteil der Aufnahme. Jeder Gruppe stand ein Endgerät zur Verfügung. Die Beobachterin²⁸ steht zum Teil in näherem Kontakt zu den in den Gruppen befindlichen Personen (Gruppe 2, 3 und 7). Dadurch soll eine möglichst wenig invasive, vertraute Situation geschaffen werden. Auch die Personen innerhalb der Gruppen sind einander bekannt oder sogar miteinander befreundet. Die freiwillige Zusammensetzung der Gruppen ist bewusst nicht beeinflusst worden, um eine quasi-natürliche Situation zu schaffen. Die EinzelspielerInnen in Gruppe 1, 4, 5 und 6 haben das Spiel ohne eine(n) ihnen vertraute(n) BeobachterIn gespielt. Die Zusammensetzung dieser Gruppen ist ebenfalls nicht bewusst beeinflusst worden. Die SpielerInnen haben in der Vergangenheit das Spiel weder gespielt, noch hatten sie Kenntnisse über den genauen Ablauf des Spiels. Auch die dazugehörige Spiel-Plattform ARIS war allen zu beobachtenden Personen unbekannt. Für die von der Beobachterin begleiteten Gruppen wurde ein Zeitrahmen von circa eineinhalb bis zwei Stunden eingeplant. Dieser Zeitraum entstand durch vorherige Spiel-Testings der Entwicklerinnen.

Die Aufzeichnung der Bildschirmaktivität dient der Untersuchung der Handhabbarkeit des Spiels im Aneignungsprozess. Eine erprobte Methode im Bereich der Usability von Computer-/Spielsoftware ist das »Laute Denken«, bei dem die zu untersuchenden Personen »eine konkrete Situation einfach durchleben und

28 Bei der Beobachterin handelt es sich um eine Mitentwicklerin von *ARTventure* und gleichzeitig die Autorin dieser Untersuchung.

dabei Auskünfte über ihre Gedanken erteilen«. ²⁹ Diese Methode wird im weitesten Sinne auch in der vorliegenden Untersuchung angewendet, nur dass die TeilnehmerInnen der Spielsessions nicht explizit dazu aufgefordert werden, ihre Gedanken laut auszuformulieren. Da die in dieser Untersuchung betrachteten Testgruppen größtenteils aus mehreren TeilnehmerInnen bestehen, werden die Gedanken ohnehin innerhalb der Gruppe in Gesprächen kommuniziert. Die Beobachterin liefert den AkteurInnen daher eher Hilfestellungen in Form von Denk- und Handlungsanstößen. Abbildung I gibt einen Überblick über die durchgeführten Spielsessions hinsichtlich ihrer Gruppenzusammensetzung, Dauer und Besonderheiten.

Gruppe	Anzahl TeilnehmerInnen	Geschlecht (m/w)	Datum der Spielsessions	Dauer	Hilfestellung	Sonstiges
1	1	w	18.04.2015	01:25:16	Hinweis Beobachterin zu Beginn / z. T. Beobachterin während des Spiels	Abbruch nach Station 5
2	2	w und m	18.04.2015	01:26:03	durchgehende Begleitung durch Beobachterin	
3	2	beide m	18.04.2015	01:14:09	durchgehende Begleitung durch Beobachterin	
4	3	alle m	18.04.2015	00:25:17 00:00:07 00:30:57	zwischenzeitlich Unterstützung durch Expertin (ExpE)	erster Abbruch der Aufnahme nach ca. 25 min, danach erst wieder ab Station 5 Aufnahmen vorhanden
5	1	m	19.04.2015	01:20:19	Einweisung durch Expertin (ExpE) zu Beginn; Hinweiszettel	Abbruch nach Station 5
6	1	w	19.04.2015	01:51:00	Einweisung durch Expertin (ExpE) zu Beginn + Möglichkeit des Anrufens; Hinweiszettel	Abbruch nach Station 4
7	4	alle w	19.04.2015	01:47:56	durchgehende Begleitung durch Beobachterin	

Abb. 1. Übersicht Gruppen – Eigene Darstellung (Hartmann 2015).

Die Analyse der Kommunikation orientiert sich an den Prinzipien der ethnomethodologischen Konversationsanalyse, die »mit Aufzeichnungen von authentischen Interaktionssituationen arbeitet, von Situationen also, die auch ohne eine Aufzeichnung so oder so ähnlich stattfinden würden«. ³⁰ Die verbalen Äußerungen wurden nach dem Gesprächsanalytischen Transkriptionssystem (GAT2), welches von Margret Selting et al. im Jahr 2009 auf Basis des GAT entwickelt wurde, verschriftlicht. Die Sprechersiglen setzen sich zusammen aus der Angabe der Gruppennummer (G1-G7), der Chronologie der SprecherInnenabfolge (Sp1 spricht in der jeweiligen Gruppe als erstes, Sp2 als zweites...) sowie dem Geschlecht (M bzw. W). Die Beobachterin wird mit »B« bezeichnet. Alle Personen, die innerhalb eines Gesprächs namentlich erwähnt werden, werden zum Zwecke des Daten-

29 Bilandzic: »Lautes Denken«, 362.

30 Ayaß: »Konversationsanalyse«, 416.

schutzes anonymisiert. Die Anzahl der Silben entspricht denen des richtigen Namens, um den Sprachfluss möglichst genau nachskizzieren zu können.

Die Aneignung des Spiels *ARTventure* wird zudem in chronologischer Abfolge des Spielgeschehens betrachtet. Dafür ist das Spiel in verschiedene Stationen unterteilt worden. Die erste Station erhält somit die Sigle »SI«. Jede Station erhält einen eigenen Transkriptionsabschnitt. Dies dient der besseren Strukturierung. Somit beginnt jedes Transkript einer neuen Station (innerhalb der jeweiligen Testgruppe) mit einer neuen Zeilennummerierung.

Im Folgenden werden mit Hilfe von Transkriptauszügen Strategien und Problematiken dargestellt, die sich als entscheidend für die Aneignung des Spiels *ARTventure* herausstellen.

3.1 ANEIGNUNG DER SPIELSTEUERUNG UND NAVIGATION IM HYBRIDEN-RAUM

Nach dem Starten von *ARTventure* erscheinen die einleitende Geschichte und direkt darauffolgend die grundsätzliche Aufgabenstellung des Spiels. Die SpielerInnen erhalten erstmals die Information, dass die Farben aus den Bildern im Museum für Gegenwartskunst verschwunden sind und wieder gefunden werden müssen. Für die meisten Gruppen scheint bereits festzustehen, wer das Endgerät während des Spiels bedient. Gruppe 1, 5 und 6 haben zudem ohnehin als EinzelspielerInnen keine andere Möglichkeit, als selbst zu spielen. Währenddessen ist bei Gruppe 7 erst einmal zu klären, wer die »Steuerung« des Spiels übernimmt. Dies wird eingeleitet durch die Beobachterin, die nach Einrichtung des Geräts jenes an die Spielerinnen abgeben möchte (Abb. 2).

Transkription 1 – GIS4: TC 01:22:15 – 01:23:28

```
01 B      :  einer muss:-
02 G7Sp1W:  ich besser nich.
03 G7Sp2W:  ich auch nich [ich bin nich so spierlerisch. ( )]
04 G7Sp3W:  [was MUss denn einer' ]
05 G7Sp1W:  halten oder?
06 B      :  [DAs halten:] und ähh:: euch-
07 G7Sp3W:  [achso- ]
08 G7Sp1W:  und nich (.) wegschmeißen.
09 B      :  genau;
10 G7Sp4W:  [<<p>starte=>]
11 G7Sp3W:  [jetz gehst ] du auf neues spiel tammy
```

Abb. 2. *Transkription 1, eigene Darstellung (Hartmann 2015).*

Der kurze Ausschnitt verdeutlicht, dass vor allem die Spielerinnen G7Sp1W und G7Sp2W die Verantwortung über das Spiel und das Spielgerät abgeben möchten. G7Sp2W merkt an, dass sie »nicht so spielerisch« veranlagt sei (T1: 03), und Spielerin G7Sp1W hat womöglich Angst, das Spielgerät »wegzuschmeißen« und damit kaputt zu machen (T1: 08). An dieser Stelle sei angemerkt, dass Testgruppe 7 ein

Leih-iPad zur Verfügung steht und daher vermutlich eine gewisse Vorsicht gegenüber dem Endgerät besteht. Spielerin G7Sp3W scheint hingegen zu wissen, was zu tun ist, überlässt die Spielsteuerung dennoch ihrer Mitspielerin (T1: 11). Daran wird deutlich, dass zwar die Bereitschaft besteht, das Spiel zu spielen, die Teilnehmerinnen sich jedoch unsicher im Hinblick auf Technik, Handhabung des Endgeräts und Spielsteuerung sind und sich der Verantwortung entziehen möchten. Ähnliche Ängste haben auch die Spieler in Gruppe 4. Hier stehen jedoch Bedenken der »falschen« Spielhandhabung im Fokus, sodass Spieler G4Sp1M das Spielgerät lieber an seine Mitspieler abgeben möchte (T2:06) (Abb. 3).

Transkript 2 – G4S2: TC 00:17:11 – 00:17:36

```

01 G4Sp1M: ähm::
02 (4.0)
03 G4Sp2M: [<<flüsternd> out of Range>-]
04 G4Sp1M: [ich verSTEhs] nicht so GANZ genau. (3.0)
05 <<verunsichert>upS'> ((wählt kurzzeitig Menü an, kehrt aber
06 zurück zur Karte)) (5.0) mag einer von euch mal übernehmen? ich
07 verstehs nicht so genau; (-)muss man wirklich HIER hin laufen?
08 (4.0)
09 G4Sp2M: <<p>( )>
10 G4Sp1M: eigentlich nicht ne? (23.0) ((klickt mehrmals auf das Display))
11 soll sich gleich einer von euch mal damit beschäftigen.
12 G4Sp2M: =gib mal her-
13 G4Sp1M: ich checks nicht;

```

Abb. 3. Transkription 2, eigene Darstellung (Hartmann 2015).

Wie auch bereits bei der vorherigen Gruppe, nutzen die SpielerInnen die Möglichkeit, die Spielführung an ihre MitspielerInnen abzugeben. Dies ist besonders dann der Fall, wenn Unsicherheit über den nächsten Spielzug besteht. Keiner der Spielenden möchte die Verantwortung tragen, »etwas falsch zu machen«.

Im Anschluss an die eigentliche Geschichte des Spiels öffnet sich ein Informationsfeld, welches einen Hinweis auf die erste Aufgabe (»Aussichtsplattform«) gibt (Abb. 4). Die Aufgabe der Spielenden ist es, die im Oberen Schloss befindliche Aussichtsplattform aufzusuchen. Hier lassen sich erste Schwierigkeiten bei der Aneignung der Spielsteuerung erkennen, auch wenn sich die SpielerInnen dessen nicht immer bewusst sind. Um die Aufgabe lesen zu können, müssen die TeilnehmerInnen ihr »Menü« aufrufen, welches über einen weißen Button mit drei Querstreifen zu erreichen ist.



Abb. 4: ARTventure (2015): »Neue Aufgabe« – Eigener Screenshot.

Dort befindet sich die Funktion »Aufgaben«, die anzuwählen ist. Unter »Aufgaben« wiederum befinden sich alle aktiven Aufgaben. Keine der Testgruppen führt diesen Schritt jedoch von sich aus durch. Während die Testgruppen 1, 4, 5 und 6 einfach dem auf der Karte befindlichen Button »Los geht's« folgen, erhalten die anderen Gruppen die Unterstützung der Beobachterin. Der zuvor erschienene Hinweis, dass es eine neue Aufgabe für die Spielenden gibt, wird hierbei ignoriert. Für Gruppe 3 steht erst einmal die grundsätzliche Steuerung in Frage (Abb. 5).

Transkript 3 – G3S1: TC 00:00:33 – 00:01:37

01 G3Sp1M: neue aufgabe; aussichtsplattform; (2.0) un
 02 jetzt?=navigieren' dahin oder was?
 03 (7.0)
 04 G3Sp2M: ahH' ((tippt auf Button „Los geht's)) <<leicht abwertend>ja
 05 jetzt sechshundatviernvierzich meta laufen
 06 [benny(=G3Sp1M). (--)-schaffst du dad?>]
 07 G3Sp1M: [is das nich da vorne irgendwie] oder was?
 08 (8.0)
 09 G3Sp1M: jA lo:s oder wad?
 10 (4.0)
 11 B : ihr müsst n bisschen [LAufen']
 12 G3Sp2M: [=ja aber:::] kann ich jetzt hier
 13 naviGIERen' oder?
 14 B : was steht denn?:((wählt „Aufgabe“ im Menü an)) ihr müsst
 15 nochma eure aufgabe lesen.
 16 G3Sp2M: =ja AUssichtsplattform.
 17 B : ††GENau.
 18 (2.0)
 19 G3Sp1M: komm und †hilf die farben für die bilder weiter ((bricht ab,
 20 liest leise weiter))
 21 (5.0)
 22 B : das wäre ja jetzt der fall dass ihr†(-) da hin müsst.
 23 G3Sp2M: ja(--)- ja: beenden oder=wa? (2.0) oberen schlOss'

Abb. 5: Transkription 3, eigene Darstellung (Hartmann 2015).

Die Spieler scheinen zu verstehen, dass sie zum Feld »Los geht's« laufen müssen, vermuten aber, vom Programm dorthin navigiert zu werden (T3: 02). Auch als die Beobachterin ihnen zeigt, wo sie die Aufgabe finden und die Spieler sich diese durchgelesen haben, ist für sie die Navigation noch nicht ausgeschlossen (T3: 13). Erst als die Beobachterin darauf hinweist, dass sie »dahin« müssen, scheinen die Spieler zu verstehen, dass dieser Ort von ihnen gefunden werden muss (T3: 14-17). Die Erwartung der Spieler, von der ARIS-Software selbst navigiert zu werden, könnte auf internalisierten Handlungsweisen im Kontext von Navigationssoftwares beruhen. Die Spielsteuerung des Spiels ist jedoch offensichtlich nicht selbst erklärend, da sie auf Anhieb mit keiner den Spielern bekannten Steuerung in Verbindung zu setzen ist. Dies zeigt sich auch daran, dass Gruppe 2 ebenfalls an dieser Stelle Schwierigkeiten mit der Steuerung des Spiels hat und dieses sogar kurzzeitig verlässt, indem der Startbildschirm des mobilen Endgerätes angewählt wird (G2, TC 00:01:40 ff). Für die Gruppen 1, 4, 5 und 6 ergibt sich an dieser Stelle kein Problem, da sie sich der Aufgabenstellung überhaupt nicht widmen, sondern sich sogleich auf den Weg zum besagten physischen Ort machen. Dies verdeutlicht, dass sich aus der Kombination von physischen und digitalen Räumen für die Spielenden unterschiedliche Zugänge zur Lösung der Spielaufgaben ergeben. Der aufzusuchende Ort (»Aussichtsplattform im Oberen Schloss«) steht für keine der Gruppen in Frage. Die SpielerInnen greifen dabei auf schon vorhandenes Wissen über den urbanen Raum zurück (Abb. 6).

Transkript 4 – G7S1: TC 00:01:27 – 00:02:18

01 G7Sp4W: weiß einer [wo die aussichtsplattform is?]
 02 G7Sp3W: [dreh das mal so rum] ((gibt Hinweis, das
 03 iPad zu drehen))
 04 G7Sp1W: (--) beim schloss oben oder?
 05 G7Sp2W: =ja dacht ich Auch;
 06 G7Sp4W: <<schmunzelnd>gut dann gehen wir da hin:>
 07 G7Sp1W: aus der richtung <<f>kommt GAR keine reaktion:!!> ((dreht sich
 08 zur Beobachterin))
 09 G7Sp2W: ((lacht))<<f>INA(B)>
 10 G7Sp1W: aber isses' (-) doCH! das is oben beim schloss. (--)oder? wenn
 11 man hier hoch geht?
 12 ((26.0 Auslassung))
 13 G7Sp1W: Aufgabe;N <<p>[aussichtsplattform]>
 14 G7Sp2W: [aussichtsplattform.]
 15 G7Sp4W: [ich glaub] DA müssn wir hin.
 16 G7Sp2W: [A:ha.]
 17 G7Sp4W: [ah!]
 18 G7Sp1W: [JA] un das is da oben. ich WEIß wo das is
 19 G7Sp4W: gut- dann: los
 20 G7Sp2W: <<f>Ja> das is GANz oben;!
 21 G7Sp1W: [da hab ich meine ganzen() schon gemacht] ((lacht))
 22 G7Sp2W: [JA da war ich auch schon.]

Abb. 6. Transkription 4, eigene Darstellung (Hartmann 2015).

Die Tatsache, dass G7Sp1W und G7Sp2W schon einmal an dem Ort gewesen sind (T4: 18-22), ermöglicht ihnen, den richtigen Ort zu bestimmen (T4: 04), ohne zuvor die Aufgabenstellung gelesen zu haben. In dieser steht der Hinweis, dass sich die Aussichtsplattform im Oberen Schloss befindet. Indem Spielerin G7Sp1W anmerkt, bereits öfters am Oberen Schloss gewesen zu sein, stellt sie an diesem Punkt eine Verbindung zwischen Alltagsgeschehen und dem Spiel her. Allerdings hat sie auf eine Bestätigung der Beobachterin gehofft, weil sie sich bei ihrer Antwort nicht ganz sicher ist (T4: 07-08). Die Beobachterin wird demnach auch von den Spielenden beobachtet, die auf Basis ihrer Reaktion und ihres Verhaltens den Spielverlauf und die Aneignung des Spiels vorantreiben möchten. Neben dem Abruf von bereits vorhandenem Wissen wird innerhalb der Gruppe gezielt danach gefragt, ob jemand weiß, wo sich die Aussichtsplattform befindet (T4: 01). Die Möglichkeit, in der Gruppe zu kommunizieren und sich auszutauschen, wird demnach sofort angewandt.

3.2 UMGANG MIT NAVIGATIONSPROBLEMEN UND GRUPPENFAKTOREN

Im Laufe des Spiels müssen die SpielerInnen zwanzig sogenannte *ART-Taler* einsammeln (digitale Ebene), die an buntbemalten Stromkästen (physische Ebene) lokalisiert sind. Diese erstrecken sich über die ganze Siegener Oberstadt (Abb. 7 und 8).



Abb. 7; 8. Münzbox »Maler«; Münzboxvielfalt (eigene Screenshots).

Diese im Spiel als *Münzboxen* bezeichneten Orte sind auf einer im Spielmenü befindlichen »Map« eingezeichnet. Um einen ART-Taler zu erhalten, müssen die SpielerInnen sich zur jeweiligen Münzbox begeben und diese im Spiel anwählen. Lässt sich die Position als korrekt orten, erhalten die SpielerInnen den zugehörigen ART-Taler. Aufgrund der Positionierung der Stromkästen in der Siegener Oberstadt, die sich durch eine Vielzahl von kleinen Gassen und dichten Häuserwänden auszeichnet, funktioniert die GPS-Erkennung nicht an allen Stellen optimal. Insbesondere die Ortung der fünften Münzbox stellt sich als schwierig heraus. Spielerin G1SpW sucht dabei die Hilfe der sich zufällig in der Nähe befindlichen Beobachterin (Abb. 9).

Transkript 5 – GIS3: TC 00:52:39 – 00:54:00

01 G1SpW: zwei meter!!
 02 (10.00)
 03 G1SpW: ((lacht)) <<leicht verzweifelt>>der sagt mir zwei meter.> jetzt
 04 hat er sich gerade auch gehänge=aufgehängt glaub ich
 05 (5.0)
 06 B : [mh:]
 07 G1SpW: [manch]mal manchmal hakt da n bisschen
 08 B : jaja ja das liegt dann leider nicht am Spiel
 09 G1SpW: ((lacht)) ich lauf jetzt die ganze zeit so da rum
 10 B : Das liegt leider [an der an ARIS ja]
 11 G1SpW: [an der App ne?]ja (2.0) [mh::]
 12 B : [ja] ist jetzt
 13 (--) musst du mal austesten. (3.0) vielleicht zwei meter nach
 14 G1SpW: ja ich hab eben bei dem andern bei dem hat das geklappt einma
 15 [so zu machen] ((hält das Spielgerät etwas auf Abstand))
 16 B : [ja]
 17 (2.0)
 18 G1SpW: ah das wird der ja sein (6.0) <<skeptisch>mhh> (2.0) dssis
 19 ((lacht))sieht n bisschen [bescheuert aus]
 20 B : [da kommen doch noch welche]
 21 G1SpW: <<f>bitte?>
 22 B : da kommen doch genug
 23 G1SpW: ja aber ich will doch wenn ich da nebenher lauf will ich doch
 24 den punkt doch haben((lacht))((12.0, versucht es erneut und es
 25 funktioniert)) ah! ja <<erleichtert>ah ja ((seufzt)) schön>

Abb. 9: Transkription 5, eigene Darstellung (Hartmann 2015).

Spielerin G1SpW nutzt die Gelegenheit und macht die Beobachterin auf das Problem aufmerksam (T5: 01-04). Sie stellt selbst fest, dass das Spiel »manchmal hakt« (T5: 07), hat dafür aber schon eine individuelle Lösung gefunden (T5: 14; 15). Spielerin G1SpW steht während des Spiels weder ein/e ExpertIn zur Seite, noch hat sie zu Beginn des Spiels einen Hinweiszettel erhalten. Trotz technischer Schwierigkeiten entwickelt sie einen eigenen Lösungsansatz. Im Gespräch mit der Beobachterin holt sie sich lediglich die Bestätigung, dass die Technik und nicht sie das Problem ist. Zudem scheint für sie der Wille, alle möglichen Münzboxen zu finden und ART-Taler aufzusammeln, ein besonderer Anreiz zu sein (T5: 23-25). Die Einzelspielerin in Gruppe 6 hingegen wählt einen ungewöhnlichen und vorab nicht eingeplanten Lösungsweg. Sie nutzt die Chance, eine Expertin anzurufen und vergewissert sich, ob sie einige Münzboxen auslassen kann (G6, TC 01:05:42), da sie »kein Bock mehr« hat, noch »fünf Mal hin und her zu rennen« (G6, TC 01:06:04). Ein reibungsloser Spielablauf führt offenbar zu höherer Motivation, das Spiel fortzusetzen, während wiederholte (technische) Schwierigkeiten im Spiel zu Frustration führen. Da die Spielenden sich aktiv auf dem Spielfeld, d.h. im städtischen Raum bewegen, bedeutet fast jeder Spielzug körperliche Anstrengung. Bedingen (technische) Schwierigkeiten, dass die SpielerInnen einen Spielzug wiederholen müssen, d.h. unter Umständen den zuvor aufgesuchten Ort nochmals aufsuchen, scheint der Unmut darüber größer zu sein als die Freude am Spiel. Für einige Gruppen scheint dies ausschlaggebend bei der Auswahl des kürzesten Weges in die Altstadt zu sein, auf dem sie zusätzlich ausreichend ART-

Taler sammeln können. Gruppe 7 beispielsweise kommuniziert dies gemeinsam in der gesamten Gruppe (Abb. 10).

Transkript 6 – G7S3: TC 00:33:55 – 00:34:09

```

01 G7Sp1W: <<empört> ZWANZIG!>
02 G7Sp4W: lest mal vor
03 G7Sp3W: wir solln:=also es gibt mehrere von diesen bunten KÄsten::
04 G7Sp4W: =jaha!
05 G7Sp1W: über gen (-) die stadt verTEILT' und wir solln ah immer wenn
06     wir einen sehen DAHINGehen:- um ART taler zu [sammeln; die]
07 G7Sp2W:                                     [okay      ]
08 G7Sp1W: (-- ) uns helfen
09 G7Sp1W: und wir sollen <<etwas skeptisch>ZWANZICH art taler sammeln->
10     <<etwas unsicher>ODER?>
11 ((21.0 Sek. Auslassung))
12 G7Sp3W: wir LAUFEN jetzt EH hier runter=da ham wir eins zwei drei
13     vier.(1.0) fünf sechs sieben ↑ACHT'
14 G7Sp1W: =aber komm wir DA her? ((scrollen Map etwas nach unten))
15 G7Sp3W: mhh? JA wir laufen doch jetzt hier die straße runter.
16 G7Sp1W: is das? ach JA stimmt. genau.
17 G7Sp3W: <<p>wadde eins zwei drei vier. fünf sä=fünf sechs sieben
18     ↑ACHT!>(-- )neun zehn ELF zwölf dreizehn vierzehn fünfzehn
19     sechzehn siebzehn achtzehn (2.0) und dann müssn wir noch n paar
20     umwege gehen.=und dann HAM wir zwanzig
21 ((Gruppe bejaht dies))
22 G7Sp1W: also du leitest den weg!
23 G7Sp3W: ICH?=oka- äh das kann auch irgendwer anders machen=ich will
24     jetzt hier nich so äh
25 G7Sp1W: mh z=wenn du das:=wenn du uns richtig führst is alles gut;
26 G7Sp3W: ((lacht)) <<ff>DING DING DING> gleich sin wir am arsch der
27     welt;
28 G7Sp1W: <<pp>ob ihr wirklich richtig steht->
29     [seht ihr wenn das licht angeht      ]
30 G7Sp3W: [((lacht))<<ff>wenn das LICHT angeht!>]

```

Abb. 10. Transkription 6, eigene Darstellung (Hartmann 2015).

Da nicht vier Spielerinnen gleichzeitig die Informationen auf dem einen verfügbaren Endgerät lesen können, schlägt G7Sp4W vor, die Aufgabe laut vorzulesen (T6: 02). Dieses Verhalten lässt sich bei dieser Gruppe über den ganzen Spielzeitraum hinweg feststellen. Auffällig an dieser Stelle ist, dass Spielerin G7Sp1W die Aufgabe dann nicht noch einmal laut liest, sondern die Aufgabenstellung in eigenen Worten zusammenfasst. Dabei nennt sie ihren Mitspielerinnen die wichtigsten Informationen (T6: 03-10). Das fragende »oder« zum Ende ihrer Erklärung (T6: 10) weist daraufhin, dass sie sich selbst nicht sicher ist, ob sie die Aufgabe richtig verstanden hat und für ihre Zusammenfassung eine Bestätigung möchte. Das Verbalisieren der Aufgabe in eigenen Worten dient somit offenbar auch dem besseren Verständnis. Spielerin G7Sp3W thematisiert im Anschluss noch den möglichen Weg zum nächsten Ort bzw. zur nächsten Aufgabe. Für sie ist die Anzahl der möglichen ART-Taler ausschlaggebend. Sie zählt ab, ob sie auf dem Weg zum nächsten Ort genügend Taler sammeln kann (T6: 12-14; 17-20). Erst dann setzt

die Gruppe ihren Weg fort. G7Sp3W soll dafür die Führung des »richtigen« Weges übernehmen (T6: 25). Diese Verantwortung scheint Spielerin G7Sp3W zu beunruhigen, da sie befürchtet, nachher am »Arsch der Welt« zu landen (T6: 26-27).

An dieser Station scheint zudem der Zeitgewinn eine entscheidende Rolle zu spielen. Von den möglichen 45 auffindbaren Münzboxen versuchen die Gruppen lediglich so viele Münzboxen aufzusuchen, um alle 20 benötigten ART-Taler einsammeln zu können. Bei Gruppe 3 übernimmt Spieler G3Sp2M die Ortung der Münzboxen am Endgerät und Spieler G3Sp1M läuft durch den realen Raum, um nach den Münzboxen Ausschau zu halten (G3, ab TC 00:33:26). Für den männlichen Spieler aus der zweiten Gruppe stellt das Einsammeln der ART-Taler einen besonderen Reiz dar, da ihn diese Aufgabe an »Nebenaufgaben aus irgendwelchen Spielen« erinnert. Dabei möchte er »auch immer alles« machen (G2, ab TC 00:40:34). Er verknüpft seine bisher gemachten Erfahrungen mit Computer- und Videospiele mit dem aktuellen Spiel. Einzelspieler G5SpM aus der fünften Gruppe hingegen lässt die auf dem Weg in die Altstadt befindlichen ART-Taler aus, die er nicht auf Anhieb einsammeln kann (G5, TC 01:01:53). Er verfolgt demnach eine andere Strategie. Das strategische Vorgehen beim Aufsuchen der Münzboxen verändert insofern auch die Wahrnehmung und die Nutzung des vorhandenen physischen Raums, in dem die Spielenden unter Umständen neue, ihnen noch nicht bekannte Wege wählen und sich somit den städtischen Raum »neu« erschließen.

4. FAZIT

Ziel war es, die Aneignung des Spiels *ARTventure* als Beispiel für Location Based Mobiles Games zu untersuchen. Dabei lag das Augenmerk vor allem auf den Problematiken bei der Aneignung und den damit zusammenhängenden Strategien. Die immer größer werdende Zahl an SpielerInnen von mobilen (ortsbasierten) Spielen macht diese Untersuchung zu einem gesellschaftlich relevanten Thema. Die Tatsache, dass mobile Spiele überwiegend von einzelnen Personen überall und zu jeder Zeit gespielt werden können, lässt eine mögliche »Abschottung« oder »Vereinsamung« in der realen Welt mutmaßen. Das in dieser Arbeit untersuchte Spiel lässt jedoch ein völlig anderes Bild erkennen. Wie die Analyse der einzelnen Spielgruppen gezeigt hat, scheinen vor allem der Austausch und das gemeinschaftliche Miteinander in der Gruppe dazu beizutragen, dass sich die SpielerInnen auf das Geschehen einlassen und das Spiel erfolgreich beenden. Das ursprüngliche Konzept des Single-Player Games geht folglich in der Realität nicht auf. Alle hier betrachteten Einzelspielergruppen (1, 5 und 6) waren zwar offen gegenüber dem Spielkonzept und seinen Funktionen, allerdings hat die Hilfe in Form von Mitspielenden gefehlt, sodass Frustration und nachlassende Motivation stets zum Spielabbruch geführt haben. Die MehrspielerInnen-Gruppen haben sich das Spiel vor allem durch gegenseitige Unterstützung angeeignet. Diese Aneignung bestand zum einen in der Arbeitsteilung einzelner Aufgabenbereiche. Während

ein/e oftmals erfahrene/r technisch versierte/r SpielerIn dafür zuständig war, das jeweilige Endgerät zu bedienen, haben die restlichen MitspielerInnen im realen Raum Ausschau nach Orten oder Objekten gehalten, die zur Lösung der Aufgabenstellung von Nöten waren. Auch parallel spielende Gruppen haben hinsichtlich der Spielaneignung voneinander profitiert. Durch Beobachtung anderer Gruppen oder gar der Beobachterin gewannen sie Aufschluss über das folgende Spielgeschehen. Zum anderen führte der Austausch über bereits gemachte Erfahrungen oder bereits gesehene Orte im realen Raum zur steigenden Spielfreude. Das bereits vorhandene Wissen wurde dabei aus alltäglichen Erlebnissen und Erfahrungen rekonstruiert. Die Aneignung von Location Based Mobile Games kann dadurch als Integration in den Alltag betrachtet werden, wie es bei mobilen Spielen im Allgemeinen der Fall ist.³¹ So konnten sich auch technisch nicht versierte Personen in das Spiel integrieren. Dies führte sogar soweit, dass *ARTventure* von unerfahrenen SpielerInnen nicht als »richtiges Computerspiel« angesehen wurde, was als besonders positiv empfunden wurde. Location Based Mobile Games ermöglichen somit das gemeinsame Spielerleben unabhängig von Wissensstand und Spielerfahrungen.

Als besondere Herausforderung bei ortsbasierten Spielen ist zudem die Positionsbestimmung über GPS hervorzuheben. Diese stellte sich bei *ARTventure* als teilweise ungenau dar, was wiederum zu Schwierigkeiten in der Aneignung führte. Dabei sahen vor allem die männlichen Teilnehmer der Spielsessions die Schuld bei den technischen Gegebenheiten und stellten diese in Frage. Interessanterweise wählten sie bei der Benennung dieser Probleme oftmals Artikel oder Pronomen, die das männliche Geschlecht ausdrücken. Die Teilnehmerinnen hingegen zeigten eine gewisse »Ich-bezogene-Unsicherheit« auf, indem sie Schwierigkeiten in der Aneignung vor allem auf sich bezogen. Allerdings führte die Ortung über GPS und gleichzeitige Verortung im realen Raum nicht nur zu Schwierigkeiten. Location Based Mobile Games wie *ARTventure* ermöglichen es, neben der technischen, virtuellen Aneignung, vor allem den realen Raum erfahrbar zu machen. Durch die erforderliche genaue Beobachtung und Wahrnehmung des (städtischen) Raums, können sich die SpielerInnen neue Orte und neues Wissen aneignen, welche in das Alltagswissen integriert werden können. Dadurch entsteht ein gewisser Aneignungsprozess, wie er zuvor bei Medienaneignung im Allgemeinen herausgestellt wurde.

Neben dem Beobachten der Umwelt und dem Zurückgreifen auf bereits gemachte Erfahrungen erwiesen sich bei der Untersuchung der Spielsessions vor allem auch das Ausprobieren und Wiederholen von Aufgaben oder einzelnen Spielzügen als hilfreich. Die SpielerInnen verhielten sich bei der Spielaneignung demnach nicht nur nach beobachtbaren »Trial and Error-Mustern«, welche bekanntermaßen auf dem Lernen aus Fehlern beruhen, sondern zeigten durch Nach- und Vorlesen der Aufgabe sowie dem Verbalisieren der Aufgabenstellung

31 Höflich: »Mobile Medien und städtisches Leben«, 69.

in eigenen Worten ein reflexives Verhalten. Dieses diene nicht nur dem Zweck, MitspielerInnen über das Geschehene zu informieren, sondern auch dazu, das eigene Spielbewusstsein zu stärken. Wie die Aneignung von *ARTventure* zeigt, können Location Based Mobile Games einen Beitrag zur Bewusstseinerweiterung und damit verbunden der Formung der Persönlichkeit von SpielerInnen leisten. Dies geschieht nicht nur auf technisch, virtueller Ebene, sondern vor allem auch im Hinblick auf die Erfahrbarkeit des realen, öffentlichen und (städtischen) Raums.

REFERENCES

- Ackermann, Judith. (2014): »Mobile Location Based Gaming in der Stadt – Spielerische Eroberung des urbanen Raums und Hybrid Reality Theatre«. *Mobile Medien – Mobiles Lernen: Neue Technologien, Mobilität und die mediatisierte Gesellschaft*. Hrsg. Caja Thimm und T. Christian Bächle. Berlin: LIT, 2014. 143-168.
- Ayaß, Ruth. »Konversationsanalyse«. *Qualitative Medienforschung: Ein Handbuch*. Hrsg. Lothar Mikos und Claudia Wegener. Konstanz: UVK, 2005. 416-424.
- Bilandzic, Helena. »Lautes Denken«. *Qualitative Medienforschung: Ein Handbuch*. Hrsg. Lothar Mikos und Claudia Wegener. Konstanz: UVK, 2005. 362-371.
- Charlton, Michael. »Rezeptionsforschung als Aufgabe einer interdisziplinären Medienwissenschaft«. *Rezeptionsforschung: Theorien und Untersuchungen zum Umgang mit Massenmedien*. Hrsg. Michael Charlton und Silvia Schneider. Opladen: Westdeutscher Verlag, 1997. 16-39.
- De Souza e Silva, Adriana »Alien Revolt: A Case Study of the First Location-Based Mobile Game in Brazil«. *IEEE Technology and Society Magazine* 27.1 (2008). Web. 5/19/2015.
- De Souza e Silva, Adriana, und Jordan Frith. »Locative Mobile Social Networks: Mapping Communication and Location in Urban Spaces«. *Mobilities* 5.4. (2010). 485-506.
- De Souza e Silva, Adriana, und Larissa Hjorth. »Playful Urban Spaces: A Historical Approach to Mobile Games«. *Simulation & Gaming* 40.5 (2009). 602-625.
- Hepp, Andreas. »Kommunikative Aneignung«. *Qualitative Medienforschung: Ein Handbuch*. Hrsg. Lothar Mikos und Claudia Wegener. Konstanz: UVK, 2005. 67-79.
- Höflich, Joachim R. »Mobile Medien und städtisches Leben: Empirische Hinweise und theoretische Anmerkungen«. *Mobile Medien – Mobiles Lernen: Neue Technologien, Mobilität und die mediatisierte Gesellschaft*. Hrsg. Caja Thimm und T. Christian Bächle. Berlin: LIT, 2014. 69-98.
- Knorr, Alexander. »Trickjumping: Die kulturelle Aneignung des Spielraums. Vom virtuoson Spielen zum Modifizieren und zurück«. *Shooter: Eine multidisziplinäre Einführung*. Hrsg. Rolf F. Nohr, Matthias Bopp und Serjoscha Wiemer. Münster: LIT, 2009. 217-246.

- Schorb, Bernd. »Medienaneignung und kontextuelles Verstehen: Welche Implikate ergeben sich aus dem Konstrukt der Medienaneignung für die Medienforschung?« *Dynamisch-Transaktional Denken: Theorie und Empirie der Kommunikationswissenschaft*. Hrsg. Carsten Wunsch, Hans-Jörg Stiehler und Werner Wirth. Köln: Harlem, 2007. 252-261.
- Schorb, Bernd, und Helga Theunert. »Sozialisation, Medienaneignung und Medienkompetenz in der mediatisierten Gesellschaft«. *Mediatisierung der Alltagswelt*. Hrsg. Maren Hartmann und Andreas Hepp. Wiesbaden: VS Verlag für Sozialwissenschaften, 2010. 243-254.
- Selting, Margret et al. *Gesprächsanalytisches Transkriptionssystem 2 (GAT 2)*. *Gesprächsforschung: Online-Zeitschrift zur verbalen Interaktion* 10 (2009). 353-402.
- Theunert, Helga. »Konvergenzbezogene Medienaneignung und Eckpunkte medienpädagogischen Handelns«. *Neue Wege durch die konvergente Medienwelt: Studie im Auftrag der Bayerischen Landeszentrale für neue Medien (BLM)*. Hrsg. Helga Theunert und Ulrike Wagner. München: Reinhard Fischer, 2006. 161-210.
- Theunert, Helga. »Qualitative Medienforschung«. *Handbuch Medienpädagogik*. Hrsg. Kai Uwe Hugger, Frederike von Gross und Uwe Sander. Wiesbaden: VS Verlag für Sozialwissenschaften, 2008. 301-306.
- Theunert, Helga. »Medienaneignung in der konvergenten Medienwelt«. *Medienbildung in neuen Kulturräumen: Die deutschsprachige und britische Diskussion*. Hrsg. Ben Bachmair. Wiesbaden: VS Verlag für Sozialwissenschaften, 2010. 127-140.
- Theunert, Helga, und Ulrike Wagner. »Konvergenzbezogene Medienaneignung in Kindheit und Jugend«. Themenheft: *Qualitative Forschung in der Medienpädagogik*. Hrsg. Heinz Moser und Horst Niesyto. *Medien Pädagogik* 14 (2007). 2-20. Web. 6/28/2015.

PLAYIN'SIEGEN FORUM I

Game Design for Urban Spaces

BY ANDREAS RAUSCHER (MODERATOR), JUDITH ACKERMANN, PHILIPP EHMANN, MARIANNE HALBLAUB MIRANDA, CHRISTIANE HÜTTER, GWYN MORFEY, AND MICHAEL STRAEUBIG

I. PLAY AS TRANSFORMATIVE EXPERIENCE

Andreas Rauscher: Play is often described as an entertaining activity and therefore misunderstood as an activity that lacks substantial seriousness. What do you think about this description?

Judith Ackermann: The question is where you place the seriousness. Play can be serious in the area of the content, but it can also be serious in the activity. When people play, they can engage very seriously in the activity and can be really committed. Watching the people in Siegen during the playin'siegen urban games festival as they are walking around with a mobile phone playing games, we see that they are really actively thinking about what they are doing, where they are going, and how they have to behave in each step. Play is a really serious activity for them, even though it might not always have a serious content. I think all games are serious in the way they engage people very actively and very seriously.

Andreas Rauscher: It's up to the player to be engaged seriously; it is an individual decision you make while playing. On the other hand, so-called serious games sometimes have this kind of conflicting message. They keep on telling you: You have to play it this and that way; you have to be serious; don't be playful or else you will not get the lesson we are trying to teach you.

Marianne Halblaub Miranda: I don't think that seriousness has to be necessarily a bad thing. It can be a really good feature, especially since it may have this layer of didactic elements. Of course, some of the people who are developing these games are not designers, and I think that's what should be brought together. How can you work together, people who know about design, know about playing, know how to make it fun, etc., and make those serious games more attractive? So maybe the term can be changed, but I don't think it's a bad thing that people continue to make this distinction, analyzing and really focusing on being serious. Because once you define it you can really work around those boundaries, and then you will see ok, that definition isn't all that good.

Christiane Hütter: That is a really good point. Not many people can just work as translators between designers and scientists or whatever content the games should present. Most of the people who want to tell others something through games don't grasp the power games can have. A game can make people understand, feel, and live in a very complex system that they couldn't even see before. But this is not how serious games are used. They are mostly used for making people learn stupid facts. It's the question of how you define what you want to transform in people when they play the game, and this can be more than just stupid learning things. But funding-wise, making a serious game is much easier.

Gwyn Morfey: I think you have a really good point about empathy. Emotion in the game world is a really good way to educate people, give them empathy about what it is like to be someone else or do something – maybe not very good for teaching facts, but good for teaching understanding. I've seen this done really well in the computer games space. I played *Papers, please* for twelve hours straight; that game just got into my head, and I really was a border security agent for about twelve hours, which really changed the way I see things. Watching decisions I made in this game was really quite alarming, and that was a powerful experience. I haven't seen that done in a street game. I don't know if any of you guys have seen anything like that done in this space.

Michael Straeubig: I've had some transformative experiences during street games, but I want to mention something else. I once met a kid of fifteen, sixteen years at a games convention. He was organizing a *World of Warcraft* guild, and he told me how he was coordinating this group of people from all over the planet, 24-hours a day, coordinating their attacks and raids, distributing the loot, recruiting new players, and my jaw just dropped as he kept on talking. He had acquired more managing skills than he would have by attending business school for several semesters. *World of Warcraft* is not a »Serious Game,« but it teaches fundamental skills just by playing and by solving these thorny problems. And to your question, Gwyn, I do think that street games and playful experiences in the public space have this transformative power because they allow you to see your usual environment, the city you live in, with new eyes. We normally just pass through our cities to get to work or during leisure activities, but we don't look at the city itself. We only look closely at cities when we are traveling as tourists. These games have the power to let you rediscover your »usual« environment. In this sense, I think, we can create fundamental experiences for people with urban games as well.

Marianne Halblaub Miranda: In the Research Group Urban Health Games, we have had that experience because that's what we do: We want to know how people appreciate and perceive the environment. In the games we've done, people come into an industrial site, and suddenly you have this visual layer that is telling you to do something that you wouldn't usually do in that space. They go, ok,

actually this place is really nice, you can do something with it, and I'll come back here; it's not only like the place where you go to buy a car; you can actually live and do fun stuff in this place. And that's really nice, watching people first of all being really excited and amazed about something they have never seen before, and then afterwards wanting to engage and say, this is that good and nobody knows – I am going to tell somebody else what this place has to offer. For example, if they live in that place and do not know about maybe an open courtyard that is really nice, then they might think: We want this to happen more often in our neighborhood; we want it to be different so that we can have this experience in our everyday lives.

Christiane Hütter: And it can even go one step further. You don't just have those experiences in street games that people learn something from or just transform themselves but through which they can even become scientists themselves, conducting research, finding results, and then making a plan about how to change their environment. This is one of the most important achievements of urban games. They can empower people on a local level. They can connect people and directly form a real-life community, and this is the big advantage compared to computer games. In 2012, we made the game *Ruhrzilla*¹ in a city in NRW. The hypothesis of the project was that there were monsters in the city and everybody could join to examine them. One method was filling in online monster reports. Participants could take pictures of possible monster traces, describe the monsters, and connect their thoughts. In the end, we had hundreds of monster reports. People took a closer look at their city, but within this fictional frame, and this worked quite well.

Andreas Rauscher: So if a game comes to town – what do you think is its relationship to the urban space? Is there a kind of transformation of the city into a playground; is it a way of discovering everyday structures from a playful perspective? What are your experiences with street games? Is there a magic circle created within the urban space?

Christiane Hütter: I think it cannot be a magic circle, a closed magic circle, because you have the real-life environment. You have other people coming; you have cars coming. The interesting thing about this urban space is that you are not in a room and you are not alone with your game but you have to react nonetheless. You also react when you design a game, especially when you work site-specific, so that it fits a particular place. But many games work site-generic; you just have special conditions, for example, a wide staircase and ten people at the place you need for the game. Then you can play the game anywhere where there are ten people. These games are just temporary; they don't stay. The rules are

1 <http://www.ruhrzilla.de/>.

just a kind of showcase. This can happen here, but everything else as well. And for me, this »everything else as well« is the most important thing.

Judith Ackermann: I think that urban games can do the things you mentioned. I also believe that they can create a common ground for people who might not know each other but might be even neighbors. When meeting via participating in an urban game performance, which is a form of live event, they share an experience immediately. This creates memories for them, a kind of bonding between the participants, which is something that outlasts the event itself. It is something that the people have lived through together in their own city, something that is not an everyday routine but something extraordinary.

Marianne Halblaub Miranda: I think this leads to a transformation of not only the environment itself but in the imagination of people, who might think: What is this environment now, and what could it be like? Which is really cool for urbanists, to know what people want.

Philipp Ehmman: Even the open magic circle, the pervasiveness of the game, even that already opens up the same thought structure. Ok, there are people running around with weird masks, which already opens up my perception of the space, and even though I am not actually actively involved in playing, I am still re-thinking what this space is used for and maybe possibly deciding at home that I'll use it in a similar manner or use it differently next time I walk around in that space.

Gwyn Morfey: I think one of the interesting things about this is that memories bind very tightly to locations – if something dramatic happens to you, you'll remember where that is: I climbed up a six-foot spiked fence in a game of street wars early one morning. I was wearing a suit pretending to be a real estate agent because I needed to get close to my target. That was quite an interesting morning, and every time I ride past that junction now I remember that. It has become a permanent part of the city landscape for me. I think games are doing that to many of my players as well because they say that if I chase them round a corner or they find a checkpoint or an interesting place they remember that when they get through – they always see the city differently after that.

Philipp Ehmman: I still remember *City Dash*² in Krakow. I hid in a lingerie shop.

Michael Straeubig: If you have had these experiences, you will always remember them. I recall being at our student-run theater festival ARENA in Erlangen fifteen years ago. There was this project by the group AKMS, where they gave you

2 <http://citydash.net/>.

tours of the city, but some of the things they said were factual and some were fictional, and often you couldn't tell the difference. So you began to wonder, is that piece of information about the architect who supposedly planned this building in front of you actually true or is it made up? Your perception was constantly challenged. For me, this started a kind of transformational thinking about how we perceive our environments. The kinds of experiences that we have at playin'siegen, some of them have the power to do that, even if people do not pick it up immediately. It is like a poisonous pill for some people that they swallow and, after some time, start reflecting about this. I think »poisonous pill« is a good name for these kinds of games.

Marianne Halblaub Miranda: This applies even to games that don't physically take place in an urban context but present that context digitally. *Assassins Creed* gamers will go to Italy and will see the environment and the architecture in a whole new light. They are going to be thinking, ok, I am going to jump there, I am going to go there – stuff that, of course, you can't do, but they are seeing the environment and transforming it in their heads.

2. URBAN GAMING: SOURCES AND INFLUENCES

Andreas Rauscher: I have seen a very impressive video of an *Assassins Creed* parkour played in Paris, where the scenario of a recent entry in the series is turned into a real sports event with people in costumes like in *Assassins Creed*, with characters who visit the original locations in Paris and do a parkour on that. I think it's a really interesting combination of fiction becoming real and the real places turning into a fictional game world, such as the game Michael mentioned where you invent background stories to the locations or architects or artists. There is an interesting mixture here between elements taken from performance theater and from improvised storytelling. Are those influences useful for game design? I saw a hide-and-seek-game performed at the town square outside. It reminded me of a scene from classical spy thrillers. What inspiration can be taken from other art forms and media for urban gaming?

Philipp Ehmann: I think gaming is generally transdisciplinary and therefore gets its influences from everywhere: from the location you are playing to stories you heard to actions you think are interesting and could be used as a mechanic, for example, handing over a leaflet or a letter to someone to basic actions – sporty actions, like running around, shouting. In games, you will find different approaches because they are so easily manipulated from all sides. If you are an architect, you will probably look at the geography you are working in because that is what you know best. Therefore, you will start from that point, and then you will work toward a game mechanic that might be useful. I am a theater maker, so I work from social situations, and I use those as a starting point for my work and then work

them into the game mechanic. Gwyn uses his cards, which are fantastic really, to create a game structure. So I think, yeah, they are all different sides. Games, also because of these transdisciplinary approaches, have the potential to bring about, as Gwyn said, social empathy and learning mechanisms for social empathy. In that sense, they have great subversive potential that we are actually not using enough, possibly. At the same time, they are breaking up thought processes in public spaces. This is also a very great subversive potential.

Michael Straeubig: Games are the best examples of interdisciplinary thinking and making because we all work like that. It is hard to work with people with whom you may not share a common vocabulary; it is hard to work with people when you are not sure if what they are doing really makes sense and the other way around. Making a game is an art and a craft where you bring different people together. People from scientific, technical, artistic, cultural, and design backgrounds. All kinds of different approaches, views, and disciplines come together to build a game. For me, that is what is so fascinating, because it's a truly interdisciplinary kind of work, and that's really great.

Gwyn Morfey: In terms of sources of things, I straight up steal from movies. That's what I do. I find bits I like in movies, and then I go, how can I make a game out of this? So, one of the early ones I saw was *Entrapment* – the laser maze in it, that's great, let's have that! So, I booked a laser maze and put players through. Or that bit in *Aliens* when Ripley is struggling to work out the Pulse Rifle as the aliens are closing in on her. That's brilliant, that's incredibly tense! I did that, like giving players Nerf guns they didn't know how to use and sending zombies at them. It's doing the thing while struggling to find out how to load it while we've got actors closing in on them. Or the bit at the end of *Reservoir Dogs* where everybody is talking and trying to solve this by negotiation. And then somebody pulls a gun, and suddenly it's guns everywhere. I did a game called *Stand Off* that does that. Again, it doesn't always work because if you script it too much, it is not a game anymore, it is theater. But when it does work, it is great. It is exactly the moment I was trying to create, and it just worked. So, that's where I do it from.

Christiane Hütter: I would totally agree that you can take everything that interests you, especially when it comes to site-specific games. I find it fascinating to look at the people who live around and to also include the social setting, especially fearsome fantasies of locations around you. But I also steal a lot from movies, mainly because I am also a scriptwriter.

Judith Ackermann: I just wanted to add that the attitude of »being open« or »openness« is not only part of the design process but also of the playing process. It is also something that might remain. Because people realize they have to be open to what the playground might lead them into, what actions might be possi-

ble there. They can take everything you said as a resource to develop a game, and they can modify it in every playtest, by changing the location or the team structure. Being open, openness, is a key term for urban games.

Christiane Hütter: And most importantly, be open to playtesters. This is one thing that I find surprising each time: what you learn when you just make a playtest.

3. GAMES AND AGENCY

Andreas Rauscher: You mentioned the difference between site-specific and site-generic design. When you design an urban game and are recruiting play testers, are you already planning that it will be open to the people around? Is there already a kind of imagined role for them to take over as soon as the game starts? Or do you have to pull people standing around into the game? Christiane mentioned the social setting, and Philipp mentioned the subversive potential. How do you approach the process of integrating the people around you?

Christiane Hütter: In this playground work there are different levels of interaction with the »real« humans around – not the players, but the real humans. We often make them collaborators. For example, we want to make a game where we use private flats. Then we just walk around and look for people who let us use their flats. And not for our game, but for games we develop together with them based on their ideas of what kind of interaction could take place. This is a very deep level of participation. These people really become like non-player characters for us where you have to know it's not like theater, it's always very open, and you have to be very flexible to react on this. But your question was more about people just walking around and being there. You can separate different phases. In the research phase, we talk to everybody who is there; when the game is ready, most of the time it is for the players, and not for people who have to be brought in. We made some small games in which you have to gather people and make the group bigger or dance together in the pedestrian precincts. But this is not the usual case because you also see what is going on, and this is visible enough most of the times. It depends on the partner. We often work with art festivals, theaters, and other institutions, and they tend to have a specific idea of who to invite. Sometimes we also work with word of mouth propaganda or flyers on the location, but this is more for our own playtests.

Marianne Halblaub Miranda: For us in research, if we are going to research something, we have a really narrow target group. We have to know what it is that we are investigating and who is going to answer that question. Depending on that, we have to develop a certain type of game. If it's for children, the activities are go-

ing to be totally different than activities that older people do in the city. I think Michael can relate to that.

Michael Straeubig: Generally, I am interested in an open approach toward play. Some games create social situations where you feel that you have to play. It is like visiting your friends and they say, »oh, let's play a board game!«, and you go, »hmm, do I really want to stay for two more hours?« For board games and many multiplayer games, it can also become difficult when someone decides to leave the game while it is running. What I am trying to achieve with playful experiences like *KlingKlangKlong*³ is that you can drop in and drop out anytime. It runs in the background and people can engage with it for a minute, an hour, or a day. I try to make the boundary between playing and not playing more permeable and the game itself more ephemeral. My first commercial projects were event games designed for large groups of people. What you must avoid in these setups is forcing people into the game. The most terrible thing you can do is to tell players that they have to play when they would rather chat with their friends.

Andreas Rauscher: But it's a serious game, you have to play it! If the game is considered serious and you are having fun instead, you are out of the game!

Michael Straeubig: We may recall that period in theater when many theater people were thinking about how to break the fourth wall, and some were doing it by dragging some unfortunate audience members on stage and making them uncomfortable in front of the others. This is probably the most obnoxious idea in the history of performative arts. Rumor has it that there are ensembles still doing this. Unbelievable. How can you still do this?

Andreas Rauscher: It's really mean.

Michael Straeubig: Because it is based on a skewed power structure where the performers still want to perform their stuff. So you are being ridiculed, you are being exposed on stage, and this power structure is not right. I believe that you can open up the fourth wall and let people in, but it should be on equal terms. Players always must have agency. This is one thing that you learn in game design. You empower the player, and you let go of some power. Many traditional artists are quite scared by the idea to let go of their power. They want their artwork to be there and allow the audience to experience it. But the audience has no power. As game designers, we always relinquish power, and often the players have the power to deconstruct the game, to change it completely, even to destroy the game.

3 <http://playpublik.de/de/events/kling-klang-klong>.

Philipp Ehmann: One of my favorite sentences is, »You are playing the game wrong.« If you've allowed me to play it that way, then I am not playing the game wrong. I am just using it differently than you may have expected, which should be okay. I'm saying that as a theater director.

Christiane Hütter: I like creating games where people want to cheat and feel good about this. And cleverer than me.

Gwyn Morfey: I really like watching players create solutions. In *City Dash*, you wear a coat with three letters on it so we can tell whether we've seen you, and you are not allowed to cover it or take it off. But we had teams showing up in camouflage suits made up entirely out of coats. They were wearing their coat, but there were so many other ones, we couldn't tell what was going on. I mean, it's inside the rules, it's not cheating, really, it's really creative.

Philipp Ehmann: I think if we look at things like *Minecraft*, it provides a structure for people to be creative in a certain environment. That's all it does: to be playfully creative. And that's almost the best thing you can do as an artist, to provide a structure where people can be creative and free and sort of play around.

Judith Ackermann: By integrating these things into a city, you create a good area for the people around. They can decide by themselves how much they want to engage. They can just observe – I've seen many people here in Siegen sitting in cafés, watching and talking about what the people are doing there, why they are running around. Others were talking to players and asking them what they were doing, and maybe they started to play by themselves, or they adopted several games we used on the first day and played them on the next day. They are totally free to decide how deep they want to go into that. It is what you said, Philipp. Sometimes people prefer to say, »I am not a gamer, I don't do games.« But by seeing the actions that are interesting and appealing, they can decide if they want to move into the field of gaming, maybe by not even recognizing it at first. They're just playing.

Marianne Halblaub Miranda: I think that would be ideal for everybody. Think about the city as a playground, or maybe as a stage, where people can present themselves, where they can interact with others and use the built environment to express themselves. The questions would be: Can game designers choreograph these interactions inside a game field? Can designers, like artists or planners, make it into a real game field, including policies that are implemented? Can that also help people feel in that situation and feel that they are allowed to play, to be free in the spaces they are using in their everyday life?

4. PLAYING WITH THE DARK SIDE; OR, THE AMBIGUITIES OF GAMING

Michael Straeubig: I totally think so, and I have to mention a widely discussed term: *gamification*. What it means is taking concepts from games and game design and applying them to non-game contexts, for example, to urban planning, education, or healthcare. Unfortunately, the term has been misunderstood and is now problematic. But I do think that in order to transform our lives, we can try to make things more enjoyable and more playful. You can try to make filing your taxes more playful; I try to do it every year. I remember watching the episode from *Black Books* (2000) where Bernard is filling out his tax forms. He drinks a lot of red wine, and, in the end, he has his receipts all over his body. It is difficult, but you can do it if you think about the distinction between reality inside and outside of a game. It is interesting to think about what our reality is and if you could possibly change it to a more playful reality. In my opinion, we mainly construct our reality, and games can help us to reshape reality.

Marianne Halblaub Miranda: Maybe it's the fact that terms like *gamification* and *serious games* are doing something in your head that you don't like. I mean, policy makers can actually have a very playful approach and change the way a city works. I come from Colombia, and what one major did over there was, he just had this playful approach to confront people with »wrong« behavior. He targeted people who were driving and not stopping at the zebra crossings. He hired 100 or 200 mimes who would just play with people, standing on the zebra and making them see how illogical their way of driving was. In the beginning, many people – that was 10, 15 years ago – said, »we do not need some crazy person managing the biggest city in Colombia. We need somebody who can be serious!« But he was dead serious about what he was doing. He just realized that sometimes you need a playful way of telling people that what they are doing is wrong. Once you tell them, say confrontationally, no one is going to react in a nice way. And then we come to that part of learning from a game. How you can change your way of actually moving and interacting.

Michael Straeubig: This is an excellent example.

Marianne Halblaub Miranda: So it's not the fact, it is this term.

Michael Straeubig: It's only the term *gamification* that is problematic, not the idea.

Christiane Hütter: Michael, you said that everybody constructs his or her own reality, and I think games are excellent for just uploading a special kind of shared reality and having a nice one together.

Andreas Rauscher: Considering the term *gamification*, there is also the problem of the intentions behind it. There is one side that can be playful and subversive, and there is another problematic one employed as disciplinary action for corporations. Marketing can have an aesthetic side to it that can be fun, but a really bad case of *gamification* would be collecting discount tickets from a shop and considering this to be a game. Sometimes, bad *gamification* works like this. I would also be interested in the question if there are any limits to game design. Is there a point when it turns from being subversive to disciplinary? For example, you can get certain skills from *World of Warcraft*, as we have discussed, but if you don't use the skill productively for yourself, you just become a kind of perfect bank clerk or a gold farmer.

Michael Straeubig: I wouldn't object to perfect bank clerks, but you are right. Games are artifacts. With many historical games, we don't know who started them, but the games we design are made by people who have certain intentions. And these intentions matter. If you want to entertain people, educate people, bring a message to people, then it does make a difference. Of course, as a player, you can always challenge the intentions of the designer. I think that a dialogue between players and game designers about intentions can be very fruitful. There are some quite uncomfortable games that have the intention to illuminate the dark side of play. Play can be addictive; play can be cruel; play can hurt someone's feelings. Play is not »just fun.« Play is something deeply integrated into life, and so it might have its evil sides as well.

Gwyn Morfey: Getting back to that distinction to where this *gamification* becomes a particular problem, when it just becomes bookkeeping or is being used to manipulate people but is not an actual game you would play for fun. One of the other terms I've heard used which I quite like is *pointsification*, where you just put points on things and call it a game. So, now you get 5 points for doing your homework and an extra 10 points for doing them three days in a row, and it's a transparent attempt to take some ideas from games to manipulate people, but it's not actually a game and it's definitely not fun. You can see that kind of thing in many pay to win apps these days. It's just a treadmill with points attached to it. I think that's maybe a useful way to make a distinction between the kind of »adding playfulness« that Marianne talked about and change the way a city runs and a cynical attempt to co-opt gaming to whatever you were doing before.

Andreas Rauscher: It would be a more honest term, *pointsification*.

Gwyn Morfey: Yeah, the *pointsification* of things.

Christiane Hütter: Concerning your question where the border is between good games and *gamification*: My answer is that the border is where there is a

change in how you see human beings. What is a human being for you, and how serious do you take your players? Do you want them to be empowered; do you want them to grow through your game? I think that nobody who makes this *pointsification* can say this.

Marianne Halblaub Miranda: It's an ethical question also in research because, for example, we analyze the navigation through a game and therefore also analyze people. Their wayfinding, their orientation in real space, that's data. We have all this data, but what do we do with it? The question is, are you just my subject that I am trying to analyze and are you just good for that, or am I giving you this experience and really want to know what your thoughts are? It's cool that you are here, but I have the GPS data as well. What is the ethical line here? What do we do with your data?

Andreas Rauscher: So it could be the data becoming determining. You have the playful approach, on the one side, and on the other, you have the research data without people really knowing where it goes.

Marianne Halblaub Miranda: This has happened, actually. Many of the apps for cyclists that can rate which routes are really nice to go down to, which ones are really well kept – cities can buy this data and then plan around that data. Is that a game?

Andreas Rauscher: It would be a hybrid of *pointsification* and navigational skills.

Christiane Hütter: When it comes to economic systems, you also have this big theme complex of micro transactions inside of games. And then there is the ethical question how to crack people's motivation so that they want to buy better arms or whatever inside the game and that they somehow have to because they are in this, I say magic circle or flow, and just have a different state of mind, and you are very easily caught or manipulated.

Andreas Rauscher: It is more like a theme park where the entrance is free but you have to pay for every separate area and attraction you want to enter.

Philipp Ehmann: At that point, again it's all about intentions and being open about these intentions. They could tell people, »this is a really great bike app, and if you are using it, we will maybe collect the data and maybe change how the city works.« As a cyclist, I might be interested in doing that, but it is a different thing if I know about it or if it is just happening behind my back. I know the structure of the game if I know it's pay-to-win. Will I then still be interested in playing it, or will I be saying, no sorry?

Andreas Rauscher: Or can you even play it if you only win by paying? Is there even the slightest chance to win the game if you are not willing to pay those in-game points?

Philipp Ehmann: It is not a game anymore because paying is not a mechanic that is playful in any way.

Christiane Hütter: In the right frame, it can also be a great game because it just maps how big parts of the world work. When you know that all the money I spent in the game is collected to make a very big prize for the people who win this game competition, then it can also be a motivation for me. But when I don't know where the money is going, I always think it is the company, and then I am not very content with this.

Andreas Rauscher: Especially if you are promised free entrance and are charged after that. It would be like doing an urban game, and afterwards everyone who participates has to pay a fee.

Christiane Hütter: You can also lock the mobile phones of the people who are playing, and then they may just unlock them by paying after the game.

Marianne Halblaub Miranda: We'd be turning to the dark side.

Christiane Hütter: Because playing is evil.

Andreas Rauscher: There is an interesting approach by Miguel Sicart about the fascination of dark play. He says that play is a dance between appropriation and resistance so that there is fulfillment and disappointment at the same time. Can you think of ways beyond *gamification* to discover the darker sides of the human psyche in play? What are your thoughts about this? How can you use negative emotions in play, or are they contradictory to play?

Philipp Ehmann: One of the funniest things in play or non-play is to just muck about with your friends and then trick them into doing something or being tricked yourself. I remember a card game where you are supposed to trick people. It's all about the tension before you are being tricked, and that tension turns around when someone tricks someone. It's actually quite fun being tricked as well. Even if you lose, it's still an interesting mechanic. It can be extremely fun.

Andreas Rauscher: It's a point where you have elements of storytelling, or like an improvisational theater, it's dramatic, it goes very wrong for most of the characters, but it has a kind of fulfillment in the way the situation is acted out. A payoff

regarding storytelling: Maybe you were cheated, but, at the same time, you admire the way you got tricked into this.

Philipp Ehmann: Exactly. It is all about creativity. Cheating is finding creative ways to change the game.

Andreas Rauscher: As Christiane said, it is a kind of game appropriation that you already expect to happen when designing the game. Somebody will come along and say, »Oh, you can do this!« After that you realize, »Okay, I have not thought about that.«

Gwyn Morfey: The other way to look at this is that games are made to give people experiences that they wouldn't normally have. You spend your life being a good guy, so it can be quite fun to get into a game and play as the bad guy and actually go and try to sort of crush people and conquer empires and things you wouldn't normally do.

Christiane Hütter: This is funny. Sometimes you have to give a lot of energy to people because people are afraid to be evil in the game. I designed a game in Berlin in which a small group had to be terrorists and plan a bomb attack, and they also had to kidnap one of the moderators (me). In the end, they did not want to kidnap anybody, so they made their own video. Afterwards, a friend of mine, an actor who was playing with this group and whom I had planted there because I knew she would like this, told me: »Okay, next time, I want to play the evil guys.« I said: »Hello? You just didn't follow the rules to be good, you know this.« And she said: »Ah, ok, hmm, now I know.« So it is not so easy to turn to this obviously evil behavior.

Philipp Ehmann: It is also a way of conquering fear sometimes. I have a game called *Weeping Angels*.⁴ A friend of mine played it, and she said she could only play it as a Weeping Angel because she was so afraid of them. They are villains from *Dr. Who*, for all you geeks out there.

Andreas Rauscher: When you look at them, they freeze on the spot, but when you turn your back on them, they start moving again in order to attack you.

Philipp Ehmann: Exactly.

Andreas Rauscher: They're really scary.

4 <http://pje.me/post/60168735832/weepingangels>.

Philipp Ehmann: This is a game mechanic: When you shine a light on Weeping Angels, they have to freeze, but once the light is gone, they can attack you. She had to play as a Weeping Angel because she was so afraid of them that she only could play as the evil character within the game, which I think is an interesting concept because she could not deal with the stress.

Judith Ackermann: I want to come back to the question of cheating because I remember your games in Cologne, *Monsters Hunt*,⁵ for example, where my colleague and I had the great idea to connect to each other so that the monsters could not hunt us. It was not outside the rules, but when the other players saw us, they really got mad. They made us go to the teamers, and we had to discuss with you, Christiane, whether we could proceed like that or not. This points to the emotions that were created and also to the creativity of cheating, which was not intended in that way, and again toward seriousness. The people were totally serious when they said, »this is the game and you have to play it that way and these are the rules and you are not allowed to make it wrong for all of us.« This also shows how players add their own rules, how they are free to integrate something of themselves into the game, while the game designers have to be open and flexible because they might see their game being played in a totally different way than imagined.

Andreas Rauscher: This is a very interesting point because earlier on we mentioned the artistic vision and that you have to give up control as a game designer; you aren't the master of the narrative like in a film or in a book. Would there be a point where you have the feeling that people take your game so completely wrong and play it in a way that you don't agree with at all so that you would say, »no, you have misunderstood the intention of the game?« For example, if you turn it into a game that is hurtful?

Gwyn Morfey: This has actually happened to me. One of the things I learned is that players will have fun in your game, whether you like it or not. In the *City Dash* game, players are meant to be running around, finding checkpoints, getting points and things. There was one team of about thirty people for whom this wasn't working. While we were out there, I get a message on my phone saying, »we have kidnapped one of your guards, send us 200 points and buy us drinks.« Obviously I text them back and go, »I need proof of life first.« The next thing I get was a video of one of my guards going: »uhhhm, give them the points.« So I thought, there is not much I can do. I get back to the pub and give them the points and buy them the drinks. This was not *City Dash*, but they were having fun doing it. It turned out they hadn't even kidnapped one of my guards; they just had a reflec-

5 <https://vimeo.com/52565487>.

tive vest, put it over one of their own guys, and filmed it from an angle so I couldn't see. It was absolute genius. They're playing a completely different game.

Marianne Halblaub Miranda: This is bound to happen with anything you design, whether it is a game or a building. People will use it in ways that you couldn't imagine that they were going to be used. After a while, if the approach you had in your design process wasn't the one the people using it prefer, it is bound to be changed by somebody else, some other designer or the people using it. If you don't want to be that open about your game turning into something else, don't worry. Somebody else is going to do it for you sometime anyways.

Andreas Rauscher: I think the comparison to architecture is quite enlightening because you can provide a building but you don't know what the people that move into it will do.

Marianne Halblaub Miranda: Yeah, people play with buildings and stuff in buildings that an architect really didn't ever imagine to happen.

Christiane Hütter: But still, the building will be a building, and in a design process, it can be an interesting question to see which rules are hard rules and which rules are soft rules. You don't need a table for a board game, but you cannot play it swimming in a pool, for example.

Michael Straeubig: As a designer, you are working with expectations of expectations. You are trying to figure out what your players will expect from the game and you might be getting it totally wrong. It is like the situation of that person who calls the police, saying, »I am driving on the highway and all the other cars are in the wrong lane.« As a designer, if you find yourself in that situation, you could say that the players have appropriated the game completely differently from what you expected and that this is okay. Or you can feel like the misunderstood genius who made this masterpiece that everyone else just doesn't get. It is up to you, I think. One of the things I like about games is that they allow a lot of space for interpretation. I like to see games as things that are continuously in flux, and not as finished artifacts we place in front of people.

5. THE CITY AS PLAYGROUND

Andreas Rauscher: Are there any questions from the audience?

Audience Member #1: I was wondering if the discussion could be turned a little bit more toward the urban context, in the sense of what is happening when game mechanics and all the stuff you have been talking about are applied to an urban setting. Can you ruminate on that a bit?

Christiane Hütter: When you are making games in urban settings, you always have to know that there are already many rules, and you have to be very aware in which place you will have what kind of game. Otherwise you will have the police there, and that wouldn't be good. It depends a lot on the city you are in, what country you are in – every place is different, and there is not a kind of manual on what is allowed where.

Andreas Rauscher: But you could also do a kind of subversive political game by integrating the police, like in street art. You know, this is a game at a certain time, and we have time until the police arrives. That could also be an option. Maybe if you get caught, it will be a very expensive game.

Philipp Ehmann: As Christiane mentioned earlier, the magic circle in the public space setting is always open, or at least half open, so there will be people who are looking on, who are not actually part of the game or not playing. But they are still part of the game in some way, shape, or form.

Christiane Hütter: What we see more and more are games serving as a tool for urban development. City planners are taking a closer look at urban games and at what you can do with them, and I think it is very interesting to think more about games in urban spaces in connection with architecture. Last year, Invisible Playground did the first *Championship of Gameful Architecture*⁶ in Witten, and in many places, similar things are happening.

Marianne Halblaub Miranda: The potential of the urban playground is the fact that the city has a high density of players. And the playground is so much different from a rural setting. You have this city landscape that is ever transforming – the fact that you don't only have pedestrians, you have people cycling, and you have motorized transportation. You have to take all of this into account for the game. In the urban scene, you have to think about interactions, think about the social part, think about the built environment, let people who know something about that built environment have a voice in the discussion of creating those games, and have people who know about games. That's a really interesting part for urban planners to understand these dynamics and learn what games can offer them. It is also a way of having people participating in a design process through a game and letting them have a forum where they can structure their own neighborhood in a playful manner, telling you something about what they want to happen in that urban space.

Judith Ackermann: It also has another layer because you have to talk with all the institutions and owners of buildings you want to use, and they have the

6 <http://72hourinteractions.com/info?locale=en#>.

chance to think about what should be happening in their buildings, think about rules they don't want to change as well as those they are willing to change. This even initiates some kind of openness and reflection in people who are not actively integrated into the games but are part of the environment.

Michael Straeubig: Another element of pervasive games in urban environments is when the players realize that they are being observed by other people while they are playing and possibly behaving in unusual ways. For example, it is a really interesting experience when you meet somebody in the city while you are playing a game. It is like shifting in and out of these different realities, which I find intriguing. I made a game called *Speed Gardening Guerrilla*.⁷ It is a Guerrilla Gardening game, so the players are planting plants in the city. The question of whether we allowed to do that inevitably comes up, and the answer is usually »no.« But exactly how illegal is it to put plants into the city? In Madrid, for example, I was told that you shouldn't play while the police is nearby. These kinds of things are interesting to me, to use games as tools for these kind of negotiations. In a sense, the players are not only playing, but they are also observed by their environment and they are observing the observers. So playing in open spaces has some interesting dynamics.

Andreas Rauscher: Could there also be a kind of stalemate situation because everybody is just observing the other one so no one acts anymore. Has this happened?

Michael Straeubig: I haven't witnessed a kind of deadlock situation, but there could be, yes. In geocaching, for example, you try to avoid non-players. You don't want them to watch you digging out the cache. This is an interesting social situation, with players and non-players.

Marianne Halblaub Miranda: To come back to the urban point: 51% of the world population is living in a city. This is the century of the city! More and more of us are going to be living in a city, so how do we understand this living together? We are going to build our future; we are the ones who have the possibility to construct that reality for ourselves. Games are such a nice way to interact, to build new friendships. That's one of the most important things in life, actually being able to do something with other people. Let's make the most of it. Since we are living in cities, let's make everybody have those interactions through games.

7 http://ludocity.org/wiki/Speed_Gardening_Guerilla.

6. FUNDING URBAN GAMES

Audience member #2: I was beginning to wonder about funding, and now I am just going to ask. Obviously there will be public funding for many of these projects, I guess from cultural institutions or from academic institutions. What I was wondering was if there are models that go more into a commercial direction or if the nature of highly local urban games prevents you from actually going into that direction?

Gwyn Morfey: That's part of why I am standing here, because that is exactly what I am trying to do. I started Fire Hazard Games as a hobby back when I had a fulltime job. I quit the job and am trying to build it into a kind of company that can sustain me and everybody else in it. Purely commercially. We do not have any kind of outside funding. The model is that we sell tickets. You want to come and play *City Dash* in London; we have a website with a list of dates, you put in your credit card number, pay fifteen quid per play. Come along and play and have a great time. That's our model. It seems to work; it started to get traction for Fire Hazard. But I have also seen it done on a larger scale. There is a company called Slingshot Factory in Bristol that has started doing free festivals. They developed a game that started off free, and they eventually added zombies to it, which is the way to getting commercial success. It is now called *2.8 Hours Later*,⁸ and it is massive. They do two-week runs in every major city in the UK; the tickets are, I think, 30 or 40 quid now. It is a commercial cooperation and it works, it has been running for years.

Philipp Ehmman: The way we sometimes work is that public institutions are doing basically the same thing for 500 people and they are paying for it, so that is a similar model. Google could come up to us and say they want a game from us and they are paying for it. Which would also be similar, I think – that also works. For us, it is mostly public institutions now. It is funding of some sort.

Audience Member #2: How is that different from marketing, if you are paid by a big cooperation?

Philipp Ehmman: It doesn't have anything to do with marketing.

Audience Member #2: I was wondering, because *gamification* got a sort of bad rep in the discussion – I understand why, but...

Philipp Ehmman: We provide a service for these institutions. For example, the next project we have coming up is for Caritas. They have a festival, which is not a

8 <http://2.8hourslater.com/>.

street game festival, but they want a street game at the festival. Obviously, we as artists need to live from something. We need to pay our rent. They pay us a certain fee so that we have the time to design the project for them. They pay other artists to play music, do a theater piece, or whatever suits them. I don't think there is any *gamification* in that.

Michael Straeubig: Maybe we should mention that the whole sector is ridiculously underfunded compared to other media like film or even computer games. It is great that cultural institutions like the British Council, Kulturstiftung des Bundes, and the Goethe Institute have been supporting some events. But, in general, the urban play community is absolutely not sustainable at the moment. Yes, there are some models for financing these projects. Crowdfunding would be one of them, taking fees would be another, and there is some public money for events. But, still, it is a bleak situation, I would say, for the majority of people involved.

Marianne Halblaub Miranda: Games are just like any new medium. Film also had to work to get to that point, and now you go to the theater and pay for movies, but they have the funding for that. When something is new, you have to talk about it. You have to define terms and have all these discussions with people who are working in the game area so that, later on, you will be able to explain it, to show everybody what it is about, how you can actually work with it, or why you should pay for a game.

Judith Ackermann: And the interdisciplinarity doesn't make it easier to get funding. It becomes even tougher if you're doing something for the first time and cannot refer to your last successful project. We worked pretty hard to get the playin'siegen festival funded, and were lucky to find enough institutions and sponsors willing to support us with rather little amounts. This has the advantage that it keeps their risk low in case we are not successful in our plans. Of course, it would have been easier if we had one institution saying, »okay, we know this area and we know the potential in it, and we support it, even though it doesn't fit our typical activities.« But when those things get more frequent, that might evolve. It is a process that is still at the beginning.

Christiane Hütter: This is typically German – funding systems. When you want something funded or supported in Germany, the first questions are: Has anyone done this anywhere before, and was it successful? Then you can get the money. But to say something positive, in my experience and the experience of my group, it is also a very big advantage that games are so multidisciplinary and that you can, if you are creative, spend time looking for applications and then find connected or related fields to enhance your own horizon in doing stuff. But back to your question about whether marketing is worse than cultural funding. I would say no from the content side because in order to achieve cultural funding, you very often have

to reshape what you want to do. At least in the context of my work, you are even less restricted with marketing. But, of course, I hope that the whole funding system will grow bigger and bigger to create more sustainable work for more people.

Audience member #3: I can think of one example of political gaming we had in Hamburg. It was the *Danger Zone*⁹ game in January 2014. We had a big demonstration in Hamburg in December that escalated. The police pretended to get attacked by a leftist group, but that didn't happen. And the Hamburg people were really angry. The police created a danger zone in the center of the city, and they did it on a Friday afternoon. The danger zone means that they were allowed to control everybody who was walking inside this zone without them having done anything. And from the night of Friday to Saturday, a Facebook page appeared – it was in English and German – telling people that the danger zone is open and that they should come and wear black clothes and put fake bombs in their backpacks, or fake drugs. And then they said, »if you have a picture with a policemen, you get fifteen points.« It started overnight and they had daily winners, and then they started to have actions, such winning a prize for pictures of policemen taking stupid things, like a toilet brush, out of your backpack. Somebody actually brought a brush, and on the title page of a major newspaper there was a picture of a policeman holding a toilet brush. This was the symbol of the whole protest, and it got so big that people who weren't on Facebook and didn't know about the game told me: »I don't know what is happening, but I am sitting at my window, and there are five people running and having a lot of fun, and hundred meters behind, twenty policemen are coming.« So this was a really great way of motivating a political action, playing with the police and not being illegal because no one was able to really get you for something.

Andreas Rauscher: This is a good example of playing the city and appropriating urban space through gaming. I want to thank all of you very much for these interesting insights!

9 <http://www.schleckysilberstein.com/2014/01/danger-zone-das-real-life-game-der-gefahrenzone-hamburg/>.

PLAYIN'SIEGEN FORUM II

(Digitale) Kunst im Urbanen Raum

VON JUDITH ACKERMAN (MODERATION), STEPHAN SCHWINGELER (MODERATION), KATJA GLASER, JONAS HANSEN, DAVID PENNDORF UND MARTIN REICHE

I. SITUATIONISMUS, INTERAKTION, UMNUTZUNG: DIE STADT ALS SPIELRAUM

Stephan Schwingeler: Lasst mich mit Guy Debord beginnen, der ab Ende der 1950er Jahre mit der Situationistischen Internationalen neue künstlerische Strategien erforscht oder versucht hat, sie zu analysieren und auch zu verwenden. Die Situationisten haben sich viel mit dem Stadtraum auseinandergesetzt, mit Architektur, und haben versucht, tatsächlich Situationen zu erschaffen, die ganz stark spielerisch sind. Und in diesem Sinne würde ich auch gerne dieses Festival vor dem Hintergrund der Situationisten an die Kunstgeschichte ankoppeln wollen. Denn ich habe das Gefühl, das neue Interesse am Spielerischen und am Spielen, z.B. in der Stadt und im öffentlichen Raum, ist eine Fortführung von künstlerischen Ideen, die es auch schon in den 1950er oder 60er Jahren gab. Auf dem Weg hierher habe ich darüber nachgedacht, und mir ist da nochmal Joseph Beuys in den Sinn gekommen, der auf der Documenta in Kassel 1000 Eichen pflanzen wollte und damit mit den Personen in Kassel etwas gemacht hat, was sich »Soziale Plastik« nennt. Also die Personen in eine Handlung einbezogen hat, die gewissen Regeln folgt und die natürlich auch in einer gewissen Form spielerisch funktioniert aber geregelt ist, wodurch etwas Neues passiert. Das wäre meine These.

Jonas Hansen: Interessant hierbei ist, dass neue Spielräume entstehen. Die künstlerischen Aktionen sind zwar keine Spiele im engen Sinne, jedoch schaffen sie spielerische Situationen. Diesen Ansatz finde ich auch in meiner eigenen Arbeit sehr spannend, dass man mit Spielen Situationen hervorrufen kann, die nicht nur in kleinen virtuellen Räumen spielen, sondern uns neue Möglichkeiten der Wahrnehmung der realen Welt bzw. des urbanen Raums eröffnen – die »non-immersive games« sind, also Spiele, die Situationen und Möglichkeiten suchen, unsere Welt besser zu verstehen und neue Blicke ermöglichen, d.h. etwas, was unsichtbar ist, sichtbar zu machen. So wie auch Martins Installation, die die Überwachung durch Kameras im öffentlichen Raum sichtbar macht.

Martin Reiche: Was ich bei der *CCTV 2.0*-Installation ganz interessant finde, ist: Ja, es schafft einen Spielraum, es schafft sogar einen ziemlich gut abgegrenzten Spielraum; nämlich genau den Spielraum, der von den Kameras erfasst wird. Und

auch wenn das jetzt bei Tageslicht durch die Lichteinstrahlung alles etwas schwer zu sehen ist – man kann nachts sehr gut sehen, dass die Aufmerksamkeit der Leute, die die Siegener Oberstadt entweder runter oder hoch laufen, sofort dadurch geweckt wird, dass da irgendwas passiert. Da passiert etwas in diesem Schaufenster und reagiert auf mich. Und das erste, was passiert, ist natürlich die interne Frage: »Warum passiert das? Was passiert da? Ist das gefährlich für mich? Naja, irgendwie nicht, aber es hat etwas mit Überwachung zu tun, naja ich geh mal hin!« Das Hinterfragen dessen, was da passiert, ist natürlich etwas, das unterschwellig und vor allem auch später passiert. Aber erstmal ist dieser Spaßfaktor das erste, was auftritt. Dass die Personen vor den Kameras stehen und sagen: »Hmm, was ist, wenn ich ein komisches Gesicht mache? Was ist, wenn ich eine Grimasse schneide? Was ist, wenn ich springe? Was ist, wenn ich versuche, nicht gesehen zu werden?« Diese spielerische Interaktion, diese *Playfulness*, die dadurch entsteht, das ist in meinen Augen natürlich nicht nur etwas, das jetzt in dieser Interaktion passiert, sondern das hier auf diesem Festival eigentlich das zentrale Element ist – auch nicht nur geregelt, also im Sinne von »Game«, sondern eben ganz, ganz klar im Sinne von diesem Triebhaften, Spielerischen, *Play*, dem Spielen. Ich denke, wer das ganz interessant gemacht hat, war Zack Wood mit seiner *Playance* am Oberen Schloss. Er hatte auch ein kleines Gedicht darüber geschrieben, in dem er nur meint: »*Play is play, play is always there for you, and play always wants to play with you*«. Das fasst das, glaube ich, ganz gut zusammen.

Katja Glaser: Aus meiner Street Art-Perspektive kann ich auch sagen, dass das Spiel einen großen Stellenwert einnimmt, und das auf verschiedenen Ebenen. Zum einen haben wir die Bespielung von Orten mit und durch Kunst, und auch eine Markierung dieser Orte und eine Öffnung für andere Street Art-KünstlerInnen zum Beispiel. Es ist ganz oft zu beobachten, dass, wenn sich zum Beispiel ein/e KünstlerIn an einer bestimmten Stelle verewigt, dann zwei, drei Tage später andere KünstlerInnen hinzukommen und sich diesem Spot anschließen. Also, diese Ebene haben wir, aber wir haben auch die Ebene, dass sich natürlich auch die Street Art-KünstlerInnen die Stadt oder ihren Lebensraum spielerisch aneignen. Das Gehen in der Stadt nimmt hier einen großen Stellenwert ein, weil es immer auch darum geht, »richtige« Stellen für sich zu finden. Nicht jeder Spot ist gleich geeignet, d.h. Street Art-KünstlerInnen kennen Städte sehr gut, und auch der *Dérive*- und der *Détournement*-Gedanke spielen da natürlich mit rein. Oftmals nutzen Street Art-KünstlerInnen Infrastrukturen und Architektursituationen für sich, d.h. sie klettern auf Stromkästen oder irgendwelche Mauern – oder wenn beispielsweise gerade ein Baugerüst da ist –, um ihre Arbeiten besonders weit oben anzubringen, weil sie dann geschützt sind vor Passanten, die sie vielleicht abreißen, oder weil dann auch die Stadtreinigung mehr Probleme hat, da schnell dranzukommen. Der Spielgedanke greift also auf verschiedenen Ebenen. Beim Graffiti ist das nochmals etwas forcierter, da geht's dann teilweise tatsächlich darum, sich auf dem Weg verschiedene Hilfsmittel oder Werkzeuge zu

suchen und mitzunehmen, sich unautorisiert zum Beispiel irgendwelche Leitern mitzunehmen. Ich finde die Parallele zum (Computer-)Spiel wird hier offensichtlich.

Judith Ackermann: Da kommen jetzt auch die unterschiedlichen Bewegungen in den Fokus. Also einerseits die Bewegung in der Stadt, mit dem Kunstwerk, aber dann auch nochmal die Weitergabe auf digitalem Wege, die es quasi an einen ganz anderen Ort transportiert und eine neue Interaktion auslöst, oder als Material für ein neues Artefakt fungieren kann. Ist das etwas, was man bereits zu Beginn mitdenkt, oder lässt man sich selbst durchaus davon überraschen, welche Wege eine interaktive Installation etwa gehen kann?

Jonas Hansen: In diesem Zusammenhang würde ich gerne ein Spiel nennen, das ich 2006 gemacht habe: *Wanderer*.¹ Es ist ein GPS-Spiel, bei dem man aufgefordert wird, nie stehen zu bleiben und zwischen drei und vier km/h schnell zu laufen. Wer dies am längsten schafft, hat gewonnen. Zusätzlich bekommt man vom Spiel Aufgaben, wie: Geh nach links, geh nach rechts oder dreh dich um und geh zurück! Da das Spiel nicht intelligent ist – von dem GPS werden lediglich Geschwindigkeit und Richtung gemessen – ist der Spieler in einem konstanten Konflikt zwischen realer Welt, den Regeln der Stadt, wie Verkehr, Straßen oder Begrenzungen und der Spielwelt. Auch endet das Spiel häufig an unerwarteten Orten, da die Route nicht zuvor definiert wurde. Dies wirft interessante Fragen der Autorenschaft auf, inwiefern man als Autor zum Beispiel die Kontrolle darüber behalten möchte, wohin es gehen soll. Gerade bei *location-based Games* kann man sehr spezifisch sein oder offen. Ich bin hier eher an offenen Räumen und Systemen interessiert, die auch mich überraschen: wie die Spieler spielen und was ihre Wege sind. Es ist spannend, offene Möglichkeiten zu schaffen, die alle, Spieler ebenso wie Designer, überraschen.

Stephan Schwingeler: Genau, Überraschung ist auf jeden Fall auch eine situationistische Strategie. Ich glaube, wir haben ganz schön herausgearbeitet, dass die Situation offensichtlich ein künstlerisches Material sein kann, dass das Gestalten von Situationen eine künstlerische Strategie ist und der Interaktion dementsprechend Materialeigenschaften zukommen. Mich würde interessieren, David, eine Frage an Dich, was hat das denn alles mit »Hacking« zu tun?

David Penndorf: Sehr viel. Hacking ist ja von der Definition her das Umnutzen bereits vorhandener Sachen. Wenn ich eine Kaffeemaschine dazu verwende, ein Ei zu kochen, habe ich einen Hack gemacht. Ich kann natürlich auch ein Computersystem dazu benutzen, und damit etwas tun, das nicht vom Programmierer intendiert war. Das ist von der Definition her auch ein Hack. Und das

¹ <http://pixelsix.net/wanderer-gps-game>.

Hacking selbst ist das Spiel an sich. Wir haben eine Reihe an Optionen, und wie bei einem Point-and-Click-Adventure Game, bei dem wir gerade nicht wissen, was wir tun können, benutzen wir alles mit allem und kombinieren alles miteinander, und irgendwie kommen dann lustige Sachen dabei raus. Den *Blinkinvader*, den ihr vielleicht in der Straßenzeile gesehen habt, haben wir aus Autobahnstraßenschildern gebaut, die wir gespendet bekommen haben. Die sollten in den Müll fliegen, und das war so, »okay, wir haben jetzt 200 dieser Dinger, was machen wir damit?« Und dann entsteht so etwas daraus. Die Uni hat uns einmal zwölf Monitore gespendet, aus denen wir eine Monitorwand gebaut haben, die jetzt auch in der Oberstadt steht. Und das ist eigentlich Hacking, das Umnutzen von Material, das sowieso vorhanden ist.

Stephan Schwingeler: Das heißt also, das Hacking ist eigentlich auch »Détournement«, also das Zweckentfremden und das Umnutzen vorgefundener Strukturen und das Brechen von Regeln. Jonas, Du wolltest noch einhaken?

Jonas Hansen: Ich glaube, man muss unterscheiden zwischen dem Hack und dem Détournement, z.B. in *GTA*. Wenn man auf Autos in *GTA* surft, ist dies etwas, was in den Spielregeln schon definiert ist. Ob es intendiert ist, lässt sich diskutieren, aber es ist noch sehr stark Teil des Spiels. Es gibt andere Interventionen, bei denen man eindeutiger vom Hack sprechen kann, wie z.B. beim *Pokémon Total Control Hack*.² Spieler haben herausgefunden, dass sie, wenn sie auf eine bestimmte Art Pokémon spielen, indem sie das Spiel an einer Stelle mit einem bestimmten Namen speichern und verschiedene Tastenkombinationen ausführen, sie Daten in den Speicher schreiben und so das Programm umcodieren können. Dies ist ein kompletter Hack des Spiels, der nicht intendiert ist. Wenn wir auf unsere reale bzw. physische Welt schauen, können wir nur teilweise von Intentionen durch Raum- und Städteplaner sprechen, aber sehr, sehr viel ist eh schon da und kann durch Umnutzung eine ganz andere Bedeutung bekommen.

Stephan Schwingeler: Das wäre meine nächste Frage gewesen, vor allem auch an Dich, Katja, als Street Art-Forscherin: Kann man denn auch eine Stadt hacken?

Katja Glaser: Ja, ich denke schon, dass man das kann – Adbuster machen das zum Beispiel. Ihnen geht es darum, Werbebotschaften zu entstellen – und zwar nicht, indem sie sie kaputt machen, sondern indem sie vorhandenes Material minimal verändern und somit dessen Aussage invertieren, unterwandern oder bewusst ins Gegenteil verkehren. Dennoch geht diese Säule der Street Art momentan ein bisschen verloren. Grundsätzlich würde ich sagen, dass der subversive Gedanke, der anfangs bei der Street Art noch sehr wichtig war, sich

2 <http://aurellem.org/vba-clojure/html/total-control.html>.

stellenweise komplett aufgelöst hat. Oder anders ausgedrückt: Das Phänomen Street Art differenziert sich (weiter) aus.

Stephan Schwingeler: Wie kann man jetzt die Frage nach dem Kapitalismus in unser Panel bringen? Ich denke etwa an Shepard Fairey und seine »Obey« T-Shirts. Die Street Art ist da natürlich auch vom Subversiven, vom Avantgardistischen in das Gros übergegangen. Und da hat Andreas Rauscher sicherlich etwas dazu zu sagen, oder?

Andreas Rauscher (im Publikum): Ich glaube, es wäre sehr interessant, wenn wir das ein bisschen erweitern könnten. Im Prinzip ist es ja nur ein Schritt von Fairey zu Banksys *Exit Through the Gift Shop*, in dem Banksy, einer der bekanntesten Street Artists, sein eigenes Frankenstein-Monster erschafft, nämlich »Mr. Brainwash«, ein Street Artist dessen Werk aus einem einzigen Ausverkauf besteht. Allerdings glaube ich, dass bis heute nicht raus ist, ob dies jetzt alles tatsächlich ein Ausverkauf war, oder eine abgesprochene Aktion zwischen den Street Artists. Bevor die Verramschung beginnt, inszeniert man sie selbst und treibt es so auf die absurde Spitze, mitsamt des ganzen Narrativs des korrupten Street Artists, der niemals in die Gruppe der auserwählten Street Artists hätte kommen dürfen. Dabei ist natürlich nicht mehr zu trennen, was Inszenierung, und was real vorgefallen ist. Noch dazu eine Dokumentation, die nach klassischen Vorstellungen der Wirklichkeit verpflichtet sein sollte.

Stephan Schwingeler: Vielleicht ist es auch eine Mockumentary. Wir wissen es nicht, werden wir wahrscheinlich auch nie. Aber Banksy hat sich damit sozusagen selbst gehackt.

Andreas Rauscher: Genau! Man hackt sich selbst und schenkt das dann als trojanisches Pferd der Kulturindustrie. Die Widersprüche werden im kulturellen Prozess selbst offensichtlich. Dies wäre tatsächlich noch eine Möglichkeit, wie man die Vermarktung von Subversion unterwandern kann. Aber eben auch nur mit Verfallsdatum.

2. DIGITALISIERUNG, ÜBERWACHUNG, SPIELERISCHER UMGANG MIT REGELN

Stephan Schwingeler: Ich möchte nun die Frage nach der Historisierung von Strategien und Praktiken des Spiels stellen. Man könnte meinen, wir haben das irgendwie alles schon mal gesehen, also bei den Situationisten oder in den 60ern, als sich der Kunstbegriff erweitert hat, und da ist die Frage aufgetaucht: Was ist dann das Digitale? Welche Rolle spielt es in diesem ganzen neuen Interesse am Spielerischen? Wenn unser Podium mit »(Digitale) Kunst im urbanen Raum« überschrieben ist, dann muss man sich die Frage stellen, was die neue Qualität

des Digitalen in dem Kontext dieser neuen spielerischen Verhaltensweisen ist. Eine These, die ich hätte und die, glaube ich, auch in diese Richtung geht, ist, dass das, was man im Moment erkennen kann – im Kunstdiskurs ist das gerade der letzte Schrei – das »Post-Internet« ist. Also der Diskurs darüber, dass wir offensichtlich eine neue Generation von Künstlerinnen und Künstlern haben, für die das Digitale immer da ist, die es gar nicht anders kennen, die aber paradoxerweise (so paradox ist das wahrscheinlich gar nicht) ein neues Interesse an Materialität entwickeln. Und ein neues Interesse daran, dass sie die Strukturen, die sie aus dem Digitalen kennen, in den Realraum zurückholen. Eben das sehe ich auch ganz stark hier in den neuen urbanen Spielen und in der neuen Form von Kunst im urbanen Raum.

David Penndorf: Das sehe ich grundsätzlich auch so, würde aber sagen, dass das nicht sonderlich neu ist. Gerade aus der Technikperspektive ging es eigentlich immer schon darum, dass das Digitale das Analoge beeinflusst. Wir versenden Nachrichten, um die Nachricht zu versenden, nicht um eine Funkverbindung aufzubauen. Und so hat sich momentan vor allem die Perspektive verändert: dass es nicht mehr das Digitale ist, was das Neue ist, dass es nicht mehr die Smartphones sind, nicht mehr die Computer, die in unseren Alltag eindringen, sondern dass in einem nächsten Schritt das, was diese digitalen Geräte mit unserer analogen Welt tun, auf einmal in den Fokus gerät. Das haben sie vorher schon viel länger auch getan, nur der Fokus hat sich da verlagert. Und im Hackspace ist es momentan so: 3D-Drucker, das ist schon fast wieder ein alter Hut. Dass da Sachen gedruckt werden aus Plastik, inzwischen auch schon aus Beton, aus Zucker, aus Schokolade, Metall, und so auch wieder digitale Modelle in physische Form übersetzt werden. Wenn ich Theaterstücke inszeniere, ist es nichts anderes, denn ich nutze auch dort die Möglichkeiten, die mir der Hackspace bzw. das Internet zur Verfügung stellen. Das reicht vom Text über Zitate, die ich recherchiere, zu den technischen Möglichkeiten, also den Scheinwerfern. Unsere Monitorwand nutzen wir auch auf der Bühne. Das sind Möglichkeiten, die ich in meinen ganz analogen Sachen nutzen kann.

Jonas Hansen: Der Rückzug auf das Materielle spielt auch bei unseren Studenten eine Rolle, 16mm wird wieder interessant, und es gibt Arbeiten von Studenten, die sehr technologisch sind und sagen: »okay, ich will mal einen Monat ohne Strom leben«. Diese analogen Ansätze kommen aus dem Bewusstsein über das Digitale, und es geht darum, dies zu thematisieren und den persönlichen Weg darin zu finden.

Martin Reiche: Ich würde sagen, das Digitale ist in der Form ein alter Hut. Die digitalen Technologien entwickeln sich ja nur weiter für die digitalen Technologien an sich, also sie verändern nicht mehr die Art und Weise weiter, wie wir z.B. kommunizieren. Das sei jetzt einfach mal so als These dahingestellt. Viel wichtiger

wird die Frage danach, wie die digitalen Technologien wieder zurück auf uns und unser Verhalten und damit auch auf die Manifestation unseres Verhaltens, nämlich die Entwicklung neuer Technologien oder vielleicht im urbanen Kontext gesehen die Entwicklung neuer Architekturen oder den Bau neuer Städte, wirken. Wenn man das auf die Überwachungsarbeit bezieht, die jetzt in der Kölner Straße in Siegen steht: Das Problem von Überwachung ist schon lange nicht mehr die Überwachung an sich, sondern es ist das Problem, welche Grundwahrheiten dadurch aufgestellt werden. In dem Moment, in dem ich Personen im Video, in einer Überwachungsarbeit, erkenne, also diese Information generiere und diese Information wieder in das System, aus dem die Information ursprünglich kam, zurückführe, also Identitäten in Video-Footage finde und – wie das in dieser Arbeit der Fall ist – zurück an in diesem Falle Facebook und Twitter gebe, dann schaffe ich damit bestimmte Wahrheiten, deren Grundlage, nämlich das eigentliche Video, keine Rolle mehr spielt. D.h. wir haben eine Art *shift* dahin, dass die Grundlagen, auf denen unsere Welt basiert, aus bereits abgeschlossenen digitalen Prozessen stammen. Ich denke, dass das ein Riesenproblem ist. Und ich denke, dass die Frage, wie damit umzugehen ist, die Frage ist, die sich nicht unbedingt das Post-Internet, aber das Post-Digitale stellen muss. Stellen muss und auch stellt.

Judith Ackermann: Jetzt kam schon auf, dass Methoden aus dem Digitalen etwas sind, was einfließt in diese neuen Formen von Kunst im urbanen Raum. Vielleicht aus eurer Perspektive: Welche Methoden sind das denn, die am ehesten zur Anwendung kommen können, und was können sie in Bezug auf die Generierung von Reflexionsprozessen bewirken?

Jonas Hansen: Eine Strategie, die auch in Deiner Arbeit, Martin, relevant ist und die ich höchst spannend finde, ist, den scheinbar privaten Raum wie von Facebook sichtbar zu machen und aufzuzeigen, wie öffentlich dieser Raum eigentlich ist und diese Aspekte von digitalen Räumen damit wieder in den öffentlichen Raum zu bringen. Diese Übertragungsleistung vom Digitalen ins Analoge ist höchst spannend. Ein weiteres Beispiel hierfür ist Aram Bartholls *WoW Performance*,³ bei der Spielernamen – die in *World of Warcraft* über den Avataren schweben – aus Pappe und Papier gebastelt werden und im realen Raum in der Stadt mit sich herumgetragen werden. Hierbei entstehen Fragen wie: Wie ist das, wenn man immer seinen Namen über sich stehen hat? Ein anderes Projekt, das in einem Workshop mit Aram entstanden ist, hieß *Zwangsadventure*.⁴ In dem Workshop haben wir Prinzipien von Adventure Games in den öffentlichen Raum übertragen. In Adventure Games ist es ja oft so, dass man Objekte miteinander kombinieren muss. Zum Beispiel hat eine Katze einen Knochen und ein Hund einen Schlüssel

3 <http://datenform.de/wow.html>.

4 <http://pixelsix.net/pointclick>.

und die Frage ist, wie man der Katze den Knochen wegnimmt, um damit den Schlüssel vom Hund zu bekommen. Solche Spielmechaniken haben wir als Performance insofern in den öffentlichen Raum übertragen, dass wir vorbeigehende Passanten mit Mini-Adventure Games überfallen haben, indem wir zwei Panels mit verschiedenen Objekten neben den Passanten hergetragen haben. Sobald sie stehen blieben, haben wir sie aufgefordert, ein Puzzle zu lösen. Sie wurden sozusagen mit übertragenen Mechaniken der Adventure Games überfallen.

David Penndorf: Im Prinzip sind das Inszenierungsstrategien von Computerspielen, die man wieder auf den realen Raum überträgt. Aber ich glaube, dass es noch einen Schritt davor gibt. Ein wichtiger Punkt ist die Schulung von Bewertungsstrategien oder -methoden, weil man dadurch, dass man auf Facebook und auf Twitter ist und ständig diese News-Feeds und ständig neue Inputs hat, viel mehr bewerten muss. Wie stehe ich zu etwas? Nehme ich das als authentisch wahr? Ist es eine Lüge, ist es ein Fake? Das ist auch immer eine große Debatte: Ist es ein Fake-Video? Ist es real? Diese Bewertungsstrategien müssen zunächst einmal geschult werden, was dann natürlich wieder Einfluss auf die analoge Kohlenstoffwelt hat.

Martin Reiche: Ich würde gern ganz woanders einhaken und zwar in der Idee des Brechens von Regeln, weil es ja gerade um regelbasierte oder geregelte Systeme ging. Im Grunde ist Hacking nicht unbedingt das Brechen von Regeln, aber durchaus die Reappropriation...

David Penndorf: Die kreative Auslegung von Regeln!

Martin Reiche: Ja, sehr schön! Was da natürlich sofort in den Sinn kommt, wenn man jetzt hier auf dem Festival ist. Die Spiele, die hier gespielt werden, zielen ganz massiv darauf, die Regeln, die im urbanen Kontext existieren, zu unterwandern. Ein schönes Beispiel war eben das Spiel *BeVieler*,⁵ das ich nur von außen betrachtet habe. Es geht darum, nicht am Spiel beteiligte Personen zu motivieren, Bewegungen nachzumachen, die man selber vorgibt und die durchaus sehr albern und kindisch sein können. Es war schön zu sehen, wie viele mitgemacht haben und sich inspirieren ließen, also zu sagen: »Ja, wir können das auch machen und es ist nicht schlimm!« Wir verändern zwar die Art und Weise, wie wir uns in dieser Stadt bewegen, wir passen uns nicht mehr der Norm an, aber genau dadurch verstehen wir auch wieder, wie dieses Regelwerk aussieht, in dem wir uns befinden, wie groß und umfangreich und auch wie unsinnig, also *sinnfrei* im wahrsten Sinne des Wortes, dieses Regelwerk ist. Es existiert einfach nur, weil wir uns gewissermaßen darauf geeinigt haben oder weil wir dort hin-

5 <https://vimeo.com/126360625>.

eingeboren wurden. Manchmal reicht es schon, die Stadt zu wechseln, um ein vollkommen neues Regelwerk in dieser Hinsicht zu haben. Ich denke, dass das ein ganz elementarer Punkt ist, den man als Hacking verstehen muss, aber in der analogen Welt.

David Penndorf: Ich glaube, das Verhältnis von Hackern zu Regeln ist ein ganz Eigenartiges, weil sie die Regeln aus der technischen Welt gewohnt sind. Hier in der sozialen Welt hat man zwar die Norm und kann diese Regeln auch irgendwie brechen. Ich könnte mich, auch wenn es nicht gewollt ist, hier einfach nackt ausziehen. Das will keiner sehen, aber ich könnte es tun. In der Technik ist das anders. In der Technik gibt es zum Beispiel die Vorgabe, dass ich das Licht an oder ausmachen kann. Ich kann es aber nicht auf einmal blau leuchten lassen, weil es diese Lampe eben nicht hergibt. Die Regel ist in Technik gegossen, und ich kann sie nicht einfach durch anderes Verhalten umgehen. Diese Regeln zu brechen, ist daher eine Herausforderung. Es ist eine kreative Aufgabe: Wie kann ich etwas basteln, damit ich das Ziel erreiche, das ich damit erreichen möchte? Wie kann ich eine Kaffeemaschine zu einem Eierkocher umfunktionieren? Deshalb ist ein sehr kritischer und bewusster Umgang mit Regeln in dieser Szene präsent.

Judith Ackermann: Das heißt, die Regel erzeugt in dem Moment Kreativität, in dem sich die Personen überlegen, was sie tun können, um diese Regel vielleicht zu umgehen. Katja, kannst du aus deiner Perspektive sagen, welche Regeln und Regelumgehungsstrategien in der Street Art-Szene eine wichtige Rolle spielen?

Katja Glaser: Wir haben natürlich erst einmal Konventionen und Regeln, die von der Gesetzgebung ausgehen. Und da ist auch ein kreativer Umgang der Street Art-KünstlerInnen zu erkennen. Zum Beispiel gibt es die Tendenz, dass Street Art-KünstlerInnen nicht mehr so häufig direkt auf die Wände sprühen, weil das als Strafdelikt gehandelt wird. Stattdessen gehen sie dazu über, Poster zuhause vorzubereiten und diese dann in der Stadt zu verkleben – das wird nämlich nur als Ordnungswidrigkeit gehandelt. Das wäre ein Beispiel dafür, wie man versucht, mit den bestehenden Regeln umzugehen und diese – taktisch – für sich zu nutzen. Auf der anderen Seite haben wir Regeln und Konventionen innerhalb der Street Art-»Szene« – wobei man nicht von einer in sich geschlossenen Szene ausgehen sollte. Das Interessante ist jedoch, dass diese Regeln nirgends festgeschrieben sind, sondern dass sie – in sozialer Interaktion – permanent verhandelt werden und somit ein stetiger Aushandlungsprozess besteht. Als No-Go gilt zum Beispiel, sich gegenseitig zu übermalen oder zu überkleben; man nennt das auch *crossen*. Das macht man einfach nicht, aus Respekt der/dem anderen KünstlerIn gegenüber. Als »geschulte(r)« BeobachterIn kann man dann aber auch manchmal erkennen, wenn Regeln gebrochen werden – bewusst oder unbewusst.

3. SPIELERISCHE INTERAKTION ZWISCHEN PARTIZIPATION UND MANIPULATION

Zuschauerin I: Weil Du, Martin, gerade über das Spiel *BeVieler* gesprochen hast, wir haben das auch zum ersten Mal gemacht und waren total gespannt, wie das funktioniert. Ich habe euch gerade zugehört und gemerkt, dass ich dieses »Hacking« im Nachhinein darauf insofern anwenden kann, dass wir ein bisschen Rollen-Hacking gemacht haben. Das kann ganz spannend sein für den urbanen Raum. Wir haben uns am Info-Point getroffen und uns besprochen, und es ging nicht darum, Leute zu überreden, mitzumachen, sondern darum, ohne sie zu überreden, eine Crowd zu generieren. Zwei Leute haben versucht, jeweils mehr Follower als der Andere zu bekommen, draußen auf dem Platz. Wir sind mit dieser Vorbereitung und mit Trillerpfeife hier zum Platz, da waren ungefähr 15 Leute, die Bescheid wussten, und es waren vielleicht 10 andere da, die erstmal weder Zuschauer noch Mitspieler waren, sondern einfach Passanten. Dann haben wir angefangen, auf dem Platz Sachen zu machen und ich bin gnadenlos gescheitert. Ich hab sieben Minuten lang *Macarena* getanzt – allein – und war total frontal zu den Leuten, d.h. ich hab denen eigentlich eine Zuschauerrolle zugeschrieben. Und diese Rollenzuschreibung des Zuschauers haben die Leute zuerst auch angenommen. Wir hatten ja sogar ein »Applaus«-Schild dabeigehabt. Da hat sich ein Gegenüber entwickelt. Aber dann haben wir ganz schnell gemerkt, dass das, was funktioniert, nicht dieses Frontale ist, sondern man es insofern umdrehen muss, dass man in der Mitte des Platzes selbst Spaß hat und ein Begehren weckt. Mit der Rollenzuschreibung war also der erste Schritt schon gemacht, und der zweite Schritt ist dann eigentlich ein hartes Hacking dieser Rollenzuschreibung gewesen, in dem Sinne, dass man drauf geschissen hat, dass die einem alle zugucken. Dann waren die sieben Minuten um, und es waren sechs oder sieben Leute in der Mitte. Wir haben einfach das Spiel weitergespielt und haben auch in einem ganz seinsvergessenen Moment diese Rollenschritte gewechselt. Es wäre spannend, auch die Videoinstallation oder die Puzzle, bei denen Leute überrascht werden und sich die Position verschiebt, die sie zu einem selbst oder zu ihrer Umwelt haben, als eine weitere Ebene von Hacking zu betrachten.

Jonas Hansen: Es hängt natürlich davon ab, wie man die Leute abholt und mitnimmt. Beim *Zwangsadventure* haben wir die Leute zwar ziemlich überrascht, jedoch auf eine nette Art, und die meisten konnten die Icons auf den Panels direkt Computerspielen zuordnen, wodurch dann ein Interesse geweckt wurde. So eine Offenheit und das Schaffen eines Safe-Places sind wichtig.

Zuschauerin I: Ich finde dass das auch ein wahnsinnig gefährlicher Mechanismus sein kann. Denn bei jeder Art von Spiel oder Kunst, überhaupt bei Interaktionen im öffentlichen Raum oder in Räumen, die erst mal nicht dafür ausgeschrieben sind, muss man darauf achten, dass es nicht für Werbung, oder für virales Marketing gehalten wird. Das war vor fünf oder sechs Jahren überhaupt kein Problem.

Mittlerweile muss man explizit darauf achten, dass nirgendwo irgendein Logo auftaucht, weil die Leute das immer mehr kennen und diese Mechanismen wahnsinnig oft missbraucht werden, genauso wie dann vielleicht eben Street Art.

Jonas Hansen: Das ist die Frage, inwieweit diese Kunst im öffentlichen Raum instrumentalisiert wird. Wer macht Kunst in welchem Kontext? Es gibt öffentliche Kunst, gemacht für öffentliche Plätze, wie auch z.B. Firmen bestimmte Wände von Sprayern besprühen lassen, jedoch gibt es natürlich auch Gegenbewegungen in der Street Art, die bewusst nicht mehr schön malen oder sprayen, sondern dreckig. Also ein bewusstes »Drüberpinkeln«, um irgendwie noch subversiv zu sein.

Zuschauerin I: Es gab in Hamburg einen großen Street Art-Skandal mit dieser Converse-Werbung. An der Sternschanze gibt es unter der Brücke einen Platz, fast wie ein Schwarzes Brett, wo zum Wochenende hin die Partys plakatiert werden. Und Converse hat mit diesem »Made by...«. – diese abgetragenen Turnschuhe, wo dann ein Künstler druntersteht, der die so abgetragen und durchgelaufen hat – diese ganze Wand überplakatiert. Eigentlich haben sie versucht, sich dieser Sprache zu bedienen und die Leute anzusprechen, haben dann aber gnadenlos die Regeln gebrochen und wirklich eben Freitagnachmittag, vor dem Wochenende, wo es genau entscheidend ist, dass die Plakate da hängen, die ganze Wand überplakatiert.

Jonas Hansen: Weil Du eben von Verantwortung sprachst, neben dem Instrumentalisieren gibt es natürlich auch die Verantwortung des Spieldesigners für den Spieler. Durch die Regeln des Spiels, vergisst man manchmal die Regeln der Welt. Bei dem Spiel *Wanderer* ging es genau darum, diesen Konflikt zwischen Welt und Spielwelt aufzuzeigen. Es gab Spielsituationen, in denen z.B. ein Auto ausgebremst wurde, um das Spiel weiter spielen zu können! Hier liegt die Verantwortung natürlich auch bei den Spielern, wie weit sie gehen, aber als Designer muss man genau schauen, wie man damit umgeht.

David Penndorf: Ich sehe das gar nicht so kritisch, denn, wie ich eigentlich vorhin schon meinte, entwickeln sich nicht nur die Inszenierungsstrategien, sondern auch die Bewertungsmethoden der Leute, die daran teilnehmen. Die sind natürlich viel kritischer, die suchen nach dem Werbeslogan und entwickeln sich ja auch weiter. Von daher ist es ein Katz-und-Maus-Spiel.

Zuschauerin I: Natürlich ändern sich Bewertungsstrategien, aber auch die Verantwortung von Gamedesignern. Wenn wir jetzt da draußen sozusagen bewusst manipulativ gearbeitet hätten – das haben wir zwar gar nicht, aber natürlich haben wir das Spiel in dem Gedanken daran konzipiert, dass wir ein Begehren wecken und die Leute zum Mitmachen bringen wollen. Da bekommt

man schon so eine gewisse Macht über die Leute, und sie kriegen einen Vergessenheitsmoment.

Jonas Hansen: Die Gruppe Blast Theory ist hier auch sehr stark drin, indem sie z.B. Menschen über Handy eine reale Bank ausrauben lassen.⁶ Spieler werden übers Handy geführt und müssen sich dann fragen, ob sie in die Bank gehen oder nicht? Als Designer muss man diese Situationen bewusst schaffen und trotz Safe-Place aufpassen, wie weit die Spieler gehen.

Zuschauerin I: Ich halte das für eine interessante Frage: Ist es moralisch fragwürdig, solch einen Mechanismus anzustreben? Ist es moralisch vertretbar, so manipulativ zu denken und Spiele so zu konzipieren? Oder ist das das eigentliche Ziel, eine Bewusstheit zu schaffen? Und kann man dann überhaupt noch spielen, wenn es so eine Bewusstheit gibt?

Jonas Hansen: Aus meiner Sicht, als Künstler, finde ich das Bewusstsein Schaffen sehr wichtig. Und gerade hier ist nicht nur die Immersion sondern auch die Reflexion wichtig.

Zuschauerin I: Aber ist das dann noch spielen?

Jonas Hansen: Ja!

Zuschauerin I: Ist spielen nicht genau dieses Bewusstsein vergessen?

Jonas Hansen: Kann es sein, aber muss es nicht! Im Theater haben wir das Durchbrechen der vierten Wand, das gibt es auch im Spiel. In der Medientheorie wird dies auch unter Transparenz und Opazität besprochen. In der Kunst sowie im Spiel gibt es diese Wechselwirkung zwischen »ich bin drinnen« und der Metaebene, »ich bin der Spieler und spiele etwas«. Unterbrechungen und Pausen bieten hier die Möglichkeit zur Reflexion. Für mich erweitert dies mehr und macht es tiefer, als wenn man sagt: »Du bist auf dem HoloDeck, es kommen Klingonen aus *Star Trek*« und du bist so komplett weg. Und danach denkst du: »Ja, okay, *Franchise*, ich kann hier den Film weitergucken«, also da ist man einfach komplett in der Fiktion gefangen.

Stephan Schwingeler: Ich würde sagen, es kommt darauf an. Denn wir haben es hier mit Spielen zu tun, die pervasiv, also *pervasive games*, sind. Das sind Spiele, die durchdringend sind. Spiele sind gemeinhin dadurch gekennzeichnet, dass sie gewissermaßen in einem Zauberkreis stattfinden. Sie sind begrenzt, also räumlich begrenzt, sozial begrenzt und zeitlich begrenzt. Als Beispiel: Wenn ich bei einem

6 <http://www.blasttheory.co.uk/projects/a-machine-to-see-with>.

Bundesligaspiel auf den Platz renne, dann habe ich da nichts zu suchen, ich breche gewissermaßen in diesen Kreis ein. Pervasive Spiele definieren sich eben dadurch, dass der Zauberkreis in entweder räumlicher, zeitlicher oder sozialer Weise durchdrungen wird. Das wäre auch die Erklärung für das, was ihr mit *BeVieler* gemacht habt: ihr habt die Teilnehmer in einen Zauberkreis hinein gebracht, von dem sie gar nicht wussten, dass es ihn gibt. Das kann auf der einen Seite natürlich total viel Spaß machen, kann aber auf der anderen Seite auch eine manipulative Technik sein, die Gefahren mit sich bringen kann, oder die sich zum Beispiel auch Werber und Marketingleute zu Nutze machen. Ich bin da eigentlich immer auf dem Standpunkt, Spiele als Systeme zu betrachten und als Materialien, auch als künstlerische Materialien, weil man eben diese Regelwerke und ihre Ästhetiken auf ganz unterschiedliche Weise gestalten und einsetzen kann. Das heißt also, wenn ich ein pervasives Spiel mache, muss ich mir eigentlich darüber im Klaren sein, ob ich das zu Werbezwecken mache oder um Siegen ein schönes Wochenende zu beschern. Das sind natürlich unterschiedliche Sachen. Das pervasive Spiel an sich ist aber nicht aufgeladen in irgendeiner Form, ob gut oder schlecht. Aber man kann das benutzen, auch zu Manipulationszwecken, und sich dessen bewusst zu sein, halte ich für sehr wichtig.

Jonas Hansen: Das macht vielleicht den Unterschied aus zwischen dem Spielen im virtuellen Raum, wo man die Grenzen viel extremer austesten kann, da es ein festes Regelwerk und keine realen Konsequenzen gibt, und dem Spiel im realen Raum, bei dem es immer um das Wechselspiel zwischen Spielraum und realem Raum geht. So wie es das Spiel in Hamburg, *Dangerzone*, das heute morgen vorgestellt wurde, zeigt.⁷ Es ist ein Spiel, aber es muss auch allen bewusst sein: »Wenn ich es zu weit treibe, hat das reale, physische Konsequenzen«. Und gerade das Spielen damit kann auch die Spannung ausmachen, aber es ist ein sehr bewusstes Spielen, würde ich sagen.

Zuschauerin I: Ich fand spannend, was zu den technisch bedingten Regeln gesagt wurde. Denn es stimmt natürlich, im öffentlichen Raum kann ich etwas mit Kreide malen und dann sagen, »das ist der Spielraum«. Ich kann aber darüber treten, und dann ist da noch was, wo ich hintreten kann. Wenn ein Spiel programmiert ist, hört der Spielraum einfach auf; ich kann nicht über die Grenzen treten. Ich würde immer sagen, das Spiel ist in jedem Fall ein geschlossenes System und braucht einen ganz exakten Rahmen, um einen Freiraum oder eine Gestaltungsfreiheit zu schaffen. Aber im Nachhinein sind das bei *BeVieler* so viele verschiedene Ebenen und unterschiedliche Runden gewesen. Wir haben eine Runde gehabt, da gab es einen Spieler, der hat relativ klein am Rand was gemacht. Er hat, glaube ich, versucht, einen Herzschlag zu adaptieren, damit die Leute das so mitmachen. Es gab eine Gruppe, die einen Sitzstreik gemacht hat als Spiel, d.h.

7 Vgl. playin'siegen Forum I: «Game Design for Urban Spaces» in diesem Heft.

der Spieler hat sich in die Mitte hingesezt und hat für die Siegplatte demonstriert. Es gab einen Sitzstreik, das waren sofort fünf Leute. Der andere hat aufgehört mitzuspielen, das hat man gar nicht so mitbekommen, und stattdessen sind Leute aufgestanden und haben den Gegenprotest – gegen den Sitzstreik – gemacht. Innerhalb von diesen sieben Minuten Spielzeit! Das heißt, die beiden Parteien, die angefangen haben, gegeneinander zu spielen, haben sich überhaupt nicht aufeinander bezogen. Aber es gab eine andere Partei, die aufgestanden ist und eine Gegenpartei gebildet hat. Die haben sich ernsthaft inhaltlich mit etwas auseinandergesetzt. Dann haben wir aber mit der Trillerpfeife gepfiffen und Applaus gemacht, und dann haben sich alle gegenseitig applaudiert. Da gibt es so viele Ebenen, dass ich gar nicht mehr genau definieren kann, was davon jetzt was ist. Da ist das Spiel vielleicht nur ein Trigger, der etwas anstößt, was sich dann verselbstständigt. Irgendwann habe ich mir das angeschaut und gedacht, »jetzt pfeif mal, die fangen jetzt an, ernsthaft gegeneinander zu protestieren!« Wobei das natürlich auch nicht wirklich so war, das war schon im Rahmen, den wir gesteckt hatten. Aber anders als im Computerspiel, wo man den Rahmen nicht so einfach verlassen kann – es sei denn, man gibt sich ganz viel Mühe und beschäftigt sich lange damit – war das hier etwas schwammig. In diesem Spiel gab es ja auch zu jeder Zeit ein Sich-von-außen-betrachten, weil man wusste, man steht da jetzt alleine und macht irgendwie was Blödes. Ich würde sagen, diese manipulative Ebene war im besten Falle gar nicht vorhanden, weil es immer eine Reflexion gab, bei der man sich von außen betrachtet hat und sich fragte: »Von was bin ich gerade Teil? Wer bin ich jetzt im Moment?«

Jonas Hansen: Ich denke, wenn man von Manipulation im Spiel spricht, dann ist es die Frage, inwiefern ich die Möglichkeit habe, eigene bewusste Entscheidungen in dem Spielraum zu fällen. Wenn ich das Gefühl habe, ich tue dies aus einer intrinsischen Motivation, dann fühle ich mich frei und weniger manipuliert. Der Spieledesigner definiert zwar einen Rahmen, aber wenn es innerhalb dieses Rahmens die Möglichkeit des freien Agierens gibt, fühlt man sich weniger manipuliert und eingeschränkt als anders.

4. SPIELERINNEN UND STADT

Zuschauer 2: Wie sieht es denn mit dem Verhältnis aus, das man selbst als Spielender, als Mitspieler, zur Stadt hat? Ist es wichtig, und wenn ja, inwiefern? Ist das meine Stadt, lebe und wohne ich da, oder ist das eine fremde Stadt? Denn ich denke, viele, die hier sind, kommen vielleicht gar nicht aus Siegen. Ich kenne das von der Uni; es sind viele, die zwar hier arbeiten aber nicht hier wohnen. Ich wohne hier seit zwei Jahren. Für mich ist es schon wichtig, dass ich gestern mitgespielt habe, dass es auch meine Stadt ist, die ich auf eine andere Art und Weise erfahre. Bei manchen Spielen war das aber kein Thema, die könnten genauso gut in Hamburg gespielt werden. Daher meine Frage: Als Spielentwickler

oder Künstler, wie wichtig ist dieser Bezug zu eurer Stadt für euch? Oder euer Raum, euer soziales Umfeld? Und wie wichtig ist es, dass durch die Spielenden eine Umdeutung des eigenen Erfahrungsraumes stattfindet?

David Penndorf: Ich würde das Narrativ vielleicht ein bisschen umdrehen und nicht sagen, dass ich dadurch meine Stadt erfahre, sondern die Stadt wird durch das Spiel zu meiner Stadt. Dadurch, dass ich mich in der Stadt verhalte, agiere, sie gestalte, daran teilnehme, werde ich zum Teil der Stadt, und die Stadt wird auch zu meiner Stadt! Und dann ist für meine Theaterarbeit natürlich auch der lokale Bezug wichtig, denn ich habe die Verbindung zu den Leuten, ich muss mein Netzwerk hier vor Ort spannen, damit ich Stühle bekomme, damit ich die Bühnenrequisiten bekomme und alles andere herankarren kann. Und so gestalte ich auch die Stadt. Auch der Hackspace selbst ist eine Einrichtung welche die Stadt mitgestaltet – auch dieses gesamte Festival ist etwas, was die ganzen Bürger zum Teil der Stadt macht.

Jonas Hansen: Ich kann nur für mich sagen, dass beides relevant sein kann. Es ist spannend, als Spieler ein Spiel zu nutzen, um etwas Unbekanntes neu zu entdecken. Einige Spiele, die ich selbst gemacht habe, haben gar keinen Ortsbezug, und gerade dadurch finde ich sie spannend, weil sie gerade mit diesem Konflikt arbeiten. Momentan arbeiten wir mit Studierenden an *Audiowalks*. Hier werden bestimmte Wege während des Gehens als Audio aufgenommen und anschließend die Spieler dazu auffordert, genau diese Wege wieder abzugehen und dann sozusagen die Ebene des Davor-Gegangenen zu hören. Hierbei ist es natürlich ganz wichtig, dass man die Stadt auch kennt und anderen z.B. persönliche Sichten zu bestimmten Orten mitteilt. Also, das hängt vom Spiel ab und vom Kontext, würde ich sagen.

Martin Reiche: Ich würde das mal nicht aus dem Kontext von mir als Künstler, sondern einfach als Mitspieler oder als Spieler betrachten: Die meisten *Urban Games*, die ich bis jetzt gespielt habe, haben in Städten stattgefunden, die ich vorher nicht kannte. Und das empfinde ich persönlich auf der einen Seite natürlich als Befreiung, weil man sich in einer Art und Weise verhalten kann, wie man das nicht direkt vor seiner Haustür, vor allen diesen Leuten, die einen kennen, machen würde. Das Beeindruckendste bei diesem Umgang mit dem Spiel war für mich aber, dass ich bestimmte Städte in einer Art und Weise kennengelernt habe, bei der ich davon ausgehen konnte, dass 99,99% der Bewohner dieser Stadt die Chance nicht hatten, diese Stadt so zu kennen. Das heißt, ich als Externer habe das Gefühl bekommen, diese Stadt besser oder interessanter kennengelernt zu haben als jeder, der bereits in dieser Stadt wohnt. Das ist natürlich ein Trugschluss, allerdings gibt es mir in gewisser Weise ein Gefühl von Überlegenheit. Das jetzt ethisch zu bewerten, ist allerdings nicht meine Aufgabe.

CONTRIBUTORS

Judith Ackermann, PhD in Media Studies, is academic coordinator of the DFG-Research Training Group »Locating Media« at the University of Siegen (Germany). She was visiting professor of digital media culture at the Filmuniversity Potsdam and at the School of Design of Politecnico di Milano. She is the initiator of the international urban games festival *playin'siegen* that premiered in April 2015. She is also one of the coordinators of the Digital Games section of Gesellschaft für Medienwissenschaft (German Association of Media Studies). Her current research project focuses on the performance of digital and urban gaming.

Philipp J. Ehmman studied theater at the University of Exeter, where he received an M.A. and a B.A. Hons. His work has been curated internationally by institutions and festivals such as the Ars Electronica Festival, Volkstheater Wien, Werk X, Playpublik, *playin' siegen*, Exeter Fringe and Ignite Festivals, Playful Arts Festival, w00t, Urbanize, as well as the Austrian BMWFW and others, and spans across playful and theatrical disciplines. His most successful street game *Weeping Angels* has been invited to over ten countries. Other important work includes *Rozznjogd* for the Volkstheater Wien and the *Personal Adventure Automat*. Philipp is co-founder of Play:Vienna and of Games Austria, co-curating the Play:Vienna Festival and the Central European Games Conference. He has given talks at Ars Electronica Center, University of Exeter, Internationale Theaterinstitut, die Angewandte, Kunstuniversität Linz, FH Salzburg, ADK Regensburg, and the F.R.O.G. Conference.

Katja Glaser is a PhD candidate at the DFG Research Training Group Locating Media at the University of Siegen. She is currently writing her PhD thesis »Street Art in the Digital Road Network,« dealing with street art in the context of new media technologies (<http://locatingstreetart.com/>). Her research interests are: Street Art & Urban Art, Social Networking, Net Critique, Mobile Media, and Media Aesthetics.

Marianne Halblaub Miranda, Dipl.-Ing., studied architecture and urban planning at Technische Universität Darmstadt, where she is a research associate at the Urban Health Games research group. Her research focus is on issues in user-centred urban design such as navigation, perception, and the influence of the urban environment on its users.

Jonas Hansen is a designer and media artist who works at the Academy of Media Art Cologne (KHM) at the Laboratory for Dimensional Research (Lab.D) in the area of experimental 3D and games. He is cofounder of the Cologne-based Paidia Institute and the Dutch media art collective z25.org. In his artistic work, Hansen develops interactive systems and experimental games that often explore the

boundaries between the real and the virtual world. He has taken part in numerous international exhibitions and festivals, including Museum of Modern Art (Rovereto), ComeOutAndPlay festival (Amsterdam), Artefact festival (Leeuven), V2_ Institute for the Unstable Media (Rotterdam), Ars Electronica (Linz), Transmediale (Berlin), Translife International Triennial of New Media Art China (Beijing), and Zentrum für Kunst und Medientechnologie, ZKM (Karlsruhe). //pixelsix.net.

Anna Lena Hartmann, B.A., is studying in the interdisciplinary Master's program Media and Society at the University of Siegen. In 2015, she received her bachelor's degree in Media Studies. As part of her bachelor's thesis, she investigated the appropriation of Location Based Mobile Games by analyzing a self-designed location-based mobile game *ARTventure* (2015). The study was part of the playin'siegen festival organized by Judith Ackermann.

Christiane Hütter (Frau Hue) is a Berlin-based game designer and artist. She studied psychology and scriptwriting. After her first experiences in German TV (*Tatort*, 2011), she quit German TV. (Temporarily. Maybe.). Since 2010, she has been a core member of Invisible Playground (invisibleplayground.com) and designs urban games and playful experiences all over the world with a focus on new relations between cities and society. In 2014, she co-founded the Society for Cultural Optimism. This group designs speculative, game-like structures that engage people in meaningful discourse on current social and political topics in interconnected systems (culturaloptimism.org). As individual artist, Christiane Hütter creates performative settings, e.g. »Wurst part of me« where people were invited to cook and eat a blood sausage out of their own blood. In addition, she has been breeding an egg since 2011 (brueten.tumblr.de) as part of an ongoing play-driven experiment about future social parenthood.

Martin Knöll, Prof. Dr.-Ing., is a registered architect and head of the Urban Health Games research group at Technische Universität Darmstadt. His research interests focus on urban design & health, evidence-based and user-centred urban design, participatory planning processes, and new co-design tools such as context-sensitive media.

Sebastian Quack (sebastianquack@gmail.com) is an artist, game designer, and curator working at the intersection of play, participation, and the politics of urban society. Quack is a founding member of the artist group Invisible Playground and curates Playpublik, an international festival for playful public spaces. He regularly teaches, gives talks, and consults organizations on how to engage playfully with the world around them.

Gwyn Morfey runs a company called Fire-Hazard (London) that is known for developing high-energy immersive experiences such as *Citydash* (since 2011),

Undercover (since 2014), and *Heist* (2008-2010). Fire-Hazard's self-conception reads as follows: »We make high-energy real-world games. We love games for the way they create stories where you're the hero. We found a way to make them more active and even more exciting: move them to the real world and play them with teams of friends. We take inspiration from great moments in digital games (and movies!) to get people running, sneaking, bluffing, searching and scheming in the streets. One thing we don't change: this isn't theatre. You'll have real choices and your brilliant saves, lucky guesses, rash decisions and flashes of inspiration have real impact. We're all action, no filler. We want to take you out of your day, not take over it. And we don't take it too seriously. You don't have to be an athlete or an expert. Win or lose, we all end up in the pub«. (<https://fire-hazard.net/about>)

David Penndorf, MA, studies the relationship between science and art for his PhD project. As a committed member of the Hackspace Siegen, he tries to explore the possibilities of technological developments and to promote a critical approach toward new media. He is also the founder and director of tollMut-Theater, in which he tests staging strategies in a practical context.

Andreas Rauscher, PD Dr. habil., teaches in the Department of Media Studies at the University of Siegen with a special focus on film and video games. He is also a scientific curator for the German Film Museum at Frankfurt am Main (Exhibition *Film & Games: Interactions* in 2015). Rauscher previously taught film studies and media dramaturgy at Johannes-Gutenberg-University Mainz and has published articles as a journalist and academic scholar. His research deals with film, game, comic, and cultural studies, genre theory, and television series. His book publications include releases on the Simpsons, superhero movies, and the James Bond series. In 2002, he received his Ph.D. with a dissertation on the cultural and cinematic implications of the Star Trek phenomenon (*The Star Trek Phenomenon*, Mainz 2003), and in 2011, he received his post-doctoral lecturing qualification (Habilitation) on the topic of *Ludic Fictions: Genre Concepts in Video Games* (Marburg 2012). Current publications: *Film and Games: Interactions* (Berlin 2015, with Eva Lenhardt and Deutsches Filminstitut), *Introduction to Game Studies* (with Benjamin Beil and Thomas Hensel, forthcoming), *The Czechoslovakian New Wave Cinema* (with Jonas Engelmann and Josef Rauscher).

Martin Reiche is a media artist living and working in Berlin, Germany. He regularly presents on professional computer science and digital art and gaming conferences. His artistic work has been shown at numerous festivals and museums around the world

Stephan Schwingeler, Dr. phil., is a curator, researcher, and lecturer. He is currently a research associate at the ZKM | Museum for Contemporary Art. His first book deals with the topic of space in video games and is one of the first art

historical publications in the field of Game Studies. His Ph.D. thesis and second book examines the practices and strategies of Game Art and artistic video game modification from the perspective of art history and media theory. Schwingeler was the scientific consultant of Cologne's Next Level Conference. In 2014, he was responsible for running the GameLab at the Karlsruhe University of Arts and Design. Among other things, he is responsible as a curator for the exhibition ZKM_Gameplay at the internationally renowned ZKM | Center for Art and Media in Karlsruhe. ZKM_Gameplay features Game Art, Indie Games, Serious Games, and other forms of experimental gameplay. His latest exhibition Global Games presents videogames as political media.

Miguel Sicart is a games scholar based at the IT University of Copenhagen. For the past decade, his research has focused on ethics and computer games, from a philosophical and design theory perspective. His work applies the theoretical framework of the Philosophy of Information to the understanding of digital entertainment, particularly at the intersecting relations between play as a phenomenological experience, and computers as materials. His current work explores the relations between play, play-fulness, and computers, with a focus on aesthetic and political uses of playful computation. The most relevant outcomes of Miguel Sicart's research are his three books: *The Ethics of Computer Games* (MIT Press, 2009), a comprehensive philosophical theory on games and morality, based on his doctoral work, that provides a theoretical foundation for the philosophical study of computer games. In *Beyond Choices: The Design of Ethical Gameplay* (MIT Press, 2013), he extended this research with a focus on the design of playful, ethically relevant experiences. This book combines interviews with developers, experimental game development practices, and design and philosophical theories that analyze how computer games can be designed as moral experiences. His research and teaching on playful design resulted on a new book *Play Matters* (MIT Press, 2014), in which he explores the relations between play, materiality, and space through the analysis of toys, playgrounds, and games. The book also includes reflections on the aesthetic and political capacities of play as a form of expression. Sicart teaches game and play design, and he is working on a new project that provides a philosophical understanding of play in the age of computing machinery.

Daniel Stein is Professor of North American Literary and Cultural Studies at the University of Siegen and a member of the DFG-Research Unit »Popular Seriality – Aesthetics and Practice«. He is the author of *Music Is My Life: Louis Armstrong, Autobiography, and American Jazz* (2012), co-editor of the special issues *Musical Autobiographies (Popular Music and Society, 2015)* and *American Comics and Graphic Novels (Amerikastudien/American Studies, 2011)*, and co-editor of the essay collections *Transnational Perspectives on Graphic Narratives: Comics at the Crossroads* (2013) and *From Comic Strips to Graphic Novels: Contributions to the Theory and History of Graphic Narrative* (2013). In 2013, he received the Heinz

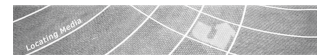
Maier Leibnitz-Prize for outstanding academic achievements from the German Research Foundation and the Federal Ministry of Education and Research.

Michael Straeubig (michael.straeubig@plymouth.ac.uk) is a PhD candidate, game designer, and creative coder, exploring games and playful experiences in various media with a focus on mixed reality/ locative play. Published games include *Secret City – Missing Max*, *Speed Gardening Guerrilla*, *Tidy City*, *Eine gegen Eine*, and a number of event games and experimental interactions. Former lecturer at Leuphana University Lüneburg, now a Marie Curie Fellow at Plymouth University researching playful systems.

FINAL ACKNOWLEDGEMENTS

playin'siegen & digital spaces conference

The idea of this special issue arose from the activities during »playin'siegen – international urban games festival« and its embedded conference »Digital Spaces: Game, Art, Design« that took place in Siegen, Germany, April 17-19, 2015. Therefore, Judith Ackermann, Andreas Rauscher, and Daniel Stein wish to express their thanks to all the supporting sponsors and funding partners:



Eine Initiative des Bundesministeriums
für Bildung und Forschung

Wissenschaftsjahr 2015

Zukunftsstadt

LIEFERBARE HEFTE

Kulturen des Kopierschutzes I

Herausgegeben von Jens Schröter, Ludwig Andert, Carina Gerstengarbe, Karoline Gollmer, Daniel Köhne, Katharina Lang, Doris Ortinau, Anna Schneider u. Xun Wang; weitere Beiträger: Stefan Meretz u. Martin Senftleben.
2010 Jg. 10 H.1 - 135 Seiten

Kulturen des Kopierschutzes II

Herausgegeben von Jens Schröter, Ludwig Andert, Carina Gerstengarbe, Karoline Gollmer, Daniel Köhne, Katharina Lang, Doris Ortinau, Anna Schneider u. Xun Wang; weitere Beiträger: Brian Winston, Till A. Heilmann u. Alexander Fyrin.
2010 Jg. 10 H.2 - 138 Seiten

High Definition Cinema

Mit Beiträgen von Jens Schröter, Marcus Stiglegger, Helmut Schanze, Ivo Ritzer, Jörg von Brincken, Benjamin Beil, und einem Nachruf für Gundolf Winter.
Herausgeber: Jens Schröter, Marcus Stiglegger
2011 Jg. 11 H.1 - 111 Seiten

Game Laboratory Studies

Mit Beiträgen von Jens Schröter, Philipp Bojahr, Tobias Gläser, Lars Schröer, Gisa Hoffmann, Marlene Schleicher u.a.
Herausgeber: Benjamin Beil, Thomas Hensel
2011 Jg. 11 H.2 - 149 Seiten

Film Körper

Mit Beiträgen von Kai Naumann, Julia Reifenberger, Irina Gradinari, Susanne Kappesser, Romi Agel u.a.
Herausgeber: Ivo Ritzer, Marcus Stiglegger
2012 Jg. 12 H.1 - 145 Seiten

I am Error - Störungen des Computerspiels

Herausgeber: Benjamin Beil, Philipp Bojahr, Thomas Hensel, Markus Rautzenberg, Stephan Schwingeler, Andreas Wolfsteiner
2012 - Jg. 12 H.2 - 118 Seiten

Der Medienwandel der Serie

Mit Beiträgen von Gabriele Schabacher, Michael Cuntz, Nicola Glaubitz, Lorenz Engell, Herbert Schwab u. Isabell Otto.
Herausgeber: Dominik Maeder, Daniela Wentz
2013 - Jg. 13 H.1 - 145 Seiten

Vom Feld zum Labor und zurück

Mit Beiträgen von Anna Brus, Juri Dachtera, Anja Dreschke, Katja Glaser, Matthias Meiler u.a.

Herausgeber: Raphaela Knipp, Johannes Paßmann, Nadine Taha
2013 - Jg. 13 H.2 - 187 Seiten

Pasolini - Haneke: Filmische Ordnungen von Gewalt

Mit Beiträgen von Konrad Paul, Hans J. Wulff, Oliver Jahraus, Uta Felten, Marcus Stiglegger u.a.

Herausgeber: Marijana Erstic, Christina Natlacen
2014 - Jg. 14 H.1 - 130 Seiten

50 Jahre Understanding Media

Mit Beiträgen von Barbara Filser, Till A. Heilmann, Rembert Hüser, John D. Peters, Nina Wiedemeyer u. Marshall McLuhan.

Herausgeber: Jana Mangold, Florian Sprenger
2014 - Jg. 14 H.2 - 124 Seiten

Medien der Kooperation

Mit Beiträgen von Erhard Schüttpelz, Sebastian Gießmann, Susan Leigh Star, Heinrich Bosse, Kjeld Schmidt, Mark-Dang Anh, Ilham Huynh u. Matthias Meiler.

Herausgeber: AG Medien der Kooperation
2015 - Jg. 15 H.1 - 148 Seiten

Von akustischen Medien zur auditiven Kultur

Mit Beiträgen von Rolf Großmann, Maren Haffke, Felix Gerloff, Sebastian Schwesinger, Lisa Åkervall, Sarah Hardjowirogo, Malte Pelleter u.a.

Herausgeber: Bettina Schlüter, Axel Volmar
2015 - Jg. 15 H.2 - 164 Seiten