PARN

PHYSICAL AND ALTERNATE REALITY NARRATIVES (PARN)

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FOREWORD

In 2010 a group of colleagues came together to explore the possibilities of developing their interests in various forms of narrative. Each of them has had a strong background in the innovative and growing area of digital and media culture, working with games, installations, networks and the rest of the possibilities that media culture offers. Each wanted to move beyond these boundaries and incorporate more elements, predominately that of character based narrative. During the project, partner organisations celebrated their 10th, 15th and 20th anniversaries and our desire to keep developing is showing no signs of depleting. The partners all wanted to build upon their strong and long histories and find ways to move towards and learn from one another in order to take on new elements in their work.

The *Physical and Alternate Reality Narratives* project (PARN) emerged from these discussions. We were and are interested in the incorporation of narrative into physical spaces and online spaces, to build narrative worlds that embed themselves in the physical-virtual crossover that our projects have occupied over the past decades.

Time's Up took on the role of coordinating the PARN project, in addition to work on developing several productions, while the three following organisations took the co-organising roles.

FoAM is a long-standing, close partner of Time's Up and has an extensive experience in leading EU-projects, FoAM were supporting Time's Up in the administrative coordination of the project, for which we remain forever grateful! More interestingly, their main field of attention was based around artistic production and aesthetic research in the realm of *Alternate Reality Narratives* with a strong emergent physical component.

Lighthouse, a leading arts agency in South East England which commissions and showcases new works by artists and film makers, has undertaken the organisation of *Improving Reality* - a program critically and creatively examining narrative in physical & embodied contexts including a conference, exhibitions and an education thread.

Blast Theory, renowned internationally as one of the most adventurous artists' groups using interactive media, contributed through the organisation of a highly interesting multi-day gathering of ingenious minds *Act Otherwise* as well as showcasing *A Machine to See With* at the *Brighton Digital Festival*.

During the timespan of PARN we had the great pleasure to meet and interact with a wide and interesting range of practitioners and theoreticians from the developers of the *Book Sprint* methodology to media designers, games practitioners and people thinking about notation for all these things. This has led in some cases to a number of exciting following up projects and activities. We mention M-ITI and AltArt only as examples and are excited about their their roles as co-operation partners within *Future Fabulators*, a pan-European project growing out from PARN.

Not only institutionalized organisations were important in the project, but a whole array of people have assisted PARN in making it to be as interesting as it was. The creation of physical recreations of lived in spaces has drawn upon a huge amount of oral history and experiences, support in creation and presentation at every stage of the process. This level of voluntary work was wonderful to be part of, from a grandmother's recreation of old writing styles through cultural workers volunteering at exhibitions to a pair of teenagers being amazed as they learnt to use a typewriter, in addition to a wide spectrum of experts for implementation of all sorts of tasks we faced during production times.

This volume is intended to summarise the experiences of the project-partners in the wide range of activities that took place. The foremost process was the creation and presentation of new work, which was undertaken with the pieces *Stored in a Bank Vault, Borrowed Scenery* and *Unattended Luggage. Bank Vault* as well as *A Machine to See With* were presented in the *Brighton Digital Festival* which included the *Improving Reality* conference. This conference was only one of a number of public and closed circle learning and sharing experiences including the Alternate Reality Games, *Mycellium Radio and Tarot* tutorials, *the Legal Identity for Trees* workshop as well as the *Act Otherwise: A meeting of Ingenious Minds, Data Ecologies '12: The Map and The Territory* and *Future Perspectives* symposiums.

The summarising of the experiences into such a compact volume has been a complex process and has certainly left out a number of important, exciting and vital elements of the project. The *Turtles and Dragons* book, the result of a book sprint after the *Data Ecologies '12* symposium, gets minimal coverage, as does a lot of the content of other, less formal workshops and gatherings between the project partners and other interested parties. However we hope and trust that the elements we have been able to collect into this volume are enough to interest the reader and point the way to further developments.

The Editors, March 2013



2 NARRATIVES IN CONTEMPORARY CONTEXTS

The monolithic narrative has ceased to be the central story form in contemporary European culture: the spectrum of local colourings, the multiplicity of media formats and the active exploration of and participation in the mediated world has led to a place where a single mediated narrative situation no longer fits. As various media move away from single, heavy presentation points such as television, theatre & cinema and emerge into the everyday physical world through mobile applications, mechanised objects and sensor-enhanced physical devices, the physical world and the networked spaces permeating it become the new and challenging space for narrative presentation and consumption.

The central focus of the project PARN (*Physical and Alternate Reality Narratives*) has been dealing with the possibilities and problems of creating, presenting and representing narratives in physical space. Storytelling is a fundamental human capacity and is widespread in a variety of cultural forms as well as being one of the ways in which, according to many researchers of learning and awareness, we make sense of the world as we experience and reflect it. As the poet Simon Ortiz puts it: "there are no truths, only stories."¹

Starting in May 2011, Time's Up (AT), FoAM (BE), Lighthouse (UK) and Blast Theory (UK) designed, developed, created, exhibited and analysed contemporary forms for storytelling in a pan-European context. Based upon the recognition that the current trend for complex multimodal narratives is not just a passing fad and to acknowledge that today's culture is progressively more explorative, pluralistic and networked, the partners took on a wide spectrum of possibilities for contemporary narrative creation.

In particular PARN investigated the ways in which physical spaces can be imbued with elements; media, objects, texts, interactions and their arrangements, in order to effectively express a narrative situation. In this sense PARN explored contemporary narrative practices as they emerge from the confines of the stage and screen, becoming immersive situations within which a story is expressed as a completeness.

This project integrated two main threads that span the spectrum of interest in emerging narrative forms. *Physical Narrative* can be understood as a theatre without actors where the spectator becomes a visitor to the space and explores the environ-

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ment in order to discover the narrative embedded with it. *Alternate Reality Narratives* can be understood as *storyworlds* that impinge upon our daily reality via media and objects, forming a smooth blending of the narrative environment and everyday life. Each of these threads is spun out later into two respective longer articles as well as being entwined in many of the other texts.

PARN incorporated strong streams of cultural production, professional development, community outreach, exhibition and dissemination in order to create a wide contribution of European added value through the activities of the project. Perhaps it is worthwhile to attempt to describe where the various chapters of this book fall within the framework of the project.

Several productions took place, from the simplicity of *The Kitchen* to the complexity of *Borrowed Scenery*. *The Kitchen* was a study in minimalist storytelling through a space replication. *Borrowed Scenery* emerged from a strong development process around an alternate reality of plant-human communication, resulting in a broad swathe of installation, performance, software and events. *Stored in a Bank Vault* and *Im Tresor* were two episodes of a heist story told in two cities, exploring the possibilities for character tensions in physical spaces. *Unattended Luggage* explored the possibilities of the family saga as a narrative form. While the descriptions cannot replace the experience of each of these pieces, we hope that the reflective comments are of interest to those who were there or who could not make it. In addition we have included an essay that attempts to summarise our current state of the art with *Physical Narratives*, indicating where the current developments are coming from and heading to.

PARN has operated as a learning situation for professionals and an interested public as well as a research environment for artistic and aesthetic research into these emerging fields. As a cultural development and exhibition project PARN investigated trans-European and trans-disciplinary narrative practices of interest to a professional audience as well as the general public. With symposium events that brought together professionals from a range of media, from television through games, locative media to theatre, there was a strong interplay of learning and exchange. The reports on various ARN tutorials that FoAM created as a lead up to the development of Borrowed Scenery offer insight into much of the experiences that were shared. The reports on the symposia such as *Future Perspectives* and *Act Otherwise* can only outline the breadth of discussions, which have fortunately led to the development of further cooperations. More public events such as Improving Reality at Brighton Digital helped reach a larger and more general audience. Perhaps the most encouraging result of these meetings has been that they have been seen as valuable enough to become ongoing events for each of the partners. The symposium Data Ecologies '12: The Map and The Territory brought together a group of practitioners and theorists, some of whom came together afterwards to book sprint the ensuing volume *Turtles* and Dragons which includes many more details than could be included here.

One of the most rewarding parts of this project has been the people who have helped make it possible and we hope that the list in Chapter 10 includes all those who helped in all the ways that they have. Without their help, this project and publication would have not only been less enjoyable, but also less possible. Thank you to you all.

3 Partners

CONSORTIUM PARTNERS

TIME'S UP, AT -- TIMESUP.ORG

Founded in 1996, Time's Up, the laboratory for the construction of experimental situations has its principal locus in the Linz harbour of Austria. We see it as our mission to investigate the ways in which people interact with and explore their physical surroundings as a complete context, discovering, learning and communicating as they do.

Thus our research is based upon constructing interactive situations not unlike the normal physical world, inviting an audience into them and encouraging their playful experience-driven exploration of the space and its behaviours, its inhabitants and their histories, alone and in groups. In this process we use tools from the arts and design, mathematics, science and technology as well as sociology and cultural studies. We invite the public to investigate these living, lived-in spaces as protoscientists, archeologists and detectives.

Our goals are to collaboratively investigate the world and its options with a general public, communicating and discussing these discoveries through workshops, publications, teaching and symposia.

FOAM, BE -- FO.AM

FoAM is a network of transdisciplinary labs for speculative culture. It is inhabited by people with diverse skills and interests – from arts, science, technology, entrepreneurship, cooking, design and gardening. It is a generalists' community of practice working at the interstices of contrasting disciplines and worldviews. Guided by our motto *grow your own worlds*, we study and prototype possible futures, while remaining firmly rooted in cultural traditions. We speculate about the future by modelling it in artistic experiments that allow alternative perspectives to emerge. We conduct these experiments in the public sphere and invite conversations and participation of people from diverse walks of life.

Amidst rampant consumerism, xenophobia and climate chaos, FoAM is a haven for people who are unafraid to ask the question: "What If?" Instead of dismissing possible futures because of their improbability, we speculate: What if we see plants as organisational principles for human society? What if lack of fossil fuels turns jetsetting artists into slow cultural pilgrims? What if market capitalism collapsed? By rehearsing for a range of different scenarios, we can cultivate behaviours that make us more resilient to whatever the future holds.

BLAST THEORY, UK -- BLASTTHEORY.CO.UK

Blast Theory is renowned internationally as one of the most adventurous artists' groups using interactive media, creating groundbreaking new forms of performance and interactive art that mixes audiences across the internet, live performance and digital broadcasting. Formed in 1991, the group's work led by Matt Adams, Ju Row

Farr and Nick Tandavanitj, explores interactivity and the social and political aspects of technology. It confronts a media saturated world in which popular culture rules, using performance, installation, video, mobile and online technologies to ask questions about the ideologies present in the information that envelops us.

Masterclasses, mentoring, internships, seminars and lectures are central to the group's dissemination of its ideas around the world.

The group has won the Golden Nica for Interactive Art at Prix Ars Electronica, the Maverick Award at the Game Developers Choice Awards in the USA and The Hospital's Interactive Art Award among others. The group has received four BAFTA Award nominations.

LIGHTHOUSE, UK -- LIGHTHOUSE.ORG.UK

Lighthouse is a digital culture agency based in Brighton. We support, commission and exhibit work by artists and filmmakers. Lighthouse creates vibrant, inspirational programmes that show how important artists and filmmakers are in a changing media landscape.

We work with digital art and moving image, which we present in our own venue in Brighton and beyond, nationally and internationally. By supporting artists and filmmakers, through commissioning, exhibition and professional development, we demonstrate that digital culture is about more than technology and tools; it is about ideas, emotion, learning, and aesthetics.

LH manages the high-level production scheme, BFI Shorts, in collaboration with the British Film Institute, enabling a series of major new short films to be produced.

LH also runs the UK's leading mentoring programme for filmmakers Guiding Lights - which supports rising film talent by connecting them with some of the industry's greatest names, including Sam Mendes, Kenneth Branagh and Barbara Broccoli.

ASSOCIATED PARTNERS

3KTA1 PT -- 3KTA.NET

Lab for Conception, Design, Production & Presentation of intermedia processes.

Ekta were important in developing our networking regarding partner organisations and practitioners. We were part of the scientific committee in their coorganised festival xCoAx - Conference on Computation, Communication, Aesthetics and X.

BOOKI, DE - WWW.BOOKI.NET / BOOKTYPE, EU BOOKTYPE.ORG

A *Book Sprint* brings together a group to produce a book in 3-5 days. There is no pre-production and the group is guided by a facilitator from zero to published book in that time. The books produced are high quality content and are made available immediately at the end of the sprint via print-on-demand services and e-book formats. The system was devloped in the Floss Manuals work, developed by Booki and uses the Booktype editing and publishing environment, allowing an ongoing maintenance program for each publication.

Floss Manuals, in cooperation with Booki.net facilitated a multi-day workshop session, during which major parts of *Turtles & Dragons* was written in September 2012.

DEPARTMENT OF MEDIA ARTS COLLEGE OF FINE ART UNI-VERSITY OF NSW1 AUS; COFA-UNSW-EDU-AU

At COFA, interdisciplinary practice is encouraged and research excellence promoted. COFA is committed to the development of each student's individual creative potential in Art, Design, Media, Art Education and Art Theory.

We worked closely with Alex Davies at CoFA around the development of content based involvement between fiction and reality, merging interactive media, cinema and narration. In particular his concentration on the arts of the illusionist as applied to media arts practice has offered some insights. We aim at further collaborations.

FOAMLAB, NL -- FOAM-LAB.BLOGSPOT.COM

Foamlab is FoAM's sister collective in the Netherlands. Its founders Theun Karelse and Cocky Eek focus on transdisciplinary collaborations in the fields of urban gardening and foraging, as well as art and science illustration and inflatable arts.

Foamlab participated in the design and implementation of *Borrowed Scenery* ARN. Theun Karelse lead several urban foraging expeditions and consulted on the development of Zizim, the patabotanical fieldguide designed as a mobile app. He illustrated the ARN characters used in Aniziz, the online game used in *Borrowed Scenery*. Cocky Eek co-lead the groWorld Vegetal Culture research seminar at the KABK in Den Haag and has leant her voice and presence in the *Inner Garden* performance.

FUNDATIA ALTART, RO -- ALTART.ORG

AltArt is an NGO that promotes digital culture and aims to strengthen the Romanian cultural sector. AltArt contributes to promoting the impact of culture on societal development through research, debates, networking and policy work.

The *Physical Narrative Unattended Luggage* had its European premier at an exhibition curated by AltArt at the Fabrica Pensula in Cluj, Romania. As a result of this, we developed a collaboration leading to the *Future Fabulators* project.

KEPLER SALON, AT -- KEPLER-SALON.AT

Research and related work is mediated in a popular and entertaining way at the Kepler Salon. Dialogues and stimulating discussions at an eye to eye level with experts turn visitors into enquirers. At the Kepler Salon the whole range of research is covered: science, nature, technology, liberal arts, cultural studies. Dialogue and stimulating discussions are not only allowed but explicitly encouraged.

The *Data Ecologies '12* symposium was hosted by the Kepler Salon and we plan to cooperate in the next projects with similar events there.

KUNSTRAUM GOETHESTRASSE XTD, AT -- KUNSTRAUM.AT

The work of KunstRaum Goethestrasse is to connect social issues and art, to make playful and participatory offers to a broad target audience and support and continuous regional and international contemporary art production. KunstRaum Goethestrasse is a space for experiment and collaboration.

KunstRaum Goethestrasse hosted the *Book Sprint* that created *Turtles and Dragons* in Sep 2012.

Madeira Interactive Technologies Institute is a young research institute, part of the University of Madeira in partnership with the regional Government and Carnegie Mellon University.

The symposium *Narrative Strategies* 2012: *Future Perspectives* was co-curated by MITI and was carried out by them at the Casa Das Mudos in Madeira. The cooperation was very fertile and has led to the *Future Fabulators* project.

MIXED REALITY LAB, UNIVERSITY OF NOTTINGHAM, UK NOTTINGHAM.AC.UK

The Mixed Reality Laboratory (MRL) at the University of Nottingham is a dedicated studio facility where computer scientists, psychologists, sociologists, engineers, architects and artists collaborate to explore the potential of ubiquitous, mobile and mixed reality technologies to shape everyday life.

As well as being a long term supporter of and collaborator with Blast Theory, they made a strong contribution during the *Act Otherwise* Conference in Brighton.

MEDIEN KULTUR HAUS, AT -- MEDIENKULTURHAUS.AT/

The Medien Kultur Haus is based on three pillars: production, intercultural communication and exhibitions. They deal with various aspects of media production and the reception of media.

The Physical Narrative Im Tresor – der Schein trügt was shown at мкн in Nov 2011.

SERVUS.AT. AT

servus.at is a cultural network-based initiative in Linz, Austria. In running its own technical infrastructure, servus.at offers virtual and physical access opportunities for artists and cultural producers. One of the main objectives of servus.at is to implement the ideas of a free society in a daily practice of cultural and artistic production dealing with technology and to develop a network of trust.

Technical and content support for structuring several dissemination platforms was provided by servus.at, in particular the development of the physicalnarration. org web presence, as well as developing and providing server support for exchange between partners.

SIX TO START, UK, -- SIXTOSTART.COM

Six to Start is based in London, with associates in New York and Toronto. They create games, apps and transmedia experiences for clients in the $u\kappa$ and overseas. Six to Start created transmedia experiences for shows like *Misfits* and *Spooks: Code* 9, playful storytelling experiences like *We Tell Stories*, *Smokescreen* and *Young Bond: The Shadow War* and consulted on storytelling and play for the BBC, Disney, CBS Interactive and Microsoft xBox.

Adrian Hon and Matt Wieteska of Six to Start lead the ARG tutorial, introducing PARN partners and interested artists to the world of Alternate Reality Games. They both consulted FoAM in the early phase of the *Borrowed Scenery* design. Adrian was a speaker at the *Improving Reality* symposium in Brighton and Matt at the groWorld vegetal culture research seminar at the KABK in the Netherlands.

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SINFONYE, UK -- LOGANARTSMANAGEMENT.COM/ENSEMBLES

The group's founding director, Stevie Wishart conceived of Sinfonye as a group combining improvisatory skills derived from historical research and where possible informed by related traditional music. Recordings include medieval music for Glossa Music (ES), Celestial Harmonies (USA), and Hyperion Records (UK). With Sinfonye, she is directing an on-going project to record the complete works of Hildegard of Bingen in a 5-6 cD cycle, which includes a multi-media performance and contemporary realisation of selected songs.

Stevie Wishart was commissioned by FoAM to design, compose and implement the *Inner Garden* performance. In addition to *Inner Garden*, she also consulted FoAM on Hildegard von Bingen's *Lingua Ignota*, used as part of the patabotanical language in *Borrowed Scenery*.

TALE OF TALES, BE, TALE-OF-TALES.COM

Tale of Tales is the independent videogames development studio of Auriea Harvey and Michaël Samyn. Founded in 2003 and located in Belgium, Tale of Tales creates digital experiences that embrace the medium of videogames as an artistically expressive form. Not satisfied with the limitations of competitive play, Tale of Tales explores new modes of interaction, in an attempt to open up the medium of videogames to many different kinds of players. We want to create elegant and emotionally rich interactive entertainment.

Tale of Tales were FoAM's creative sparring-partners about online games and storytelling. Auriea Harvey was also a participant and follower of the Tarot and Ethnobotany tutorials.

THEATER NYX, AT -- THEATERNYX.AT

TheaterNYX is located at the borderline of theatre, performance and social practice. In recent years the public space of the city of Linz has repeatedly been the setting for site specific theatre development. An interdisciplinary approach, a sublime playing with the perception of the viewers and a passion for unconventional performance formats ensure challenging theatre nights. Currently the stories revolve around the subjects identity & diversity, security & precarity and the ghosts of Linz.

The *Physical Narrative Im Tresor – der Schein trügt* was initially developed in collaboration with Theaternyx.

4. PHYSICAL NARRATIVES

4.J WHAT IS A PHYSICAL NARRATIVE?

"A hologram has this quality: Recovered and illuminated, each fragment will reveal the whole image of the rose... he sees himself the rose, each shattered fragments revealing a whole he will never know...but each fragment reveals the rose from a different angle."

William Gibson, Fragments of a Hologram Rose

This section is an attempt to position our current state of development of *Physical Narratives* and to look at the challenges we are currently facing. In the process of this aesthetic enquiry into some of the possibilities that the medium (if we can call it that) of *Physical Narrative* is capable of, we have made several observations and developed some language to talk about these concepts. We would like to think of this as a report of an ongoing investigation into the aesthetic research of *Physical Narratives*. It is partially based upon the presentation given at the *Future Perspectives* symposium in Madeira, December 2012.

AN INTRODUCTION

We use the term *Physical Narrative* (PN) in order to refer to a space that tells a story through the objects within it and the way it is staged. Each object, every atmospheric nuance, the medial and mechanical set up is orchestrated to create fragments of the narrative. The audience for the story is invited to explore the space, to open drawers, flip through books, listen to the radio or watch the rv, embedding themselves in the space and assembling the story in parts. It is an experience driven narrative situation. A *Physical Narrative* is an invitation to sneak a look into the hidden parts of an imagined life with all its relationships, possessions, experience, detritus and other accoutrements, a *storyworld*. When we speak of a storyworld, we mean a complete (semi) fictional world, with all the details that make up a whole world. A storyworld is a collection of properties of a world that fit together and form a way that society, the world and individuals can act. These storyworlds are the places in which stories happen.

We identify elements that form the core properties of a *Physical Narrative*:

- » *physical:* the *Physical Narrative* exists in space, being made of physical objects in relation to one another, within a physical space that is shared with the person exploring it.
- » explorable and interactive: there is more to the space than the surface. The audience is invited to explore, to put things together, to open, read, listen and investigate, using their physical, intellectual and emotional strengths to assemble the story. Whether the interaction is as simple as opening a book or as complex as using some electromechanical device, the space reacts to the actions of the audience or the actions of other parts of the narrative.
- » *character based:* there are absent characters involved in the scenario, with human actions, desires, beliefs, etc. The space is not just a world in itself, but a character based space.
- » *authored:* there is a strong authorship present in the piece, with definite actions and ideas embedded within the artefacts that make up the space. This still leaves a large area for interpretation by an audience, but the story is not created by the audience.
- » *mechanical:* the system is automated, there are no actors present physically within the space, it is not a theatre. The other people in the space are also exploring the space, they are not part of the story, they are rather exploring it as a narration that is not involving them as part of the story.
- » *narrative:* the story is separate from the audience, with no direct contact between the audience and the story. The story is happening or has happened in the space around the audience, not directly involving them. The space narrates the story rather than playing it out.

Perhaps a metaphor is a useful way to imagine the idea of a *Physical Narrative*. When called to a crime scene, a detective is confronted with a situation. A collection of evidence that suggests the story leading up to the situation she just found; an empty glass, a torn letter, a pregnancy test, messages on an answering machine. From these, a story can be built. Perhaps with some red herrings, some wild goose chases, some irrelevant details. The task of the detective, and the joy of a *whodunnit* story, is to work out how to fit the elements together to tell a story, to find a story that makes sense.

It is such situations that we aim to create with a *Physical Narrative*. Perhaps not as specific as a crime scene and not as clearly pointing to one solution as in *whodunnits*, but a space to be explored. A less "criminal" metaphor might be someone's office, when you are left alone for ten minutes with the call to "make yourself at home" as the inhabitant disappears. It is socially acceptable to browse books on shelves and look at the photos positioned on walls, desks and window sills. As Gosling (2008) claims, a significant amount of information about a person's psychological and other states can be determined from these intentional and unintentional displays. Even without touching anything, looking at the contents of a rubbish bin, the arranged papers on a desk, the magazines and the half eaten snacks can tell a deep story.

A *Physical Narrative* might be highly factual, as might be seen in a museum exhibition, but we have concentrated upon fictional narratives where we create a story and the space in which it happens. This chapter is meant to investigate many of the different possibilities for creating *Physical Narratives*, starting with related forms, in particular those that we have been able to borrow ideas from in the development of various *Physical Narratives*. We then discuss several points that have emerged as concerns in our enquiries. With these examples we will look at the main challenges that we see in our work and the tools and techniques that we are aiming to use to approach them. The analysis is necessarily very subjective and aesthetically driven, but we hope that it is of value to the reader.

CLOSELY RELATED FORMS

The *Physical Narratives* that we have built have been influenced by our experiences with a large number of media. In this section we would like to discuss some of the media and forms that have helped us in our thinking and development. We will do that by discussing the form as well as the ways that it meets or avoids by using the main properties of a *Physical Narrative* as mentioned above.

Installations are, from our perspective, one of our main sources for the development of *Physical Narratives*. Whether interactive or not, an installation is embedded in physical space and can involve the viewer in a number of ways. An installation is a form of a world, with its own rules and regularities, causal effects and responses (in the case of interactive installations), that can be explored in a kind of *protoscientific* exploration. In this sense an interactive installation fulfils the requirements of a *Physical Narrative* except for the lack of any character based aspects.

Interactive and improvisational theatre has a certain similarity to the form of a *Physical Narrative*. The theatrical experiences developed by Copenhagen based artistic collective *Signa* are a form of immersive interaction, where the audience is invited into a space in which a number of characters act and interact with one another and the audience. There is a certain dramaturgical flow and thrust in the piece, but the exact form is not pre-ordained, rather it emerges from the interactions with the audience members.

This is even more clearly seen in the field of improvisational theatre, where explicit input from the audience is integrated into the on stage narrative as it develops. Improvisational theatre allows little exploration and is not physical in the sense that the audience can move onto the stage – the fourth wall is broken by requests for information and decisions from the audience, but it remains a line between the watching audience and the active actors. *Signa*'s work breaks that down with an audience being on the stage with the actors, exploring the interactions between the actors and members of the audience. *Punchdrunk*'s piece *Sleep No More*, a version of *Macbeth* taking place in a hotel where the audience is free to follow the action or remain in one place, is another theatrical reference point. In this piece, they take *Signa*'s approach further with a deeply developed stage setting with props capable of withstanding a deeper investigation such as the complete diary of a character in the play. Anecdotal reports indicate that audience members quite happily get lost in the exploration of story details and ignore the theatrical developments around them, something that we would regard as very close to a *Physical Narrative* experience.

Websites are one example of (virtual) spaces allowing nearly free movement from one part of the space to another, revealing ever new parts of a complex system. Whether the website is meant to explain something as straightforward as the use of a technical piece of equipment or is designed as a story to be read as a narrative, the possibilities to follow links, return to previous pages and freely navigate ties them closely to the *Physical Narrative*. Hypertext narratives and other developments that were most apparent in the 1990s such as MUDS and MOOS extending into the exploration of Second Life, explored the possibilities for storytelling in nonlinear ways within virtual spaces that are, to a degree, explorable and interactive. Such narratives miss out on the immersive characteristics of physical space and the proprioception that make action and exploration within a physical space exciting.

Gardens as designed spaces are built to be explored by strolling visitors and therefore offer a wealth of ideas about how a space can be designed for exploration and discovery. Wolfgang Nelle [Künstliche Paradies p. 124] speaks about the exploring and active individual who is in the middle of an English Garden. "One scene after another opens itself to the view of the stroller, who becomes the discoverer of the designed nature." [Internetauftritte p 161] "The English Garden wants to be explored by the viewer. The designed nature in such a garden was not to be viewed from a unique optimal point, rather it can be decomposed into several "performances" in the sense of landscape painting or theatre staging, and these performances should be apparently independently discovered by the visitor." As in the case of interactive installations, there is little character present in the garden, except perhaps that which is representative of the owner, thus there is little in the way of story that can be related as narrative. There is little interactive action, other than that of moving within the garden in order to discover new points of view.

Museums and stores are another point on the spectrum of interaction. Such spaces are heavily constructed (authored) with the aim to encourage the consumption of products or information. They allow a certain degree of free exploration and the interactive aspect can be as simple as the ability to choose goods or complex information booths that use bar codes, RFID tags or other techniques to tell complex stories and give intricate information about a product or artefact. The dramaturgy of the pre-planned path through an IKEA store and the way that elements are presented, juxtaposed and made discoverable uses many similar ideas to a museum or a theat tre piece. To a large degree they are mechanical, requiring no input from a guide or salesperson and one might even go so far as to say that shops at least do a lot to create character personas in the form of advertising that should appeal. Here we see that in stores the narrative dissipates as the audience become part of the story.

Film has been a strong guide in thinking about and designing *Physical Narratives*. In film, a space is created and filled with the required props and artefacts, lighting and other atmospherics to create and communicate a story. In the same way that a film cannot ignore the background when there is an interaction of characters, as can be done in a book, a *Physical Narrative* cannot ignore the background either. If we equate the camera and the audience as a point of view, the camera explores an authored physical space and experiences a character based story, similar to a *Physical Narrative*. This allows us to think of the first impression as an "establishing shot" and to use other parts of film theory and practice to inform our work. However the elements of free exploration, mechanisation and interactivity fall away.

Computer Games can take on many of the properties of a *Physical Narrative*. In some sense they remove the physicality of a film set and replace it with virtual physicality, allowing free exploration of the virtual environment. A game is rarely narrative in the sense that the ludic moment is vastly more important than the narrative moment *[Lindley]* and these are, in general mutually incompatible. The problems of guiding the player through a game environment are very similar to the problem of guiding focus in a *Physical Narrative* and the mechanisation, with characters in a computer game being mechanically driven by so-called Artificial Intelligence routines. This has similarities with the desire to embed narration into the space via props and their properties.

Physical Narratives

Rides in adventure and theme parks, such as haunted houses share many elements of *Physical Narratives*, except most strongly the ability to explore. The ride forces a certain sequence of events upon the rider and the experience is often much more thrilling based upon the physical sensation of being within it rather than the narrative experience of the story, possibly tied to the ludic-narrative axis that Lindley and others explore with computer games.

Location and Context-aware narratives, such as Blast Theory's A Machine to See With and pieces such as Dionisio et al's *iLand of Madeira* are very close to Physical Narratives. All the elements of a Physical Narrative are present, there being an explorable interactive physical space with a character based narrative authored within it. A Machine to See With becomes less narrative as the distance between story and player and begins to break down and the player becomes part of the story. Nisi's projects tend to leave the player outside the storyline and is therefore perhaps formally the closest to Physical Narratives in terms of the elements that we have taken as a definition for them.

Live Action and table-based Role Playing games have Game Masters to keep some control on the behaviour of players and bring in story and game elements as needed. However players are very free to choose their actions, possibly frustrating a game master who has designed a certain series of events to create a compelling experience, but the players' actions destroy their plans and lead the story elsewhere. The degree of authorship is strongly undermined as in the mechanical nature of the narrative, with other players taking on character roles in the story.

These are by no means the only related forms that we have been able to identify and milk for ideas and techniques that we can apply in the creation of our *Physical Nar*-*ratives*, but they do give an indication of where we see *Physical Narratives* positioned with regards to other forms.

A NOTE ON PEOPLE

In all the mentioned forms we speak of the people who come to the experience in many different ways. An audience or a spectator is someone who is peripheral to the action, linguistically the words refer to the concentration of the person on their acoustic or visual perception. Both of these seem to be reduced in their involvement in the piece. On the other hand a participant or player seems to be an overly strong term, interfering with our criteria of a narrative experience. While a person involved in a happening or a player in a LARP can be seen to a strong degree as a participant, co-creating the experience for themselves and for others, we do not believe that this level of involvement is what we would like to see in the narratives that we build. In the same way that we can explain the way that a *Physical Narrative* works by talking about a visitor to a home or an office, we have taken up using the term *visitor* to refer to the person who enters a *Physical Narrative* and explores and experiences it. We like to think of the created spaces as places to which we would like to invite people to enter, to visit and explore. A visitor has certain rights and limits of their behaviour, which reflect to a close degree the rights and limits that a person has when visiting a *Physical Narrative*. So we keep using the term visitor.

A SUMMARY OF OUR PN'S TO DATE

There are extensive descriptions of several of these pieces elsewhere in this volume, but for the sake of equal handling, we would like to summarise them all here.

The installation *Domestic Bliss* was created in 2009 and presented in the *Haus der Geschichte* series as part of the Cultural Capital program in Linz. It was installed in

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a small apartment, containing a bathroom, kitchen, bedroom and an extra room with the door blocked by a large cupboard, appearing as the residence of a single man, probably a composer, in the 1950s. On the television in the bedroom, a storyteller appeared, apparently speaking from behind the cupboard that blocked one doorway to the next room. She tells the story of a murder in the flat several years ago, then is attacked by the same murderer. A heavy thunderstorm takes place in both these time frames and special effects play out that storm in the flat with thunder, lightning and power fades. In the dark, the murderer attempts to push the cupboard aside, rocking it, which often shocked people watching the video who were leaning against the cupboard. The last scene shows some gallery assistants cleaning up the installation as if it were time to close the exhibition, resetting it to the start of the story.

20 Seconds into the Future portrayed the office of a non-university based researcher who was temporarily using a university office as a guest. The story was rooted in standard physics and mathematics, took some contemporary theories of space structure [Cahill] and spun them out to a science fiction narrative of forward time travel. A slide presentation made this sequence of steps clear for a mathematically interested (but not necessarily informed) audience. The room was filled with may parts of his daily work and life, from mathematical papers and physics books to engineering plans, as well as personal effects such as some Namibian artefacts from his home, science fiction DVDs, family and friends in photos. An answering machine received messages every few minutes from colleagues and family members, a fax ejected pages of communication from various offices and colleagues. A computer simulation of some of his research was positioned next to a video of some successful time travel experiments. A computer game used non-Euclidean geometry (mentioned elsewhere in a presentation slide) to act as an entry point for gamers. A radio played a looped talk show about nonuniversity research.

The Kitchen (see page 63) was a transferral of the Time's Up's lab kitchen to a gallery space, a physical copy that abstractly carried many of the properties but few narratives of the group. The physical space of the workshop kitchen was replicated in the gallery space in Hong Kong, with the accrued kitsch art from the walls transported to the exhibition for an idea of authenticity. It was a form of re-telling the story of Time's Up in the context of a festival exploring its own roots and history. Less of a *Physical Narrative* than the others, there was no explicit narrative to discover.

Stored in a Bank Vault and **Im Tresor – Der Schein trügt** (see page 53) were two episodes of a series of heists that appeared to be bank robberies but were aimed at recovering a seed that could, combined with mystical processes described in an old book and even more ancient pottery container, lead to a plant growth that would collect gold for nefarious or not so nefarious purposes. Four characters shared the space and intrigues between them were present and a theatrically inspired modulation of the space's lighting was part of an experiment in developing a "dramatic curve" in the piece.

Unattended Luggage (see page 41) is a family saga of five characters over four generations, dealing with the motivations, necessities and aspirations for travelling as well as the thin line between journey and escape, collected in the drawers of a 1920s travelling wardrobe. A 1930s radio playing politics, sport and music from the era, evidences that the first generation fled the Nazis and helped fight them while the second generation took off on a hippy-esque trip of exploration that never ended. The third generation embodies musical success and the need to travel as opposed to the fourth

generation being surprised with the right to travel back to her great grandparents and rediscover her family history in their attic, giving us the piece as we find it.

OUR PHYSICAL NARRATIVE - TRIANGLE

In a naïve analysis based upon our practice based investigations, we identify three elements of narrative: *Characters*, *Setting* and *Story*. In any of our particular narratives, these elements will have different weightings and levels of importance. These will also vary through a narrative experience. We will use the following working definition for the ensuing discussion.

- » *Characters* are the personalities, the people, animals, machines and other entities present in the narrative with whom we can empathise to some degree, understanding and treating them as being imbued with some form of personality.
- » The *Setting*, is the background upon and within which the narrative takes place. This is conveyed principally in the physical environment and the objects, but is also conveyed in medial aspects.
- » *Story* is perhaps the most complex but we will summarise as the collection of things that happen throughout space and time. Here we locate the *narrated time*, the time that is being referred to in the *Physical Narrative*, the changes that are referred to within the narration. The story will most likely only be fragmentary, as the depth of complete storytelling would be too much to create or receive.

We would not like to claim that all three of these elements are equally important for the development of a good *Physical Narrative*, but we feel that they are three good legs to stand on. There are also a lot of elements that are not touched on here, including intellectual depth, aesthetic qualities or degrees of narrative compulsion.



Fig. 1 Selected Works Triangle

It is perhaps useful to think of various genres and works as lying at various positions along the emerging axes arising from these three elements. For the sake of simplicity, we will talk about a balance here and position the three elements as corners of a triangle. It might be said that a well formed contemporary novel lies in the middle, with a suitably well defined and described *Setting* in which a number of *Characters* play out a *Story* to form a narrative. What are possible variations? In classic Greek literature, it is claimed that the natural landscape played a lesser role than it does now in our understanding of the world. This is a possible explanation for the lacking of much setting in classical Greek epic poetry, which is filled with archetypal characters having a series of encounters and situations. Descriptions of coastlines or valleys are ignored unless important for the story, weather is only important for storms. Similarly Rosencrantz and Guildenstern Are Dead has the two characters in a world without any properties whatsoever (at least when they are not propelled onstage for encounters with the characters of *Hamlet*) that we could position them along the Character-Story axis with little Setting. One could even go so far as to say that we do not really learn much about them either, that the whole piece is Story with little Character or Setting whatsoever. But that is a discussion for elsewhere. One might say that the novels of Adalbert Stifter or Marcel Proust, on the other hand, are filled with descriptions of *Characters* in *Settings*, but very little actually happens, or is really important. Gibson's Fragments of a Hologram Rose used the metaphor included in its title to build up a narrative based entirely on fragments without any story explicitly carrying them. On the third side of the triangle, we know so little about some action heroes that an action-thriller can be seen as a blend of Story and Setting with no significant Character whatsoever.

These three elements of narrative and the spectrum that they span can be a basis for us to find connections and techniques to be bent into shape for our purposes. So let us look at the *Physical Narratives* mentioned above and try to place them on the triangle in some useful way.



Fig. 2 Physical Narratives Triangle

The Kitchen is a piece about a place. As mentioned above, it is hardly a narrative and that might be seen in the way that it exists purely as a *Setting*, with no *Story* or *Characters* within it, other than those reflected in the collection that adorns its walls.

Domestic Bliss carries a definite *Story*, placed in a dynamic and active *Setting*. We are however left, as with an action thriller, with no real idea of what is going on behind the eyes of the characters. The murderer offers no motives, the victim no incentives, the storyteller has no involvement as a narrator until she is senselessly attacked and dragged into the story and the exhibition staff are lost in small-talk. The *Story* is tightly told, with a strong voice embedded in a dynamic environment.

Stored in a Bank Vault is the piece which attempts most strongly to be in a middle position. A strong *Story* leads up to the situation we find ourselves in, which is a highly detailed environment which acts as an all-encompassing *Setting*. The *Story* is further carried by dynamic actions happening in real time, whether phone calls, chat

room or tunnel workers. The *Characters* are fleshed out in detail, with relationships, frustrations, hobbies and parental influences.

20 Seconds into the Future offers us a detailed environment in which the details of Kadigan's *Character* and *Setting* can be discovered, whether the research environment or the physical space of a researcher and the world in which he operates. While his motivations are hinted at strongly, there is never enough coherence in the elements presented and there is no ongoing series of experiences that allow is to assemble a *Story* of what is happening or has happened. We may surmise that he is in the next room in his time travel experiment as we speak, but there is no *Story* in details which uses or is used by this to build up a balanced narrative.

Unattended Luggage reduces itself to a travelling wardrobe, a minimal setting that can be fitted in a tiny space. Each element of the narrative is confined to a relatively standardised drawer, never really being able to expand to build a full surrounding *Setting*, but with a very detailed *Setting* within the wardrobe. The presented elements however allow us to assemble a strong *Story* framework for the depicted familial epos, with all five *Characters* presented quite detailed, by facts as well as feelings, emotional responses and background aspects to enhance a feeling of closeness and empathy.

OUR CHALLENGES

During our involvement with *Physical Narratives* since 2009 we have encountered a handful of crucial challenges upon which we had and have to focus. What these are and how we consider to work with them in the future will be discussed in the next chapters.

- * Narrative Meaning
- * Narrative Time
- * Narrative Focus
- * Language
- * Narrative Planning

NARRATIVE MEANING

This is undoubtedly our core challenge. We are attempting to create an environment that acts as a carrier for a narrative experience. We see the set up of a *Physical Narrative* as the introduction of a communication system in order to transmit, transfer, communicate and share a narrative. The challenge is to create a network of elements (objects, texts, media, surrounding architecture, atmosphere) that allows a visitor to gain some narrative meaning from these assembled parts. The creation, the staging and pre-ordaining interpretation-options of the semiotic and narrative content of a particular object, whether it be a media object or physical, or the nonphysical arrangement of certain objects to one another - is our core task.

One method for analysing complex bodies of information is called the *semantic network*. From the simplicity of the mind map to the complexities of *Semaspace*, there is a range of network analyses that allow a practitioner to look at the information available around some topic. Through the connections, aspects that were perhaps not apparent become clearer and through repeated references the viewer finds important aspects. Each object in a *Physical Narrative* acts as a small semantic network, containing several pieces of information. Because these informational units are not held abstractly in a graph or on screen, we can think of them as instantiated semantic networks. A number of objects, as well as the environment, the atmosphere and the media contribute elements of this instantiated semantic network. Exploring the

space becomes, to a large degree, an act of exploring the semantic network. Rather than following the connections in a semantic network from one related idea to another along arcs that indicate semantic relationships, these relationships are integrated into objects and processes.

Let us commence with objects. Take a letter. In a novel, a letter is described, to a large degree, by its text. In a *Physical Narrative*, we have added possibilities for narrative content. This specific letter is apparent, it can be looked at, it can be picked up, turned around and according to its physical state and beyond its written text it will tell us so much more – due to its writing style (handwritten or typed and in each of these there are so many more details about fonts, corrections, accentuations, etc.), its position (place) in the room (wadded in a corner somewhere or neatly placed on a table in a sheet protector), the material it is written on (yellowed, much-thumbed, perfectly shiny,...) as well as the material state (marks from screwing it up or making



Fig. 3 Diagram of a letter

a paper plane from it, tear stains, etc).

Not only are these aspects of single objects possible, but they are necessary to be taken in consideration and be taken care of and used. The letter exists only in its combined form, every aspect of the combined form is important in the interpretation of the letter object. In a novel, the *Narrative Focus* (see below) glides over less important aspects of the environment. In a *Physical Narrative*, the letter must be complete, from the paper selection to its odour, the details of the writing used, the spaces between the lines, the treatment of the object to indicate use and misuse, the envelope with stamps, address and post office stains. In the same way that visual language analysis and film semiotics play a vital role in understanding the layers of a movie, these tools can be used to develop and refine our creation of narrative meaning in *Physical Narratives*.

The visitor-detectives perceive all these aspects of the letter, using their experience of letters, stories and historical perspective to interpret the narrative meaning embedded in this particular combination. From an object such as a letter there are a number of narrative aspects that may be referred to, from the period, the setting, character elements, the story, backstory and hidden story. Unlike the hologram or the fundamental piece of a detective story, it is unlikely to get a complete image of the entire narrative from one piece. The collection of narrative elements implied by a group of objects forms the story. This is the semantic network of which we speak. There is a collection of story, setting and character elements that make up the narrative, which is constructed in the network of references immanent in the objects in the space. This network is abstract in the sense that it exists as a narrative to be explored, it is instantiated by being embedded in the collection of objects in the space.

An explicit example would be the computer game in 20 Seconds into the Future, which was designed to play like the classic Pong, except with three paddles. The game physics are unusual, with the balls following curves on the playing field. These curves are able to be seen in the scientific presentation of non Euclidean geometry – the players are inside a hyperbolic space. The semantic connection between the physics of the game and the presented science invites game players to look at the presentation more closely. There they see other ideas of metrics in space, relating to the interactive graph embedding simulation and interrelations between time, causality and space. By this stage, the player is deep into the science fiction elements of the story, starting from a variation of a computer game. While in the space, the answering machine



Fig. 4 Semantic Network within 20 Seconds into the Future

responds and the visitor hears messages relating to various elements in the office. The Namibian football team and the image of *Kadigan's* mother reference some of the messages, building part of the network of ideas around his heritage. The visitor is offered a number of ways into the *storyworld*.

NARRATIVE TIME

With narrative time we are interested in the visitor's experience of time within the piece. This is distinct from narrated time, which is the time referenced within the world of the narrative itself. In *Unattended Luggage*, the narrated time is the past century, from the childhood of the first generation in Oklahoma and Vienna through the various events until the current day when the great-granddaughter is exploring the inherited house of her great grandparents. In *Domestic Bliss*, the narrated time is clearly the 1950s when the first murder occurred, the time in which that story is told by the speaking narrator on screen, and the contemporary time of the assistants cleaning up the installation. *Domestic Bliss* plays with and confuses these narrated times through the overlaying of the storm experience.

Narrative time, on the other hand, is about the ways for the visitor to experience time in the piece. One of the core questions that is raised repeatedly runs along the lines of "who controls narrative time?" In order to get our footing sorted out here, let us consider a few standards. They fall into three areas: linear, cycling and random access.

- » *Linearity:* There is a start, a process and an end. These may or may not be controlled by the audience or recipient.
- » *Looping:* there is no defined point to start or stop, although some times may be more or less preferred than others. Events that happen over short time spans may be more closely related. It cannot be assumed that something that happened more than a short time before had been seen or heard.
- »*Random access:* the pieces can be ordered arbitrarily in time. This might be chosen by the audience or might be mechanical.

There are two major ways in which narrative time can be discussed. The narrative time that is presented by the creators of the experience and the experiential narrative time of the visitors, viewers or audience. In some cases above we saw that there is an agreement made in advance, in other cases the creator provides the material and an audience moves through it under their own volition. Only in certain extreme experiences such as John Duncan's *Maze* does the creator of the piece have more control over the participant's time experience.

NARRATIVE TIME AS USED ELSEWHERE

In theatre or film, time is agreed upon in advance: the show starts at a certain time and is agreed upon by all who take part, from author to recipient. There are certain expectations, a theatre piece has an intermission, a mainstream film has a length of around 90 minutes. In Invisible Theatre, the piece is not expected by its audience, so they have less control of the experience time unless they simply break off. All of these formats have a linearity: they start, move forward and end, with a fixed, planned structure. On the other hand a video or a novel can be stopped and started at any time within their linear structure, giving the viewer or reader some control over the narrative time experience. These can even be scanned through nonlinearly, and some experimental novels such as *Hopscotch* are intended to be read in (almost) any order of chapters. Choose Your Own Adventure books or many computer game forms have more options-based structures, either branching through a tree of possibilities or moving through a collection of episodes in a player-controlled order. Returning to television, episode based series can be arranged linearly with their sequential cliff hangers or can be arranged as a collection of arbitrarily ordered independent pieces such as cartoons like The Simpsons. There are of course many series that lie between these two extremes, having a loose but still relevant ordering of episodes.

In gallery video art there are two main forms that appear. By far the most common is the linear video that has all the structures of a short film, documentary or experimental video. These will usually be played in a loop. Occasionally there will be an indication of where in the loop the current showing is or when the next loop will start. These indications help a visitor experience the video as it was intended, with the appropriate dramatic build up and all the possibilities of an audiovisual experience. The second, by far rarer form of gallery video art is the endless loop with no defined beginning. Such pieces are composed to allow a visitor to enter the experience at any time. Tension and other dynamics will only ever be local in the loop. A viewer will find themselves being able to make some sense of the experience within a short time and the addition of new experiences as they continue watching will add to their understanding. One format that uses this is episodes, where the video is built from a number of distinct episodes, each a whole experience in their own right, with an ongoing build up of the background ideas over several episodes. This is by no means necessary, with some pieces managing to use a continuous mode to explore the possibilities of the video. Such pieces are often more abstract, to the point of being purely aesthetic. Many generative pieces are of this form, with an ongoing continuous stream of generated audiovisual material being presented with complex and non-Aristotlean global dynamics.

NARRATIVE TIME IN PHYSICAL NARRATIVES

We would like to explain our three basic forms of narrative time from the creator's viewpoint. We explicitly work with visitors who will enter and depart a *Physical Narrative* as the mood takes them.

- » The most standard experience is *linear* time. A video that has a definite start and a definite end with accompanying motions and experiences in the physical space, as we saw in *Domestic Bliss*, is a form most closely related to film or, in the gallery environment in which it was presented, a looped video.
- » Another way is *looped* media, with no clear beginning or end. A collection of e-mails, telephone messages, radio interviews that arrive over time, each adding to the knowledge of the visitor as they add these inputs to their experience and understanding of the space.
- » The simplest form is the *static* experience. In *The Kitchen*, nothing moved, nothing changed. The exploration of the space was entirely up to the visitors choice and action, they had to read, look, open containers in a completely self-directed, and thus *random access*, structure. Thus the visitors experience of the piece is entirely nonlinear.

In all our *Physical Narratives* so far, the static environment has been important. In *Domestic Bliss*, the static space was reduced to a level of stage decoration, it set the scene and the *Setting*, informing some *Character* elements that were present. But it did not really play into the *Story* elements of the narrative, except as it became active in the linear story as told by the narrator and played out over the apparent surveillance cameras. The lights dimmed in a brown out and then black out, the lightning effects from behind the shutters were timed with those onscreen, the radio turned on and played a few bars of music to set the scene. All of these were closely tied to the unfolding linear storyline, there was little incentive for a visitor to explore the room for extra story elements that would further expand upon the narrative.

We might see *Domestic Bliss* as the most linear of the pieces explored here. The best experience of *Domestic Bliss* was to be had by arriving in the still period after the end of the video and before it started again. In this time, a visitor could explore the apartment, looking at the objects and the building, the 1950s historical details and the mounted observation cameras, the layers of detritus left by the occupant: male, single and musically active. The doorway to the last room was blocked by a large cupboard. Through the mostly blocked doorway the visitor could see another observation camera mounted and a small decoration. Then the visitor would take a place in the bedroom as the small old black and white television flickered to life and would be greeted by the narrator who was apparently behind the cupboard – her voice emanated from that direction while she was seen onscreen obviously via the mounted camera. The experience is linear from here, with sound effects, movements and light effects, cutting between the cameras and other usual video techniques for creating tension and narrating a story. The visitor should stay for the whole experience, seeing the layers of time merge as the narrative develops to its end.

Linear time is probably the technique for narrative that we are most familiar with. A story starts, things happen, tensions arise and are dissipated along Aristotlean or other models. *Characters* develop, plot lines become more complex, resolution is achieved. Even when the narrated time is not linearly presented, whether through flashbacks or the intricate time reversal of *Memento*, the narrative time remains linear, a single line through the events that best explains them and the full *storyworld*. Linear time is most explicitly seen in video and film work and it is not surprising that *Domestic Bliss* can be viewed as a piece of extended cinema.

The most significant problem with linear time that we have within *Physical Nar*ratives is the timing of visitors entry to a piece. If the visitors can time their entrance, either though knowing in advance when the linear piece will start or by the system reacting to visitor presence and starting once a visitor is present, then the experience can be made to better fit the medium. However the standard solution, which also allows people to leave as they wish and does not require complex sensor technology to determine whether somebody is present, is to use looped media. If we can produce the *looped* video so that there is no preferred starting point, then the timing of a visitor's entry becomes less important. Im Tresor worked most closely with this technique, with every event in the space timed onto a large media loop. Sound effects, lighting effects, emails, phone calls and other events were carefully laid out in a 55 minute cycle. While it might not be immediately clear what was being referred to, events were arranged to refer to one another when the appeared close to one another in time and space. Certain sequences of events were arranged to produce a phase of tension, apprehension as to whether the tunnel workers would find the criminal hideout and whether they would escape the rushing water. One could interpret this as a form of linear arrangement where a number of small linear sequences are overlaid to form a large cycle. Each small linear segment is interesting it its own right, the continued perception and reception of them leads to a more and more complete understanding of the narrative world.

A form of static time is a collection of *thin cycles* in contrast to the thick cycle of a monolithic loop. A thin cycle might be a series of emails that arrive or a radio show. In a static situation we have a number of static objects that each convey some narrative content and allow a free movement of visitor's attention between the elements. If we take an element and let it be a radio, then the radio content, whether the spoken discussion or the music or other effects, form an object that is filled with semantic network connections to other parts of the narrative. When a media event is not more heavily integrated with other media events as part of a big multimedia loop, but is rather made of a collection of media events that act as time based objects in the room, we call it a thin cycle.

In *Bank Vault* we used several parallel thin cycles to carry certain elements of the story. There were e-mails arriving on the netbook, with a pop up window announcing their arrival, subject lines and a few lines of text. There were telephone calls, leaving messages and answering questions, scheming with some and pleading with others. These and other media events all acted a small pieces of the puzzle of the narrative, to be found by the visitors and assembled into their semantic network of the narrative.

While a static time structure (with or without thin cycles) allows and encourages free exploration, it also demands it, so a chance visitor may find it harder to be drawn into the narrative. On the other hand, the existence of *multiple access points*, the breadth of elements to explore that are on offer, allows a visitor to enter the narrative

Physical Narratives

along a line that most interests them and then follow the connections to other parts of the narrative that are perhaps more surprising and unexpected.

From a visitor's perspective, a linear modality is perhaps the most common form. It is also the form most closely related to various existing narrative formats. Thus there is a wealth of experience about building and experiencing effective and experimental narrative forms in a linear modality. The introduction of branching narrative lines in some interactive media is not a significant break with the knowledge and experience of a narrative creator, as long as they are prepared to allow multiple versions of the storylines to be equally valid. With a linear narrative time modality we can more accurately control the narrative focus (see next section) and are thus also more closely within the classical confines of storytelling. The nonlinear form with the chance to add multiple parallel access points opens other possibilities to draw visitors into the narrative based upon the visitor's personal preferences. The construction of multimedia loops that function as dramatic but neverending cycles is perhaps the hardest of the challenges.

NARRATIVE FOCUS

One thing that the "attention economy" has taught us is that the challenge of attracting and holding a person's focus is perhaps the hardest job of all. There are two main approaches that we have investigated in order to develop narrative focus in our works.

- » The first model involves having an easily grasped and clearly followable main storyline allowing a simple and rewarding interaction with the piece. After that, or branching from that, further deepening of the interaction allows a better understanding of the *storyworld*.
- » The second model involves having multiple entry points arrayed in a space, appealing to differing visitor's interests. Within these entry points information is offered allowing links to other narrative content, acting as a *rabbit hole* into the *storyworld*.

Narrative Focus is closely related with *Narrative Time*, since the control of narrative time allows a possible control of focus. Due to the fact that *Physical Narratives* (at least the way most of ours are staged) don't completely determine the narrative time as experienced by the visitor, we have to find ways a visitor pays attention towards certain media aspects at the right time as well as simply noticing the narratively vital elements of an object, whether it be a bullet hole, a badly hidden secret drawer or a certain page in a book. The aspect of guidance comes into play.

MAPS AND TOURS

In Rob Rotenberg's *Agency of the Map* in *[Turtles and Dragons]*, he talks about the tour and the map as two ways of describing a space or a process. The terminology arises from experiments done with people describing their homes. The map type descriptions would contain such statements as "to the right of the kitchen the three bedrooms are reached by a hall that terminates in a door to the back terrace." The tour type descriptions would contain statements like "walking down the hall, the kitchen on the left is accessed by a wide sliding door, then as we walk further down the hall we pass three bedrooms before we reach the glass door offering a view of the terrace and the cityscape beyond." The map lays out all the possibilities in an equally valid way, while the tour offers an optimal experience of the space from the point of view of the tour giver.

A tour is a specific guiding through a space, a movie that holds focus, taking the viewer from one place to the next. The tour lets the viewer see the space in its best light, avoiding the bits that are a bit dodgy or do not push the story forward. This expression is well known from linear storytellings forms, where writers and film makers are reminded repeatedly to remove everything that does not move the story forward.

We think there is a good reason to claim that a *Physical Narrative* is a map, a collection of options and possibilities, laid out to be explored rather freely. There may be indications of optimal sequences, from the position where one hears one thing, a related thing can be easily and well seen.

Taking the description of a *Physical Narrative* as an instantiated semantic network, the network might be regarded as the map. The problem of *Narrative Focus* is to offer certain paths through the map that might be regarded as tours, to allow and encourage visitors to find certain things, to pay attention to certain objects or events, to not lose time on elements that are incidental. However one of the strengths of a *Physical Narrative* is the freedom of a visitor to explore precisely the aspects of the narrative that they personally find most interesting and compelling, distinct from what an author might want to impress upon them.

One of the core elements here is the amount of narrative embedded in certain objects. One of the repeated issues we have is the question of how to place something within the space which is not really important, but whose absence would be more important. The bed in *Domestic Bliss* contains no story elements, but the lack of a bed would have broken the idea that this was the apartment of a person. The rubbish bin in SIABV was necessary in order to contain the positive pregnancy test, but having it empty would have been stranger so it was filled with several pages of unimportant detail.

Every object that is placed into the environment has to be of relevance. Objects that break the setting or character are a danger, unless intended from the authors or staged in a way that makes their contextual breakage less problematic. We often discuss the *narrative depth* of objects as a way to determine and discuss to what level they need to be developed and refined. The narrative depth of the positive pregnancy test was large, the depth of the waste paper was minimal, but not zero. Perhaps one of the challenges is to make all objects have a high narrative depth. In this situation there would be a homogeneous level of high interest in all objects at the same time. However this leads us again to the problem of differentiation of attention between objects in the space, the question of visitors having an interesting and compelling experience of the space. The sequencing of objects and experiences is important, if not controllable.

SOME EXAMPLES

There are many ways of directing focus and attention in realms within and without *Physical Narrative*. The realm of stage magic works strongly with the problem of focus and attention *[Davies 2013]* and there is certainly much to be learnt there. Computer games have the ability to control physics in strange ways, allowing for instance relevant objects to be differently illuminated. Many websites allow the reader to see the links easily as coloured words, making it clear where possible next steps for exploration are available.

Im Tresor looked at the possibilities of guiding attention using more theatrical ideas of lighting design. The space was illuminated with several types of lights, including the "red room" emergency lighting. In the tension phase, as the tunnel workers approached the heist hideout, the surveillance screen described the transgression of

the border and switched to a higher level of security. The main lights dimmed and a set of red lights came on, plunging the space into an emergency state. The voices of the tunnel workers became audible from the chained tunnel entrance and the focus of the visitors was guided towards this tunnel entrance. The hand held torch of the worker on the ladder behind the access door could be seen moving, attracting the visitor closer until the worker shook the access door from the inside, saying he could see a light. This was intended as a form of dramatic peak of tension, with the two possibilities that the thieves would be discovered and that workers would be caught up in the water flooding through the tunnels. The visitors sympathies for one or the other of the characters was being used to heighten tension and force focus.

This form of theatrical focus was not used in SIABV. Here the objects were rather positioned in a way that allowed the referral to objects to be seen from the place in which they were referred to. This form of line of sight linking was not very successful, as the room was quite small and dense and there were many possible referrals. *Domestic Bliss* maintained focus by holding it onscreen, with various spatial effects including lighting, sound and movement complementing that without drawing the visitors' focus away from the screen.

LANGUAGE

While Piaget and Vygotsky disciples might go so far to say that the entire basis for human development is based around the understanding of the world as a narrative, we will only go so far as to admit that language, as perhaps the most fundamental of human tools, is one of the most effective ways to understand, share and explore narratives.

Spoken and written language form a body of techniques to talk about the world, leading to Wittgenstein's infamous limitation on those things about which we cannot think. Without the abstraction of language, it can be difficult to explore many aspects of narrative.

However it is by no means a necessity even if it is the most common way to transmit a story. We framed four partly interrelated distinctions:

- » *language extensive:* heavy and dominant use of language, where the forms and content are vital in understanding the narrative.
- » *less to no coherent language:* while language is present and can be understood, it is incidental rather than vital
- » *no comprehensible language:* while there seems to be language present, it is not actually useful language; either it is nonsense or is hidden and unintelligble
- » language free: not even using the illusion of language

There are examples of strong narratives that exist entirely without language, others that convey meaning and value using language that is not necessarily coherent or even comprehensible.

At one extreme we have a collection of pure text, a novel or poem, a collection of letters, that embody the story in which we are interested. The creation of the book as a block of pages, each one nothing more than a collection of letters forming words forming sentences, as a way of communicating a narrative, is in some sense astounding. That so little can communicate so much. The story is divorced from its substrate, its font, the length of the lines and the pages; it can be written in Braille, shown on
a mobile device or in a fine hardback. While all these things can make a difference, there is a common core that is the purely text based story.

At the other end we have a splitting into two main areas: the absence of language and the absence of sense in used language.

One is the complete absence of language. A piece of mime, a wordless cartoon, a crime scene, a still life, a slapstick sequence or a so called one frame movie; all of these manage to convey a depth of story without the need for any language whatsoever.

Another opposite to the pure text might be seen in the nonsense language of *Themroc* or the incomprehensibility of the Voynich Manuscript. While the words themselves in both of these examples have little comprehensible about them, they are put into forms that convey a large degree of meaning. The utterances of *Themroc* are made by actors with vocal intonations in response to and causing the response of other characters and events within the narrative. The text of the *Voynich Manuscript* is perfectly like a normal, middle ages mystical text in the form of its diagrams, writing style, letter frequencies and sentence structures. However no one can offer an interpretation of what it is about. Yet it compels its readers to treat it like a text, to build up stories around it, what it might mean, where it might have come from, what it is telling us or hiding from us. The reduction of language to a pidgin offers another solution, along the lines of the film *Tuvalu* containing the internationally understood words "Technology, System, Profit!" and no other language. A piece like Shelter 2 from Christoph Büchel manages to convey a complex *storyworld* with a minimum of language. While some small linguistic elements creep through, perhaps because the absence of language on a video cassette would be stranger than its inclusion, the piece is essentially language free. However narrative installations, whether passive or interactive, often rely strongly upon a language base.

Of course most narrative situations live somewhere in the middle. Book publishers use specific fonts and book coverings to give a certain feel to a story, the form of a poem on paper is part of the way it is read and thus how the story is understood. The cover image of a paperback, the embellishments between sections and chapters, all these add to the experience. A play will use the language of the piece in complement or contrast to the setting, the costumes, the staging and the way the audience sits, stands or is moved around. One medium can be extended by another as a type of paratext such as *The Secret Diary of Laura Palmer* as a language heavy text adjunct to the visually powerful *Twin Peaks*.

It is this balance that is also the challenge of language in *Physical Narratives*. Using the first strategy from the *Narrative Focus* section above, we can build the top layer story as being a low language intensity experience allowing a relatively high degree of comprehension without too much involvement. The deepening tangents and repeats can then incorporate more language and other specialised skills (which might include codebreaking or a knowledge of art history) as means to the end of exploring the *storyworld*. Using the second strategy, we might have access points to the *storyworld* that are very language heavy (a letter, a radio show) and other access points that use no language (a computer game, a photoalbum) to appeal to differing intensities of language comfort.

NARRATIVE PLANNING

All but the most naïve or radical of writers know that a narrative can rarely be created on the spot, without any planning. A film made with no script, a game with no plan is equally as rare. A number of practitioners manage to hold it all in their heads, to have a general scheme of what it is that they are doing without having to

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explain it, sketch it or script it. However as soon as they want to work and discuss with others they will need to get it out in a compact and mutually comprehensible form. Even if that other is themselves. This is the essential core of the challenge of narrative planning. While there are many notational techniques for some existing forms, whether a theatre script, a film storyboard or a game flowchart, the multitude of aspects in a *Physical Narrative* mean that these techniques are of limited use on their own.

A *Physical Narrative* is an intrinsically multimodal experience. There are objects, arranged in space, media being played, texts to be read, sound and movement effects to be followed. Depending upon the use of narrative time within the piece, these parts need to be arranged in time and/or in space, possibly with causal relationships between them or between them and actions of the visitors to the space. In *Im Tresor* the coordination of all the media elements, physical effects and lighting changes required a detailed notation to ensure we were not getting confused as well as a notational system to draft the timeline in the computer system controlling all these media.

In complex systems, whether games, performance, installation or the wide variety of other possibilities, the creation of notations for what should happen, could happen and has happened is an ongoing process of exploration. The *Data Ecologies '12* symposium (see page 133) brought together a group of practitioners from music, theatre, installation, gaming and performance with the aim to look at some of the ways and means that they had of notating what it was that they were doing. While we know that no single notation can be appropriate for all parts of a *Physical Narrative*, we hope that with a collection of techniques we will be able to get some possibilities to notate in more detail.

In the book *Turtles and Dragons* a related group of practitioners discuss notation and its usage. They identify a collection of purposes for notation, including to understand, to navigate, to archive and engineer, to analyse and to interpret. Many of these purposes overlap with the use of notations to plan a narrative.

In the next section we would like to discuss some of our experiences with narrative planning and analysis and recommend *Turtles and Dragons* for further reading.

MAKING SOME MAPS

One of the models for a *Physical Narrative* that we have introduced is that of an instantiated semantic network. A collection of objects that embody certain properties and other semantic content. Each object then has semantic references to objects that have similar properties, the collection of semantic elements forming a network of meaning that can then be experienced by the visitor as they explore the objects and experiences. This network (e.g. Fig.4) can be notated as a mind map of sorts.

On one hand this network enabled us to understand what it was that we had built. We could see the connections. Gerhard Dirmoser has undertaken a similar network analysis of his exploration (pp 56-57) of the installation *Im Tresor - der Schein Trügt* in order to better understand his experience of the piece. In some sense his analysis is a documentation of his journey through the piece, as a form of navigation. The creation of this network as an abstraction, a notation of the network that was embedded in the space, allowed us to see it in a more clear form. This led to some analysis possibilities, where it became apparent that certain concepts that were intended to be found by visitors were difficult to reach as they were only loosely connected with the rest of the network. Thus we see that the creation of this notation earlier in the creation of the piece may have helped us build the piece in a more coherent and

explorable manner, with added connections as needed. This facility of notation to assist in the engineering of the piece is also valuable.

Many of the notations we have used for planning of *Physical Narratives* have been rather simple. We start from simple back story fragments, the motivational scheme for the narrative, and slowly build up characters. This stage may be quite similar to any narrative building process of any other medium, whether a novel or a film. We then started listing objects and their properties, making sure that the departure date of a ship matched the image of that ship and the date of a letter that the character had posted before their departure. These issues of consistency or, as it is termed in film, continuity, are of vital importance to allow an exploration of the narrative. While we are not necessarily trying to build an illusion consistent in all its aspects, it is important that the inconsistencies fit in with the story. If something is unusual or impossible, there must be a reason for it in the narrative. Visitors are encouraged and expected to actively explore and investigate the piece, as an amateur detective, so the discovery of strange properties means that their attention will be taken by the peculiarities which must be a consciously planned part of the experience, not an accident.

This is the process of building a map of the narrative. Taking the back story, which we have tended to create in the form of a written story, we identify elements of it that are fundamental for the understanding of the story. We then look at connections between these elements. This de-linearises the backstory into a network of elements and interrelations. We take these elements and look at possible instantiations of them.

For instance the migration of Aimee Freudenstein in *Unattended Luggage* was represented by Ellis Island documents, a ship's boarding pass and a souvenired embroidered napkin. These things help to create that part of the narrative, with various details indicating other parts of the narrative as outlined above when talking about semantic networks. For instance the napkin not only indicates the shipping line, but also that she travelled in a certain class (not steerage) and that she wants to remember the journey as an important and positive part of her life.

These lists of objects are kept in tables, looking at their properties. We list the information that is needed to be included in each element, the information needed to make them authentic, information that links them to other elements. It is the comparison of these two lists, the objects and the back story elements that allows us to ensure that the level of story that we wish to convey is present. Note that this does not mean that we include all details. There might be cloudy areas in the back story that we choose to leave undefined. It is then important that the cloudy areas are not filled in by side aspects of a given object or piece of media. The objects should be a translation (in some sense) of the back story with nothing consequential added or taken away. Again – it is crucial - everything that is in the space has to be placed on purpose and be explorable.

In a completely static *Physical Narrative* this would be enough. The elements exist in the space and there are no interactions of them that cause any effects. However the elements themselves will have extra properties that might need to be notated appropriately in order to ensure that the collected elements maintain a form of coherence.

In a non-static time structure the back story will have certain dynamics. In the design of *Im Tresor* there was a lot of effort invested in arranging the events (phone calls, chat messages, etc.) on a timeline so that there was relevance through temporal proximity. Then through the introduction of a dramatic peak we added a layer of tension to the narrative. The tension was being created outside the space and the visitors were not part of it at all. However the arrangement of other media events had to be arranged so as to leave space for the tension to build up and be perceived.

CONCLUSION

This paper has attempted to draw together, in a white paper format, the ongoing and existing elements of *Physical Narrative* practice that we have been involved in. We have described several pieces of our own and referred to several pieces that we find most illuminating in order to explore some of the problems and possibilities of this narrative form.

The development of *Physical Narratives* is an ongoing process. We are attempting to learn from our experiences and those of others, to see what works for telling which kinds of stories, what worlds can be well expressed physically and perhaps which narratives are best to be avoided. From the stage of developing a story concept to the creation of spatial and mediated experiences, notation proves to be a banal yet vital part of the process. Notation is trying to describe everything, from physical layout, the spatial and temporal experiences of the visitor, the way that focus is created and led or dissipated to allow a freer exploration. All these elements fall again under the challenge of creating narrative meaning: how do we allow and encourage a visitor to build up a semantically rich experience?

There are still many challenges ahead as we continue to explore the possibilities of this medium. We hope that these reflections will be useful to others in the development of similar fields.

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4.2 UNATTENDED LUGGAGE

A piece of luggage invites you to explore a family storyworld whose travels spread out over more than 100 years.

WHO DICTATES HISTORY & WHO WRITES IT?

Anecdotes, stories, legends, memories, diaries, historical correspondence, records, etc. are to be found everywhere we look, listen and read. Accounts, conveyed by various media, that help us to comprehend the past, contextualise the present and understand the resulting connections.

It is the stories others tell and their remembrances, collected, composed, brought into connection with artefacts (where available) and explained, that help us if we want to know something about what happened in the past. Collections of human creations in connection with event reports and their interpretations. Noted and commented, interpreted, networked with one another and contextualised through participating and non-participating people (the writers of history).

Regardless of whether we study past epochs including the wars that were fought, the revolutionary movements, wanting to understand whole cultures, rising and falling empires, or research discoveries, inventions and significant figures, groups of figures - the information we find has all taken shape along subjective and/or ideological criteria. It appears there really is an agreement that "neutral" history writing does not exist. No historical "truth" as it were, but just an interpretation of the sources from their perspectives - taking into consideration the prevailing conditions of government, political scenarios and personal interests.

With this in mind, I often catch myself attempting to analyse current events in the context of subsequent history writing. A mind game in the present from the many perspectives of how events might be interpreted in the future. Which artefacts (medial, virtual, tangible,..) will be defined in the future as representative and expressive by historians, anthropologists and archaeologists? Which sources and artefacts will be referenced to assist in the ongoing recording of the history of the human race?

For example, how will the interventions of whole nations in Iraq at the end of the 20th century and beginning of the 21st century be recorded, rationalised and discussed over the long term? Which of the many motives that exist now will have vanished in the annals of time? Will the much-publicised Iraqi atomic programme be sufficient reason for the interventions? Will the terrorist threat stemming from Iraq fill the history books in the coming centuries? Will the anti-democracy behaviour of the Iraqi

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leadership suppressing its civilian population be dominant? Will it be written that the Iraqi leaders were threatening to disrupt the smooth flow of oil supplies to the West? Or - another example - how will the attempts to maintain a doomed financial architecture at the start of the 21st century be recorded retrospectively? Which of the texts and theses being written now about the turbulence of international financial markets will serve as sources in the future? Will there ever be an expression similar to secularisation in the separation of politics and economy - providing such a situation should ever occur? Will the efforts of innumerable initiatives and organisation against prevailing profit maximisation including immanent exploitation, suppression and deleterious effects on the environment be recorded in future accounts looking back at our present? How will irresponsible use of resources be noted? What about the political and economic development of China? What about present unrest, revolutions and conflicts, whether it is in Palestine, Congo, Syria or Lebanon - how will these events be reflected? How and who will determine good and evil, right and wrong and according to which premises and criteria?

There is also the question of future perceptions in relation to history that we already regard as "known and recorded in its entirety" which leaves room for similar cognitive experiments. What happens if certain information, individual artefacts, are lost or destroyed? Or what if facts that are currently deemed fundamental are negated or viewed as irrelevant?

What will remain in condensed form of the two world wars? How will they be integrated retrospectively into long-term history writing to form a comprehensive account of human history? How will royal families, principalities and empires be mentioned? How will the fall of monarchies, the introduction of democracies and the formulation and subsequent disregard of human rights be described? What about the drawing up of national boundaries and arbitrary borders resulting in conflict and fear, etc.?

Regarding my personal knowledge of history especially political history; I have to admit that it is embarrassingly lacking. My interest in facts and figures (is this the same as arranging historical dates chronologically?) has to be categorised as negligible, the mulling over and memorising supposedly saved data is tedious and the resulting "Did you Knows" bore me, especially because of the linearity of time. What I find far more interesting (maybe because they are easier to consume and can therefore be remembered more easily) are anecdotes, stories from experience and about personal fate - the more complex the better. These can still be contextualised if they are particularly interesting (by querying various lexica, history books and innumerable sources on the internet or of course by asking knowledgeable experts).

That is how, for example, my interest (and knowledge) in Stalin's dictatorship and its contempt for human beings - especially the Great Purge - lies solely in the diary entries and poems written by [Daniil Charms]¹. And that the subject of World War II - treated at a distance during my time at school with facts and figures, massacres and victims - did not move me or become interesting until I discovered accounts of resistance groups and the men and women who fought against the Nazis. My interest in the story of the Hungarian revolution was triggered by a novel called *Parallel Stories*, written by [Péter Nádas]² and everything that I can remember about the powerful Austro-Hungarian Empire and its protagonists come from the descriptions of the wheelings and dealings of its "sickest representatives"; collected by [Hans Bankl]³ a professor for pathological anatomy (whatever that tells about the content).

Instead of the huge sum of dates that history supplies, the mass of names, geographical coordinates, battles complete with war heroes and war victims etc. it is the anecdotes that attract me more; it is through them that I start to understand and recognise the connections.

I think the reason for preferring this way of associating with the past has to do with the method my former art history teacher applied to the subject. He always managed to rouse my interest - ultimately in the pure facts as well - by starting everything he wanted to get across with an anecdote. It wasn't the key facts and figures of whole epochs or individual artists that he started with, no, it was more of a story - whether it was strictly the truth or not was and is of secondary importance. As a result I had no idea about Leonardo Da Vinci's research into his flying objects, for example, his *Mona Lisa* or the study of Vitruvian proportions - but in return I knew about the slightly curious figure of the universally-acknowledged genius frying up human eveballs in his laboratory so that he could then dissect them more easily in his efforts to forward the science of anatomy, much to the disapproval of the Catholic church. In another example, I learned about the work of August Rodin through the fate of Camille Claudel. Although her brother and her mother admitted her to a mental asylum, it was she who created much of Rodin's work - quite apart from her own, which she ended up largely destroying. And many years after my studies I still think about Pablo Picasso, whose significant role in modern art is not what I remember most, but his habit of putting his signature on the works of another famous artist of the time, who in return signed his. I am not entirely sure any more - but I believe it was George Braque with whom he shared his works... Or was it Henri Matisse.. although wasn't he a life-long rival?

It doesn't matter, because what I want to emphasise is that from apparently unconnected threads - consisting of dark and unique individual figures in each epoch, anecdotes passed on about certain events along with the facts - grew slowly but surely a patchwork of information that formed a whole, weaving what I learned into wonderful stories. Exactly like the dairy entries written by Daniil Charms, which can form the basis for a whole through profound and sharp-tongued accounts of shortcomings of particular rulers of the Habsburg era and the fate of people who opposed the Third Reich.

And that brings us back full circle, the circle on which *Unattended Luggage* (UL) is based. Because on close analysis, UL is also a comprehensive story that has evolved from weaving historical fact with fictitious anecdotes.

THE BACKGROUND

The formal background for *Unattended Luggage* is provided by our (Time's Up) preoccupation with *Physical Narratives* within the PARN project. The key theme is the haptic ascertainability of a story through its multi-modal transmission. A story that is at first unearthed as a result of investigative observation, then allowing the authors' content to be conveyed as well as one's own interpretation. (See p. 20).

The background content of the work is closely associated with travel. With the motives for travel, with the process itself through to its life-changing consequences. With dreams connected to travel, the innate longing, apparent or actual promises, visions and lies.

During our lives we move, look for something or flee from something. We want to have arrived, but also to have departed. Our travels can be with or without a purpose or destination. They can be voluntary or enforced - we can be motivated or banished. They can bring us to places where we are welcome in the same way as to places where we are unwanted. They can be committed to memory, forgotten, not even noticed or deliberately suppressed. They can conceal something final; they can irreversibly influence and change us, our circumstances and our point of reference. UL grew from a never ending stream of possible "who - when - why - how - where to" constellations relating to travel.

The physical starting point, the "collection vessel", so to speak, for conveying the content as it developed, was an antiquated piece of luggage. Popular on ocean voyages around the end of the 19^{th} and beginning of the 20^{th} centuries, it seemed perfect for carrying the different "chapters" of our story. So it was an antique wardrobe trunk, complete with compartments, draws and space to hang things, that was to tell the *storyworld* - the fictitious travels and the way in which they influenced the lives of our protagonists.

We drew partly from real, existing, historically well-known figures for describing our characters as well as for the overall plot of the story, allowing historic and verifiable events to have an influence. Complemented with fictitious components, a story took shape that rewarded deeper investigations with connections to known historical reality. Like the other *Physical Narratives* that have been implemented to date, UL also allowed a fuzziness in the boundaries between reality and fiction.

THE STORY

In a nutshell, *Unattended Luggage* is the combination of five stories, the merging of individual lives to form a whole - elaborated into a family saga with insight into four generations. UL describes the backgrounds of each of the family members. Tells of their passage through life, ways of life and their decisions. Of closeness and distance between them. Of the circumstances of getting to know, appreciate and love each other, as well as the discord and problems between them. UL conveys both individual and private aspects as this story and the social, political and economic circumstances prevailing in each epoch are reflected in the protagonists. Covering almost 100 years, the UL story moves primarily between Europe and the USA, although some travel itineraries take in other continents.

UL starts with the background stories of the two protagonists of the first generation. It provides a glimpse of their childhood, the social and political environment, their schooling, choice of profession and reports on their travels that they have to undergo before they reach the precise location in which they meet for the first time. It then outlines how they continue to develop and the ensuing consequences. Then follows an insight into the development of their daughter, shows how she distances herself from them, makes them grandparents and continues to resist the conventions of family life and how they manage to take their grandchild under their wing. UL follows the travels and development of the daughter until her death, which is never verified - tells of the imaginary link to her son, a relationship (like that to the real father) that does not actually exist - in total contrast to the lively and close relationship between the grandparents and their grandchild. UL reveals in fragments, like all the other threads, the grandchild's life, his talents, his political attitude and sexual orientation. It is also the grandchild who brings the focus of the story back to Vienna - the city in which the grandmother started the journey less than five decades previously to continue her career as a mathematician in Göttingen (where as a Jew by birth she only had a brief opportunity to work before Hindenburg appointed Hitler as Chancellor in January 1933). Along these lines, UL deals with Austria in the 1980s, mentioning political leaders as well as developments in society, before finally introducing the fourth generation: the great granddaughter, born in Austria.

We are told about her relationship with her biological father, who she does not meet until the age of 18, exactly as he and her lesbian mothers had arranged. UL also tells of the meeting between the great grandparents and the great grandchild shortly after she was born. And of the lasting connection between her and her great grandparents until their death - after which it is she, as biological daughter of the grandchild, who becomes sole heiress of the family's entire estate. How this creative and talented young woman deals with this sudden upheaval in her life is also part of the UL story.

THE CHARACTERS

The story is acted out by five protagonists. Each of these characters has been allocated a "pigeon hole"; a compartment inside the wardrobe trunk. Each drawer contains a series of artefacts, private correspondence, official documents, audio-visual clips, etc. providing momentary snapshots of their lives and fragments of their circumstances as well as indications of their relationships with each other.

Distant relatives and characters not part of the family - like Emma's lesbian mothers, Beagan's uncle, Cecilia's husband, Aimee's parents as well as notaries and doctors consulted during the story - have been given space in the compartment of the main character with whom they are most closely associated. Main characters are:

- »A) Aimee Marta Freudenstein married to B & mother of C
- » **B)** Beagan O'Callaghan married to A and father of C
- » C) Cecilia Manlay (née O'Callagan) daughter of A&B, mother of D, married to Christopher Manlay
- » **D)** David Christopher Manlay son of C, grandson of A&B, biological father of E

» *E) Emma Marta Meister* biological daughter of D, great granddaughter of A&B

In which order the various facets of the characters came into being is difficult to establish retrospectively. The starting points were definitely the characters' journeys and itineraries. We outlined the dates of these, the circumstances and motives - deciding whether it was a one-off, repeated, final and/or ongoing journey. We indicated the type and duration of the journeys in exactly the same way as the causes for them in connection with proven historical facts relating to political, economic and social conditions.

For example, while Aimee Marta Freudenstein was forced to leave Germany in 1933 due to the unbearable political situation, it was her future husband's family financial problems brought about by overbearing drought in Oklahoma that forced him to move. With Cecilia it was the Zeitgeist of the 1960s that drove her out into the world while David followed the calling of his career in music.

Working sometimes in parallel, sometimes in series, we developed the characters' talents, their passions, determined their choice of profession and decided in which emotional relationship they dealt with each other. At the same time as working on the narrative of the plot, we also created "embodiment options" that allow the physical and medial content to be implemented in a way that was meaningful and legible in the wardrobe trunk. We decided which best represented each life and how to display them.

AIMEE MARTA FREUDENSTEIN

Born 17 Jul 1908, Vienna (AT); died 20 Mar 1995, NYC (USA)

TRAVELS

» 1929: Vienna (At) - Göttingen (de)

» 1933: Bremen (de) - Nyc (usa)

BACKGROUND

Born into a well-situated Jewish family in Vienna, Aimee was an academic who at times closely followed the mathematician Emmy Noether with whom she also stayed in contact and shared her research until Emmy's death in 1935. In the late 1920s, Aimee left Vienna to continue her research at Mathematics Department at Goettingen. Shocked by political developments in Germany and with an invitation for a teaching and research post at the Institute for Advanced Studies in Princeton / New Jersey in her pocket, in November 1933 she travelled by motor ship Ms St. Louis to the USA, which she would never again leave. It was in the circle of mathematical luminaries at Princeton, the second Göttingen, that she met Beagan O'Callaghan, her future husband.

REPRESENTATION EXAMPLES

To capture the Zeitgeist around the time of Aimee's departure from Germany and her first years in the USA we installed an original wireless set from the 1930s, equipped with three channels of around one-hour-long acoustic compilations. Channel 1 dealt with the political situation with real addresses and speeches from this era by the relevant voices. Hindenburg, Chaimberlain, Churchill and of course Hitler, all have something to say. Channel 2 broadcast live coverage of the legendary boxing match between Max Schmeling and Joe Louis. The fight, which took place on 19 June 1936 in the Yankee Stadium in the blue-collar Bronx area of New York, was commentated by Ed Hill. Channel 3 provided a selection of music from the early 1930s. The uplifting and happy rhythms of the Charleston and Swing emerge from the old radio's slightly dilapidated loudspeakers.

We represented Aimee's immigration to the USA with a ticket for the ocean voyage, objects (such as the shipping line's embroidered napkin) that she souvenired from the ship to keep as a memento and her arrival complete with immigration documents for the USA. We referred to her mathematical research and her position at the Institute for Advanced Studies in Princeton by displaying the fictitious invitation mentioning her achievements from the then head of the institute. Her love of and fears for Beagan was represented by personal correspondence, while their wedding and the birth of Cecilia was documented with photos. Her justifiable concern for her parents expressed in urgent requests that they should also leave Austria was shown by an affidavit for the credit surety required at that time for an entry permit. Her relationship with her daughter, her grandson and her great granddaughter was revealed in the relevant drawers and compartments. Other artefacts, such as an engraved cigarette box, a sequinned evening dress and token money that was standard in Austria in the 1920s, provided a glimpse of her life before travelling via Germany to America.

Born 24 Aug 1907, Oklahoma (USA); died 17 Jun 1994, NYC (USA)

TRAVELS

» 1922 Oklahoma(usa) - New Jersey (usa)

» 1942 Princeton - Bletchley Park (ик)

BACKGROUND

Following the death of his mother and his older brother, Beagan's father asked his wealthy brother Conan in New York to look after Beagan and provide him with an education. It was thanks to him that Beagan, obviously talented and eager to learn, received a sound education to become an excellent physicist with remarkable skill in the field of cryptanalysis. Like Aimee, he was actively involved in the Institute for Advanced Studies in Princeton and in 1942 was invited as one of the few civilians to Bletchley Park to work with the scientists and military personnel there on deciphering the Nazi's Enigma code. He and Aimee married on 18 June 1938.

REPRESENTATION EXAMPLES

We summarised Beagan's code-breaking career by integrating a miniature pigeonhole cinema into the wardrobe trunk. This showed a historical documentary about Bletchley Park concerning the deciphering of German communications. Deliberately aged using special effects, these were presented as if they were part of the weekly newsreels screened in us movie theatres during the 1940s.

Other physical artefacts point to Beagan's move from Oklahoma to New York, including the reply to his father's letter to his brother (Beagan's uncle) and other items reflecting the situation within the family as well as the social circumstances in Oklahoma at the time.

His residence and work in Bletchey Park, top secret at the time and camouflaged under the name *Captain Ridley's Shooting Club*, was represented by hand-written code sheets, an entry permit and a hand-drawn orientation plan of the inside of the facility. His thorough expertise as a scientist was evidenced by correspondence with scientists who were really working there at the time, such as a discussion with Alan Turing concerning a formula (noted and discussed on the reverse side of a cigar club menu). And - like Aimee - there were references in his drawer to the close connection between the two.

CECILIA O'CALLAGHAN

Born 30 May 1940, NYC (USA); died 22 Nov 1986, south Pacific island of Niue (NU) Husband: Christopher Manlay, born 23 Nov 1942, NYC (USA); died 29 Jun 1970, NYC (USA)

TRAVELS

» $4^{\rm th}$ of July 1966 she left NYC to travel the world - never to return to the USA.

BACKGROUND

Cecilia's character is clearly set within the context of the American hippy movement. She lives a life free, from her point of view, from the constraints and taboos of the bourgeois. In addition to her decision to go on a life-long world tour, she bears a child to one of her dearest friends before she departs, sparing him being called up to fight in Vietnam. A law introduced by Kennedy exempted fathers from military



















service, a move underlined further by Cecilia having obtained a fictitious report from a psychiatrist friend stating that due to deep depression she was not in a position to take responsibility for her son's care. As a result, Christopher Manlay became the sole legal guardian of their son David. And so Cecilia travels the world - starting in California, via Central and Southern America to Africa, on through Europe before journeying to Asia and Oceania. A never-ending trip in stark contrast to the enforced travels her parents had to undertake.

REPRESENTATION EXAMPLES

Cecilia's itinerary was represented very clearly by a globe spanned with threads and a tape recorder fitted into her part of the wardrobe trunk. An antiquated tape recorder - which could be operated by the public - reveal Cecilia's travel log in the form of an audio diary. In random order, but always assigned the date and location, her experiences and thought processes were captured over a period of many years. It became more and more obvious that the recipient of these recordings was her son David, who she did not know.

Her connection to her husband, Christopher Manlay is also represented - along with the birth of their son David. The legal basis for exempting Christopher from going to war was represented by a fictitious newspaper article and the change in status on his draft card to "non draftable". The psychiatric report on Cecilia's unstable psyche was also displayed along with a note on the forgery in a personal letter from the psychiatrist to Christopher. Christopher's death certificate and the legal document for sole guardianship for Aimee O'Callaghan indicated that David grew up with his grandparents because his mother had disappeared never to return and his father deceased.

DAVID CHRISTOPHER MANLAY

Born 12 May 1966, NYC (USA)

TRAVELS

- » 1982: moved from NYC (USA) Salzburg (AT)
- » 1984: moved from Salzburg (AT) Vienna (AT)
- » From 1984 journeys throughout the whole world for his musical career.

BACKGROUND

David, who grew up with his grandparents and only knew his real parents from stories, started playing the violin at the age of 4. Blessed with remarkable musical skill, a genius-like talent for the instrument and unparalleled endurance and persistence in training, at the early age of 16 he was awarded a scholarship to the Mozarteum in Salzburg. He was headed for a monumental career as a concert musician and in 1984 was the youngest violinist ever to be admitted to the Vienna Philharmonic Orchestra. His section of the wardrobe trunk documents his travels to the greatest stages of the world. Although he greatly wished to bring his grandmother to the Austria that he had got to know, he never manages to persuade Aimee to return to this country that murdered her parents. Quite the opposite happened in that he started to understand her aversion and was able to see, beyond his musical horizon, more clearly the politics of repression and ignorance associated with the country's Nazi past. The limits of his freely-lived homosexuality were also made abundantly clear to him in his home city of choice. The arrangement between him and two of his best female friends, for whom he agrees to donate semen to fulfil their desire to mother a child, could only be carried out without official acknowledgement from the state.

REPRESENTATION EXAMPLES

One of the ways the uninterrupted close relationship with his grandparents was documented is through several voice messages recorded by David on Aimee and Beagan's telephone answering machine (which is built into the wardrobe trunk and could be played back). These recordings documented events like his first reactions to news of his biological mother's death and his New Year's greetings to his grandparents after his first New Year's concert with the Vienna Philharmonic Orchestra.

Formal documents, official certificates, private letters and documents certified by a notary proves his role as a semen donor, friend and point of reference in the constellation surrounding Dorothea Meister, Marleen Richter and of course his biological daughter Emma. Disgust at the way Austria deals with its past is represented by the turmoil of the Waldheim affair in 1986 using authentic newspaper articles from this era as well as personal commentaries from David and his grandmother.

EMMA M. MEISTER

Born 19 Jan 1991, Vienna (AT), resides in Vienna Mothers: Dorothea Meister born 16 Apr 1966, Vienna (AT) and Marlen Danner;

TRAVELS

» 2012: Vienna (At) - NYC (USA)

BACKGROUND

At around the time that the identity of her biological was revealed (at the age of 18, as arranged between David and her mothers) and she was gradually getting used to the thought of integrating the father who had never been around into her life, the next family-internal storm breaks over her. Aimee and Beagan bequest to her their entire fortune through a trust. This inheritance was handed over to her on her 21st birthday.

Alone, equipped just with her favourite drawing, stencil and spray materials, she travels in spring 2012 to New York to suddenly get to know the key family members on her father's side, although they have already passed away. For days and weeks she discovers and reads traces that still exist in the house her great grand-parents have left to her. She rummages through the house, gradually discovering indirectly her own story. She finds out the origins of her great grandmother, her great grandparents' academic backgrounds, realises that her great grandfather participated in the fight against the Nazis and that her grandmother Cecilia left her own son, Emma's father, before he was even 2 months old. Spellbound she follows her grandmother's correspondence, establishing that they were intended for her father and finds beautiful compositions from her father to his grandparents, who kept a lovingly cared for collection of all concert flyers and newspaper cuttings concerning their grandson.

Emma makes a record of what the relics there reveal about the (her) family members. She does this in her own typical style in the form of a comic - page by page. A coherent story begins to take shape in which she, for the moment, represents the final link.

REPRESENTATION EXAMPLES

Emma's role as sole heiress is visualised in the letter from the trust that Aimee and Beagan commissioned to manage their fortune until her 21^{st} birthday.

It is Emma who starts to record the family saga with the innumerable pages of her comic strips. The pages, some of which are numbered and some of which are not in chronological order, dominate the contents of her draw in the trunk. A major impression is also made by her letter - written in stages and obviously far from completion - to David (whose position as "father" she cannot (yet) get used to), documenting her impressions and in particular her discoveries.

CONCLUSION

With *Unattended Luggage* we have avoided installing whole spaces and have tried to create and transport a complete *storyworld* in a simple object that in its very nature represents travel.

The extent to which we have managed to do this has been indicated by various reactions from the public. Despite the enormous quantity of language-based materials (many, partly hand-written, letters, legal documents etc. had to be read, while acoustic recordings such as Cecilia's travel diary or David's messages on the telephone answering machine need to be listened to) we received a great deal of enthusiastic feedback wherever it was exhibited.

All the challenges with *Physical Narratives* (p. 20) were confronted in the development of UL and could only partially be dealt with satisfactorily. Essentially, the language dominance mentioned is to be avoided, in spite of the positive reactions from the public. In addition, the density of information borne by each member of the family and their connections to each other requires a high "willingness to discover" level from the public. In future projects we need to take better account of the various levels of "willingness to get involved." Techniques need to be developed that convey content without intensive involvement, yet at the same time without disappointing with shallow superficialness for those who do want to dig deeper. That's a truly complex challenge we are setting ourselves!

4.3 STORED IN A BANKVAULT / IMTRESOR -DER SCHEIN TRÖGT

by Tim Boykett

"Was ist ein Einbruch in eine Bank gegen die Gründung einer Bank?" ("What is the burgling of a bank to the founding of a bank?") - Berthold Brecht, Three Penny Opera

A Series, a Heist, a Drama.

The two pieces *Stored in a Bank Vault* (SIABV) and *Im Tresor – Der Schein Trügt* (IT) were site specific *Physical Narratives* (PN) in a series. SIABV was presented in the *Grey Area* gallery in Brighton, UK in September 2011 as part of the *Brighton Digital Festival*. IT was presented by the *Medien Kunst Haus* in November 2011 in a disused shop in the centre of Wels in Austria. Both PNs used the same characters and the same storyline, but were part of a series, the later PN was set after and built upon the experiences in SIABV.

SPACE - STRUCTURE - SETTING

Architectural setting: SIABV was presented in the *Grey Area* gallery, a small underground space with three rooms, accessed down steep, narrow stairs from a small walled courtyard. The ceiling is low, the doorways narrow, outside light only arrived through a small covered window. IT was presented behind a papered up shop front with a front area suggesting that a business was being set up. Behind the front partition, which was set as if there was going to be some construction work preparing the environment for the opening of the advertised shop, the visitor found several rooms, darkly lit, with several working as well as private utensils spread around.

Physical Narratives

In both cases, upon entry a visitor is quickly aware that the discovered environment is a heist of some sort. The superficial elements indicate a break—in; plans pinned on the wall, clandestine photography, observation cameras and fake IDS amongst a complex array of heist materials set up as a mobile working area made of transportable cases.

The main visible areas are :

- » The desk with plans, biology equipment, a business suitcase & signs of life
- » The wall with plans, photographs and connecting threads
- » The locked sewer tunnel access door with tools
- » The hacker desks with observation cameras and data logging
- » The forger's desk with tools, lock picks, fake id
- » The closed bathroom door with bath sounds and a voice emerging
- » The kitchen with a small designer system including a refrigerator

There were some differences between the environments that were apparent:

- » IT had a small living area for one character
- $^{\rm >}$ siaby had the bathroom and the tunnel access hatch behind a closed door that could be peered through to see the tunnel access, it had the bathroom closed and the tunnel door accessible
- » it had a screen hung up as an intruder detector

The general feeling of the space was one of somewhat intense temporary usage by a group who was not stressed but had a definite job to do, with the heist oriented materials such as the plans, photos, etc. The equipment was set up for a significant period (weeks) and was highly personal. It was apparent that the group was not present, except for the voice of a man from behind the bathroom door on his telephone.

Visitors were encouraged to explore the space and its contents intensely and extensively. To open drawers, to read and listen, watch and follow leads. There were several areas of the story such as the relationships between the characters, as well as the heist itself. The heist story has several major layers.

- » The top layer is the heist. A group of characters are planning to break into something, it is readily apparent that it is a bank. The break—in will be through the sewers or underground tunnels of the town.
- » The second layer is the fact that they are stealing a seed, albeit a valuable and rare seed. Through a series of articles on the hacker's desk, it is clear that this is part of a longer series of heists whose purpose was to steal shards of ancient Zapotecan pottery that describe the use of the seed, amongst other thefts.
- » The third layer relates to the mystical properties of the seed, to be found in a number of documents including an old manuscript. Amongst these are wisdom and sexual powers, but the most important is the power to create gold due to particular and highly sophisticated soil and plant conditions. This has apparently already been used by a (now dead) Australian to collect gold in the desert at Coober Pedy.

» The fourth layer has to do with the characters motivations for gold, which vary. Are they interested in richness or using the gold to crash the teetering gold based economy?

One of the challenges for visitors is to peel back the layers of the story to get into the surprising depths. This requires a significant amount of digging and connecting. Various statements, texts, articles and images allow a visitor to dig further down, each layer contradicting or at least having a different emphasis to the layers above.

CHARACTERS

There were four characters presented, although it was not uncommon to blur them together if a visitor did not find enough information.

- » *The Forger, Ludmilla Laskovica:* Creating false documents, picking locks and part of the break–in team, she has a forgery set, lock picks and a wardrobe. She is the most vital character for the break–in itself.
- » *The Hacker, Jamie Cruz:* builder of the robot, hacker of computer and surveillance systems. He is being distracted by an external colleague who was tempting him off for another project. A "messy" with too much gear, an interest in hard rock, a reliance upon psychopharmaceuticals and a strong dependancy relationship with his mother.
- » *The Botanist, Konrad Strauch:* the conservatively dressed botanist with his simple travelling analysis set and specimens, field notes, geological maps and antique mystical manuscript about the Zapote.
- » *The Charmer, Tom Flitter:* the money man and leader of the group, will be doing the break-in with the Forger, interested in classic cars and good hotels. His satchel includes a 1950s sports car maintenance manual and the Harvard Business Review. He could be heard from behind the locked door lying in the bathtub talking on his phone.

Around these layers of the story there are several areas of conflict, intrigue, romance and interest. Flitter and Laskovica are lovers. Tunnel workers come close to the entrance. Laskovica is pregnant. Cruz is being tempted away from the group by offers of money and more interesting problems.

Motivations: it becomes readily clear that Strauch's interest is scientific – he appears to have no interests beyond the recovery of the seed and its germination and planting. Perhaps he is mystical, as this cannot be ignored for any botanist in Middle or South America, as witnessed by the ancient book and its mystical text. However this possibility is not carried further and it may be that he is just overwhelmed by the lushness of South and Middle American jungle plants. There seems to be little involvement in the heist itself. Cruz' motivations are similarly generic; it appears that his main interest is the hacking and the challenge of the system he is cracking. It would however appear that his equipment needs are not trivial, with certain items of equipment that have been stolen from security labs. Laskovica and Flitter seem to form the core of the team, with the multitude of interests from old cars and market destabilisation allowing the visitor the wonder about their motivations. Laskovica remains most unclear in her motivations and personality.





SPACE

The characters were readily recognisable in various parts of the space, in addition to the shared desk / coordinating area with the break in plans and other collected information and the kitchen.

The wall, especially a large pin-board, contains the plan for the heist. Various people in the bank are photographed, there are analysis diagrams of the movements of the staff, locking times of the vaults and a decision for the perfect break-in time. The profiling resulted in a large network of images and diagrams, threads tensioned across the pin-board linking people, places, activities and observations. This profiling of the various bank characters added a metalayer of observation, the visitor was observing the observation of the bank characters.

The kitchen is a mobile system which appears to be custom made with a certain designer appeal. It comes with a cooktop, four sets of cutlery and crockery, good coffee and a refrigerator that contains, amongst the needs of everyday life, a small vial of Lasix, a strong diuretic. This will be used in the heist in order to send the security guard on a series of forced toilet breaks over the period of the heist.

The entrance to the tunnel system is a small, artificially rusted frame hatchway with aged wooden planks. It was mounted against the wall as if leading into the tunnels. In SIABV there were no effects while in IT a speaker, light and motion system were used. This allowed us to simulate the tunnel workers shining a hand-held light against the back of the door as we heard them discussing the unexpected light they could see and then shaking the door against the chains that held it closed.

The environments for Laskovica and Strauch were static, containing no media or motion. Laskovica's working space was a delicately constructed transportable forgery system. Amongst the vials and colours, mobile scanners and printers, were some books indicating her attempts to give up smoking as well as a positive pregnancy test in the waste paper basket under her desk. In IT, Laskovica's environment was enlarged with a mobile wardrobe in the same design as the other mobile furniture. Strauch's mobile lab was even more simple, containing a collection of multicoloured vials of various preservation and analysis substances as well as a collection of scientific papers and his field notes from a journey to Oaxaca and surrounding regions where the Zapote has its origins.

Cruz' environment was more complex, consisting of a mobile workshop containing the break-in robot and a huge mess of electronic and mechanical parts that indicated his hacker / engineer role. The active part of his space was a mobile surveillance system containing three screens, a collection of black faced laboratory rack mount electronic gear and a rack of what appeared to be server type computer systems. In the desk one drawer was open and filled with psycho-pharmaceuticals to treat his depression, schizophrenia and other ailments. An AC/DC fob chain jammed in the locked drawer held a mobile phone with a series of SMS messages from his mother. Two of the screens showed observation cameras of the bank and the tunnel system underneath the city. These showed realtime timecode and appeared to be ongoing. The middle screen showed a number of windows. One shows a 3D rendering of a piece of pottery, correlating with the collection to be found on Flitter's netbook. Another shows some TCP traffic analysis including references to the bank that will be broken into, with some other cracker tools visible. Realtime communication via IRC (the older, more hacker used form of chat) appeared -a colleague of Cruz was trying to have a conversation with him about his involvement in the project and possible other projects. At one point the colleague sends him a video that had been clandestinely shot of Laskovica and Strauch meeting in a coffee shop to discuss some aspects of the story. The headphones are the only tool attached to the computer system: a regular warning window pops up on-screen to announce that the "chipped" keyboard is not present and that the computer system is thus not accepting any input.

In rr a radio was set up on the surveillance computers which relayed radio transmissions between the tunnel system central station and the tunnel workers. On the flat surface is a message from Flitter to "get her off our case" with a collection of articles from a journalist who has traced the various break-ins with no items stolen and realised that there is continuity between them. Through these the visitor obtains a stronger idea of the long term architecture of the narrative, as well as a collection of structured information about the story.

The effects and representation of Flitter are more distributed. Statically we see his satchel, a well-made leather document carrier, containing several documents, articles and texts Here we can discover some of his interests in the gold market and its instabilities, the gold collected in the greenhouse soil in Coober Pedy, market destabilisation strategies and related texts alongside classic car magazines. Next to it his netbook is open. On the computer desktop is a collection of images of the pottery shards that they have photographed and scanned. It is easily correlated with the names of the museums that were broken into in the articles on Cruz' desk. In the Internet browser the history has been manipulated to lead a visitor looking at it to find the various documents that Flitter has been reading. From the browser the visitor can also investigate other questions of interest, such as the Wikipedia entry for the Lasix in the refrigerator which is vital in the break-in. The Wikipedia article had been expanded with this information which was not false, but raised awareness of its importance (it is worth noting that this change was left in the German Wikipedia article but removed from the English one, leaving the technical term diuresis without any explanation) about the drug producing an unbearably strong need to urinate. Email arrival pop-ups occur regularly with a small onscreen extract of the email indicating ongoing developments in the narrative.

Flitter (in person) is also almost present. There is a locked bathroom door, behind which the visitor can hear water being let in and the voice of someone talking on the phone. Flitter has a series of calls with Lascovica and others, having conversations with some and leaving messages with others. Correlations to parts being physically or virtually represented in the environment, like towards the Australian gold collection greenhouse, the gold market crash and some possible hitches with the break—in become apparent. This voice allows the visitor to get a closer idea of the character and imagine a lot of detail through the interpretation of the one sided conversations.

TIME

In the two instantiations of this piece we used slightly different approaches. In SIABV we had all the media pieces looping independently. There was no coordinated overarching chronology needed between the various telephone calls, chat messages, TCP dumps and emails. It was only with the extension to a large scale dramatic moment with IT where the near-miss with the tunnel workers required and demanded attention, that we wanted to coordinate the media events into a planned whole.

The visitor hears radio communication between the headquarter and the two tunnel workers. These communications are interleaved with other events and have a certain clownesque aspect. There is a large screen tracking system on one wall and replicated in Cruz' surveillance desk. This shows the tunnel system and the location of the heist building.













The story level explanation is that this is an observation of the tunnels. The tunnel workers are represented by an old computer game figure (robot from *Berserker*, the game with the repeated warning "Intruder alert!") that moves along various tunnels. A text log runs down the side of the screen indicating certain sensors, predominately motion detectors and water level monitors. As the tunnel workers enter the immediate areas around the heist central location, the entire room goes into an automated series of "warning levels" where firstly there is an audible signal and flashing warning lamp, then at the critical phase the lights dim and are replaced by red emergency lights creating a red alert effect.

While the tunnel workers are approaching, they are being warned by their headquarters that a water release is being made upstream of them and that they need to evacuate the area. As the danger to the tunnel workers increases the danger to the heist characters also rises as the tunnel workers get closer to the tunnel door, which leads to the entry of the robbers' hide out. At some point the voices can be heard from behind the door in addition to over the radio, then a wobbling light can be seen through the cracks as the sound of rushing water gets louder. There is a moment of high tension as the door is shaken from within, being held in place by the rusted chains and padlock on the door, before the workers run away to escape the water masses. Whether one was afraid that the heist characters would be found out or scared that the tunnel workers would be swept away, relief is apparent. As they leave the immediate area the water can be heard rushing past below and then the room returns to normal lighting as they depart.

CONCLUSION

For SIABV we wanted to explore the possibilities of a heist as genre and interpersonal relationships in a small group. Compared to previous works we added explicit tension between characters. The story had multiple story levels that contrasted and explained one another, as we wanted to experiment with the possibilities for surprise and other possibly classical narrative structures in the piece.

For IT we aimed to add an element of explicit time based drama with the near miss experience, a well known heist movie trope, where the protagonists are almost found out but just get away by luck, stealth or expertise (in this case, luck, as they are unaware that they are almost discovered). As a result we also added a single large loop of events, coordinating all events in a time based cycle, as well as theatrical lighting.

Both pieces offered a lot of depth for the interested viewer. Many comments reflected the desire and the need to invest time in the piece, rather than having a superficial experience. It was difficult for a visitor to have the feeling that they had "experienced" the piece in its entirety, unless they spend hours there. For the only known documented example of this, please see the diagrammatic analysis on pages 56-57.

4.4 THE KITCHEN

by Andreas Mayrhofer

Time's Up is an organisation heavily centred on the workshops, studios and offices as a base for developing, planning, building and experimenting. At the nexus of this swirling mass of activity and action is the kitchen, the eye of the cyclone, the one place that has stayed nearly the same over the years, slowly collecting the accumulated story of Time's Up, its activities, its projects, its interests and its people.

The kitchen is the epicentre of our productive mission. It mirrors the whole existence of the Time's Up collective. It is the heart and soul of the group, the core and is full of stories. As Time's Up was asked to present its laboratory during the Microwave Festival 2011 in Hong Kong it became clear to us that it would be possible to communicate core aspects via *The Kitchen*. Our contribution resulted in an installation of a one-to-one replica of our kitchen at the Hong Kong City Hall, in front of Victoria Harbour instead of the river Danube, the red flags of China and Hong Kong fluttering in the breeze instead of the wind sock of the neighbours, becoming a meeting point for all participating artists during the setup and an open space during the exhibition.

The Kitchen can be best described as a three dimensional still life. All furnishings and colours are based on the original environment including the unique memorabilia of ship paintings that functions as decoration to complete the whole picture. Next to the entrance visitors could follow a time-lapse video that was recorded a few weeks during summer shortly before. This delivered varied scenes of the vivid flair that can unfold in ten square meters. To reveal the power of this environment and to round up the experience, some of the Time's Up members hosted a cooking workshop preparing typical Austrian dishes having *The Kitchen* filled with many people, preparing food surrounded by different fumes creating an indoor melting pot. It was almost like the real one.

ONE FRIDAY AFTERNOON DURING AN EXHIBITION

- » [N points to dishwasher.]
- » K: We have such things.
- » N: This is our newest model. This is the kind which is built in thousands of units for direct installations in the houses. In America, we like to make life easier for women...
- » K: Your capitalistic attitude toward women does not occur under Communism.
- > N: I think that this attitude towards women is universal. What we want to do, is make life more easy for our housewives.....













A kitchen can be a magic place. A place where people gather and talk about everybody and their dogs. From time to time things get scorched and maybe intimacy comes by in its sweetest perfection. A kitchen could be full of coincidences, not only when it comes to cooking itself. More than half a century ago two personalities that could not be more different, both high representatives having opposite views on the world, got talkative near a peculiar replicated kitchen besides and in front of a camera. This controversy made history under the moniker The Kitchen Debate and took place within the American National Exhibition in Moscow in 1959 where Nikita Khrushchev and Richard Nixon got straight down to the nitty-gritty. Whether the opportunity of a heart-to-heart talk like this was owed to the character of the specific kitchen itself (which is doubtable) or rather was a choreographed coincidence, a kitchen offers a perfect context. The possibility of a sudden moment which the kitchen environment offers, where cultivated crafts, abstract theory, dilettantism and passion might emerge from one second to the next, is of intrinsic value. This accentuates the huge attraction which emanates from the kitchen's social function associated with a variety of individually selective moments from the smell of delicious food through to particular childhood memories.

Where else would it be so easy to cook up some tales? Whether it is simply a meeting point for loose talk or the centre of wild discussions - the kitchen remains a place where people have to interact somehow. This might be in a very grumpy manner, for instance if early birds and morning grouches cross their paths unpredictably at a time when both see bad things arising. People of different social origins reveal themselves by casual actions, tastes and habits and you never know whom you meet in there heading for a cup of tea or being in the search for a sugar hit.

Inventions, politics of the day, private stuff, pop culture, the avant-garde and "did you knows" in tons are embedded in its silent walls. Many shared experiences, good conversations as well as sad situations are related with a place where everybody involved in Time's Up spends a little time per day whether it is a pleasant smell that seems to be attracting or the simple fact that everyone is encouraged to give proof of his or her art of cooking once a week. This remarkable but still questionable routine evolved from a typical former habit of taking a "Käsesemmel" (a cheese roll) in the late nineties to appease hunger or in high moments of cooking extravaganza: *Menu One* which was "pasta with red sauce" - a later derogative translation thereof was "Nuln mit Schlatz" (translating this as "pasta with slime" is not quite ugly enough). Somehow this was not a satisfying situation at all and as one of the many positive changes within the process of growing up as a group, proper food became more important at the harbour side labs.

You wanna know something about cooking? Well the ingredients should be tasty, timing is important and the level of experimentation must be well defined in order to neither spoil food nor productive output. Of course a valid chemistry needs some attempts to be established and not everybody is made for cooking, but at least everyone is experienced enough to know what effort has to be made to create a proper meal. Everybody within the group is somehow experienced in many areas whether electronics, video editing, welding or whatever, yet under the given circumstance there arises different outputs and timeframes from the same starting point. Nevertheless everybody has an idea about what the different steps within production are and it is natural that if there is a lack of motivation the starving colleagues might criticise this with an evil grin or take up another perspective and cast aspersions. Sometimes today's chef just cannot get the cuisine into shape but who can blame her or him? Some might say cooking is similar to meditation and on the other end cooking with friends stimulates communication. Well, fair enough, feel free to do a Swedish Chef imitation or jump around like an English guy in a lumberjack shirt while preparing your food. As long it is hot, on time and topped with a yummy dessert you are off the hook.

- » K: I hope I have not insulted you.
- » N: I have been insulted by experts. Everything we say [on the other hand] is in good humour. Always speak frankly.

Currently there is a variety of delicious food which is served in the centre of the Time's Up headquarter. Classics, freshly caught fish, from local to worldwide. And it is amazing on every occasion what positive climate can be created via proper and lovingly prepared food. As it is general knowledge that the latter is one of the most important ingredients. So if you ever stop by in Linz/Donau, feel free to visit us for lunch and hear an amazing farce about the president's sister, watch an unbelievable impersonation or simply be part in a standup comedy but be aware of the subliminal power that the cooking-list next to the fridge keeps in reserve. Oh yeah, it's all about the details.

5. ALTERNATE REALITY NARRATIVES

5.3 BORROWED SCENERY: CULTIVATING AN ALTERNATE REALITY

In the Japanese text *Records of Garden Making* (作庭記, *Sakuteiki*)¹ attributed to Tachibana Toshitsuna (橘俊綱, 1028-1094 CE), the concept of "borrowed scenery" (*shakkei* in Japanese, *jiejing* in Chinese) was first introduced as an approach to designing gardens. It is presented as a way of including features from beyond the garden as elements in the design. Distant mountains or rivers, clouds, rocks and even stars can be incorporated. Although the garden and the surrounding landscape may be topographically separate, "borrowing" or "lending" provides a way to experience them as one whole.

Inspired by *shakkei* and *jiejing* gardens, FoAM developed the alternate reality narrative *Borrowed Scenery*, a story without a narrator or explicit narration which unfolded through hints, suggestions and immersive ambiance. By "borrowing" from sources as diverse as plant mythology, patabotany, Tarot, plant sciences, historical mysteries and the setting of the everyday, *Borrowed Scenery* became a place to experience an alternate reality (past, future or parallel) where plants are a central aspect of human society.

Borrowing has an ambiguous reputation in the arts. The twentieth century has seen much redrawing of the lines between influence, copying, reference, theft, public knowledge and common heritage. Some artists borrowing directly from copyrighted books, music or proprietary software have been severely punished. On the other hand, remix culture and the free software movement are intrinsically founded on borrowing and re-appropriating from a shared cultural commons. Not only does borrowing create new works; these works - including *Borrowed Scenery* - would simply not exist without it.

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In an *Alternate Reality Narrative* (ARN), borrowing from "consensus reality" becomes a way to draw the audience into the story. The familiar reality of popular culture acts as a bridge between life and fiction. What emerges is a *storyworld* - a web of experiences, tales and conversations between ARN creators, real visitors and fictional characters. Borrowing in an ARN is like leaving a trail of breadcrumbs from the "consensus" to the "alternate" reality. It is about establishing familiarity and intimacy with visitors through personal associations, memories and opinions, making their plunge into the *storyworld* a less alienating experience.

WHISPERING A WORLD INTO BEING

The term "alternate reality" may require some elaboration. We borrowed this term from alternate reality games (ARGs).² In *Borrowed Scenery* we focused less on the gaming aspect of ARGs and more on the creation of a *storyworld* with hints that it could become real. We allude here to some of the more esoteric traditions of storytelling: invocation, divination and sympathetic magic.³ We attempted to use stories to "will a reality into existence". We did this by creating events and characters that were based on real people, reacting to real occurrences by incorporating new story elements on the fly, using the physical space of the narrative as a real-life lab. What would begin as a story could become part of daily life. Perhaps someone would cook more vegetarian dishes, or spread edible plants in cities, while others might adapt their working rhythms to the seasonal daylight. In this way the alternate reality of *Borrowed Scenery* would echo through consensus reality long after the project was over.

Borrowed Scenery was balanced on the creative tension between story and reality. In real time, the ARN evolved over two months during 2012, but the story was set in an ambiguous "smeared now" suspended somewhere between the early nineteenth and late twenty-first centuries, imbibing touches of art nouveau, steam- and biopunk. While there was a backstory that tied disparate elements of the project together, it was rarely narrated explicitly. It was visible as small fragments and subtle hints, such as a label on a herb jar or a half-written letter. We relied on the immersive ambience of physical space to encourage visitors to piece together the territory of the *storyworld*. The experience was designed to be more like travelling to a foreign land than watching a movie. More about sense-making than storytelling.

EXPERIENCING AND RECOUNTING

"Narrative has always been about a mix of invention and repetition; we seem to like stories because they follow the rules we've learned to recognise, but the stories that we most love are ones that surprise us in some way, that break rules in the telling. They are a mix of the familiar and the strange: too much of the former, and they seem stale, formulaic; too much of the latter, and they cease to be stories." - Steven Johnson⁴

While making *Borrowed Scenery* we often deliberated on the differences between stories and reality. A reality literally encompasses places, events and people, while a story is always *an account* of events, places and people. An alternate reality narrative should attempt to draw both of these together - actual people and events that can be encountered in their immediacy, entwined with experiential traces of the fictional characters and their lives. As *Borrowed Scenery* was also a *Physical Narrative*, these traces were contained not just in words and media, but also in physical objects, furniture, plants and spaces. With so many "story containers" and possible paths and associations between them, there was no final way to "tell" a coherent story. Our task was to design a framework within which the alternate reality could exist - first as a backstory, then as a collection of story-fragments embodied by physical objects and










digital media mixed with live events and real people. As in consensus reality where each of us lives in our own *reality tunnel*,⁵ it wasn't possible for anyone to experience the ARN in its totality. Instead of attempting to create a master narrative with a beginning and ending, it became more important to think about *Borrowed Scenery* as a complex and immersive "reality", a *storyworld*. People approached and engaged with this *storyworld* in different ways. Although necessarily an oversimplification, we noticed that there were three distinct ways (outlined below) that visitors approached this *storyworld*: as performance, consumption and interpretation. Some would move between all three in one session, others would come back a few times and try out different things. By observing how people explored *Borrowed Scenery*, we learned that it is beneficial to provide many possible ways to enter and explore an ARN.

Firstly, the most direct experience of *Borrowed Scenery* was simply being in the space and soaking up the atmosphere. We were pleasantly surprised how many of our visitors would do just that and need nothing else. Some reported states akin to natural mystical experiences.⁶ After a while they would emerge and talk to us about what happened, often grasping the essence of our backstory and the plant-inspired reality we wanted to evoke. Visitors inhabited the alternate reality, becoming protagonists without realising it. Some visitors would participate in events without engaging in the larger narrative, and even remained unaware of its existence. People would take part in a walk where they learned to forage for edible plants in cities, for example. On the walk their paths would cross with the fictional, their traces might be collected in the patabotanists' field guide, but they might remain unaware of this bigger picture. If they were interested in digging deeper there were several avenues they could explore, but if not, that was fine too. Sometimes we would hint at the existence of a larger reality by giving out small instruction cards, as invitations to explore further. The common characteristic of these disparate experiences (from meditative presence, to engaged participation and individual exploration) was a direct engagement with people and events, an improvisation or performance without a fixed scenario. As such it was closer to a reality than to a narrative.

Secondly, participants could experience *Borrowed Scenery* in a way that came closer to conventional "story consumption" in books, movies or games: something like a treasure hunt for narrative fragments. This story-seeking became a quest to find a narrative that is dispersed through the environment, objects, events and media. For this experience to work there needs to be a high density of story fragments every object and event should become meaningful within the context of the overarching narrative. This is quite time-consuming for the designers, but it requires the least commitment and effort from the audiences. They can experience a representation of the alternate reality that they "dig out" from a collection of materials and media. The story - whether they find it or not - remains static. In *Borrowed Scenery* the story wasn't as linear as in a conventional treasure hunt or a Disney ride, so visitors didn't need to discover all the story-fragments for their experience to make sense. If they found the hints and were keen to puzzle together a narrative, this could enrich their experience, but it wasn't absolutely necessary.

Thirdly, "story making" was an approach that could be seen as a middle way between story and reality. This is where visitors created their own stories based on their perceptions of the space, people and events. In *Borrowed Scenery* it seemed to be quite rewarding for people to construct their own versions of the story and weave the disparate elements into new narratives. They would often incorporate elements of the backstory without explicitly knowing of it. It was thrilling for us to hear our story told in someone else's words. Even more inspiring were the new stories that emerged, built on our invisible scaffolding.

A GLIMPSE BEHIND THE STORY, OR HOW TO PRACTICE PATABOTANY IN A CANDY STORE

Borrowed Scenery spanned physical and online worlds, evolving over the autumn months of 2012. We converted the Snoepwinkel (Dutch for candy store) of the cultural centre Vooruit in Ghent into a *Physical Narrative*. The Snoepwinkel became a make-shift laboratory and living space at the centre of a *storyworld* populated by a team elusive patabotanists⁷ engaged in establishing channels of communication between plants and humans.

The patabotanists came from a place where both plants and humans are open to inter-species communication. They were fascinated by the apparent separation between the human and the vegetal in our reality and found it difficult understand how we hoped to survive in a world rife with social and environmental turbulence without closely collaborating with plants. They assembled a small team including an engineer, a lawyer, an alchemist, a cook and a linguist, led by the principal patabotanist, Alchemilla Lily Umiliata, and set off on their expedition to Ghent.

When the patabotanists began their work, they realised that the communication protocols common in their reality were not understood in this one, and they were met by a wall of silence from both plants and humans. After a period of bamboozlement and moments of despair, they came up with a three-pronged strategy. Some of them set off to find susceptible humans whose lives were already entangled with plants. Others worked on creating atmospheres where people could experience what it felt like to be a plant. At the same time, all of them worked on opening communication channels between carefully selected plants and humans. One of their experiments involved connecting plants to human brainwaves. Another was telling stories to plants in the hope they would eventually incorporate myths and cultural metaphors in their growth and form. And then there were others...⁸

Realising that direct contact with human beings in our reality tended to be counterproductive, the patabotanists employed research assistants - FoAM's members and guests - to involve unsuspecting visitors, take care of plants, conduct field work and act as translators of the liminal story threads scattered through physical and digital spaces. Most of all, the task of the research assistants was to encourage visitors to see urban plant life with fresh eyes and re-imagine their cities as places of sinuous interaction between humans and plants. Although there was much interest in meeting the patabotanists, they could only be known through traces left in notebooks, schedules, pieces of clothing and tools, forum posts, messages and experiments in progress.

This blend of absurdist fiction and (pseudo/proto)science with real people and events was at times surprisingly smooth, other times overwhelmingly confusing, but people would rarely leave untouched.

TENDING TO THE STORYTELLERS, WEEDING THE STORYWORLD

Visitors would roam through the space and piece together their own version of the story from hints and shards left for them to discover. People were eager to begin spinning their own tales. We served tea and let them talk. They would grab onto something that would remind them of their own relationship with plants and the story would begin. Sometimes they talked about personal experiences, other times we had heated discussions about the scientific validity of plant communication or dreamed about a greener and gentler future. Some people would sit or lie down for lengthy periods of time, just absorbing the ambience. The original narrative, with its characters



Borrowed Scenery diagram sketched during the project's evolution to aid in discussion, description and development. A digital version (pp. 80–81) has been derived from this.



The diagram is an overview of the design elements in Borrowed Scenery, which we ordered in the following way:

Type of activity

The "roots of the tree" are elements of the physical narrative and design of the space in the Snoepwinkel. The trunk represents the characters – ten fictional patabotanists, and FoAM collaborators as their research assistants. The four branches represent various activities that the patabotanists undertake to establish human-plant communication. They include experiments in the Snoepwinkel, fieldwork, an online 'codex' and a series of plant celebrations.

Minimum -> maximum

Elements that are closer to the 'trunk' are considered essential for the ARN – a bare minimum of things that are most feasible to make. Components that are further away get progressively more complex and are considered "nice to have, but not absolutely necessary".

Two critical paths

There are two paths that are crucial to include in Borrowed Scenery: a contemplative and an active path. If both paths are fully implemented, the ARN should appeal to a wide range of visitors, from quiet meditators to active explorers. Elements that are on these paths (red and blue) are critical to the ARN's development. The remainder are details that support and enrich these two experiences.

and their convoluted experiments, became a backdrop, a fertile compost for visitors' own story-making. Without us explicitly mentioning our references and inspirations - the *Voynich Manuscript*,⁹ McKenna's "Plan-Plant-Planet" essay,¹⁰ Hildegard von Bingen,¹¹ plant neurobiology¹² or pataphysics¹³ - they were often quoted back to us, woven into the stories the visitors devised to make sense of what they experienced in the *Snoepwinkel*. In a way we also began borrowing from the visitors themselves - their memories, associations, storytelling abilities and even their very presence.

These were some of the most rewarding and precious moments in *Borrowed Scenery*, alongside hours spent in the Snoepwinkel imagining what one or another character might be doing, adding traces of their activities and personalities in physical objects, writings, cabling and whatever else seemed necessary to enhance the atmosphere.

Creating the *Physical Narrative* was like gardening - cultivating a *storyworld* out of a wilderness of stuff and references. Whenever we were present at the Snoepwinkel, maintenance was the order of the day - cleaning, watering plants or checking experiments. These essential tasks took a significant amount of time and effort, similar to weeding in a garden. The moment we left them undone, the room would begin literally decaying and descending into chaos. One of the lessons we learned was that a *Physical Narrative* needs a full-time "gardener", unless gathering dust and mess has a purpose in the development of the plot.

Aside from inviting people to the patabotanists' lab, we borrowed from the urban and online spaces where plants and humans interact. We began with a picnic¹⁴ in the Citadelpark where we asked visitors to partake in an experiment involving the ingestion or smelling of plant substances to accentuate or alter their experience. We were present at a community market, celebrating the beginning of autumn with a Harvest Fest, where we exchanged plant preserving techniques, recipes and produce. For two months we took visitors on walks to discover urban flora on the streets of Ghent: edible and medicinal plants, historic trees and other noteworthy vegetation. We mapped these walks and the plants using Zizim, a mobile app for urban foragers, and translated them into Aniziz, an online game where plants could come in contact with the patabotanists.¹⁵ We met "Ghent plant people"¹⁶ (farmers, gardeners, city ecologists and other plant connoisseurs) and listened to their stories. Finally, on the day the clocks changed to winter time, we descended into the warm greenhouses of Ghent University's botanic gardens where we sang to and with plants in the language of Hildegard von Bingen's plant-infested *Lingua Ignota*.¹⁷

"In bringing the spiritual and the material together in her *Lingua*, she invoked what the Russian formalists called *ostranenie* - making the familiar strange, or rather making the things of this world divine again through the alterity of new signs. In this sense it is a product of her *Viriditas* - greenness - making moist and green what threatens to become corrupted, mendacious, ill-used and dried out, but it is also a product of her keen interest in divine structure: The Tower reassembled." Sarah Highley.

All of these disparate activities were episodes in the larger narrative, all sharing the same backstory. Each of them could be experienced on their own, which most people did. However, some of our visitors began treating the space and the story as their own: one of them decided to have a birthday party in the Snoepwinkel, as he felt the space reflected the world in which he'd like to live. Another visitor congratulated us on our Inner Garden performance, where she found that the plants sang beautifully. We all laughed when we realised that she actually missed the performance, but interpreted our story as an invitation to come and hear the plants sing, which made complete sense in the context of *Borrowed Scenery*. These people became integral

parts of the narrative, where we merely provided the shell in which their fantastic stories developed.

FUTURE BORROWINGS

In view of the complexity, unpredictability and variability inherent at all stages of producing an ARN, we designed *Borrowed Scenery* with redundancy and layering in mind, ensuring that the project could succeed in a wide variety of conditions.

Crucially, we developed the ARN in multiple iterations, asking ourselves what the simplest and most basic form would be that the project could take while still retaining its essence. The essence of *Borrowed Scenery* was its immersive atmosphere that built on and subtly transformed the places we encountered. From there we could determine the optional and to some extent interchangeable extra details. We began with a small ARN that could be made reasonably easily relying solely on FoAM's own resources. This consisted of the rudimentary *Physical Narrative*: the space, minimal furniture, a soundtrack (and equipment to play it), printed maps and instruction cards, tea and tea cups, chalk, tape, sheets of paper, markers, a whole lot of plants and one FoAM member to act as the "research assistant in residence".

Having secured the project's "bare essentials", we began to embellish them with additional elements that we felt would enhance the *storyworld*. In most cases we managed to ensure that digital components in the design always had an analogue backup (given the computer's infamous track record of malfunctioning the moment we rely on it in these experimental situations) and that there were several analogue layers. if the computer, internet, mobile phone or app failed, we had pens, paper, and printouts of maps handy; if an interactive mobile guide wasn't developed on time, we could give visitors printed instruction cards so they could still go through the physical experience.

Another example of design redundancy involves ensuring a multiplicity of possible experiences and points of entry into the "user journeys",¹⁸ episodic events, and the ARN as a continuum. We wanted to accommodate a broad spectrum of possible engagements. For example, some visitors might be interested in learning how to preserve plant essences for entirely pragmatic purposes, such making their own jams or sauerkraut. These people could come to the Harvest Fest, enjoy themselves, learn and eat a lot, but remain oblivious to the larger narrative (even though certain characters and other hints were woven into the event). For these people each of the events and activities needed to be self-contained and meaningful in its own right. At the other end of the spectrum were those who wanted to know and become involved in everything, to the point that they began to merge into the ARN itself. For them the physical and online spaces had to keep evolving and responding to their presence and interaction, and there had to be a conceptual and phenomenological continuity between all the elements of the ARN. For these people it was beneficial to have the story appear at the "acupuncture points" of their experience - as hints and suggestions that would draw them deeper into the *storyworld*.

With such redundancy built into *Borrowed Scenery*, we knew that no one would be able to experience everything, but also that most people would find something that interested them. Here we return to the idea of designing *Borrowed Scenery* more as a "reality' then a "story". In the Ghent version of *Borrowed Scenery*, the physical aspects of the ARN were more appreciated than the online parts. People spent a lot of time in the Snoepwinkel, there was quite some interest in the events and the gifts (instruction maps, plant preserves, tea,...) were received with pleasure. Personal contact between FoAM's "research assistants" and individuals or small groups was enjoyable for everyone involved and encouraged visitors' explorations and story-making.





For the future we'd like to look deeper into ways that encourage meaningful storymaking and sharing - by involving audience members more directly in the creation of the backstory, for example. A promising avenue for experiments in participatory storytelling is scenario planning (a technique derived from forecasting used to visualise possible futures) connected to improvisation and live-action role playing games (LARPS).¹⁹

We found that, in contrast to the *Physical Narrative*, the online components of the project that focused on storytelling and gameplay receded into the background and at times were almost invisible. However, we do think it is worth persevering in finding ways to connect *Physical Narratives* with online environments, as it can bring together unlikely audiences, such as gamers and gardeners. It can also encourage participants to become more involved in the stories. Most of all, we remain curious to explore the magic of online traces becoming physical and tangible objects that extend their life in digital realms. To that end, the *Borrowed Scenery* website²⁰ remains online for explorations and extensions.

BORROWING PRINCIPLES

We began designing *Borrowed Scenery* following the principles of Japanese gardening,²¹ and came to find that these principles could also apply to the design of *Alternate Reality Narratives*. Loosely translated into ARN lingo, the principles can be summarised in four points:

- » create ARNs to appear real yet strangely familiar
- » ARNs should be site-specific and take advantage of the specifics of the site
- » allow for gaps and imperfections as openings for new stories
- » capture and share the atmosphere in such a way that it may, one day, become transformed from a story into reality

Borrowed Scenery with its visceral connections to gardens and plants was eerily familiar. It was site-specific, designed for the Snoepwinkel and the streets of Ghent with online portals to other realms. The story was - for both practical and conceptual reasons - filled with gaps that encouraged associations and "joining the dots". Its intention was to become a reality. Even though as an ARN it existed for a brief moment in time, its seeds continue growing through consensus reality in unexpected ways: Zizim became a scientific app used to map lobster populations in the UK and a way to track urban agriculture initiatives in Ghent; Arboreal Identity has been translated into a guided nature walk in Brussels; the patabotanist archetypes are being translated into ethnobotanical Tarot cards; Inner Garden will be performed in other botanic gardens, spreading Lingua Ignota and patabotanical ideas further. Slowly, imperceptibly, the alternate keeps seeping into the everyday. Is it still a story or did it become reality? In the end, we might not be able to tell the difference. As in shakkei gardens, the ARN starts from ourselves, includes the cultivated frame of the storyworld and extends into untamed, infinite realities - consensus or otherwise.

ALTERNATE REALITY NARRATIVES TUTORIALS

5.2 ALTERNATE REALITY TUTORIALS

Alternate Reality is a concept loaded with ethical and philosophical ambiguities. Before we could begin designing an Alternate Reality Narrative, we wanted to better understand what Alternate Reality meant in the context of PARN. Rather than attempting to define it, we opted for a heuristic exploration in a series of conversations and experiments that we dubbed Alternate Reality Tutorials. The tutorials were intended for small groups and private studies (rather than open public workshops, seminars or lectures), and were guided by people with extensive experience in the subject matter. Most participants were invited artists and developers associated with PARN, allowing the knowledge to percolate through the various Physical and Alternate Reality Narratives. Each tutorial had both conversational and hands-on components, where the questions could be explored in theory and in practice. After a decade of designing workshops and seminars we have learnt that having a mix of eloquent presentations, open discussions and practice-based sessions keeps all participants engaged. Some are keen to learn from experts they respect; others are looking for sparring partners to help them untangle complex concepts, and others again are keen tinkerers who learn best from getting their hands dirty. And then there's the communal aspect of sharing lunches and dinners together, fostering social cohesion while facilitating more informal and unexpected insights. Even though the tutorials were open-ended, their findings - both explicit and implicit - affected the concept and design of the Borrowed Scenery ARN and continue to inform the works of all participants.

Alternate reality is a vast subject that can be approached from a variety of angles, ranging from the ontological and metaphysical to the political and phenomenological. To limit the scope of the discussions and make the learning applicable to *Borrowed Scenery*, we looked at alternate reality in the context of stories and inter-species communication. How do alternate reality games bring realities into being through stories, games and play? How does a set of Tarot cards become a divination and storytelling tool that can invoke realities? How do we perceive, experience and communicate with the realities of non-humans, such as plants and mushrooms? What would happen to the social fiction of human legal systems in a world where trees were able to vote? What would the reality of a global vegetal culture look like? Such questions guided our explorations of alternate realities and narratives told about them in five

tutorials whose surface disparity belied a root system of significant interconnectedness.

Alternate Reality Narratives (ARNs) can be seen as situations in which stories emerge from the spaces of everyday life, evolving through participation and collaborative storytelling. ARNs stand on the shoulders of the more well-known genre of alternate reality games (ARGs). In the first tutorial, Adrian Hon and Matt Wieteska of Six to Start¹ introduced ARGs and related storytelling techniques. Participants set out to learn about designing and producing an ARG, while exploring the genre's state of the art, examining its advantages and pitfalls. More broadly, we asked what it is that makes for good storytelling, and tested several ideas for ARGs in a series of practical exercises. Alternate reality became associated with *liminality*, mystery and organic *potential*. From these themes we designed two prototypes of game experiences about human-plant interaction, one about a homeless cactus and another about the mystery of the European postal systems operating through an underground network of baobab roots. Through this brief introduction to the practice of making ARGs, the Borrowed Scenery team realised that we were less interested in the details of game mechanics and more in the liminal and meandering narratives that could invoke a sense of mystery and potential in everyday life.

To explore stories as instruments of invocation, the second tutorial looked at a uniquely European fortunetelling tradition: the *Tarot*. Art historian and Tarot pundit Paola Orlic² took participants on a quest to discover the origins of the cards and a journey through the history of the important decks. The links between Tarot and literature, games, cartomancy and psychology were explored, provoking engaged discussions about Tarot readings as storytelling performances used for invocations of alternate realities and possible futures. To entangle Tarot with *Borrowed Scenery*, we invited Claud Biemans³ to talk about the (ethno)botanical properties of medicinal European plants and worked with Paola to associate them with Tarot archetypes. We sought out plants that could influence our mood, to put us in the spirit of The Fool or The Empress, and those that displayed what could be seen as physical characteristics of The Star or The Hermit. We found manifold connections on many levels of symbolism, iconography, morphology, psychology and mysticism.⁴ This may well have been the first time these hitherto unrelated narrative systems of Tarot and ethnobotany were brought into connection with one another. After a solid theoretical tutorial, we took on the design challenge of creating a set of "patabotanical" trumps which we later used as a basis for some of the characters in *Borrowed Scenery*. We reached back to one of the archetypal stories depicted in the Tarot, a journey of personal transformation, the monomyth or *Hero's Journey*⁵ of The Fool and his eventual dissolution in The World.

We cohabit the world with organisms that are adept at having distributed selves spread for kilometres through the earth: the mushrooms and their mycelial underground networks. In two speculative tutorials, *Radio Mycelium* and *Silent Dialogues*, we joined Martin Howse⁶ in a set of practical experiments to get in touch with mycelia, mycorrhiza and plants. We asked, what do plants know? How do they make sense of the world? What languages do they speak? If we could understand each other, what kind of myths would we share? What technologies would we need to use to connect electronic and fungal networks together? Can we link them directly to our brains? For the duration of these tutorials we literally became immersed in an alternate reality, experiencing inexplicable physical and mental sensations while being connected to plants and fungi. The world sounded, tasted, smelled and looked different. The direct experiences were encouraging. Describing the experiences of these two tutorials resulted an impressionistic medley of protoscientific incidents and mystical visions that beckons further investigation.

A very different alternate reality was explored in *Arboreal Identity*. Heath Bunting⁷ and An Mertens⁸ took participants down the path of identity creation as a storytelling exercise. According to Bunting, legal identities can be seen as constructed social fictions open to creative intervention. A legal person is essentially a web of information that includes phone numbers, 1D documents, addresses, bank accounts and certificates of various flavours that together form a coherent narrative of social relations which make up the identity of a person. During the tutorial we investigated how such identities can be constructed for a natural, artificial or fictional person, including non-human entities such as trees. In a series of walks and conversations we visited several prominent trees and examined what rights and identities they have according to the current legal system. The ideas generated in the tutorial are being translated by An Mertens into a story and guided tour of *Zoniënwoud*, an old urban forest on the edges of Brussels which will - as the story goes - acquire a legal voice in the central commune and beyond.

On the fringes between two species, humans and plants, lies the alternate reality of *vegetal culture*, where human society is based on principles emerging from the plant world. Inspired by Masanobu Fukuoka and Terrence McKenna's view on the fundamental entanglement of plants and humans, FoAM members Cocky Eek and Maja Kuzmanovic designed a tutorial for a group of students at the ArtScience Interfaculty.⁹ *GroWorld Vegetal Culture* brought together tutors and participants from other workshops, along with Duncan Speakman¹⁰ and Tale of Tales,¹¹ to guide a mixed group of nineteen BA and MA students. Through a series of seminars, screenings and participatory design exercises, the students were invited to devise their own interpretations of the concepts behind *Borrowed Scenery*. At the end of the six weeks, the plethora of ideas and discussions were translated into ten experimental works, ranging from audiobooks to interactive installations and sound walks. It was interesting to see the transformation of the students' view of plants and stories as the projects developed. Most began the tutorial thinking plants were "boring" but came to realise the versatility and applicability of plant stories in their own lives and works.

As with the students, many of the participants and tutors continued working with the topics and techniques they encountered in the *Alternate Reality Tutorials*. Having the tutorials so closely linked to the ARNs and *Physical Narratives* developed for PARN allowed us to put together a peculiar and unique curriculum that could not be found elsewhere, both in terms of the topics covered and the methodology. Furthermore, the tight feedback loop between learning, experimenting and implementing the ideas in public productions means that the tutorials have had a direct and indirect impact on many people. Not only have there been more stories told about alternate realities, we're happy to report subtle changes in the realities of (some) participants' daily lives. From stories to reality and back again, the following chapters - which vary in tone, density, and detail, mirroring the diverse atmospheres and people involved - summarise the manifold discoveries and experiences emerging from the PARN series of *Alternate Reality Tutorials*.

5.3 ALTERNATE REALITY GAMES TUTORIAL

THE PREHISTORY OF ALTERNATE REALITY GAMES

Creating an alternate reality in fiction isn't a new concept. Books, radio-plays, games, theatre improvisations or fortune-telling all include elements that are used in Alternate Reality Games (ARGs). ARGs' unique approach to storytelling and alternate reality is their straddling of the online and the physical worlds and including the players' daily life as elements in the story. ARGs smear stories across transmedia contents and technologies - from tweets and blogs, live events and physical puzzles to social networks and mobile apps. Although the media might be contemporary, some storytelling devices used in ARGs can be traced back several decades and even centuries, pointing to the continued inspiration and excitement that alternate realities offer for their readers, players, and inhabitants.

War of the Worlds³ is an example of an alternate reality that was written as fiction, but was perceived as real. This well-known *radio play* consisted of fake news stories about an alien invasion, causing a mass panic among its listeners when it was first broadcast in 1938. It gets remade every few years and still tricks people into thinking that it's real.

Before radio, letters were used to create fictional realities and *storyworlds*. Put together as a collection of action stories written in letter-form they become *epistolary novels*. Daniel Defoe's Robinson Crusoe $(1719)^4$ is an example of an epistolary novel - a story presented as a "real" diary of someone stranded on an island, using his letters as a narrative device. *Pamela; or, Virtue Rewarded* $(1740)^5$ is another example of an epistolary novel. It was so popular that people went to public squares to read the story to each other (as the majority of the followers was illiterate). Whole neighbourhoods would get involved, including the church, which would ring the bells at the end of the novel.

Aside from literature, ARGs draw heavily on theatre. Theatre games or *improv* are examples of some of the most rule-free ways of telling a story. In an improv the participants agree to share an illusion. Classic improv invites everyone involved to build on each other's stories, but there is one rule that should be followed: you can never say no, always say *"yes and..."*. There is no direction, no outside force, just the imagination of a group of people working together. *Theatre of the Oppressed*⁶ is a well known example where improv is used to help communities deal with social issues.

More recently, the pre-history of ARGs includes **role playing games** (RPGS) and **Dungeons and Dragons** (D&D).⁷ In RPGs players take on roles of fictional characters in a fantasy world. A player is supposed to inhabit the character, where the character subsumes their own personality. D&D is a framework in which these games can take place: the player roles a dice to decide the outcome of their next move, which helps them tell a story. In D&D there is a predefined scenario with pre-made characters and setting. By limiting what you can do, the game frees you to imagine what you could do. Because of the strict game logic, collaboration is easier than in improv theatre. Your choices are up to you but only up to a limit, which helps prevent the paralysis of choice. Dungeon masters can move stories in different directions based on reactions of the players. Similarly, in ARGs *puppet masters* help the players get a more interesting experience. The point is not to win, but to tell an interesting story.

Board games are often neglected as a narrative platform, but they can be interesting places for stories to emerge. Board games are replayable stories about strategy and decision making, encouraging a playful narrative experience. Especially more collaborative games (such as *The Settlers of Catan*,⁸ *Pandemic*,⁹ or *Space Alert*¹⁰) encourage storytelling through their appropriate mix of structure and flexibility. *Battle Star Galactica*¹¹ is a mix of a competitive and a collaborative game; by being a game about how not to lose it is very successful at sustaining suspense and paranoia.

Online games (or massively multiplayer online role playing games, MMORPGS¹²) are an equally rich source of collaborative storytelling. For example, *Eve Online*¹³ has fascinating stories surrounding it, with real repercussions. The game has been going on for some years and the community intrigues keep expanding. If a new player would like to join the game, they have to go through a real-world interview to make sure that they are not spies.

Tarot readings are essentially a two-player storytelling experience. The card reader provides a broad framework, made out of pictures and words, the querent fills in their own interpretation and links it to their present and future. The mythic and archetypal structure of Tarot helps the querent grasp a universal story, identify with the Tarot archetypes and apply the story to their own lives. A very different example of fictional characters becoming a part of daily life is the Tamagochi. **Tamagochi**¹⁴ hype is perhaps not directly about storytelling, but it points to our ability to create (and experience) mass delusions, where people are willing to go quite a long way to maintain their beliefs about a fictional character needing their care and attention. A similar psychology can be found in climate change denials (i.e. cognitive dissonance), where stories are used to confabulate and justify people's position and status quo in the world.

Finally, an example of participatory and alternate reality stories devised in the art world is the surrealists' *Exquisite Corpse*,¹⁵ an associative method to build on one another's words or images and assemble them collectively. Building on the idea of collective storytelling, Six to Start developed *A Million Penguins*,¹⁶ a wiki novel. The lesson learned through this experience was that a mere instruction to tell a story

together is too broad, as it leaves people too much freedom and they end up not knowing what to do.

THE PAST AND PRESENT OF ALTERNATE REALITY GAMES

from marketing ploys, hoaxes and puzzles to context-specific experiences

ARGs appropriate and borrow from different media to create a transmedia story unfolding online and in physical spaces. According to Wikipedia, "**an alternate reality game (ARG)**" is an interactive narrative that uses the real world as a platform and uses transmedia storytelling to deliver a story that may be altered by participants' ideas or actions."¹⁷ ARGs first emerged as an advertising tool for TV shows, movies, games and products. Early examples include *The Beast*,¹⁸ *I Love Bees*¹⁹ and *The Lost Experience*.

The Beast is considered to be the first ARG. It was designed as promotion for Steven Spielberg's movie A.I. On the poster for the movie, ARG makers had hidden the name of an AI therapist. Curious fans could google him, find his website and a phone number. When they called this number, they could listen to the therapist's voicemail, get passwords to access an email and the story would begin unfolding... The ARG became an expansive cross-platform story that could be found online and in real world events (such as an anti-robot protest). There was no mention that this was a movie or game.

The Beast can be considered a blueprint for ARGs (in the way it uses websites, phone calls, live events). It was also the first to use the TINAG (This Is Not a Game) aesthetic, where the aim is to suspend disbelief for as long as possible: never explain, never give players instructions, never admit what is real and what is fiction. In contrast, Electronic Arts designed *Majestic: The ARG*²⁰ where it was obvious that it was a game (people had to pay for it). This game was much less popular than *The Beast*. Some games were real hoaxes, such as the marketing for *The Blair Witch Project*²¹ and *Lonely Girl 15*.²²

Most contemporary ARGs have stopped blurring boundaries between reality and fiction using TINAG, as this has alienated players in the past. According to Six to Start it might be best not to pretend that an ARG isn't a game. Players prefer clarity about an ARG being a story. Puppet masters have a key role to play in providing this clarity, establishing trust in an ARG and making sure players' participate but don't get hurt.

In the last decade many new ARGs emerged, incorporating diverse contents and techniques. For example:

- » 24 Alternate Reality $Game^{23}$ is a post 9/11 quest.
- » WWO or World without Oil^{24} included scenario planning and war drills, but no story.
- » Lewis Hamilton: Secret Life²⁵ featured a sports star as the main character, as a Robin Hood of fine art, retrieving stolen artefacts from thieves.

*Cathy's Book*²⁶ was first released as a diary (a classic ARG "rabbit hole"), mentioning a phone number; as players read the entries, they could find things hidden in the story.

» *Perplex City*²⁷ sold its own puzzle cards as *rabbit holes* into the game, while the main story was told in blogs and fake newspapers. The fascinating aspect of this ARG was the community involvement. For example, players

made a wiki, a formidable encyclopedia of everything that happened in *Perplex City* - there were about 1000 editors, 1200 pages, more than one million page views. On one occasion a puzzle demanded access to a library system. Players could access the system by becoming published authors, so they wrote, printed and published a book in two weeks, pointing to the importance of artefacts and live events to complement the online experience.

From *The Beast* to *Perplex City* it turned out that playing ARGs is very difficult and demands a lot of commitment. There was much disillusionment for a while, but then ARGs began gaining popularity again. In recent years there has been a rise in period ARGs, often set in the near future (far future or past requires a lot of world building). The ARG for the τv series Lost (*The Lost Experience*²⁸) is an example that takes into account that people like dressing up and talking to each other. There are ARGs playing with alternate histories (*what if...*) and many ARGs about conspiracy theories - players understand how a conspiracy theory is supposed to work and are excited to get involved.

Over the years designers understood that the TINAG approach was perhaps not the best way to engage players; not knowing what it takes to play the game proved to be frustrating and alienating for many people. Nowadays ARGs have become more about context-specific personal experiences. Smart phones make it easier to contact the players wherever they are and adapt the story to their context and location. There is a large collection of location-based ARGs, ranging from a focus on gameplay to story generation and storytelling:

- » *Four Square*²⁹ is a location-based social networking site on which several monopoly-type games are designed using real locations.
- » The street game *Journey to the End of the Night*³⁰ is a grown up version of children's chasing games like *Cowboys and Indians* or *Hide and Seek*.
- » *Tate Trumps*³¹ is about telling stories using the known game mechanics of a simple card game, guiding visitors through the Tate Gallery in three "modes" (battle, mood, collector).
- » Less about stories and more about playfully exploring the city is the locationbased MMORPG *Shadow Cities*³² where a team of magicians fights against other teams. Using gesture-based casting of spells the game allows the players to transport themselves to a map of another city and work with their team remotely.
- » Jane McGonigal's Find the Future³³ is a game about stories, storytelling and story-making that takes place in the New York public library, with QR codes hidden in books. By discovering the codes the players can find a task, then write a story. At the end of the game they made a book.
- » The ARG *Last Call Poker*,³⁴ designed to promote the video game *Gun*, is about playing poker with fictional ghosts and real people. Players are invited to visit graveyards and play the game based on years printed on real gravestones. Groups of people can play this game without any help from the creators.
- » In Audi's advertising game *The Art of the Heist*³⁵ players were encouraged to learn about art by replicating a stolen painting.
- » *Wanderlust*³⁶ by Six to Start could be played on generic locations, such as a restaurant or a street corner, where the stories incorporated specific







atmospheres and actions associated with these places (what we encounter in a restaurant is different than a library, or a street).

- » A very different location-based cinematic experience are the *Subtlemobs*³⁷ by Circumstance. They are story-based audio plays encouraging an intimate mass experience in urban locations, such as railway stations or markets.
- » In Blast Theory's *Rider Spoke*,³⁸ stories are collected and heard by players on bikes. It is about connecting with people in an asynchronous way. *Rider Spoke* is not necessarily location-specific but is still location-based. It is about creating an emotional, personal experience.
- » From walking and cycling to jogging: there is a whole genre of location-based running games that have emerged in recent years. Examples include *Cache* & *Seek*³⁹ on Google Maps, where you trace your route and leave treasures for other joggers; *Zombies, Run!*⁴⁰ by Six to Start, which adds a thrilling storytelling experience to your morning jog; and *Seek 'n Spell*,⁴¹ a jogging "scrabble and boggle" where the letters are scattered across the map and you run around to collect them.

Finally, it should be said that although ARGs are a good way to gather large communities around a cause, there are not many social commentary ARGs, i.e. games that make a point. Most ARGs promote causes that other people don't disagree with and there aren't enough ARGs that rock the boat, primarily due to issues of funding. One of the exceptions is *America 2049*,⁴² one of the more controversial ARGs, a cross between a Facebook game and an ARG about immigration from an ideological perspective.

An important thing to remember is that even if the game is about an ethical issue, it shouldn't pass judgement on the player, but instead spark moral discussions - such as the game *Fallout* 3^{43} about the slave society in Pittsburg. In this game the players were asked to commit morally questionable acts, such as murdering an infant in order to develop a cure for the whole population. This is interesting from a social perspective, as one player is not making decisions in isolation, but there are usually a lot of debates and conversations in the players' community.

THE PALETTE OF AN ARG DESIGNER

An ARG has three arenas through which the story can develop: the real world, the online world and the "transmedia" world that connects the two. The *online world* uses the (micro)blogs, wikis, forums, IM, email, social networks and any other platforms where people communicate and tell each other stories. For ARGs the interesting thing is spreading the content across different digital, as well as physical and augmented platforms.

Today most movies are accompanied by books, toys, ARGs, online games and other merchandise, allowing the story to be told across platforms. The issue with such *transmedia storytelling* is that the user experience varies in quality. Every time there is a jump to a different medium, there is a danger of losing audience members. It's good to be mindful of what the designers expect the players to do in a game, then design ways to keep them updated and engaged across different media. A problematic example is a *Vook*⁴⁴ or *video book*. You read a book and at the end of each chapter there is a link to a video; you can type the link in your browser and watch the video. But, how many people want to move from reading a book to a browser to watch a video? If they decide not to do this, they might feel like they're missing out.

Another issue with the transmedia space are the mobile *augmented reality* applications, whose system doesn't really know what is around the players in the real world - it might send them deep into the ocean, or across a border without their passports. Furthermore, running around a city staring at a mobile phone can prove quite dangerous. Nevertheless, the link between the online and the physical worlds remains one of the more compelling and exciting aspects of ARGs.

The real world in ARGs is usually associated with live events (with props and actors), but there is much more that can be done, including location-based games and real world multiplayer games, as well as making physical goods. Location-based games⁴⁵ are games where the story develops related to the players' location. These games can include digital content (e.g. you travel to a location and your phone tells you a story) and/or physical content (e.g. you have to go somewhere to pick up a package). *Location-based games* are just one of many possible multiplayer games that can be played in the real world. They range from *party games* to *urban games* (treasure hunts, scavenger hunts, meetups) and support the ARG community's love for getting together and talking.

Physical goods include things such as books, letters and artefacts - objects deeply related to the story. ARG designers make them, but the players do it too. Here is where the world of ARGs meets maker cultures. *Socks Incorporated*⁴⁶ is a great example: people create their own sock puppets and share them online. Many people enjoy crafting and making stuff. Nowadays it is becoming easier to design, make and share things using services as *Shapeways*,⁴⁷ *Reprap*⁴⁸ and *Fablabs*,⁴⁹ *Moo*⁵⁰ or *The Newspaper Club*.⁵¹ It is rare to lose players by suggesting they make something, even though some people wouldn't do it themselves. This aspect of ARGs is all about nice gestures and small rewards. Furthermore, physical objects can become a good revenue stream.

Live events require quite a bit of effort and resources. They have a specific time, place and duration, similar to flashmobs.⁵² Live events get most press, but are expensive and difficult to set up. The audience in a live event is limited (hundreds rather than thousands), but the effect is strong: it locks the "hard-core" audience into the story and achieves more commitment. The weirder or more fantastical an event is, the more people get into it. Events should be designed like LARPS⁵³ (live action role playing games) - where everyone can get involved and become a part of the story. Live events are a good tool in the arsenal, but not the only thing to focus on. One of the issues with live events is that they are places where the two different worlds collide (online and physical) and there is often a confusion of boundaries and issues with the "fourth wall":⁵⁴ People don't know how to behave, as there is no standard formula. There is much to learn from experiential theatre companies about managing audience members in live events.

As the previous paragraphs show, when beginning to design an ARG there are many possible avenues to follow. Having so much potential gets novice designers overly excited and they tend to try to do everything in one game. It's good to remember that limiting yourself brings out more of the story. An ARG is a complex system of multiple media, spaces and people, so good coordination and record keeping is essential. A good way to limit the possibilities is to look at the skills of the people around you and making a priority of things that they can do: if for example your team primarily includes people who can make websites, focus your ARG on the online storytelling rather than live events. Throughout the design process keep asking yourself - why? Why play? Does this make sense? Would I do it? Even creating great ARGs begins with yourself.

TELLING A STORY OR CREATING STORIES: ON COMPLEXITY OF SENSE-MAKING IN ARGS

ARGs are successful when they tell their story in a way that we're used to finding out about our world - when their narratives fit into the rhythms of our lives. Most ARGs have phone numbers and voicemails, blogs and websites; many are filled with puzzles. Puzzles are a very common mechanism to engage players in the story, but they tend to eat up a lot of the content and are not commonly used in our daily life to find out about the world around us.

Succesful ARGs include a good dose of community building. An ARG community likes to have their own space where to discuss things, organise and share information, such as a forum or a wiki. If one isn't provided with the game, players might create their own (this can create additional commitment). *Lostpedia*⁵⁵ is a good example of a wiki built by the players of *The Lost Experience*, where over time disparate players became an active community. Facebook is another place where people like to talk about things. The problem with writing stories on Facebook is the scattered nature of conversations that challenge the chronological order and legibility of the story. There are some parallels between story generation in ARGs and open source software: there is a large volunteer base, but the question is how to maintain the artistic coherence when so many people write and rewrite stories.

The complexity of the narrative is related to the communities' ability to piece things together. If it's too complicated, people lose interest quickly. Each story-fragment should be entertaining and interesting in and of itself. In *Liberty News*,⁵⁶ the ARG accompanying the τv series *Spooks Code 9*, Six to Start designed a news site with comments, including a live chat with "the prime-minister's office". Live Q&A sessions kept the story fresh and the players engaged. Another Six to Start ARG that included many mysterious, scattered story fragments and clues was *The Code*⁵⁷ treasure hunt, released as a puzzle book accompanying the BBC documentary series about mathematics. Both these ARGs were designed to include sufficient granularity: single "seeds" or episodes for the casual viewers and a deeper *storyworld* for the "hard-core" fans.

The majority of the ARG audience are casual participants. They don't want to make long-term commitments. If the game is based on mandatory interactions, there is a risk of losing many audience members. Players like to have an illusion of being able to make choices, but most of them just want a good story. In online fantasy games the players' choices impact their ending. Choices can remove a lot of subtlety from the story, thereby creating many options, but the plots and characters can become black-and-white or one-dimensional. When the story is forked, more content needs to be generated. If it's a story with just one ending, as in a lot of games, this allows for creating multiple perspectives on the same narrative.

The important question to ask when making an ARG is: are you telling a story that is exciting to be told, or a story you want to construct together with the players? The first job (of both designers and players) in an ARG is to assemble the information and make sense out of it, to understand the scope of the problem. Too much "and-and-and" in an ARG can be dangerous. As Brenda Laurel writes in Computers as Theatre⁵⁸:

"The number of new possibilities introduced falls off radically as the play progresses. Every moment of the enactment affects those possibilities, eliminating some and making some more probable than others... At the final moment of a play...all of the competing lines of probability are eliminated except one, and that is the final outcome...

Thus, over time, dramatic potential is formulated into possibility, probability and necessity."

WHY MAKE AN ARG?

Making stories about alternate realities is an idea that won't die. With ARGs we can experiment with different ways of telling these stories across physical and online worlds. The stories in ARGs are told in familiar ways, akin to the way we learn about the world our daily life. Players can become engaged in an alternate reality of an ARG while remaining themselves. As ARGs encourage us to discover and explore the real world while being immersed in a fictional reality, they make us think about ourselves and how we engage with others. By doing this, ARGs have the potential to bring large communities together to experience, generate and tell stories. In their community-building capacity, ARGs are different from entertainment and literature. They are a new medium in its infancy, with its screen being the entire world.

5.4 THE STORY OF TAROT By Paola Orlic

WHAT IS TAROT?

Tarot is a pack of cards used from mid-fifteenth century to play card games, and includes *Tarocchi/Tarocchini* in Italy, Tarot in France and *Tarock* in Germany. However, Tarot is best known as a divination tool, popularised in the eighteenth century by mystics and occultists of Europe, used for discovering and expanding mental and spiritual pathways. Since then, Tarot has developed into an elaborate fortune-telling system.

A Tarot deck is most commonly composed of 78 cards organised into the Major and Minor Arcana (*arcana* is the plural form of the Latin word *arcanum*, meaning "closed" or "secret"). The Major Arcana consists of 22 trump cards (or 21 and the Fool card). The Minor Arcana consists of 56 pip cards divided into four suits of 14 cards each.

Tarot in its contemporary form has evolved over centuries. Some scholars believe that its four suits most probably derived from early Arabic card games, while the trumps were most likely invented during the Renaissance in Italy. The first known Tarot cards were created between 1430–50 in northern Italy (Milan, Ferrara and Bologna), where additional trump cards with allegorical illustrations were added to the common four-suit pack. These new decks were originally called *Carte da trionfi* or *Triumph* Cards, and the newly introduced cards were known as trionfi or trumps in English. The first literary evidence of the existence of *Carte da trionfi* is a written statement in the court records of Ferrara from 1442. The oldest surviving Tarot cards are the 15 fragmented decks painted in the mid 15th century for the *Visconti-Sforza* family (for more details see the section about the *Visconti-Sforza* deck below).

Although there are several theories concerning the origin of the word Tarot, none of these can be considered definitive. Clearly the English and French word Tarot derives from the Italian word *Tarocchi*, but where this originated is a matter of debate. One theory relates the name to the river Taro near Parma in northern Italy, close to the geographical origin of the *Tarocchi* game. Other theories point to the Arabic words *Turuq*, "ways", or *Taraka*, meaning "to leave, abandon, omit, leave behind", which might suggest that Tarot spread through Europe from Islamic Spain. Finally, there is the notion that the word could derive from the names of two angels mentioned in a short passage in the Qu'ran, *Harut* and *Marut*, due to the phonetic resemblance.

EARLY DECKS

The first card game with separate trumps (today's Major Arcana) was probably the doing of Filippo Maria Visconti, who became Duke of Milan in 1421 at the age of 20.

Visconti ordered the painter Michelino da Besozzo to make images of the 16 trumps based on the classical Roman mythology, with twelve gods and four heroes or halfgods, together with the suits depicting four kinds of birds – eagles, phoenixes, doves and turtledoves. Unfortunately, none of the Michelino da Besozzo cards have survived to this date. We know about them through the writings of Martiano da Tortona, Visconti's scribe. Da Tortona left a valuable description of the trump game as it was played at the Visconti court in the beginning of the fifteenth century.

In addition to the *Visconti-Sforza* deck, the best preserved deck is called Sola-Busca, dating from 1491. It is the oldest complete deck of 78 cards, including the trumps and the figures representing historical and/or mythical characters identified by names printed on the cards.

TAROT HISTORY, A DEMYSTIFICATION

Tarot today is most commonly known as a means of divination, the practice of receiving information from supernatural and other paranormal sources or – in a more contemporary Jungian view – as a creative psychological tool for accessing the archetypes of the unconscious. The earliest historical references to Tarot cards make no mention of divination, describing them exclusively in terms of the *Tarocchi* card game. To begin with, Tarot had nothing to do with anticipating or predicting the future.

According to some theories, playing cards were a Chinese invention which found its way to Europe around the end of fourteenth century through the Mamluk Empire. The Minor Arcana cards probably derive from Mamluk Egyptian cards, which have suits similar to the Swords, Wands, Cups and Coins. These suits are still used today in traditional Italian, Spanish and Portuguese card decks. Playing cards appeared quite suddenly in Christian Europe during the period of 1375–1380, following several decades of use in Islamic Spain.

Even if the four suits may have arrived in Europe from elsewhere, the trumps of the Major Arcana seem to be a European invention. According to some theories the trumps appeared in the 1420s in the German game of Karnöffel. Although institutions such as the Roman Catholic Church and most civil governments did not routinely condemn Tarot cards to begin with, the prohibition arrived soon (Bern in 1367, Florence and Basel in 1377, Regensburg 1378, the Duchy of Brabant 1379, etc.).

Moreover, some sermons inveighing against the evil inherent in cards can be traced to the 15th century. Bernard of Siena's sermon in 1423 reviled the cards as the invention of the Devil. A more known sermon, *Sermones de ludo cum aliis* written by an anonymous Franciscan monk from mid fifteenth or early sixteenth century is now considered the first known source listing all the 22 trumps. In this sermon the monk openly condemned card and dice games, considering them sinful activity. He especially sentenced the *Triumph* cards, whose imagery he declared "demonic". He also went so far as to assign the invention of Tarot to the Devil himself.

As a contrast we should mention Pietro Aretino's witty sixteenth-century fiction entitled *Le carte parlanti* (The Talking Cards). Aretino was an author, playwright, poet and famous satirist, ultimately known as "the Scourge of Princes", who strongly influenced contemporary art and politics. He is also known as the inventor of modern literate pornography. In *Le carte parlanti*, gaming is discussed in a congenial and cheerful fashion, with frequent references to Tarot symbolism. Aretino talks about a game with a pleasant morality and examines the meaning of trumps. *Le carte parlanti* is composed in the form of dialogue between the "talking" cards and the artist who painted them, called the Padovano after his birthplace.

TAROT IN DIVINATION

Tarot was not widely adopted by mystics, occultists and secret societies until the eighteenth and nineteenth centuries. This tradition begun in 1781, when Antoine Court de Gebelin, a Swiss clergymen and Freemason, published *Le Monde primitif*, a study of religious symbolism and its occurrences in the modern world. De Gebelin first called attention to the unusual symbols of the *Tarot de Marseille* and claimed that the symbols in fact represented the mysteries of the Egyptian gods Isis and Thoth. He furthermore claimed that the name Tarot originated in the Egyptian words tar meaning "royal" and ro meaning "road/path, way", concluding that the Tarot represented a "royal road" to wisdom.

De Gebelin wrote his treatise before Champolion had deciphered Egyptian hieroglyphs (1822). Later Egyptologists found nothing in the Egyptian language that would support De Gebelin's "creative" etymology, but these findings came too late. By the time authentic Egyptian texts were available and translated, the identification of the Tarot cards with the Egyptan "Book of Thoth" was already firmly established in occult practice. Moreover, as Gebelin strongly believed that the Tarot deck held the secrets of the ancient Egyptians, he had (re)constructed Tarot history without any historical evidence. In his version of history, Egyptian priests had distilled the ancient Book of Thoth into the Tarot images, which they allegedly brought to Rome. From Rome they were introduced to France. An essay by Comte de Mellet included in Court de Gebelin's *Le Monde primitif* was furthermore responsible for the mystical connection of the Tarot's 21 trumps and the Fool with the 22 letters of the Hebrew alphabet. This essay made such an impact on subsequent Tarot practice that within two years the fortuneteller known as "Le Grand Etteilla" published a technique for reading the Tarot in 1785. The Tarot reading was born...

Jean-Baptiste Alliette was a French occultist who assumed the name Etteilla– his real name in reverse – and marketed himself as a seer and card diviner (a.k.a. cartomancer, a fortune-teller interpreting Tarot and other playing cards) during the French Revolution in Paris. Even though he is mostly considered as a Tarot charlatan, Eteilla was the first to popularize Tarot divination to a wide audience and is probably the first professional Tarot occultist known in history who made a living by reading Tarot cards. He published his ideas about correspondences between the Tarot, astrology, the four elements and four bodily humours. Although largely discounted by "serious" occultists, he was the first to issue a revised Tarot deck specifically designed for occult purposes in 1791 – the first known esoteric Tarot deck. He added astrological attributions to various cards, altering many of the Marseille designs and adding divinatory meanings in text. The Etteilla deck is today mostly eclipsed by the more elaborate deck by Coleman-Smith and Waite, and Aleister Crowley's Thoth deck.

The idea of the cards as a mystical key to wisdom was further developed by Eliphas Levi and has travelled to the English-speaking world with *The Hermetic Order of the Golden Dawn*. Levi is considered by some to be the true founder of the majority of contemporary schools of Tarot. His 1854 *Dogme et Rituel de la Haute Magie* (*Transcendental Magic* in English) introduced an interpretation of the cards which linked them to the Kabbalah. While Levi accepted Court de Gébelin's claims about an Egyptian origin of the symbols, he rejected Etteilla's innovations and his altered deck. Instead, he devised a system which related the Tarot – especially the *Tarot de Marseille* – to the numerology of the Kabbalah and the four elements of alchemy.











A BRIEF SUMMARY OF THE BEST KNOWN TAROT DECKS VISCONTI-SFORZA DECK

The oldest surviving Tarot cards are three early to mid fifteenth century partial sets, all made for members of the illustrious Visconti family. The oldest of these existing Tarot decks was most probably painted to celebrate the wedding of the ruling Visconti (Bianca-Maria) with (Francesco) Sforza, uniting the two noble families of Milan. Most likely the cards were painted by Bonifacio Bembo and other miniaturists of the Ferrara school. Today's term *Visconti-Sforza* Tarot refers to a collection of incomplete sets of approximately 15 known decks, now located in various museums, libraries and private collections around the world. Unfortunately, no complete deck has survived. The three most known collections are the Pierpont-Morgan Bergamo, Cary-Yale and Brera-Brambilla. All the remaining *Visconti-Sforza* decks lack four cards: the Devil, the Tower, the Three of Swords, and the Knight of Coins. Tarot scholars theorise that they have either been lost or were never made. We speculate that the cards existed, but someone superstitious in the Visconti family removed them on purpose, most likely in the hopes of getting rid of bad luck or simply to avoid bringing misfortune upon the family.

MARSEILLE DECK

The *Tarot de Marseille* (or *Marseille deck*) is one of the best known patterns in Tarot design. It is a pattern from which many subsequent Tarot decks derived. It was probably introduced to southern France when the French conquered Milan and the Piedmont in 1499.

The name *Tarot de Marseille* is not of a particularly ancient vintage; it was coined in 1889 by the French occultist Papus and was popularized in the 1930s by the cartomancer Paul Marteau, who used this collective name to refer to a variety of closely related designs made in Marseille, a centre for manufacturing playing cards. Some current editions of cards based on the Marseille design go back to a particular deck that was printed by Nicolas Conver in 1760. Other regional styles include the *Swiss Tarot* that substitutes the cards *Papess* and *Pope* with *Juno* and *Jupiter*. In Florence an expanded deck called *Minchiate* was used; this deck of 96 cards includes astrological symbols and the four elements, as well as traditional Tarot cards.

More recently French-speaking Tarotists including Alejandro Jodorowsky and Kris Hadar continue to use *Tarot de Marseille* for esoteric purposes. In the mid-1990s Jodorowsky contacted a late descendent of the Camoin family who had been printing the *Marseille decks* since the nineteenth century. They worked together for almost a decade to create a 78-card deck including the original details and eleven colour prints.

ESOTERIC DECKS

In the English-speaking world, where there is little or no tradition of using Tarot as playing cards, Tarot became known through the of occult traditions influenced by French Tarotists such as Etteilla and Eliphas Levi. The occultists later produced esoteric decks that reflected their own ideas. These decks were widely circulated in the anglophone world.

Two of the most popular esoteric Tarot decks from the first half of the twentieth century were the *Rider-Waite Colman-Smith* deck conceived by A. E. Waite and painted by Pamela Colman Smith, and the *Thoth Tarot* deck conceived by Aleister Crowley

and painted by Lady Frida Harris. Waite, Colman Smith, Crowley and Harris were all former members of the influential Victorian-era *Hermetic Order of the Golden Dawn*.

Tarot became increasingly popular from the 1910s, with the publication of the *Rider-Waite-Smith Tarot*, which included symbolic images and divinatory meanings in the numeric cards. Due to large marketing campaigns by the publisher U.S. Games Systems, the *Rider-Waite-Smith* deck has been one of the most popular decks in the English-speaking world from the 1970s. It could be generally said that English-speaking countries favour the *Rider-Waite-Smith* deck (sometimes abbreviated as the Rws, *Rider- or Rider-Waite deck*), while in French-speaking countries the *Marseille deck* enjoys the equivalent popularity.

RWS (RIDER-WAITE-COLMAN-SMITH) DECK

The images in the RWS deck were drawn by artist Pamela Colman Smith, based on the instructions of the Christian mystic and occultist Arthur Edward Waite, and originally published by the William Rider & Son publishers in 1909. While the deck is sometimes known as a simple, user-friendly one, its imagery, especially in the Trumps, is complex and replete with occult symbolism. The subjects of the trumps are based on those of the earliest decks, but have been significantly modified to reflect Waite and Smith's view of Tarot. An important difference from Marseille-style decks is that Smith drew scenes on the numeric cards to depict divinatory meanings; those divinatory meanings derive from early cartomancers such as Etteilla, and are linked to those espoused by *The Hermetic Order of the Golden Dawn*.

THOTH DECK

A widely-used esoteric Tarot deck is Aleister Crowley's *Thoth Tarot*. Crowley engaged the artist Lady Frida Harris to paint the cards. It was finished in 1944 but published for the first time only in 1969. The Thoth deck is distinctly different from the Rider-Waite deck and has a very intricately elaborated system of symbolism and divinatory meanings. Given the complexity of this deck we have left *Thoth Tarot* beyond the scope of this tutorial.

OTHER DECKS

In the twentieth century, a large number of Tarot decks were created, some following traditions, others diverging from them. Some decks exist primarily as artwork; and such "art decks" sometimes contain only the 22 cards of the Major Arcana. The variety of decks is extensive and grows yearly. A few very different examples: *Tarot of the Cat People* has cats as protagonists on all cards. The *Motherpeace Tarot* are circular cards with a feminist angle: all male characters have been replaced by females. The *Tarot of Baseball* has suits of bats, mitts, balls and bases; it has coaches instead of Queens and Kings; Major Arcana cards include The Catcher, The Rule Book and Batting a Thousand. The Silicon Valley Major Arcana trumps feature *The Hacker, The Flame, The War, The Layoff and The Garage*; the suits are *Networks, Cubicles, Disks and Hosts*, and the court cards *ceo, Salesman, Marketeer and New Hire*.

Diane B. Wilkes together with Arnell Ando (the creator of the *Transformational Tarot Deck*) discussed the concept of the *Storyteller Tarot* at the 1997 International Tarot Society Convention in Chicago. Most of the cards in this deck were supposed to be based on stories from literature, although several include pop-songs and historical figures.

TAROT SYMBOLISM AND PSYCHOLOGY

Tarot has a complex and rich symbolism with a long history. Contrary to what many popular authors claim, Tarot origins are not lost in the mists of time. In fact, much of the fog around the symbolism can be clarified if one studies iconographical sources rather than the occult ones. Interpretations have evolved together with the cards over the centuries: later decks have "clarified" the pictures in accordance with meanings assigned to the cards by their creators. In turn, the meanings come to be modified by the new pictures. Images and interpretations have been continually reshaped, in part to help the Tarot live up to its mythic role as a powerful occult instrument. Each card has its own large, complicated and disputed set of meanings.

There is a vast body of writing on the symbolism and significance of the Tarot. In many systems of interpretation based on the occult teachings of the *Golden Dawn*, the four suits are associated with the four elements: Swords with air, Wands with fire, Cups with water and Pentacles with earth. The Tarot is also considered to correspond to various systems such as astrology, Pythagorean numerology, the Kabbalah and the I Ching. The Major Arcana cards are frequently said to represent the Fool's journey: a symbolic journey through life in which the Fool overcomes obstacles and gains wisdom.

Carl Gustav Jung (1875–1961) was the first psychiatrist to attach importance to the Tarot. He regarded the Tarot cards as representing archetypes: fundamental types of a person or situation embedded in the subconscious of all human beings. Jung was a Swiss psychiatrist and colleague of Sigmund Freud. He was a creative thinker whose observation of correspondences between world religions, mythologies and dreams of his patients led to a unique view of the human condition. Jung emphasized the reality of the psychic life (a fact that separated him from the empirically oriented mainstream of academic psychology). He proposed that the consciousness of all humans is linked; that the consciousness of each person is like a small pond which trickles into the ocean of a shared "collective unconscious". One of his key principles involves the contents of this collective unconscious – the archetypes as "cultural imprints", images and ideas built up by the thoughts of mankind throughout history. Jung linked Tarot trumps and characters in fairy tales, both referencing the archetypes of the collective unconscious. Archetypes are seen as a kind of algebra of the subconscious, allowing Tarot imagery to be analysed at the conscious level.

TAROT AND STORYTELLING

The Tarot has inspired writers as well as visual artists for centuries. Selections of Tarot cards have also been used to construct stories in writing exercises and writing games. Italo Calvino described the Tarot as a "machine for telling stories". He wrote the novel *The Castle of Crossed Destinies* with plots and characters constructed on the Tarot archetypes. Charles Williams wrote a supernatural thriller *The Greater Trumps*, about a struggle over "the Original Deck" that landed in the hands of an English civil servant. T. S. Eliot's famous poem "The Waste Land" contains descriptions of Tarot cards. These are but a few examples of links between Tarot and story-telling.

Stories have a curious relationship to the future and fortune-telling. In sci-fi and other speculative fiction genres, stories allow us to imagine whole worlds in the near and far future. In games, we can play out possible futures in the first person. In fortune telling, stories guide us to identify with them, to find their connections with our own lives and through them to speculate on what the future might bring. Tarot is such an elaborate system of stories, symbols and archetypes, and can be used (according to Jung) to reach deep into a person's psyche, uncovering links between their own experience and the images of kings and queens, astral bodies and abstract intuitions of which the Tarot consists. A Tarot reading remains a highly interpretative and participatory storytelling performance that can engage people across cultures and generations. It can invoke alternate realities and introduce chance and wonder into decisions of everyday life.

5.5 APPROACHING THE INEXPLICABLE Nt Gaffney and Martin House

"A mycelial network has no organs to move the world, no hands; but higher animals with manipulative abilities can become partners with the star knowledge within me and if they act in good faith, return both themselves and their humble mushroom teacher to the million worlds all citizens of our starswarm are heir to."

- Terence McKenna. The Mushroom Speaks

NO HANDS

In the slow swarm of light they remain silent, luminous. Eyes in the place of eyes, Ears in the place of ears, tongues tasting chemical gradients across the fungal network of thread-like cells. A truly underground communications network, spreading through the vastness of earth substrate, acting with ecosystem intelligence to form interfaces across symbiotic networks of root chatter.

And in the darkness, signalling separation, handless. A darkness eyeless or rather of only starswarm senses. Zero the bridge, null the meters. A pause allowing reflection, a tea break in the glass house, brewed roots amongst the hanging foils and foliage, microscopic memories.

The forest smell of earth-veiled mycelium; observation of patterns, fairy-ringed, white bulbous mushroom growth, and the first taste of the peeled muscaria itself suggests another, perhaps more constructive, microscopic interface. Sniffing, chewing, sipping the earth substrate by way of those roots.

Radio static saprophytics humming in mute backgrounds, chance shifts to patterns of cross-spore germination between two parallel wide area networks; between radiobased communication technologies and the single organism network of the mycelium; between the moment and the shadow. Fungal transceivers sprout mycelial antennas, a forest on the head. The influence of electromagnetic carrier wave on the mycelial network asks to be examined.

Plastic dishes of MVA (malt, yeast, agar) necklace-like, strung together on coils of thin copper wire; a hanging garden of reception and transmission, rough interface to the mushroom mind. On the FM band: power line undulations, low frequency pulses, phase shifts manifest, chatter.

The gradual diversity of human networks follows and maps across fungal diversity in urban niches. Root chatter and interface; mobile phone base station saprophytes decomposing dead office buildings. And again those patterns, fairy rings of plasticcaulked masts, exactly the same whether in the forest or city, the same influencing fields. The magnitude of the magnetic field falls off as the inverse cube of distance, an empty centre devoid of muscaria, no network, no signal. In this case, imagining the parallel, a truly underground (W.A.S.T.E) network.

RADIO MYCELIUM

The well-documented transformative potential of the mycelium (decomposing pollutants, purification, necrophagy, saprophagy) is invoked to remediate an increasingly pathogenic electromagnetic networked culture. compost for sterile soils. refraction, reflection and interference. The mycelial network structures perception as diffusion patterns, granular obstacles, listening at the level of thermal noise. the radio crackles. tangles left unexplored, unexplained. further. Plants and fungi form part of an essential and idiosyncratic psychic chemistry. time perception may be shifted. time binding may require loosening. detection barely above the level of thermal noise.

The attempt to find a particular, quantifiable channel of communication with plants, less often with fungi, has fuelled a long enquiry, spanning the work of researchers such as Jagadish Chandra Bose, Cleve Backster and L. George Lawrence, often relying on electronic means of "biodynamic signalling" and expectations of shared reference frames. Thermal noise, pattern cascade.

After Franz Mesmer, there is a shift from animal magnetism to mycelial/plant electricism; an electrical theology established as the other history (against the day of Franklin) of electromagnetism. Electricity as a fire, a light (luminous), a soul, a living fluid coursing through veins, roots and matter, uniting man with animals, plants and all things. Behind the veil of science and measurement, electronic plant/fungi communication suggests a new form of contemporary animism.

Electromagnetic means of this inter-species communication focuses primarily on either a change in electrical resistance within parts of the plant or fungus, exactly how much the plant cells resist the easy flow of a signal, or on the measurement of microvoltages or electrical potentials between two points in the plant. Most vascular plants exhibit 2 classes of such signals, the rapid "action potential" (AP) and the slower "variation potential" (VP). patterns of signals arc across time. Time perception may be shifted in a thickening of temporal bandwidth. Time binding requires loosening.

Plants are cast within these endeavours as detectives and detectors, pinned to the human subject, as psychic guides and indicators. Experiments attempt to quantify and correlate psychic stress (measurable as skin currents) with plant micro-motion (Mimosa pudica) and these potentials. The hypothesis is rejected, although there is some evidence of correlation. Detection barely above the level of that mossy, thermal noise floor.

Plants and fungi sense, transform and adapt. They speak with each other and in this conversation acknowledge clear changes in the earth. On a mundane level becoming indicators of changes in soil chemistry, watchers of shifts in weather, observers of seasons and migratory transformation. The forest bed, a base of earth, decay and moss, turns over on itself in a sedimentary churn; the slow process of earth coding, working perhaps through and towards a "mind of mud", a starred mushroom mind swallowing the observer. salt crystal taste. entropy on the tongue.
















PHOTONIC EXCHANGES

The Mycelial Photon Exchange InstRument (aka. MPEIR) and cortical EM microfield induction (aka. CEMMI) produce a hybrid sensory device; photonic exchange in the realm of sight; electromagnetic exchange in the realm of perception. Panellus stipticus mycelium grows through moistened wood shavings (after two weeks' dark). luminous. luminescent. living.

"The first trial (MH) with coils attached in proximity to occipital lobes, the second trial (NG) with coils close to temporal lobes. In both cases, no effects could be discerned other than those attributable to concentrated self observation." Dual magnetic coil amp (10~20 milligauss) controlled in parallel, symmetric and asymmetric induction patterns. ferns as signal source. low frequency chaotic modulations (5-10Hz).

Field testing. Bound to a tree in a park in Ghent, a subject strapped to the root system. CEMMI apparatus taps into the earth root. Fluctuations in earth voltage, microcoded earth assembly, modulate the flow of electricity through these coils, generating a magnetic field (falling off as the inverse square) which, according to certain theories, should re-code the psyche. A literal conceit invoking a real network.

DARWIN'S SAPROPHYTIC TYPEWRITER

A mycorrhiza forms a symbiotic (generally mutualistic, but occasionally weakly pathogenic) association between a fungus and the roots of a vascular plant (ecto- and endomycorrhizal – outside and inside of roots). The network is the organism. Rhizomorphs as specialised, high-conductivity organs (developed by saprotrophic and ectomycorrhizal basidiomycetes). Tapping at the metaphase typewriter, statics primed with "The Power of Movement in Plants" by Charles Darwin. We create noise. We create statistical proto-meaning. Without the shared reference frame, we can only remain silent, categories are no use here as ontology gives way to the laughter of epistemology. we move toward the light. we take time. cycling.

5.6 ARBOREAL IDENTITY *Nik Gaffney, An Mertens and Maja Kuzmanovic*

If we understand the rules used to create, manage and destroy our identities, we can use those rules to create new identities.

Can you identify yourself? You can establish the basis of an identity if you can provide an answer to the questions: what's your name? where are you from? when were you born? To be considered a "natural person" a human should be able to provide a name, date of birth and nationality (or in some cases citizenship or ethnicity). A legal persona is not necessarily the same as a natural persona. Personhood can refer to a physical human being (e.g. a person living on the street), a natural person (e.g. a person able to produce state issued ID), or an artificial person (e.g. a corporation).

From one perspective, personhood requires institutions, bureaucratic systems and data. These three concerns work together to provide and maintain identity. However, with enough data a narrative can be woven through the data and meaning can be found; with changes in regulations institutions can change. From another perspective, personhood can be seen as the "invocation" of a persona within a system of entangled social agreements and contingencies.

How far can this idea be stretched? Could we use this process as a means of providing nature with a recognised voice? What better way to start than by establishing a legal identity for trees? In cities trees exist alongside various institutions, bureaucracies and data, and often live on after these cease to exist. Trees are cut down to make space for new real estate, restaurants and open terraces beneath their canopies; they are pruned until they can't survive without human assistance. All the while they silently provide shade, undermine foundations, recycle toxins, purify the air and fill us with a sense of otherness.

To explore the social and legal consequences of non-human entities being represented in anthropocentric governance structures, Heath Bunting and An Mertens guided a small group of enthusiasts through the process of creating a *persona grata* for selected trees in Brussels.¹ Heath Bunting's Identity Bureau has been travelling to cultural events offering identities for sale; "demonstrating that identity can be constructed by placing an "individual' inside the web of mobile phones, bank accounts, administrative correspondence and other person-related data. Identity Bureau questions the notion of personality by showing how an identity is constructed largely by material issues."²

With his previous experience in creating legal identities for humans, Heath Bunting took up FoAM's challenge to explore the issues surrounding trees as legal persons in

the cities and nation states where they grow. Could trees become part of the world of human social fictions such as the legal system? Could they submit job applications or have postal addresses, access to library cards and bank transactions? How can "nationality" be mapped onto a species, habitat or niche? Could trees be entitled to legally binding rights? What does it mean to integrate trees as legal entities into our social systems, and how can we proceed with this? There are some precedents for this kind of thinking, such as the codification of the legal "Rights of Nature"³ and ecosystems in Ecuador's constitution.

We began each day of the workshop surveying various trees in the The Sonian Forest (Forêt de Soignes/Zoniënwoud) and in the city of Brussels (Brüsel/Broeksel). Following the practice of establishing a natural persona, we investigated available bureaucracies and social systems to find the age, name or gender of our chosen trees. In many cases, trees already maintain a functional and legal relationship with their environment. They produce oxygen, food and fertile soil; they may be catalogued and belong to the King. In Belgium, trees can be owned by a person, an organisation or an institution. In viewing their legal position in terms of preserving interests, there is a wide range of "users" or those who benefit from the trees' existence and may have a stake in their welfare.

The fieldwork inevitably led to many whimsical, practical and philosophical questions. What would it mean if trees had rights and duties? What if trees organised themselves into a political party – the "Party of the Silent" for example? Could a tree be wrapped in a corporation? How can we determine the "intention" behind a signature? Are leaves and ink compatible? Does inserting human DNA into a tree change its claim to personhood? We answered these questions using our botanical and legal knowledge, intuitions, assumptions and information available in the public domain (realising that there isn't much readily accessible online). The answers became elaborate stories that pointed to real possibilities. If a tree needs to be protected, for example, we can create a corporation to own the tree and fight for its rights. Nationality is irrelevant for trees, but arboreal identity might include documenting the tree's genealogy, geographic origins, information about whether its species is native or imported and (non)invasive. One central question that we kept returning to was whether establishing legal identity for trees would enhance the personal relationships between humans and trees. Alongside the existing a human and artificial personaes, we began to build a basis for an "arboreal persona."

Several candidates were found to test this proposal, including the plane trees (Platanus) outside the Walvis cafe (scheduled for removal), the American oak (Quercus x) next to l'Eglise des Minimes in Les Marolles, a Quercus robur (French Oak) near Enfants Noyes/Verdronken Kinderen. We began by adding details to the narratives of each tree, which included collecting information and stories about the trees (data), checking the laws on trees in their local areas (bureaucratic system) and talking to owners and users (institution). We expanded the exiting narratives by asking ourselves "what if" the arboreal persona was as real as any of the artificial personae we engage with on a daily basis.

From the assumption that we can manage our identities and co-create the systems in which we are situated, we can begin to bring the legal identity of trees into existence, first as a story, then a reality. By treating something as if it is real, then codifying behaviour around it, the "institutions, bureaucracy and data" are created, co-opted or coerced. We are the system. There is no external authority imposing a system on us, we are the embodiment of a system and our "identity" is only a position in the system we occupy.











If the future were a forest, what would the trees look like?



Physical and Alternate Reality Narratives

A dinner party

The seeds of a vegetal culture are served to be tasted, heard, smelled, touched and experienced. The tables are lined with fragile but responsive tableware: singing sprouts, humming soil, algorithmic trees, a slowly morphing floral painting, an absurdist audiobook and a machine transforming physical humans into digital plants. There are small gifts next to each table setting: boxes of seedballs with seeds collected from local seed-saving groups, lovingly rolled and dried over weeks. A multitude of complex, contradictory concepts are chopped, mixed, boiled and roasted into vegetal dishes. The research is there to be savoured and digested rather than analysed and critiqued. The stories are diffused by the researchers, then absorbed by visitors. The lighting is subdued and jittery, as whirring motors project leafy shadows on the dining room walls. Glimpses of an Alternate Reality where plants and humans became interchangeable.



After dinner, it all turns into compost.

Exercise One: Arrival

When beginning a new research project or any other collective endeavour, each person brings their collected baggage of anticipations, personal histories, emotions coloured by recent events and peculiar ways of dealing with them. Everyone comes into the room after doing something else – whether riding a bike on a busy street, having a fight with their parents, or sharing a delicious breakfast with friends. Whatever it is, past experiences and future expectations will necessarily colour the experience of the here and now. It might help to acknowledge where you came from and how you feel at the moment. This exercise is meant to allow the group to "arrive".

Stand in a circle. Begin shaking your hands, then your arms, feet, legs and head. Try to shake out all the tension from your limbs. Visualise that you are shaking off all the thoughts and emotions that you brought with you into the room. Shake off your worries and expectations about the project at hand. As everything falls from your shoulders and through your fingertips, feel how your mind is clearing and your body is becoming lighter. Allow yourself to arrive.

Look around you and say hello to your fellow researchers. Remind yourself that you are embarking on a journey together and that you might need each other along the way.

Welcome to the here and the now.

Sit down and relax.

TRYING TO GROW

by Arjen Zuidgeest

Mixed grains and seed bread baked in an alternative oven, fertilised with sproutinfested butter

Exercise Two: Check-in, introductions

Going round the circle hearing participants' names and interests tends to be a tedious process for groups larger than 3-4 people. Why not introduce each person and connect them to the research topic in a more playful way?

Take a few minutes to choose 3–5 words that describe yourself, then ask yourself: If you were a plant, what plant would you be? Write each word and the name of the plant on a separate Post-It. Don't think about it too much, simply write down what comes to mind.

The facilitator puts a large sheet of paper on the wall. After everyone is finished writing, each person comes to the wall, says their name, what plant they think they are, and the 3–5 words describing their personality. They stick the plant Post-It on the paper surrounded by their personality attributes.

The result should look like a field of flowers, each flower with a name of the plant written in the middle and the plants' characteristics as its petals.

FOREST COASTER

by Clara Lozano Carrasco

 $Roasted\ Zucchini\ swirls,\ with\ a\ surprise$

Exercise Three: Mindfulness of the mint

(or: when you can't run away observe, perceive and adapt)

Sit in a circle. In the middle of the circle there is a mint plant in a pot. The facilitator picks up the mint and walks around the circle. Each person carefully plucks a leaf (reminding themselves that the plant is a living being). Once everyone has a leaf, the facilitator begins the exercise.

I invite you to take the leaf and place it in your palm. Have a good long look at it: what do you see? The shades of green, the rough veiny texture, the difference between its top and underside...

After a few minutes of contemplation, take the leaf between your fingers and touch it. First very gently, feeling the subtle changes of texture on the edges and the surfaces of the leaf. Then press a little harder, squeezing the juices out of the cells,

making the texture moist... Explore the surfaces. Press and roll, rotate and stroke...

When you feel you've touched enough, bring the leaf to your ear and listen. What happens when you press it, fold it, or tear it a bit? What do you hear? Little crackling noises as the cells break, or the sound of your skin rubbing against the leaf's surface?

Next bring the leaf under your nose and smell. Can you smell the green freshness of the chlorophyll or the pungency of the minty oils? What else can you discover?

Finally, put the leaf against your lips, on your tongue, between your teeth. What can you taste? Is it bitter, refreshing, slightly salty from the sweat of your palms? Roll the leaf on your tongue, bite and chew it and see how its temperature and texture change, becoming warmer, gooey and liquid as it mixes with your saliva.

After you've finished, swallow the leaf mindfully and remind yourself of the nourishment it provides: the fibres, the vitamins and essential oils all of which will be slowly dissolved in your stomach and sent through your blood and all your cells. Feel your body opening up to welcome the leaf into its tissues.

Breathe.

At the end of the exercise, have a short round of reflection about the depth and breadth of an experience in which you engage all your senses. What happens when you stay in one spot without running away, when all you can do is perceive and adapt, like a plant?

SEEDBALLS, a tiny alternative for a supermarket

by Gaby Felten, Thijs van Teijlingen, Loes Treffers and Katarina Jancovicova

Spicy pumpkin balls in a dukkah crust

Exercise Four: What bubbles up?

Before delving into a research (of any flavour) it can help to get a sense of the gut feelings that exist in the group – the intuitive, subconscious answers that might already be there, without thinking or knowing much about the subject.

The facilitator writes down the core question(s) of the research and reads them out loud:

What could a vegetal culture be like?

Walk around the room for a few minutes in different directions and speeds while reminding yourself of the questions and seeing what comes into your head, what bubbles up to the surface of your mind.

After a few minutes the facilitator invites the participants to write down a few words/concepts that they encountered while walking (use Post-Its or other sticky papers).

In a "popcorn" order (whoever feels like stepping up and describing what they came up with) add all the concepts to a large piece of paper and cluster them into related topics.

The resulting diagram should give a sense of the intuitive answers to the core question. This should be left on the wall as a reminder throughout the project.

GROWING FLOW

by Ludmila Rodrigues and Daniel Berio Fractal broccoli plunged in sweet-and-sour sauces Exercise Five: Creating an atmosphere

(or an image says more than a thousand words)

In order to get a collective sense of the moods and atmospheres the participants would like to create, it can help to make quick-and-dirty moodboards in response to the core question. To make the moodboards, printed images (or computers with more than one printer), cutting knives and tape/glue/pins should be available.

Break into small groups. For a few minutes discuss how you would visualise the atmosphere of a "vegetal culture". List existing movies, artworks, natural or artificial phenomena that evoke the desired mood for you. Discuss how you would visualise the atmosphere – which colours, shapes, media, materials, textures, movements would you use? This discussion shouldn't take longer than 10 minutes.

After you have a collective sense of the mood, each participant can search for images to visualise it. This can take 15–20 minutes. Collect all the images on one table, take a big piece of paper and make a collage with the available images. After 10–15 minutes the groups come together to view and discuss everyone's moodboards.

Hang the moodboards on the walls and keep them up for the duration of the project. This helps create an ambient sense of the atmosphere you're trying to shape.

PLANT-HUMAN

by Samantha Groesbeek and Heayoung Yang Salt-and-pepper tofu soldiers on a bed of leaves and herbs

Exercise Six: Open Space on Vegetal Culture

After a few days of individual research into topics related to vegetal culture, many ideas can surface. It helps the creative process to bring these ideas into the group to see how the collective reacts to them. Some ideas might immediately resonate, others not (which doesn't mean that they're not good ideas, it just means that others don't connect with them, or not vet).

The goal of the Open Space session is not to have individual ideas compete, but to create a few shared ideas that work for this group at this time.

At this point it is helpful to leave your egos to rest outside the room and to go with the flow.

The facilitator divides the room into at least three workspaces and names them (we used three pots of herbs to visually distinguish the spaces: mint, oregano, and

wormwood). If applicable, there can be workspaces outside of the main room. The facilitator draws up a scheduling board with time slots of approximately 30 minutes per workspace and invites participants to propose a topic and a format for a session. They then write it on a Post-It with their name and choose a time and a workspace. The format can be anything from a discussion to a walk or a prototyping

session: whatever will engage others and help develop the idea further. The topic should help answer one of the three Vegetal Culture Open Space Questions:

Why work with or learn from plants?

What would a plant-inspired culture be like?

How would you design a story about a vegetal culture in the physical spaces of daily life?

How you conduct and participate in the session is your own responsibility. It is up to each of you to make the most out of the Open Space session. To guide you through the process there are five principles and one law:

Principles:

Whoever comes is the right person

Whenever it starts it's the right time

Wherever it happens, it's the right place

Whatever happens, it's the only thing that could have happened

When it's over it's over

<u>Law</u>:

The Law of the two feet

(If you aren't learning or contributing, go elsewhere. It is your right and responsibility to make the most of your time.)

Once all sessions have been posted on the scheduling board, the hosts step forward and briefly present the what they're planning to do, and others sign up to participate. When it is time, the hosts and participants go to their chosen workspaces and start their sessions. At the end of the session the host writes one to three main points/conclusions and posts them on the scheduling board. The facilitator keeps track of time and assures that everyone knows what to do after the end of each session.

At the end of the day, the group comes together to share their findings, discuss them and distill ideas for a few possible projects. It might happen that people are too tired to distill the ideas. In this case don't force it, but schedule a follow-up session where the conclusions from Open Space are translated into project ideas.

Make a diagram with the chosen ideas. The result should look like a constellation.

Add your name to the constellation. Position yourself closer or further away from an idea, depending on how drawn you feel to it, how much it resonates with what you'd like to do.

The resulting diagram should give a visual sense of most prominent ideas in the group and the people interested in them.

ALFA GARDEN

by Falco Pols and Gerrit-Jan Scheepers Potato mountains on a lemon lake; mushroom soil Exercise Seven: Vegetal Culture World Café A few project ideas have been distilled through the Open Space exercise. They can be seen on the wall, a constellation where the ideas are stars and names of the people are planets orbiting the stars.

In the World Café the goal is to give everyone a chance to develop their ideas further, as well as allow collective ownership of the ideas to emerge.

> The facilitator places circular working tables around the room. The number of tables corresponds to the number of project ideas. Each table is marked with the name of one of the ideas.

The facilitator explains the World Café format to the participants and invites a few people to become "table hosts" or moderators, who will take notes and report at the end of the World Café (we assigned table hosts beforehand, to minimise the time spent deciding who will do what). Each table host choses one table/idea and remains there throughout the World Café.

The World Café consists of three rounds of 20 minutes each. Each round is a discussion about one question. All tables discuss the same question but focuses on a different project idea. The facilitator reminds the participants of the project ideas the group has chosen. At the end of the round everyone except for the table host gets up and changes tables.

You are invited to join one of the tables. The facilitator poses the first question:

What's the story?

The table hosts initiate a discussion attempting to find answers to the question related to one of the project ideas. After 20 minutes the facilitator invites the participants to change tables. Table hosts remain seated and summarise the discussion for the newcomers. When everyone finds a new place the facilitator poses the second question:

What's the experience?

Table hosts briefly summarise the discussion from the previous round and starts the conversation about the experience. After 20 minutes all participants except the table hosts change places again, and table hosts summarise discussions as previously.

Facilitator poses the last question:

What's the essence?

Table hosts summarise discussions from the two previous rounds and work with the new groups to find the essence of the project ideas.

At the end of the three rounds the facilitator invites table hosts to present project ideas and their answers to the three World Café questions.

Finally, the facilitator summarises all ideas as answers to the questions (e.g. "The essence of project A is..." "From this essence the story emerges about..." "The story can be experienced through...")

Hold a short discussion about the feasibility and impact of the proposed ideas.

At the end of this exercise your project ideas should be sufficiently fleshed out for the participants to know which projects they would like to work on. At the end of the day, go back to the constellation of project ideas and see if your name is positioned next to the project(s) that still resonate most with what you'd like to do. If not, move your name to a new position.

SEMICIRCLE

by Marloes van Son

Freshly blended green elixir served with a botanical shadow play

Exercise Eight: Minimum effort, maximum impact

With the essence, story and experience of one another's projects in mind, it is beneficial to get from the concept to a prototype as quickly as possible, in order to test the validity and feasibility of the ideas in practice.

In small groups, work with one of the ideas to design the project in its simplest possible form, using a minimum of resources (time, effort, finances, people...), while keeping as close to the essence, the story and the experience as possible. Sketch out a design that you could prototype in one week.

By the end of the week you should be able to test the prototype with an audience.

After a couple of hours the whole group comes together to discuss each others' proposals. After a discussion each group refines their designs and plans the prototyping phase.

At the end of this exercise, rudimentary sketches of the first prototypes should be completed and the groups can proceed to implement them.

MIND THE

by Walid Wardak and André Cavalheiro

Hanging garden of nuts and berries

Exercise Nine: Needs and offers

After the first prototypes have been created and tested in the group (if you want you can invite someone external with no prior knowledge to give feedback as well), a new iteration of design and production commences. This phase is longer and requires more commitment from the members of each group. At this point it is also clear what skills are necessary for each project. This exercise allows the participants to offer their skills and resources and voice their needs so that gaps can be found and filled.

Each participant is invited to think about what they want to offer and what they need from the project or the group. Write each need and offer on a separate Post-It. The facilitator invites the participants to present their needs and offers one by one and place them on a board next to project names,

or in a common pool of skills and resources to be shared between the projects.

At the end of the exercise there should be a map of people and skills attached to specific projects and working in between projects. You should stress that it is crucial to have people function as "pollinators" or "glue" between projects. It should be clearer who is willing to do what, so that teams can be formed accordingly. Each team can proceed to refine their designs and proceed to the production phase.

WHO SAYS WHAT?!

by Eveline Klop and Yaprak Sayar

Flaming fruity delight

Exercise Ten: Zoom out

In the middle of the production phase, as everyone is beginning to get lost in the details, it is time to take a short break and "zoom out" to the original question: what could a vegetal culture be like? This exercise can cause some tension, as it can be seen as quite abstract and irrelevant to the tasks at hand, so the session shouldn't last longer than 20–30 minutes. It is meant to briefly remind people of the big picture, before they get into the final production sprint...

The facilitator introduces the idea behind the exercise: a vegetal culture is one whole made out of many heterogeneous elements. The diversity is what makes this culture resilient. However, in order for it to be considered one culture, there should be a few common principles shared by all elements/projects

(e.g. in vegetal culture there is no waste; no monochrome colour; all energy is renewable; silence is valued over noise...).

Based on the projects you're working on, find one or two principles that are essential to your work, without which it would fall apart. What is the governing law in this work, without which it would be something different? Spend maximum 10 minutes discussing these principles in your teams, then write them on a large piece of paper and post them on the wall.

When all principles are up, the facilitator reads them out one after the other. The collected principles can be seen as this group's answers to the question "what could a vegetal culture be like".

Projects should try to follow all of the vegetal culture principles, but exceptions are possible.

THE SQUARE ROOT

by Daniel Berio Digestive liquorice tree, to take away

Exercise 11: Converge

Towards the end of the production phase, it helps to remind all groups that they are working on one research question, where the whole is larger than the sum of the individual projects.

Each group is invited to present their work to one another and at least one outsider (a practitioner in a related field, or a group of peers). The groups are invited to make brief 1–3 minute presentations and describe the essence of their work. After each presentation, there is a 5–10 minute feedback session. The focus of the feedback is on how well the project translates their research into design, as well as how the project relates to the original question and to the other projects.

If you haven't formed a group working between the projects to connect them into one whole, this is a good time to get a few people working on "the glue".

After the feedback sessions, a small group of volunteers comes together to design the format in which the group and the projects can be presented.

Think about what the common threads are, what should be brought to the fore, where, when and for how long the results should be presented, who is the presentation meant for, etc.

When you have a sketch of the design, share your ideas with the group and get their feedback. Proceed to refine your design and produce the presentation (this might take a few iterations and discussions with the whole group).

The format should emerge from the process, the projects and the people involved (we began wanting to design an ARN and ended up designing a dinner party).

At the end of production, you should end up with finished projects and an overall "container" (e.g. an open lab, exhibition, symposium, book, website or more experimental things like a dinner party or an ARN). Each individual project and the container should provide an experiential answer to your core question. You can present your findings in public if appropriate.

THE END

Exercise 12: Celebrate

At the end of the research, make sure you celebrate with everyone involved. The celebration can include your final presentation, but it doesn't have to. It can be public or not. The important thing is to let go of your individual successes and failures, of personal likes and dislikes, ambitions and disappointments. Take time to thank each other for the time spent together and to enjoy each others' company.

Food and drinks always help lubricate the conversations and smooth out disputes.



L. NARRATIVE STRATEGIES

L-J **IMPROVING REALITY** *By Honor Harger*

As early adopters of technology such as augmented reality, 3D printing, and pervasive media, digital artists and designers are shifting our perceptions of the world. They not only use digital technology to augment reality - they often go one step further and actually try to improve it.

Lighthouse's contribution for PARN explored the narrative strategies, aesthetics and politics of how artists go about this. Through a conference and linked programme of workshops, installations and performances at *Brighton Digital Festival* 2011¹, we explored the notion of how digital technology has changed the way we tell stories, understand our world, and communicate information.

At the heart of this programme was a conference called *Improving Reality*². Held on 23 September 2011, the *Improving Reality* conference was an inspiring day of talks by thinkers and makers from the technology, film, education and art worlds. Bringing together some of the leading practitioners of digital art, as well as guests from the worlds of technology, film, education and design, the conference covered a wide range of projects including interactive artworks, locative cinema experiences, mobile games, design-fictions, storytelling platforms, digital toys and distributed documentaries. It was organised around three sessions.

The first, *Reality Hacking*, explored how artists and designers are shifting our perceptions of place and time, overlaying increasingly complex and imaginative story layers onto our lived environment. It began with a keynote by artist and self-proclaimed "critical engineer', Julian Oliver. Oliver's practice spans software art, augmented reality, creative hacking, data forensics, virtual architecture, artistic game-development, and information visualisation. In 2008, he began using the term "improved reality" to frame a tactical relationship with his work in augmented reality, exemplified through projects such as *The Artvertiser* (2010)³. Since then, he has extended this position to accommodate strategies that look beyond computer vision techniques, allowing for a deeper interrogation of the mechanisms, consensus and control structures that inform what we call reality. Drawing on recent work, such as the Prix Ars Electronica award-winning *Newstweek* (2011)⁴, Oliver discussed various ways that artists, when working as critical engineers, can hack reality.

Turkish designer, developer, and teacher, Aral Balkan followed up with a provocative and lively lecture, entitled *We are all Cyborgs*. Balkan presented the hypothesis that we are all hosts to devices that extend our perceptions and senses beyond their biological limits. Technological devices layer information and abilities on top of the tangible world, and have the potential to empower us and to improve our lives, and yet they

often fall short of that potential, not because of technological limits, but because of human ones. Using the principles of user-experience design, Balkan outlined his belief in the necessity of creating more seamless narrative experiences between people and technology. This is far from a universally shared notion. Many technologists and academics, most notably Matthew Chalmers (2003)⁵ and most recently Timo Arnall (2013) ⁶, have argued that the seamless interactions advocated for by Balkan, hide the physical reality of computing from its users. As technologist and commentator Jeremy Keith (2011) put it in his review of the event, whilst Balkan is arguing for a world where technology is smooth and seamless, where "an infrastructure of control is acceptable as long as the user experience is excellent⁷, Oliver is battling "against a convenient but complacent future"⁸. The two lectures together provided an excellent contrasting framework for the day's discussion.

Curator, José Luis de Vicente (ES) rounded the session off with an investigation into the slippery space between reality and fiction. Presenting a number of fascinating case-studies of where fiction has erupted into the fabric of our everyday environment, de Vicente took us on a journey of discovery through accidental simulations, ruins of the future and brand new ghost cities.

The second session, entitled, *Beyond Cinema*, analysed ways in which filmmakers and artists are shifting our ideas about what cinema is, adding cinematic drama to reality, and reinterpreting creative processes and traditional storytelling models. It was moderated by the British Film Institute's Director of Digital, Paula Le Dieu and included four very different talks, beginning with film futurist, cultural innovator and creative strategist, Matt Hanson ($U\kappa$). Drawing on examples of his own work and other artists, Hanson showed how filmmakers are taking cinema beyond its black-box screen context into urban situations, bringing a sense of the cinematic to the everyday. He introduced his own pioneering open source film project, *A Swarm of Angels* (2006)⁹, which was a very early example of how open source content, co-creation, and social production can be utilised by filmmakers. He questioned how the principles of the network - mass collaboration, crowd-sourcing, and crowd-funding - are disrupting and changing the way film is produced and seen.

Our PARN partner, Matt Adams (UK) from artist group, Blast Theory introduced a very different side of cinema in his presentation. Adams discussed the principles behind what Blast Theory refer to as "locative cinema', site-specific, participatory experiences which position the audience as central characters in a cinematic narrative. His presentation was focused around Blast Theory's work, *A Machine To See With* (2011)¹⁰, aimed at pedestrians and their mobile phones. In it, players became the characters of an interactive heist film, taking place on the streets of Brighton. Players hid money, met up with a partner in crime, planned a bank robbery and dealt with its aftermath. The project ran throughout *Brighton Digital Festival*, extending and complementing Lighthouse's other PARN programmes, and acting as a mobile counterpoint to Time's Up's work, *Stored in a Bank Vault*. For Blast Theory, the city itself is the cinematic space, and the players eyes are the screens. As Chris Hedges (2009) has written: "we try to see ourselves moving through our life as a camera would see us, mindful of how we hold ourselves, how we dress, what we say. We invent movies that play in our heads."¹¹

The session concluded with two very different case-studies. The first was by documentarian Lizzie Gillett ($\nu\kappa$) who discussed the unorthodox methods used to get the film *The Age of Stupid* (2009) ¹² to a global audience. Set in the devastated world of 2055, Pete Postlethwaite stars as a future archivist asking why the human race failed to stop climate change when it had the chance. Gillett outlined how the team raised £1 million of production funds through a pioneering crowd-funding model and established a new distribution system, allowing anyone anywhere to screen the film. The premiere was the biggest live film event ever held, linked by satellite to over 700 cinemas in 63 countries and watched by an audience of more than one million. Gillett's presentation embodied the "improving reality' theme of the conference and underscored her reputation as one of the film-world's "exceptional women changing the world for the better through the work they do"¹³.

Completing the session was a call-to-arms lecture by filmmaker, writer and activist, Jamie King (uk). Confronting the realities of filmmaking in a post-IP world, King illustrated how new free-to-share distribution platforms give creators the opportunity to connect directly with their audiences. Previously "media evangelist" at file-sharing service, BitTorrent, King has developed a reputation as a figurehead for the opposition in the war against file sharing. His documentary, *Steal This Film* (2006) ¹⁴ explored the movement against intellectual property and has become the most pirated documentary of all time. King outlined how vobo, the crowd distribution platform he founded, sponsors creative works directly, and enables filmmakers to reach a global audience of millions.

The day came to its culmination with the *Gaming for Good* session, which investigated how designers and artists are using games and play to radically change social reality. Chaired by Matt Locke, founder of Storythings and formerly a commissioner of interactive narrative content for Channel 4 and the BBC, the session began with Tassos Stevens (UK), an artist and co-director of Agency of Coney. His presentation, entitled, *Really Playing Something*, explored how games and play can impact on the real world. Drawing on examples of Agency of Coney's cross-platform game projects such as *Nightmare High*¹⁵ and *SuperMe*¹⁶, both made for Channel 4 Education, and *Papa Sangre*¹⁷, an innovative game made for iPhones, rendered entirely in sound, Stevens examined the kinds of relationships between people that might empower and inspire more to play.

Serious games pioneer, Adrian Hon (UK) of agency Six To Start extended these themes in a lecture that focused on how games bring people together to work towards a common goal. Hon's interest is in how game-like stories and story-like games require players to talk to one another to solve problems, manage situations or divide up resources. Taking inspiration from everything from board games to Wikipedia and World of Warcraft, Hon outlined how games can foster collaboration and co-ordination between individuals.

PARN coordinators, Time's Up, addressed the theme "playing for good', in a talk that explored the role of playfulness and game-play within their practice. Anthropologists, psychologists and interior designers remind us that our lived-in worlds tell us more about ourselves than we often care to realise, with these subconscious constructions abutting onto our chosen design, subverting and amplifying it. Time's Up outlined how their PARN project, *Stored in a Bank Vault* (2011)¹⁸, gradually built a *storyworld* unfolded through characters who were no longer physically present and the detritus of what they left behind.

Bringing the conference to a fitting conclusion, and providing pointers for new areas of exploration was Alice Taylor ($U\kappa$), one of the $U\kappa$'s leading commentators of digital games and play, and founder of MakieLab. Taylor's talk investigated the border between play and products, taking the discussion from the systems and mechanics of play, towards the physical objects of play - toys. Taylor revealed how over 95% of the western world's toys are made in the far East, shipped round the globe, mostly made from unbiodegradeable, unrecyclable plastic that will inevitably end up in landfill.















She showed how corporate giant, McDonalds, is the world's largest toy manufacturer, and presented shocking evidence of how the distributor, Mattel has been making Barbie packaging from virgin rainforest. Insisting that "this reality is broken", Taylor asked how technology may be able to change it. She outlined Makielab's plans to use 3D printers to develop ethically-produced, network-aware, customisable toys and games that talk to each other. Her presentation addressed the ironic provocation of the conference's title, but also provided the audience with positive examples of how artists and makers are positively striving to "improve reality'.

This desire to create hands-on positive change was the focus of our workshops, which ran alongside the conference, amplifying and deepening the themes explored in the conference. They introduced young people to inspiring ways of using digital technology. Conference speaker, and leading expert on user experience design, Aral Balkan, gave two intensive full-day workshops in two Brighton secondary schools, Longhill High School and Varndean School. Balkan's objective was to introduce young people, aged 14-15, to mobile technologies, digital design and interaction software. Balkan taught 20 students at each school how to create narrative experiences for mobile devices, such as iPhones, and how new technologies are changing the way we experience life. Brighton-based designer and developer, Anna Debenham, who works with Mozilla Foundation, also gave two full-day workshops in two schools. Inspired directly by the Reality Hacking session of the conference, her workshops were focused on how to "hack the web". The workshops introduced students to Mozilla's Hackasaurus toolkit, which makes creating websites and writing code easier and more enjoyable.

Echoing the *Gaming for Good session* of the conference was another strand of our education programme. As part of PARN, we premiered a new online game made for young people. The game, *Lives at War* (2011)¹⁹, animates the dramatic history of Brighton during World War II, bringing the past vividly to life, and putting the player in the centre of the story. These educational activities underscored Lighthouse's commitment to providing young people which opportunities to develop their own technological and aesthetic narrative strategies.

Extending the debates raised and explored in the conference and workshop programme was an exhibition and performance which showed how digital data is being used by artists to create new forms of narrativity. *Solar Systems* $(2011)^{20}$ by Semiconductor (UK) was an exhibition of three installations, *Heliocentric*, *Black Rain* and *Out of the Light*, which tell the story of our nearest star, the Sun, through striking data visualisations. *Data is Nature* $(2011)^{21}$ was a performance event presenting the work of Paul Prudence (UK), Davide Quayola (IT) and Mira Calix (UK), who collectively create poetic and immersive performative cinema experiences. Conceptually and aesthetically echoing the works within Solar Systems, their performances showed the increasingly interlinked relationship between digital data and our natural environment.

Lighthouse's programmes for PARN could collectively be seen as an attempt to embody designer Kevin's Slavin's edict that, "reality is augmented not by adding a visual layer, but by inventing new ways to see"²². We juxtaposed presentations of how new techniques like augmented reality and network hacking can give us striking new views of reality, with older strategies of hacking reality through fiction. We showed how new methods of perceiving our environment through data-visualisation, can co-exist with well-established methods of telling environmental stories through documentary film. We showed how radical new artistic strategies, such as locative cinema and *physical narratives*, provide us with imaginative new tools to see and experience the world around us. Improving reality is no easy task, but by combining existing and near-future narrative strategies, we showed how it is indeed possible.

6.2 **ACT OTHERWISE:** HARBOURSIDE MEETINGOF INGENIOUS MIND

By Blast Theorv

ABOUT THE FORUM

As a part of PARN, ACT Otherwise was instigated as a two-day open forum which brought together a cross section of the most talented artists, scholars, broadcasters and curators working in interactive narratives, games and location based media. The forum was hosted by Blast Theory at their studios in Brighton, UK and it was recorded by a rapporteur.

The goal of Act Otherwise was to share key challenges and concerns together in a relaxed setting and engage in conversation which might be practical or theoretical and which may be concerned with the practicalities of now or the possibilities of the future.

The structure of the forum was not fixed in advance, so that it would be possible to respond and adapt accordingly to what came up in discussion. This summary is kept to a minimum of bullet point lists; for more details please see the detailed summary on the wiki.

OVERALL THEMES FOR KEY TOPICS PROPOSED FOR DISCUSSION

» What are the unique design challenges of working in public space?

» How can we push the language of interaction design?

» What are the ethics and politics of engaging the public in these ways?

- » How can we reach the multiple audiences for this work: the gamers, the ramblers, the surfers, etc.?
- » What are the new ways of working that we are discovering?

TESTING AND TOURING

- » How to develop projects that are so dependent on context and the audience?
- » How to make works that are highly contextual and, at the same time, easily deployable?

AUDIENCES

- » What language to use? How to identify an audience and reach it?
- » How to invite people in without diminishing the mystery of the work?
- » How do you reach out beyond "the ghetto' and get more people immersed in the world?

AUDIENCE OR ARTIST RESPONSIBILITY?

To conclude, questions which come out of the discussion around audiences were:

- » How as an artist do you deal with the audience's unpredictability and absorb that into the work?
- » How do you widen your audience and ensure that your work isn't ghettoised?

OPENING PRESENTATIONS

Key figures in the fields of media art, interaction design, curation and presentation made introductory presentations in response to the overall themes.

- » Professor Steve Benford, Mixed Reality Lab, Computer Science University of Nottingham
- » Matt Adams, Blast Theory
- » Matt Locke, commissioning editor at Channel 4
- » Kate Genevieve, artist at Chroma Collective
- » Tina Auer and Tim Boykett, Time's Up
- » Paul Bennun, Somethin' Else
- » Andy Field, artist and curator for Forest Fringe
- » Dan Dixon, University of West of England
- » José Luis de Vicente, Direcotr of the Visualizar Program on Data Culture at Medialab Prado (Madrid)

Some key concepts to emerge from these presentations were:

Describing the user experience in terms of trajectories

Steve Benford outlined his theory of Trajectories which is described in detail in his recently released book Mixed Reality Performance. Trajectories can be seen as a kind of coherent journey that the producer is trying to create and shape, and allows one













to look at where people's trajectories might cross one another. There are three kinds of trajectories:

- » Canonical trajectory the plan for what we want to happen.
- » Participant trajectory what the participants actually do.
- » Historic trajectory what we want them to say about it afterwards.

How we can better look back at what's come before?

Andy Field focused on New York in the 1960's/1970's and compared it to the London of today. It's to do with the similarities that all contemporary cities have, and the way we move through them. One thought point connected to this has been what Tony Smiths describes as a cultural landscape without cultural precedent.

How can we be better engaged with the lineage of work we're producing rather than constantly looking forward?

How can we think about how what we're doing has been previously done and repeat it?

IN DEPTH DISCUSSION

On the second day the group devised an agenda collectively under four areas: The Field, The Audience, Creation and Distribution.

SESSION 1: THE FIELD

Chair: Wayne Ashley, Founding Artistic Director of FuturePerfect, USA

Opening: Ghislaine Boddington, Creative Director - body>data>space, UK

Ghislaine started by reading out some questions and thoughts around "The Field', from the brain dump which had accumulated in the form of notes on the white board:

- » Discourses, style, language
- » Metaphors, histories, values
- » How the government and policy concerns, ideas and agendas intervene/ shape the questions we ask and the goals/ideas we think we should be pursuing?
- » Is innovation an unhelpful and corrosive term?
- » Is rhetoric of innovation over-used and redundant?
- » How best to look back at what has come before?
- » The rhetoric of computation is memory and remembering. What is the cultural value of forgetting?
- » Long term perspectives Responsibilities.
- » How can we be better engaged with the lineage of practice?
- » How do we articulate the history of this field of work?
- » Will we end up in the same space as hypertext?
- » Art or entertainment who cares? Only the stake-holding arts sector.
- » The idea of taking the digital out.
- » Is this field of work just a fad?

» The problem with agencies like NESTA - driven by government agendas, not creativity

SESSION 5: ANDIENCE

Chair: Ju Row Farr, Blast Theory / Opening: Anne Nigten, The Patching Zone, NL

Ju opened the discussion by asking how we define the audience. Who are they and how do we invite them in? The conversation covered the following issues:

- » To what extent does the artist control the experience and how much to let go.
- » Solo experience vs collective experience.
- » Do we need/have common content/player management system to support multiple and various projects?
- » Development systems that can transport to other places & collaborations.
- » Who is responsible for the safety of participants?
- » How to create a visceral connection with audience.
- » Translating works culturally, politically, linguistically.
- » Adapting to different locations.
- » Other people as audience, actor, witness.
- » How much attention is enough?

SESSION 3: CREATE

Chair: Matt Adams / Opening: Kate Genevieve

- » Why do we create?
- » Why do we go along and be part of an audience?
- » Ethics how far can you take an audience?
- » A detailed and provocative discussion explored these questions.

SESSION 4: DISTRIBUTION

Chair: Matt Locke / Opening: Paul Bennun

Paul described some examples of best practice in the commercial digital sector. He described ground breaking projects such as Santa Sangre and The Night Jar. Key issues that emerged were:

- » How do you distribute a system, one which means nothing without the audience being involved?
- » How can you distribute something that it iteratively designed, something which has different audiences taking part in it and is changed culturally depending on where it goes?
- » How do you distribute a non-linear project?

THE LEGACY

Due to the success of the structure of the forum, another *Act Otherwise* forum has been arranged for 2013 on Ethics.

LANGE COLOGIES DATA ECOLOGIES 2012: THE MAP AND THE TERRITORY

Question: How do we notate what it is that we do? How do we describe it without doing it? Remember it without keeping it all?

The Data Ecologies series has been running since 2003. The first meeting looked at questions around artificial evolution and the construction of worlds based on computation principles. This meeting was highly technical but raised the core questions that we have been investigating with each Data Ecologies Symposium since then: the bridge between the abstract and the real.

In 2009 we looked at value as something abstract and money as something real. Or should it be money as an abstraction of the reality of value? Even in the first two Data Ecologies where we were looking at the depths of the physics of computation, the categorical problem of what was reality and what was built upon it was unclear: is the world computation at its core (Wheeler's "it from bit" claim) or is computation something that happens in a physical world?

For the 2012 symposium we decided to climb to a higher level of abstraction and look at the ways in which we abstract in general. Given a certain, perhaps complex, system, how do we go about notating, describing, abstracting and discussing it? With ourselves or with colleagues, with a computer, a curator, a designer? If the only way in is to understand the whole, then a conversation is hard; with techniques to notate, we can describe things in ever so much more detail. We have been confronted with this situation in our development of *Physical Narratives* and other multimodal experiences and were interested in finding out other practitioners approaches to the problems.

We brought together a collection of curious and interesting people with whom we discussed, debated, shared and contradicted for two days. Two months later some of the participants and some interested others came together for five days in a *Book Sprint* in order to attempt to write a version of what had happened in a book form.

That publication, *Turtles and Dragons* has since gone through two revisions and is available for those who share our interest in "how to notate what we are doing". For this short text we would like to outline some of the contributions that each person brought to the symposium and the discussions that ensued.

The subtitle of the meeting, "The Map and the Territory," bounces off the standard phrase with a strong not in the middle. Rather than regarding the map as somehow inferior to the territory, something that is flat and incomplete and therefore less inclusive, we wanted to explore the relationships that exist in many realms between the wholeness of the territory and the usefulness (in whatever sense that is s meaningful in this particular context) of the various maps. It turned out that there were occasions to have maps of maps and that these relations were not necessarily one of greater abstraction and distance.

Michael Strohmann is a composer and musician who works closely with the music and theatre groups Fuckhead and Toxic Dreams as well as many others. In the current computer music world of infinite possibilities, his compositional skills get easily detoured by his musical skills. When he has the idea for a piece of music, his next step is the computer where he can begin to use the plethora of tools at his disposal in order to compose, construct, mix, conduct and perform the music. He says, that he most strongly misses a way to write down for himself what it was that he intended to do before he sat down in front of the machine and got lost in the possibilities. In one sense this statement formed a core take-home message as to the purposes of notation.

He also talked about the development of notations for the performances with Toxic Dreams and about how, through the process of automation of transformation that technologies allow, forms of abstraction can be created that are unimaginable without the process of getting there.

Elisabeth Schimana is an electronic musician and composer, often working with improvisation but also composing for ensembles. Her main concern in the meeting was the problem of notating music that already exists. She works, as an electronic musician, with graphical sound construction environments like Pure Data and Max/MSP, environments that are highly visual in their construction of sound. The programs, so-called "patches," are designed to look like an interconnection of various sound producing and control units as is seen with analogue synthesisers. In some sense such visual programming is already a notation for sound and music, as it is possible to determine a large amount of the acoustic properties of a given patch by looking at the units and their interconnections. The problem, in some sense, is that these notations are not really abstractions, because the patch is the instrument and the composition at the same time. It is not abstracted away from a particular piece of software on a particular type of computer with particular sound hardware. She discussed at length the problems of abstracting away from the particularities to obtain notation for electronic, possibly partially improvised, contemporary music.

The game designer Lev Ledit from Game Gestalt in Vienna talked about notation and abstraction on two levels. One was the issue of notation for game design. This is a hugely important factor as a game rarely gets constructed by a single person. Games are complex interplays of action and reaction, sound, visuals, character, story and yet more action. Games are hugely symbolic in their presentation, from the abstractions of chess to the HUD (Head Up Display) of a first person shooter. Yet Ledit's main point was more that the process of notation and abstraction was a process of learning, that a system's ability to use and apply notational shortcuts correlated strongly with that system's ability to choose appropriate actions to perform in a given situation, which is closely allied to models and definitions of learning.

He went on to discuss a new project that was looking at these problems of automated learning and the way that the game system as well as the player becomes involved in an interplay between the observation and abstraction processes.

Toxic Dreams director Yosi Wanunu talked briefly about their experiences with various forms of notation of theatre but also the theatre as a notation, a relationship between map and territory of its own. As emphasised later by Herbert Lachmayr, the definition of organisational boundaries as a given aspect is a problematic one, with areas defined as stage and public and the abstraction of darkness in a theatre. Yosi wants to maintain lights up during a performance, to allow and even encourage audience action and self-modifying stage actions by the actors. The pieces should not be static, but rather processes.

One strong series of abstractions that they have produced has been based upon *Uncle Vanya* by Anton Chekhov. Over several years they have re-visited this piece from a number of angles, exploring various methods to represent the same text. This resonates with Schimana's questions as to multiple interpretations of a given work, abstracted from the standard or initial way of performing it in order to discover the core essence that can be embedded into many performances.

Coming at the whole question from a suitably academic abstracted level, Robert Rotenberg from De Paul University based his analysis upon the ideas of agency and the differences of a map and a tour as ways of describing space. In his analysis, the map is a very open description of a space, leaving all possibilities for investigating it open. On the other hand, the tour offers a specific sequencing of views into and of a space. One common version is the audio guide of a museum that directs you through the space with special attention to the featured elements of the museum as opposed to the free exploration of the museum which might accidentally leave out the blue whale skeleton but allow a long and detailed investigation of the deep sea crabs. The free exploration allows more but also requires more effort from the visitor. Rotenburg went on to exploring various map and tour possibilities, from knitting and cooking, and introduced the model of the assemblage as a way of mixing those tools most usefully to a description as needed, similar to Schimana's ad hoc notation schemes described in *Turtles and Dragons*.

Marc Downie has been long working with precisely these problems of abstraction and display. He presented the development of several pieces that explicitly used the structures of some music pieces as forms upon which generative visuals were produced. In this sense he was exploring the use of notation as an interpretation method, where the notational process from the original piece to an abstraction allowed an interpretation that used that notation as a starting point and structural guide.

Interpretation was a theme that arose often. Strohmann used the singing voices of the performers as source material to develop a pitch based analysis of their voices that was then translated into a midi sequence to be played on an automatic piano. This interpretation meant that the singers were being accompanied by themselves, abstracted, notated and reconstructed in another medium. Schimana referenced the problem that many contemporary composers face, that their work is only ever performed once. This lack of interpretation means that the work is not developed further, rather it is left in the one form in which it was constructed. There are notable exceptions to this, whether in the popular music domain or the series of re-performances of classic modern electronic and noise musicians by the acoustic instrument ensemble *Zeitkratzer*. It might be said that this process of interpretation is the recognition and exploration of the core essences of the pieces.

Kate Sicchio, dancer and choreographer, discussed her development of techniques for choreography based upon the further development of several Fluxus concepts. She explicitly avoids the use of terms such as "dance" that restrict her work to the arrangement of bodies and body parts in time and space, preferring to work with objects and other extended possibilities as well as bodies and their capacities.

In her presentation, she explicitly followed her development of the "hack" of choreography and the way that notation and description allowed her to intervene upon structured choreographical content. Starting with a Fluxus piece, where she used the explicit instructions of the piece as a basis from which to emerge and to break with, she then talked about the less verbal pseudocode choreography that she developed in order to describe dance in a similar way to procedural computer languages. By adding in or re-defining subroutines in her code she was able to hack the choreography as it was performed.

This attempt to describe choreography through textual code rather than diagrams allowed a higher level of abstraction to be used, which in turn allows her to think of the objects being choreographed as more open than human bodies. Ongoing collaborations with the *Live Notation Unit* and Alex McLean who has been one of the strong voices in the live coding scene is allowing and encouraging an even stronger development of these abstractions.

Herbert Lachmayer from the Art University in Linz and director of the Da Ponte Research in Vienna presented his work with exhibition design that breaks with the abstractions of classical exhibition abstraction. Exhibition design is a relevant problem to the idea of notation as the exhibition is, in a sense, an abstraction of the ideas it is representing. So one might refer to an exhibition about Haydn as a notation of Haydn's life and work. When overlaid with Gerhard Dirmoser's notation for exhibitions such as the *Erzähl uns Linz* poster that was displayed, which took the exhibition that abstracted the story of the city of Linz as a collection of anecdotes based upon objects, we see that an abstraction of an abstraction is not necessarily further away from the thing itself. In Lachmayr's historical sweep through the development of individuality and his self proclaimed dandy attitude, the science of subjectivity took a strong place as well as pornography and the arts of seduction, not only sexually but also erotics and the seductive power of a good new idea. In this sense, one of the non-abstractions that Herbert has introduced to his curatorial practice is that the curators do not just produce an exhibition and then abandon it, but stand in the space daily, engaging in a conversation about the exhibition, the ideas, the context. He says that only through this conversation, in opposition to the dryness of a discourse, that the exhibition can really live. This might almost be seen as an argument against abstraction, an invitation for the map making curator to repeatedly re-visit the territory of the space in order to compare the map with the territory in conversation.

This summary can only touch upon a number of the points that were raised and, in particular, cannot do justice to the conversations that arose. In September 2012, three months after the Data Ecologies symposium, several participants and some others came together to participate in a *Book Sprint*, a technique developed by Adam Hyde and several others in order to produce a book in five days. Once again the abstraction idea took hold and the *Book Sprint* was explained as a process of discussion that took place, rather like at a conference, and was simultaneously documented.













The book that arose, *Turtles and Dragons*, has gone through two revisions since the coming & writing together.

This as well might be seen as one of the strengths of the *Book Sprint* methodology and technique, that it allows the abstraction of the conversation into a book form to carry on being representative of an ongoing conversation, like Lachmayer's attitude towards embedding curators, rather than a dogmatic statement of absolutism.

For the *Book Sprint*, Elisabeth Schimana, Simone Boria and Tim Boykett were present from Data Ecologies. Andreas Dekrout, a colleague of Lev Ledit as well as Heather Kelly, a game designer herself joined to bring in several elements and aspects in common but many more tangents and other viewpoints besides. The journalist and writer Marta Peirano came in as an outsider to help us to keep some perspective. Adam Hyde facilitated the sprint and Rachel O'Reilly documented the process of it in an attempt to summarise some of the techniques that Adam has developed over the past few years of developing the *Book Sprint* process.

Not only did *Turtles and Dragons* emerge from a discussion about interactivity and notation, but the highly interactive process of a book sprint was also notated. O'Reilly's report will be interesting to see, because she is attempting to notate a complex interactive process and many of the techniques developed by Hyde and other so far are completely innate and subjective – or at least they feel like they are. The process of externalising and abstracting may well lead them to better recognise the structures that are embedded in their processes, once again allowing a leap of development. For it is precisely this leap that the process of abstraction and reflection are supposed to support and make possible. This is precisely the problem and challenge we wanted to take on in *Data Ecologies '12*.

The Data Ecologies symposium and the *Turtles and Dragons* book sprint have possibly left those who were part of it with more questions than answers, but what it has definitely left us with is the awareness that we are not alone with our issues and the ways of talking about the things we are doing. Rotenburg and Schimana repeatedly emphasised the need for ad hoc assemblages of notation and description to describe complex and self referential processes, and it is precisely these processes that we are interested in. It is perhaps reassuring to know that the abstractions and the realities are both complex, and that the relations between the two remain in a state of constant renegotiation, even as we learn more ways of doing it ourselves.

Ь.4 FUTURE PERSPECTIVES by Valentina Nisi

In December 2012 the Madeira Islands hosted the 2012 issue of the *Narrative Strategies Symposium*. The two-day symposium was organized by the Madeira Interactive Technologies Institute (M-ITI)¹ at the Madeiran Contemporary Art Centre: Casas Das Mudas. The event saw a number of creative and digital art organizations and individuals presenting, discussing and challenging their work and practices, in order to understand and eventually shape current and future trajectories for new media and narrative strategies.

INTRODUCTION

Over the last decades, Narrative, with a capital N, has engaged in the challenge of new technology and media. As a result, Narrative has proposed all new kinds of perspectives on what we can call a narrative or a story, and its elements (story world, plot, dramatic structure, audience participation, etc.).

Today Narrative engages its authors as well as its audience through a multitude of forms. Story driven pervasive games that merge action and interaction on the screen with that in the wider world. Alternate Reality Games (ARGs), which involve interactive stories in which the audience plays the part of a crucial character. *Physical Narratives* that augment spaces and real objects with information and media delivery capability. *Locative Narratives* which use the real settings of a city as their story canvas.

In such narrative experimentations the authors as well as their audiences discover and push new creative boundaries. Authors need to push dramatic elements of the story to embrace new media and technologies, challenge their audiences with new interactive interfaces and push new modes of delivery. Single users as well as collective audience decisions and actions drive the narrative, resolve puzzles, progress the story and ultimately achieve resolutions, catharsis and conclusions. Authors need to develop not only narrative arcs, but whole narrative strategies. Audiences can rarely simply sit back and enjoy the ride.

The goal of this symposium has been to open up the discussion between academics, artists, designers, writers, makers as well as parties such as entertainment and production companies, regarding the content, design principles and aesthetics of these exciting new narrative and entertainment genres.

In the bright and relaxing setting of the museum facilities the following invited artists and collectives engaged with the theme of narrative strategies. They presented and discussed their current works, methods and challenged with alternative narrative strategies during morning and afternoon sessions:

Time's Up, Mads Haahr, FoAM, Pedro Branco and Nelson Zagalo (Engage Lab), Andrea Zingerle, Valentina Nisi, Clinton Jorge and Mara Dionisio.

MORNING & AFTERNOON SESSIONS

During the morning and afternoon sessions the works of all participants were presented and discussed. As the meeting was kept small, the presentations were able to incorporate a large degree of discussion.

Time's Up opened the talk by introducing everybody and presenting its extensive work in the domain of *Physical Narratives*, a term and a genre invented by the collective to describe parts of their work and practice, where space and objects take on the roles of narrators and holders of story fragments. Time's Up makes objects tell stories and pushes the audience to explore physical objects and spaces to learn more about the characters, their secret lives and emotions. Time's Up in particular talked about their physical and evocative *Physical Narrative* pieces, where special crafted objects are made expressly tailored and augmented with media and sensors in order to tell very particular stories, the stories of those who are not present in the space at that very moment at the time of the storytelling. The audience on the other hand, is the curious witness of a setting left empty of people but full of stories and atmosphere. In Time's Up's *Physical Narratives* the challenge is defined by narratives characters that are vacant but have left pieces of their lives left behind, that the audience can then consult, investigate, touch, smell and reconstruct what might have happened, much like a detective analysing and making sense of the clues on a murder scene.

Many of the elements of their presentation have appeared in the text starting on p 41.

FoAM presented their last project, *Borrowed Scenery*, a performance and happening, a story and an *Alternate Reality Narrative*, inspired amongst many other things by the philosophy of the Japanese Garden, where miniature and idealized landscapes are created in traditional gardens. Elements and features taken from far away places such as distant mountains or rivers, clouds or even stars, are incorporated in the garden as so-called borrowed scenery (借景). Experiences, stories, myths and metaphors are staged in order to stimulates imagination and memories. Similarly the concept of Borrowed Scenarios created by FoAM stages a life in a particular time in which plants are more than passive elements in our lives, but actually become a central aspect of human society.

Borrowed Scenery took place in different locations and for an extended period of time. Inspired by the conception of life as art, where performances and installations are merged with real events and everything happens in real time, in a dreamlike and surreal atmosphere. See more details starting on p70.

Mads Haahr, founder and CEO of Haunted Planet, a location based game studio situated in Dublin, presented Gothic Ghost Legends delivered and consumed though Haunted Planet manufactured ghost finding digital devices.

In Haunted Planet game experiences, the player is cast into a modern van Helsing character, chasing ghosts of all sorts that inhabit our spaces. These Ghosts share time and space with us. They share our energy fields, use our energies, penetrate our thoughts, unseen but not unheard. Set in evocative locations such as the old Scottish Falkland Palace, home of Mary Queen of Scots or the Dublin city Viking ruins site in the centre, or the mythical Bram Stoker University, Trinity College Dublin.








Haunted Planet crafts real interactions with ghosts, in a meaningful and entertaining way, as we look for the ghosts through the haunted planet device, we are also told about their stories, their dramas and eventually can play a part in releasing them from their own painful legacies and set them free.

Pedro Branco and Nelson Zagalo, founders and directors of Engage Lab, presented a number of projects developed at their labs, somewhere between art, interaction design digital narratives and perceptive computing. More prominent space was given to their most recent tangible work with children and storytelling. The evocative work pieces together the art of storytelling with tangible digital artefacts which enables kids of young age to tell stories in novel ways through digital tools that enhance their creativity. During their intervention, Nelson and Pedro also presented the contemporary challenges offered to narrative by new media and new hybrid narrative forms such as computer games, virtual reality environment and mobile technologies. The Aristotelian model of narrative arc seems to remain one of the most used, but certainly other, non linear, anti-structured forms or narratives are finding their place thanks to digital media and technologies.

Andreas Zingerle current work together with Linda Kronman, deals with issues related to scams and hoaxes. He started with an overview of hoaxes and scams and the process of "scam-baiting". A scam-baiter is a person who takes on identities in order to "hunt" scammers, either to punish them, rip them off, expose them or otherwise "scam the scammer." Scam-baiting has been referred to the internet's first blood sport. As a result of these researches they have collected forms of scams, observing patterns, repetitions and relevant locations where these frauds occur. In a process of reducing the frauds to collectable playing cards, the structures of the frauds becomes more apparent, as well as giving us a strangely compelling game. They have also exposed hoaxes as art pieces, analysing and revealing their constituting elements and complexities, as well as exposing the very people that are making money behind these scenes. During the symposium Andreas talked in particular about, Re: Dakar Arts Festival, which documents an ongoing art scam. The scammers approach artists and gallery owners with open calls for a fake festival in Dakar, Senegal. To appear professional, the scammers adopt different identities. To unveil their practice, Zingerle and Kronman created three virtual characters themselves, including complex online identities, in order to scam the scammers. They then created a suitcase based space allowing viewers to investigate their stories in an installation and find entrance points to continue following the story online. The combination of physical and online narrative tools offer a unique perspective on storytelling across these media, where the stories are both virtualised as well as physical.

Valentina Nisi, digital artist and assistant professor at M-rri presented her decade long investigation on location based stories and the digital platforms and projects generated over the years in order to experiment with this particular form of narrative. In the most recent times, efforts went towards advancing the following three Madeira based projects. 7 *stories of Madeira* is a site specific Madeira set of stories, delivered through a mobile Android Phone, equipped with GPS and QR codes technology (project team: Mara Dionisio, Enrico Costanza, Miguel Caldeira and Javier Marcos). *Breadcrumbs*, a mobile iPhone specific platform for serendipitous sharing and consuming short user generated story fragments (project team: Ken Kean, Cesar Dias, Miguel Caldeira, Javier Marcos) and *FNC0313*, a Flip Flat airport display repositioned and re-appropriated in order to share stories between established writers and travellers (project team: Clinton Jorge, Miguel Caldeira, Institute of Relevant Studies, Nuno Nunes).

AFTER HOURS

However the productivity of the symposium spanned well beyond the presentations and workshops hours at Casas das Mudas. In fact the informal yet very inspiring and creative interactions of the participants continued through out the evenings accompanied by very inspiring Portuguese wine, along with fresh and delicious food. Exchanges and conversations started during the day were continued at night and often led to new ideas and solutions to previously discussed problems and issues.

Everyone was very much inspired and challenged by the works of the other participating practitioners and artist. We all started thinking about how to combine our techniques with *Physical Narratives*, *Borrowed Sceneries*, location based stories, digitally enhanced ghost hunts, tangible children's interaction, new narrative paradigms and fictional narratives derived from scams and hoaxes.

Time's Up inspired the use of sensors and the distributions of narratives across a space. Present artists and researchers were inspired to take on the challenge of manufacturing some sensor intelligence to fit the Time's Up artefacts in order to support the relay stories to their audiences.

FoAM's work, inspired the use of real time synchronous and a synchronous media to coordinate the happenings and performances. The work would lend itself to investigate technology adoption while sustaining user participation and coordinations in the events making these art pieces even more powerful.

The work of Haunted Planet Game Studio inspired multiple collaborations with authors for the stories and design of experiences and events, as well as specific characters that could travel time and space in order to inhabit the Gothic stories by combining the digital systems with live performances and past lives of characters.

Of course the tangible and refined artefacts of Engage Lab and their experience with children's interactions generated ideas in terms of possible stories and involvements of artists in the work.

Location based stories platforms inspired the involvement of multiple collaborations, from the participants experienced in the design and craft of a story and its characters to the interaction and interface design. The form of investigation, exposure and analysis of hoaxes as well as the documentation was also of stimulus to create new forms of narratives and characters and how to deliver such stories to an audience.

In the light of these two intense days the symposium was extremely fertile as new ideas, new partnerships were formed and the promise was made to reunite again in a similar task to challenge and inspire each other once more. As part of the promise to continue the fruitful collaborations and investigations together, the group has successfully submitted and been granted funding by the European Union for another narrative challenge in the age of digital media. Under the name of *Future Fabulators*, a team of artists, designers, technologists, gamers, social scientists and mathematicians will embark on a new research and artistic venture in order to understand design and produce stories about the European future.

PEOPLE

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USA

Adams	Matt
Alksnyte	Rasa
Alvarez	Marc
Alvarez	Monique
Andersen	Kristina
Ashley	Wayne
Auer	Tina
Babos	Ildiko
Balkan	Aral
Barth	Alex
Benford	Steve
Bennun	Paul
Bergsma	Frank
Berio	Daniel
Biemans	Claud
Boddington	Ghislaine
Bogendorfer	Anatol
Boria	Simone
Boykett	Tim
Brady	Hannah
Branco	Pedro
Buchanan	Pippa
Bunting	Heath
Buss	Juliette
Cakir	Sid
Calix	Mira
Carrasco	Clara
Carremans	Reg
Cavalheiro	Andre
Chipperfield	Alkan
Comerma	Astrid
Daams	Mischa
Dagher	Elie
Davies	Alex
De Bruyne	Vanessa
De Greef	Els
De Grootte	Eva
De Ritter	Luea
De Vincente	Jose Luis
De Wel	Faust
De Wel	Jura
De Wel	Pieter
Debenham	Anna
Dekrout	Andreas
Delander	David
Derieg	Aileen
Dhupia	Arjan
Diessl	Joreg
Dionisio	Mara

Dirmoser	Gerhard	AT
Dixon	Dan	UK
Downie	Marc	US
Eaton	Ben	UK
Eek	Cocky	NL
Elmsly	Keri	UK
Farr	Ju Row	UK
Felten	Gaby	NL
Field	Andy	UK
Fischer	Ina	AT
Fliri	Maria	AT
Füreder	Stefan	AT
Gaffney	Nik	BE
Genevieve	Kate	UK
Gerhardt	Joe	UK
Giles	Emile	UK
Gillett	Lizzie	UK
Grenzfurthner	Johannes	AT
Griffiths	Dave	UK
Grininger	Michaela	AT
Groesbeek	Samantha	NL
Haahr	Mads	IR
Habringer	Mario	AT
Hackl	Timotheus	AT
Hackl	Wiltrud	AT
Hanson	Matt	UK
Harger	Honor	uk / nz
Harvev	Auriea	BE
Hevnemans	Geert	BE
Hiel	Reinout	BE
Höll	Hannah	АТ
Hon	Adrian	UK
Houben	Lise	BE
Howse	Martin	UK
Hunter	John	UK
Hvde	Adam	NL
Jaba	Lavinia	RO
Jancovicova	Katarina	PL
Jarman	Ruth	UK
Jashari	Shelbatra	BE
Jones	Nick	UK
Jorge	Clinton	PT
Karelse	Theun	NL
Kellev	Heather	UK
Kilburn	Harley	UK
Kilga	Kornelia	AT
King	Jamie	UK
Klop	Evelyne	NL
Kuzmanovic	Goran	HR

Kuzmanovic	Maja	BE	Scheepers	Gerrit-Jan	NL
Kyriakides	Emily	UK	Schimana	Elisabeth	AT
Lachmayer	Herbert	AT	Schrögendorfer	Marc	AT
Lamont	Dan	UK	Schuld	Boris	AT
Lanaerts	Rebecca	BE	Schwarz	Friedrich	AT
Lattner	Tanja	AT	Schwarz	Hans Joachim	AT
Le Dieu	Paula	UK	Seigmann	Claudia	AT
Ledit	Lev	AT	Semmler	Imogen	AU
Libby	Jim	AT	Sicchio	Kate	UK
Locke	Matt	UK	Slade	Verity	UK
Luger	Judith	AT	Speakman	Duncan	UK
Luger	Markus	AT	Stabauer	Carola	AT
Madeline	Louisa	BE	Stadlbauer	Christina	AT
Maes	Mik	NL	Stadler	Gabriele	AT
Maier	Thomas	AT	Stadler	Hannah	AT
Mayer	Günther	АТ	Stevens	Tassos	UK
Mayr	Iris	AT	Strasser	Andrea	AT
Mayrhofer	Andreas	AT	Strauss	Andreas	AT
Melis	Kathleen	BE	Strohmann	Michaeal	AT
Mertens	An	BE	Tandavanitj	Nick	UK
Mertz-Penzinger	Bronwynn	АТ	Tavernier	Jeroen	BE
Mistry	Bip	UK	Taylor	Alice	UK
Mosbauer	Klaus	AT	Teiilingen	Thiis	NL
Nelson	Robin	UK	Treffers	Loes	NL
Neu-Rinaldo	Guillaume	BE	Turner	Penelope	UK
Nightingall	Howard	UK	Übelhör	Franz	AT
Nigten	Ann	NL	Ulmer	Karin	DE
Nisi	Valentina	IT	Van Son	Marloes	NL
Nouzha	Isabelle	BE	Vanbergen	Gerlinde	BE
Nunes	Nuno	PT	Vanbrom	Lies	BE
O'Reilly	Rachel	DE	Vandeput	Bart	BE
Oliver	Julian	DE	Wagenhuber	Peter	АТ
Orlic	Paola	HR	Walterer	Simon	AT
Ortner	Wolfgang	АТ	Wanunu	Yosi	AT
Penninckx	Lucia	BE	Wardak	Walid	NL
Petter	Klaus	AT	Weibold	Rüdiger	AT
Peirano	Marta	ES	Weichselbaumer	Doris	АТ
Pierce	Julianne	IIK / AII	Weidlinger	Maria	АТ
Pols	Falco	NL	Wickham	Emma	IIK
Pratt	Victoria	IIK	Wieteska	Matt	UK
Prendergast	Barry	UK	Wishart	Stevie	UK
Prudence	Paul	UK	Wizany	Lisa	AT
Purrer	Harald	АТ	Wohlmuther	Luis	AT
Quavola	Indiana	UK	Woods	Niki	UK
Raes	Barbara	BE	Wright	Tim	UK
Randall	Miriam	IIK	Wyld	Jamie	UK
Reiter	Ushi		Vang	Heavoung	KR
Rekveld	Joost	NL	Xaver	Franz	AT
Retschitzegger	Martin	DF	Zachhuber	Johannes	
Retschitzegger	Sabine		Zagalo	Nelson	DT
Richarde	Phil	A1 117	Zajiner	Gin Robert	Г I АТ
Rodrigues	Ludmile		Zauner	Therees	A1 AT
Rotenharg	Robert	BK	Zhranca	Rarita	AT DO
Saubollo	Simon		Zott	Markus	KU AT
Sauvor	Vanrak	AT	Zingerle	Androag	AT
Schagor	Valaria Oona	116	Zuidgeest	Arion	AT
Juliagei	valarie Oulla	AT	Dulugeest	AT Jen	NL

NOTES AND FURTHER READING

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- * 3 A form of magic where 'like affects like': http://en.wikipedia.org/wiki/Sympathetic_magic
- * 4 Johnson, S. B. (2002). Emergence: The Connected Lives of Ants, Brains, Cities, and Software. New York: Scribner
- * 5 "Reality tunnel" is a term coined by Timothy Leary (1920-1996) and popularised by Robert Anton Wilson (1932-2007), akin to the idea of representative realism. The theory states that, with a subconscious set of mental "filters" formed from their beliefs and experiences, every individual interprets the same world differently, hence "Truth is in the eye of the beholder". http://en.wikipedia.org/wiki/Reality_tunnel
- * 6 '...What they experienced was an enlargement of the ordinary field of consciousness in a vision that seemed to comprise all Nature; and Nature showed herself to be marvelously beautiful – far more beautiful and with a far deeper unity than the normal consciousness could even suspect." – Zaehner, R. C. (1973). Mysticism Sacred and Profane: An Inquiry into Some Varieties of Praternatural Experience. London: Oxford University Press.
- * 7 Researchers of the field of *patabotany* an interstitial art, science and ecology where plants and humans absorb each other's imaginaries into their growth and form. More about the patabotanists: http:// borrowed-scenery.com/zizim/page/index/1
- $* \ 8 \ Patabotanists' fieldwork: http://libarynth.org/borrowed_scenery_fieldwork$
- * 9 http://beinecke.library.yale.edu/digitallibrary/voynich.html
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- * 11 http://en.wikipedia.org/wiki/Hildegard_of_Bingen
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- * 13 The "science of imaginary solutions" coined by Alfred Jarry, http://en.wikipedia.org/ wiki/%27Pataphysics
- * 14 The picnic menu: http://libarynth.org/patabotanical_picnic
- * 15 Zizim (the field guide), Aniziz (the game), Dilzio (the journal of conversations) and Garginz (the reference archive) can be found at http://borrowed-scenery.net
- $\ast\,$ 16 Interviews and conversations between Imogen Semmler and Ghent plant people: http://libarynth.org/Ghent_plant_people
- * 17 Highley, S. L. (2007). Hildegard of Bingen's Unknown Language: An Edition, Translation, and Discussion. Basingstoke: Palgrave Macmillan
- * 18 User Journeys describe at a high level of detail exactly what steps different users take to complete a specific task within a system, application or website: http://en.wikipedia.org/wiki/User_journey. For examples of user journeys in Borrowed Scenery see http://lib.fo.am/borrowed_scenery_journeys
- $\ast~19$ Our experiments with scenario planning and 'future pre-enactments' are described at http://libarynth.org/resilients/future_preparedness

* 20 http://borrowed-scenery.net

* 21 In particular; [1] shotoku no sansui (生得の山水, 'natural mountain river'), intending to create in the likeness of nature; [2] kōhan no shitagau (湖畔に従う, 'follow the lakeshore'), planning in accordance with the site topography; [3] suchigaete (数値違えて, 'irregular numerical value'), designing with asymmetrical elements; [4] fuzei (風情, 'feeling of wind'), capturing and presenting the ambience.

5.3 ENDNOTES ARG TUTORIAL

* 1 http://lib.fo.am/arg_tutorial

- * 2 Adrian has a background background in neuroscience, Matt in theatre. They work together at Six to Start in London, creating game-like stories and story-like games, both serious and fun. "After several years of working for hire" said Adrian "we started making our own games, such as Zombies, Run! an audiobook, game and ARG that you can play while running. We are curious about how to make games at the crux of gameplay, social interaction and storytelling. We are not pushing new technologies but using existing technologies in the context of storytelling."
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- * 32 http://www.shadowcities.com/

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* 34 http://www.gamasutra.com/php-bin/news_index.php?story=6843
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* 36 http://www.sixtostart.com/wanderlust/
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* 38 http://blasttheorv.co.uk/bt/work_rider_spoke.html
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* 40 https://www.zombiesrungame.com/
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RATEGIES ь.

IMPROVING

* 1 Brighton Digital Festival 2011: http://www.lighthouse.org.uk/programme/brighton-digital-festival

* 2 Improving Reality, a conference curated by Lighthouse for PARN, 23 September, 2011: http://www. lighthouse.org.uk/programme/improving-reality-films

* 3 The Artvertiser by Julian Oliver: http://theartvertiser.com/

* 4 Newstweek by Danja Vasiliev and Julian Oliver: http://newstweek.com/

* 5 Chalmers M (2003). Seamful Design and Ubicomp Infrastructure, Published by the department of Computing Science, University of Glasgow: http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.61.6779

* 6 Arnall T (2013), No to NoUI, published online: http://www.elasticspace.com/2013/03/no-to-no-ui

* 7 Keith J (2011): Improving Reality, published online: http://adactio.com/journal/4886/

* 8 Ibid.

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* 9 A Swarm of Angels by Matt Hanson: http://www.aswarmofangels.com/

* 10 A Machine To See With by Blast Theory: http://blasttheory.co.uk/bt/work_amachinetoseewith.html

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- * 12 The Age of Stupid (2009) directed by Franny Armstrong, produced by Lizzie Gillett: http://en.wikipedia.org/wiki/The_Age_of_Stupid
- * 13 Quoted from Harpers Bizarre. Reference: http://www.onfilm.co.nz/2012/02/29/lizzie-gillett-nz-speaking-tour/
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- * 20 Solar Systems by Semiconductor, curated by Lighthouse, 2011: http://www.lighthouse.org.uk/programme/semiconductor-solar-systems
- $\ast\,$ 21 Data is Nature, curated by Lighthouse, 2011: http://www.lighthouse.org.uk/programme/data-is-nature
- * 22 Slavin K (2011), Reality is Plenty, dConstruct conference, 2 September, 2011, Brighton, UK: http://2011.dconstruct.org/conference/kevin-slavin

6.2 ACT OTHERWISE

* references to participants and more details can be found: http://wiki.physicalnarration.org/wiki/index.php/ActOtherwise

6.3 DATA ECOLOGIES

* references to participants and more details can be found: http://wiki.physicalnarration.org/wiki/index.php/DE12TheMapAndTheTerritory

* Turtles and Dragons. op.cit.

L-4 FUTURE PERSPECTIVES

* references to participants and their presentations can be found: http://timesup.org/NarrativeStrategies12/speakers

IMAGE Details

* Page 10 Reenactment of a still from the 1961 movie *Accatone*, directed by Pasolini. The image became a "visual mission statement" for PARN. What is on the table?

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* Images 2, 3 by David Plakke (http://www.davidplakke.com)

 $\ast\,$ All other images by Time's Up

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* Image 1 by Daniel Yanez Gonzalez (http://www.danielyanezgonzalez.com)

* Images 2, 3, 4, 5, by Time's Up

* Image 6 by Norbert Artner (http://www.norbertartner.at)

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 $\ast~$ Images 1, 3, 4 by Time's Up

* Images 2, 5, 6 by Robert Zauner

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* Images and diagrams by FoAM

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* Diagrams by FoAM

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* Image 1 Alkan Aral Balkan at Improving Reality - Photo by Roberta Mataityte

* Image 2 Alice Taylor at Improving Reality - Photo by Roberta Mataityte

 $\ast~$ Image 3 Jose Luis de Vicente at Improving Reality - Photo by Roberta Mataityte

- * Image 4 Hackasaurus workshop for young people, taught by Anna Debenham in Brighton schools, as part of Improving Reality, September, 2011.
- * Image 5 Still from *Natures* by Quayola and Mira Calix, as featured in *Data is Nature*, Brighton, September 2011. produced by Lighthouse.

* Image 6 SOLAR SYSTEMS by Semiconductor. Photo by Roberta Mataityte

* Image 7 SOLAR SYSTEMS by Semiconductor. Photo by Roberta Mataityte

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* All images by Emilie Giles (www.emiliegiles.co.uk)

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* Images 1, 5, 6 by Adam Hyde (http://www.booksprints.net)

* Images 2, 3, 4 by Emilie Giles (www.emiliegiles.co.uk)

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* All images by Clinton Jorge

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