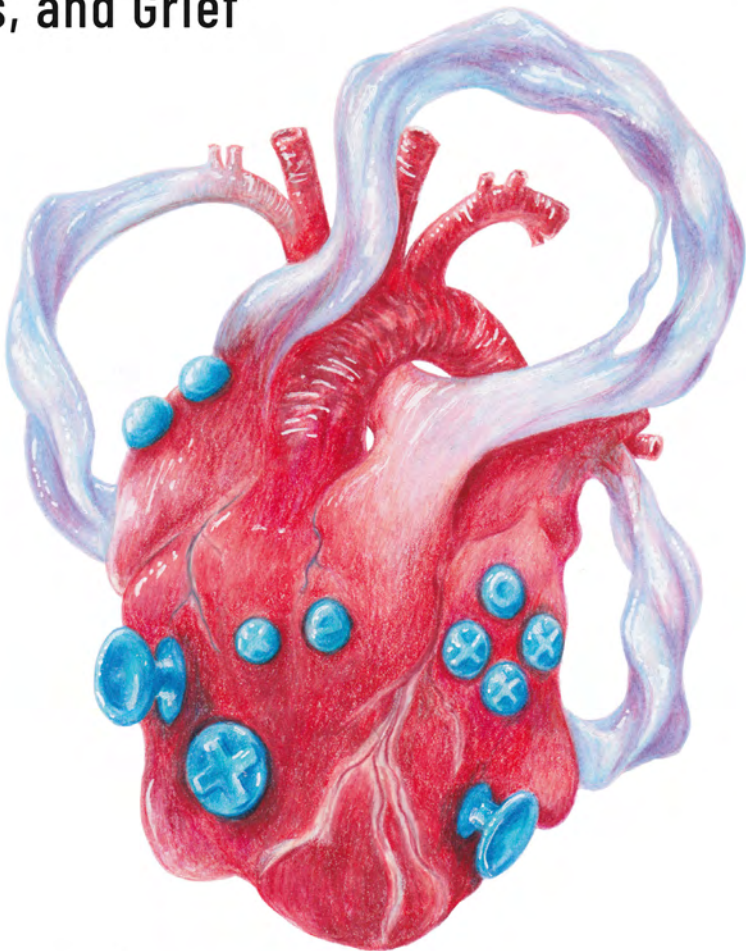Sabine Harrer

GAMES AND BEREAVEMENT

How Video Games Represent Attachment, Loss, and Grief

Sabine Harrer
Games and Bereavement

I would like to thank all our passed mothers, lovers, kids, and those we miss each day. This book is dedicated to you.

Sabine Harrer (PhD), born in 1984, is a game designer and media artist based in Vienna, Berlin and Copenhagen. As a member of the Copenhagen Game Collective, she has created experimental games and performative play experiences since 2014. Previously, she worked as a lecturer in media and game studies at the University of Vienna and at the IT University of Copenhagen. She was also a research fellow at the Austrian Academy of Sciences. In her work, she blends cultural studies and game design to explore the workings of human experience, social power, and modes of intimacy.

SABINE HARRER

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[transcript]

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Credits

As any book, this one would not exist without the support of many.

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Introduction

Videogames are the medium of loss and death. Videogame characters frequently fall from cliffs (Super Mario Bros.), get shot (Space Invaders), and go bankrupt (Theme Hospital). Sometimes they die in swimming pools (The Sims), are butchered by rotating blades (Super Meat Boy), impaled (Tomb Raider), or flattened by rolling boulders (Crash Bandicoot). As the opposite of winning and mastery, loss and death seem to be built into the structure of videogames, and therefore make up much of their entertainment quality.

At the same time, the mechanics of loss and death in many videogames seem to have little in common with the emotionally complex experience of going through loss in real life. Game death is presented as a preliminary state, a short moment of frustration in an infinite loop of trial and error. This is epitomised by the game over screen, which often appears after a character's death, and typically includes the option to continue. Rather than finality, this marks death as an opportunity to retry. Note how this differs from life, where the death of a loved one

is inevitably permanent. As the fictional radio guest Jane in GTA III's Chatterbox puts it: "Life does not have a reset button"[1].

In games where loss and death are used as incentives to play on, the focus is on optimising player performance rather than on the deep portrayal of a game character's emotionality. Rather, emotion is co-opted to serve a narrative of success and mastery. Hardly a legitimate experience in and of itself, death is presented as a power tool for player improvement. The point is not to reflect on the transitory nature of existence. The point is to work on one's jumping technique, so one can avoid the fall into the bottomless pit next time.

Apart from being performance-oriented, the kind of 'death work' found in many games is framed as a solitary rather than a social activity. This is a third contradiction to death in life. Loss necessarily raises the question of social connectivity, not least because the loved one was part of a social fabric before they died. So, while dealing with a loss may include self-management and introspection, it also affects social constellations and requires the bereaved to reframe their place in society.

Finally, when we consider the narrative of the game over screen, its premise of immortality harks back to a limiting Western tradition of repressing death (Gorer 1960). Instead of being allowed to occur as part of ordinary life, loss is relegated to the side, becoming somewhat unspeakable. Game over frames death as an antagonist who can be successfully battled and overcome.

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1   The action-adventure videogame series Grand Theft Auto has a history of including ironic critical remarks about toxic videogame culture, which contrast its own blatant use of sexist and racist stereotypes. In GTA III's fictional radio show Chatterbox, caller Jane complains to host Lazlo about the negative influence of videogames on her son. "My son's dog Hugo got hit by a truck, and he says, "Mommy, mommy, where's the reset button?" Kids these days, they think life is a game. Well, it's not a game, Lazlo. It is very, very serious". Jane's last sentence before she is cut off is "Lazlo, life does not have a reset button".

In other words, if loss is a structural affordance of games in that it is the logical opposite of winning, this version of loss does little to acknowledge the reality of lived grief as it occurs in human life. The kind of short-lived, performance-driven, and solipsistic death-moments common in many videogames ignore the social aspects of care and bereavement by default.

Game over may just not be games' most adequate mechanic to tackle loss. A paradigm shift of videogame death is required. The goal of this book is to contribute to this paradigm shift.

AIM AND SCOPE

While the death-as-failure paradigm dominates games, some designers have suggested alternatives which use games' expressive repertoire more fully. The first part of this book will be dedicated to learning from these suggestions. I argue that they enrich our understanding of tools which game developers have at their disposal to represent attachment, loss, and grief in interesting ways.

Rather than focusing only on a theory of grief design tools, my aim with this is book is to develop an applied understanding of game representation. The book investigates design tools in their pragmatic context of use. This is done to answer three questions: How does game representation work? How can we understand grief as lived experience? And what can we do as game designers to integrate both?

I argue that in order to become more about grief and less about self-improvement, loss in games needs to be coupled with attachment and care, not mastery and success.

My aim with this study is to mobilise game design as an expressive modality for lived grief experience. This is a multidisciplinary challenge, requiring a back-and-forth between theory and game design practice. The theory part, which follows hereafter, serves to investigate and critique what digital games have done in the past to tackle attachment, loss, and grief between game characters. The practical part applies the-

se findings in a concrete design setting where I collaborate with grievers. The goal of this methodology is to both contribute to the literature on videogames as cultural artefacts, and the growing field of participatory game design.

In the first part of this book, I expound the idea that videogames are cultural texts which construct a part of social reality through representation. This part is dedicated to close readings of five recent single-player games, which, I argue, present interesting alternatives to the loss-as-failure paradigm. Each chapter is dedicated to one of five games, and the creative strategies they put to use to model attachment and loss dynamics between two or more game characters.

While the literary method of close reading has been traditionally dismissed within formalist game studies (Keogh 2014), its interdisciplinary nature comes with notable advantages for the purpose of this study. First, it allows me to go in-depth with the structural elements of a videogame. Close readings provide an analysis in context. This means that no one part of a videogame can be assumed to be more or less important for the gameplay experience prior to analysis. Gameplay, visuals, sounds, and controls work together to produce a ludic quality. It is the composite nature of this quality which makes a game function or signify.

Secondly, close readings do not only require me to look at the game proper, but also at what surrounds it. Videogames have a cross-referential function in that they repurpose visual and auditory elements. They mediate history, art, and politics. Close readings need to consider this intertextual function of videogames.

Thirdly, close readings investigate the way cultural texts relate to social power. One commonality of all cultural representation, including videogames, is that they make ideologically charged statements. This happens, whether consciously or not, through the limited nature of a media item. A story is told from the perspective of character A rather than character B, introducing a preference of who is heard and who listens. Characters are often gendered and racialized, crafting a link to real life politics. Unpacking such dynamics through a close reading lens

is to acknowledge videogames as an artistic medium capable of making comments about the world. If videogames are cultural artefacts, they need to stand up to cultural analysis. How do they portray grief as gendered and racialized experiences? What kind of control is given over attachment and loss dynamics, and how is power distributed among different characters?

Overall, I perform this close reading with two goals in mind. The first one is to identify game design devices which construct compelling attachment, loss, and grief experiences. The second one is to identify the limitations of these design tools.

In order to enable cross-comparison, I use game examples with a similar build-up. First, all games are single-player games of progression (Juul 2005). This means they unfold their action along a narrative arc, lineally. Furthermore, all games feature a tragic inter-character relationship which is modelled through gameplay. These structural commonalities allow me to study differences and similarities in how the five games construct relationships, and how loss and grief are conveyed across different playing times, through different aesthetics, using different soft- and hardware.

Apart from understanding how devices function on a pragmatic level, I am interested in the way the games weave players into "inhabitable ideologies" (Anthropy 2012). As cultural texts, videogames present limited versions of social reality, make conscious or unconscious assumptions about love and loss, and make space for some experiences while silencing others.

The five games are diverse in their genres, scopes, and aesthetics, but they all make concrete suggestions about what loss and grief feel like. They draw on specific ideas about i.e. maternal love, conjugal relationships, and romance, and thus hail at players with particular interpretations of lived experience.

Learning from these past games, the second part of this book uses game design as an empathetic tool to work with grievers. I will discuss my development of the participatory grief design method Trauerspiel, and the game Jocoi, a videogame developed with four grieving mothers

and a student group from Aalborg University's Medialogy department in Copenhagen, Denmark. The grievers worked as partners inspiring the game concept and giving feedback at various stages during development.

The process was driven by three questions. First, how can game designers include grievers and their lived experiences early on in the development process? Secondly, how can personal narratives be properly translated into game design devices? And thirdly, how can we assess the impact of participatory game design addressing real-world grief?

These three questions coincided with different stages in the design process. An approach to the inclusion of grievers had to be developed early on, and it needed to address the idiosyncratic needs of the participant group. What mode of participation would make them feel comfortable and empowered enough to share their grief stories in a way that would also inspire game design? This can be related to a current question in the field of Human-Computer Interaction (HCI): How to involve players in the design process early on in order to craft a relatable, emotionally meaningful game? (Lange-Nielsen et al. 2012).

The question of appropriate representation emerged at the point at which design moved from inspiration to conceptualisation of Jocoi. My ambition was to translate the grievers' narratives and images into a game system which would resonate with the participants. However, deciding on an 'accurate' gameplay representation, paradoxically, required making a decision on behalf of the participants. This was a balancing act between listening to the participants and owning design authority (Khaled/Vasalou 2014). Overall, taking charge of this process felt like mediating an emotional dialogue between the development team and the participants (Sengers et al. 2004, Boehner et al. 2007).

Although the case study was process-oriented rather than outcome-oriented (Löwgren 1995), the design process ended with a concrete prototype which was played and assessed with the participants. How did the game, and the process of inspiring it, matter to the participants? Did they identify with it? What could their perspective on their invol-

vement tell me about the potential therapeutic uses of grief-based game design?

WHY THIS BOOK EXISTS

One of my intentions with this book is to make a contribution to the academic field of videogame studies, and media studies more generally. The study adds to the research on videogame representation, in that it provides a new perspective on games as cultural artefacts forming and informing our views on grief. By unpacking myths around game expression and proposing a descriptive, non-essentialist perspective on game expression, the study highlights opportunities to think grief and game expression together. On a methodological level, it demonstrates the benefits of close reading for game analysis, especially the need for a critical discussion of game devices in their capacity to make statements about love and loss.

My second ambition is to add to the field of game design and HCI research by developing a framework for grief-based design. Related to this is the wish to make difficult human experiences more speakable in interactive media. While the Trauerspiel design method has been created with grievers in mind, it can be applied to any participatory game design setting, especially those involving groups with sceptical or antagonistic views on videogames. I have observed that designing with people who reject 'games' comes with a potential for innovation, since their dismissal of what has been done before is an implicit call for change. Grief-based game design in particular challenges ideas of what play may mean and is therefore a fertile ground to explore new game experiences and audiences. My hope is that the Trauerspiel method can help other game developers embrace collaborations with people unlike themselves, people who challenge the usefulness of games, and people who deal with trauma.

This goes hand in hand with the third ambition of this study, which is to contribute to the field of expressive art therapy. While the

therapeutic function of design dialogue is not explicitly addressed in this study, the results speak a clear language. Game design is a language which can be harnessed for introspection, and a systematic exploration of inner themes. In the case of Trauerspiel and Jocoi, the game design process has been deeply validating for both designers and participants, suggesting it as a feasible addition to the expressive art therapy toolset.

CHAPTER OVERVIEW

This book is divided into three parts. Part one introduces the theoretical and conceptual background of the study and reviews previous work in the fields of game studies and grief scholarship. Part two contains analyses of five games, Final Fantasy VII (1997), Ico (2001), Passage (2007), Shelter (2013), and Brothers (2013). In part three, I discuss the case study, introducing my methodology, the participatory design workshop Trauerspiel, the design of the game Jocoi resulting from the workshop, as well as its assessment.

Part One: Theory

Chapter 1.1 is concerned with the question of game-specific representation and how we can understand the expressive properties of videogames. The chapter will first review two pervasive myths within games and design studies which have promoted a limited essentialist treatment of videogames as ergodic (Aarseth 1997) or interactive (Bogost 2007) structures. Both terms refer to the circumstance that videogames, unlike other media, require a player to participate in the action. However, they assume this 'gameness' to have a particular effect on the audience, either overriding meaning (ergodicity myth) or reforming meaning (interactivity myth). Alternatively to this view, I suggest treating videogames as multimodal texts (i.e. music being no less important

than rules or mechanics), while also accounting for games' unique participatory aspects.

In chapter 1.2, I discuss the conceptual and historical background of my approach to grief. This approach is situated in a constructionist understanding of sense-making as bereavement work (Neimeyer 2009, Rosenblatt/Bowman 2013). Constructionism puts the focus on the personal language of grievers as a resource to approach loss experiences. I connect this understanding of grief to game design, framing gameplay as a modality of 'grief talk'. I borrow from previous studies on expressive art in grief counselling (i.e. Neimeyer/Thompson 2014) which have addressed artistic techniques as a way to validate grievers. Art-making is conceived in terms of a dual communication of creation and reception (Potash/Ho 2014), two moments which, I argue, are also at work when we make and design games with each other.

Historically speaking, constructionism has been developed as an alternative to the dominant grief work hypothesis (Bradbury 1999) coined by Sigmund Freud in 1917 (Strachey 1961). Starting with Freud's seminal text "On Mourning and Melancholia", chapter 1.2 first reviews the mechanics of grief work and its central binary of 'good grief' and 'bad grief', reflecting on what has made this hypothesis so attractive to 20th century psychology. I do so through a combination of literature review and reflective game design, using my prototype of Overcoming, a game mimicking the medical grief rhetoric of cutting bonds (Lindemann 1944, Bowlby/Parkes 1970).

Part Two: Analysis

Chapter 2.1 addresses ally loss in Final Fantasy VII, discussing the design devices of symbiosis, gendering, and musical theming in the construction of an eye-level attachment between protagonist Cloud and party member Aeris. I argue that these devices suture Aeris firmly into the game world and inflict a secondary loss (Stroebe/Schut 1999) when Aeris is removed from the game. This is discussed along two fan prac-

tices; the Aeris ghost glitch, and resurrection hacking, in which players seek ways to keep Aeris in the game after her loss.

In chapter 2.2, I observe how, as opposed to FFVII, Ico revolves around a vulnerable bond to the translucent androgynous Yorda, which constantly needs to be defended by the male protagonist. This attachment is constructed through spatial back and forth dynamics, the mapping of Yorda on the control scheme, and rules which define her as dependent. Ico's gameplay is dominated by the imperative to help Yorda, so her loss comes with a gameplay deprivation which is reinforced by the game's depressive symbolic landscape and a literal loss of control over the bond (McDonald 2012).

Chapter 2.3 investigates how the minimalist game Passage models a variant of conjugal attachment and bereavement which defines love as a process of physical incorporation: According to the hegemonic formula – "men look and women appear" (Berger 2008[1972]: 42) – the man initiates contact, the woman becomes part of the player character, and together they become an unbreakable union. This union is embedded in a metaphorical world where space equals time. Ageing is represented by the couple's transition from the left towards the right, foreshadowing the moment of death. I will analyse this moment using Philippe Ariès's (2013[1974]) concepts of mors repentina and the tame death, to show that the wife's death is staged as shocking spectacle which sets us up for the protagonist's death. Furthermore, I will discuss the refusal to play on as a possible player response to spouse loss.

In chapter 2.4, I discuss how Brothers – A Tale of Two Sons represents fraternal loss along a narrative of continuing bonds (Silverman/Klass 1996), using the devices of synergy between the brothers. Attachment is characterised as safe beyond death; this is established through a spatial bond that is both taken for granted and allows distance between the characters. After death, the simultaneous control of both brothers is used for the representation of continuing bonds. As the sole survivor, little brother is the only playable character we see on screen, but big brother's powers can sometimes be summoned by using his control buttons.

In Shelter's child loss gestalt, discussed in chapter 2.5, players also first play through dependency, and the imperative to keep the badger kids alive, engaging in practices of nurturing and protection. The game uses the devices of an invisible inter-character bond to model intimacy between mother and children, age markers to contrast cuteness versus adulthood, and synaesthesia to allude to danger. The staging of loss happens through permadeath (permanent death), a device which constructs bereavement in terms of maternal failure. I argue that both, notions of care and loss of purpose in Shelter reproduce the stereotype of the self-sacrificing mother (Kaplan 2013[1992]), dressed in a cycle of nature narrative.

Summing up, chapter 2.6 will conclude on the design devices and their possibilities and limitations for grief-based game design. Furthermore, some suggestions for critical modification are made.

Part Three: Design

Part three introduces the case study, discussing the methodology I developed to design with the bereaved (chapter 3.1), a report of the ideation workshop Trauerspiel carried out in the summer 2014 (chapter 3.2), the way grievers' inspirational material was used for the design of the game Jocoi (chapter 3.3), and the evaluation of the development process (chapter 3.4).

The initial chapter of this part focuses on the use of muse-based game design (Khaled 2012) to accommodate the grief narratives of the four study participants. I talk about the role of muse-based design as an experimental empathic design method cultivating a personal designer-player bond. Then I explain its advantages for a sensitive experience context like pregnancy loss.

The following chapter reports on the Trauerspiel ideation workshop, during which the participants created models of their mother-child relationships, using exercises informed by Rusch (2017) and expressive art therapy (Levine 2014, Potash/Ho 2014). The ideation exercises were designed both to empower the women to share their imagi-

nations freely with a group of peers who cared, and to inform game design constraints.

Chapter 3.3 discusses how the design team translated outcomes of the informant workshop into gameplay, providing an analysis of Jocoi. It looks at how the women's metaphorical landscapes served as an emotional canvas for the development team, and how design tools were used to match these landscapes.

Finally, chapter 3.4 brings up the question of impact along the three design iterations of Jocoi. Apart from reflecting on evaluation methods such as usability, user experience testing (Bargas-Avila/Hornbæk 2011) and cultural probes (Gaver et al. 1999), this chapter addresses the role of ambiguity in grief-based game design (Sengers/Gaver 2006).

Overall, the book moves from the broad analytical question of what videogames might be able to do to represent love and loss towards the specific design challenge of inviting these themes into the medium. The final chapter reflects on my findings.

Part 1: Theory

1.1 Videogame Representation

When I ask how games represent loss, grief and mourning, I assume that videogames are a form of representation, a kind of cultural text which is available for critical media analysis. This chapter discusses how this view is different from dominant perspectives in game studies, and how I will go about applying it to the study of bereavement in videogames.

First, my approach to videogame-specific representation is inspired by three concepts; James Newman's (2002) ergodic continuum, Tobine Smethurts's (2015) notion of interreactivity, and Doris Rusch's (2009) experiential metaphor.

Newman suggests that instead of thinking of games in terms of a solid ludic core, it is more accurate to treat them as fluent, multimodal compositions. This allows scholars to study videogames as diverse and context-specific expressions, describing what is going on in any one moment.

Terminologically speaking, the ergodic continuum is a response to the idea that videogames are ergodic, in that they require a nontrivial effort to be traversed (Aarseth 1997). While acknowledging ergodicity as a unique aspect of game-specific representation, the ergodic continuum argues that this is not the only way in which games make meanings. Apart from rules, mechanics and controls, games use a variety of non-ergodic tools which borrow from other media forms. Obvious ex-

amples are cinematography, narrative, and music, all of which are used in conjunction with game-typical elements.

Tobine Smethurst (2015) coins interreactivity as a term which responds to the vague use of interactivity in games and design discourse. Interactivity is often used synonymously with identification, suggesting that games are somehow more persuasive or effective at conveying their messages than other media forms (Bogost 2009, Flanagan 2009). Meanwhile, audience research shows that players' responses to games are as diverse and unpredictable as in any other media form (Boellstorff et al. 2012, Shaw 2014). A telling example is Adrienne Shaw's discussion of 'passive play' as possible modality of gaming (Shaw 2014). The notion of interreactivity acknowledges such expressions by pointing to the constant back and forth between game system and player. It looks at what a game actually makes players do when they interact with a game world, and accounts for the player's agency to react and co-construct play in unpredictable ways.

Finally, I use Rusch's (2009, 2017) notion of experiential metaphor, which unpacks videogame devices along the question of what gameplay feels like for players. It encourages a view of videogames as canvases for players' emotional projections, based on the idea that all human perception is metaphorically grounded (Lakoff/Johnson 1980). Rusch has suggested experiential metaphor both as a lens for game studies, and as a design method. On an analytical level, it harnesses the analyst's personal associations to a game as a valid research perspective. On a game design level, the designers' own experience 'landscapes' are tapped to design personal game systems. This makes experiential metaphor a tool to explore systems design in conjunction with emotional experience.

TWO MYTHS ABOUT GAMES AND MEANING

Before I show how these three concepts will help me understand representations of bereavement in games, I would like to point to their ethi-

cal motivation within this study. They serve to distance this work from instances of what I consider myth-making in games and design studies.

Myths are powerful tools which help us break down the world's complexities, and emphasise some ideas while silencing others, creating a version of the world that is both plausible and reductive. In game studies, myth-making has helped some scholars to make plausible arguments around games as potentially ground-breaking, unique, and superior form of media culture. Regardless of its good intentions, the effect has been a dominant focus on games' exceptionalism which has harmed the game studies project (Keogh 2014). For the sake of developing a balanced, descriptive view on gameplay and meaning, some myths and their reductive mechanics need to be disarmed first.

The Ergodicity Myth

The most notable difference between videogames and other media is that in order to be played, videogames require a nontrivial effort from the side of a player (Aarseth 1997). In his study Cybertext from 1997, game scholar Espen Aarseth has termed this effort ergodic, derived from Greek ergon, meaning work or path. As ergodic literatures, games are used rather than read, worked through rather than merely interpreted, according to Aarseth. While there is no doubt that videogames are indeed ergodic, and that Aarseth's widely read text has been foundational to the European game studies tradition, there is evidence that ergodicity has also been the basis of prolific myth making. The ergodic myth claims that all about a game which can be considered relevant is its ergodicity. Non-ergodic aspects can be safely dismissed, as they do not, and should not play a role to 'real' game analysis.

First, it needs to be said that dividing games into 'ergodic' and 'non-ergodic' elements sounds both useful and liberating. If games can be divided into parts which players can 'use', and parts which they 'read', we get a nuanced picture of what is going on in a gameplay session. There are moments of actions and 'inactivity' – when looking at a loading screen or watching a cut-scene. Furthermore, in theory, "all

games are created equal, and the difference between different games [are] merely their rules and the challenges they present. This suggests that any set of rules can in principle be made to be about anything" (Juul 2005: 189).

In practice, however, this statement has been mobilised by some game scholars to dismiss game themes as second-rate elements, ignoring players' loud interest in characters, stories, sound, and other 'non-ergodic' game design features. Simply put, the ergodicity paradigm has nurtured a kind of academic fixation on form rather than engaging with what is actually happening when people play and design games. Three examples are discussed below.

First, in Aesthetic Theory and the Videogame (2011) Graeme Kirkpatrick argues that "games need meanings" but that the "activity of playing games is powerfully corrosive to these fictions" (Kirkpatrick 2011: 9). The idea is that the moment a player enters a game, their ergodic effort overrides what would otherwise be fictions. It sounds plausible: A player, tasked with calculating their risks, managing resources, or planning difficult jumps seems far removed from the 'politics' of their character's story or appearance. From this perspective, gameplay can be understood as a kind of subtraction; "strip away the other features and you still have a game" (Kirkpatrick 2011: 42).

What videogames are 'essentially' about are "purposeless techniques of rapid-fire puzzle-solving and managing the values attached to variables in a dynamic environment" (Kirkpatrick 2011: 44). This last quote already reveals a highly selective, closed list of gameplay modalities ("fire", "solving", "managing"), which supposedly stand in for 'games' as a whole. The unspoken assumption is not only that games can plausibly be put in one category, but that different modalities and pleasures of play (i.e. 'reading', 'walking', 'customising') are not included.

The idea that gameplay corrodes a game's meanings also appears in Jesper Juul's study Half Real from 2005. As the titular binary suggests, Juul separates videogames into a "real" part and a "fiction" part. Although he argues that this dichotomy is artificial and will be made

only in order to unite the two parts later on, the proposition is still that the distinction can be made, and that one aspect of games can be deemed more real than the other. For Juul, the real elements are rules and mechanics, because videogames without fiction can still be videogames, while fiction without rules and mechanics cannot. Again, this sounds like a plausible argumentation, but it is based on the assumption that a play experience can be broken down into smaller parts, of which some are more important than others. Juul goes so far as to argue that videogames can be themed and rethemed ad libitum, exchanging graphics and narratives without changing the 'game' itself.

The third demonstration of the ergodicity myth comes from Aarseth and his response to Lara Croft of the Tomb Raider game series (1996-), a particularly loaded example when it comes to the heroine's representation as 'strong female character'. Apart from drawing a diverse fan base, Lara Croft has attracted feminist scholarship, especially around the ambivalent representation of the heroine's gender, race, and sexuality in the first TR instalments (Schleiner 2001, Kennedy 2002, Shaw 2014). Anne-Marie Schleiner delivered with "Does Lara Wear Fake Polygons?" an important essay which explores possible pleasures of consuming Lara. Blending film and queer theory, as well as an internet survey of Tomb Raider fans, Schleiner addresses appropriations of the heroine through play, and subversive practices of modding and hacking. She also discusses the popular Nude Raider patch, a piece of code which removes Lara's clothes and thereby "posits Lara as fetish object of the male gaze" (2001: 222).

Schleiner's conclusions are not unproblematic; she assumes that a sense of identification automatically emerges from the act of playing Lara – whether this be (self-)objectification, drag, masochism or a queer female subject position (223). However, as with Helen Kennedy's essay "Lara Croft: Feminist Icon or Cyberbimbo?" from 2002, the intention is to map Lara's chameleon identity to existing feminist frameworks and relate pleasures of play to players' lived experiences. For both authors, pleasure is a political category; the kinds of pleasure

made available from playing Lara are related to marginalised audiences, especially women and girls.

One important outcome of this debate has been that representation matters particularly because its meaning to the players cannot be predicted, and that motives for and modes of play differ. In response to this debate Aarseth writes: "The dimensions of Lara Croft's body, already analysed to death by film theorists, are irrelevant to me as a player, because a different-looking body would not make me play differently [...]. When I play, I don't even see [Lara Croft's] body, but see through and past it" (Aarseth 2004: 48). The way the ergodic myth is used here is as a deflective strategy to dismiss game scholars from their responsibility as political agents. Ergodicity allows the player-researcher to 'subtract' Lara Croft's complicated history of feminism and desire from Tomb Raider, the game.

As games scholar Brendan Keogh (2014) has pointed out, this kind of subtraction seems absurd, considering that Lara's body informs what players can do in the game. The character's human walking cycle, shooting animation, and climbing routine communicate the gameplay proposition at the core of Tomb Raider. Analogous to that, Lara's other features, such as her age, gender, ethnicity, or class, ground player's interpretations of Lara as a particular kind of woman: Feminist icon or cyberbimbo (Kennedy 2002).

Taken seriously, the ergodic myth could advocate that if Lara suddenly became black, openly gay, and 80 years old, it would not impact anyone's attitude to the game one bit. However, as long as it is taken as an excuse to disregard videogame fan cultures, it fails to be of service to game scholarship.

The Ergodic Continuum

When trying to understand how videogames work, it is tempting to regard moments in which players are active by pressing a button as somehow more essential to the gaming experience than moments 'passively' spent in front of a loading screen, a cut-scene, or inside a cus-

tomisation menu. It is a trivial observation that such moments are equal to ergodic aspects, not only because they have been deliberately designed as such, but because they are registered and made sense of by players. The question then becomes how we can harness the useful ergodicity term without its mythical formalist baggage.

James Newman has proposed a constructive approach by thinking of ergodicity on a continuum. Seen on a spectrum together with other game elements, ergodicity becomes a descriptive term. It refers to moments of player control, which, among other moments also happen in a game. The idea is that moments in which players are not directly in control, but wait for action to happen, or view an event they cannot influence, are equally important for the overall game experience. Newman illustrates this through an example from the psychedelic racing game wipEout,

"in which the player is treated to a pre-race pan over the starting grid, before being deposited in the driving seat of their vehicle – waiting for the green light... During this section, the game is out of the player's hands... However, rather than simply handing over control when the green light shows, the player gets to rev their engine. This doesn't sound too impressive but it serves a number of purposes. Most importantly, as in games like Super Mario Kart and wipEout, you can try and elicit an extra fast Turbo Start." (2002: np)

By describing the interplay between moments of control, waiting and preparation for action, Newman illustrates the variety of activities which happen inside several seconds of gameplay. Furthermore, he describes the moment at which the player revs their engine in terms of its purpose for the following gameplay moment (eliciting an extra fast Turbo Start). He demonstrates that to view play on an ergodic continuum requires a focus on the microdynamics of action instead of singling out selective game bits as somehow more central than others.

The Interactivity Myth

While the ergodicity myth claims that videogames corrode representation, the interactivity myth states the opposite, namely that videogames enhance the effects of representation because they are 'interactive'. The player, after all, physically holds the controls, steps into a fictional world and explores a character's or world's fate at will. This activity of controlling someone else's story is frequently taken as proof of identification (Shaw 2014). The idea is that by stepping into someone else's world, the player leaves their own world behind temporarily and fully 'becomes' another for the time playing.

Moreover, the kind of responsibility given to the player is taken as indication of their empathy. The player has 'become' another – how can they not empathise with this other. It is easy to infer from this that games are 'empathy machines', somehow better at engaging audiences than other, non-interactive media were ever able to.

From this perspective, the game designers' role is to be a gate keeper of empathy, a kind of magician holding the power to engineer empathy machines. Like in the ergodicity myth, much is made of the fact that the players are in the 'driver's seat' of the action. Yet, while the ergodicity myth reduces games to the mechanics of driving, the interactivity myth believes that game designers determine where the players are driving.

In his book Persuasive Games (2007) American game scholar Ian Bogost argues that by authoring arguments through processes, videogames are more capable representations than other media (Bogost 2009: 29). This is because games "rely on user interaction as mediator, something static and moving images cannot claim to do" (2007: 35). According to him, videogames' interactivity introduces a 'vividness', which makes them 'less static' as representations, and therefore more advanced as persuasive tools in comparison with other media.

Arguing that videogames "earn a spot above moving images on the continuum" (ibid: 35), Bogost regards different media expressions on an evolutionary ladder of signification (ibid: 26, 29) in which vide-

ogames take the highest rank. However, he puts into perspective that interactivity is not a safeguard for persuasion, because both game designers and scholars still have to master the art of interactive sophistication yet.

As part of the book's own persuasive narrative, this age of interactive sophistication exists somewhere in the future; a bright future in which designers will finally be able to elicit desired identification effects in their audiences. Until then, they can work on their procedural literacy skills by reading Bogost's book and be guided by his many examples.

One example is the moral score system in Star Wars: Knights of the Old Republic (2003). This Canadian role-playing game based on the film franchise logs player action according to a prefabricated moral point system classifying each player's action into 'good' or 'bad'. Bogost observes that this classification of morality is arbitrary and imposed by a (silent) designer. Nevertheless, he describes the games' effects as effects on "the player's moral character" (2007: 284). This suggests that there is a causal link between design intention and game experience. Rather than active interpreters and potential oppositional readers, players of Old Republic are assumed to be coerced into the game's moral value system. In fact, for Bogost's argument to work, some degree of player passivity is required. If interactivity is enough to 'persuade' players, such players cannot be active agents of their feelings and interpretations.

The assumption that a direct link can be established between game design and its effect on the player has also been at work in the socalled discourse of "emotioneering" (Freeman 2004). Arguing that emotions can be engineered, Freeman's marketing term promises to help designers "put emotions into games" (2004: 3). Freeman claims that he has developed a number of "deepening techniques" which successfully immerse players into emotionally interesting scenarios with the explicit goal of propelling sales numbers.

Emotioneering claims to provide the kind of 'interactive sophistication' demanded by Bogost in a nutshell and suggests to 'fix' problems

game designers may still have with representational depth. This means that emotion is treated as a usability problem, which can be fixed by supplying the correct input to the 'player machine'. The problems with emotioneering is best explained along Freeman's own illustration (fig. 1).

Figure 1 displays a piece of concept art depicting a dramatic scenario. Inside a tilted frame, we see a big-chested while male hero in a futuristic, danger-stricken environment. Balancing on a platform in a crouched position, the hero stretches out his arm in determination, pointing a gun directly at an alien monster sneakily hiding behind a pillar to the right of the frame. Meanwhile, a distressed woman floating in mid-air is clinging on to the hero's right arm, desperately hoping to be pulled up onto the ledge.

Figure 1: concept art example of an 'emotioneered' gameplay choice

Source: Freeman (2004)

According to Freeman, this scenario invites various players ("him/her") to "make tough choices" and thereby become emotionally invested. Because it "creates emotional depth in the player", the depic-

tion is "similar to how, in real life, we grow emotionally by confronting difficult choices" (Freeman 2004: 5-6).

Freeman seems to assume that because of interactivity – the player is given control over the hero's 'choices' – players slip comfortably into the man's role. The quality of emotional engagement is believed to be determined by the 'engineer', who decides beforehand that it is the man, not the woman or the monster, who the players will side with.

Finally, the engineering term allows Freeman to exploit readers' 'sciency' associations: Something which is engineered is neutral, rational, and driven by function rather than ideology. This camouflages the fact that games always "communicate the values of their creators...not just through their explicit content but through the logic of their design, and the systems they choose to model" (Anthropy 2012: 67). Freeman's story of the white male hero facing 'tough choices' has more to say about his own values within a profit-driven games industry than about the function of emotion in videogames.

While emotioneering uses the interactivity myth for profit, other versions circulate in charity and social change discourse. The reason is that conflating interactivity and social change makes games appear as an ideal platform for activism.

One example for this kind of argument is Mary Flanagan's otherwise excellent study Critical Play (2009), which explores the roles and responsibilities of artistic game designers. Flanagan is overly optimistic about the potential of change through game values, particularly in the way games assumedly 'instil' ideology in players. According to her, players 'incidentally' learn certain values from games' structures and systems of representations, which transform their attitudes (2009: 261). I do not take issue with the idea that games are ideologically charged, or that players incidentally learn from them. What is problematic is Flanagan's assumption that implementing the 'right' values through game design can trigger specific desirable effects in players. Her book discusses a number of such 'virtuous' activist games which, according to the author, succeed at 'engineering' change.

A section of Critical Play is dedicated to the educational charity game Darfur is Dying (2009), which was developed by a team of US-American design students. DID is a browser-based game in which players take the role of a Darfurian refugee and their day-to-day struggle for survival. Flanagan describes the game as "much like a traditional action game", in which "the players forage for water, rebuild their village and negotiate danger, and steadily become more skilful at guiding their characters to avoid and prevent danger as time progresses, so the game has a smooth learning curve" (2009: 245). Like in Ian Bogost's discussion of Star Wars, interaction turns the player into the character and makes them complicit with the design message. Furthermore, Flanagan argues that by inhabiting a simulated environment, "the player is able to step away and think critically about those problems" (ibid: 249).

Interactivity allows players of DID to become critical, but only as critical as the design team has intended them to become. For example, DID asks players to start thinking and caring about the political situation in Sudan, while they do not ask players to challenge the game's selective portrayal of Darfurian landscapes, lifestyles, and experiences. Rather, the tasks of carrying water, running from search teams, and managing village resources are supposedly enough to immerse the player into a relatable 'refugee experience'.

What the interactivity myth conceals is that interactions are always provided from a culturally specific place for a culturally specific audience. DID's 'refugee experience' is provided from the place of a US-based student team and addresses affluent Western audiences – those who are able to perform charity. This means that what is provided in the game is a Western fantasy of 'refugeeness' which talks about rather than to those whose experience is at stake. The exclusion of potentially complex, lived refugee narratives ensures that in-game representations (foraging for water, dirt, desert) can be adjusted to Western expectations of 'refugeeness'. Rather than making up for this by being engaging, interactivity camouflages the real inferential lesson the game provides: That other cultures can and may be stereotyped according to

Western imaginations, if the game designer's intentions are good. In other words, DID 'instils' the player with the ideology of white, Western entitlement.

A recent example for the interactivity myth can be found in gender advocacy discourse, and the argument that reaching 'new' game audiences, such as women and queer people requires a re-branding of interactivity as we know it.[1] While the basic interactivity myth states that interactivity "involve all players, not merely a subset of players" (Bogost 2007: 321), diversity advocates have argued that there are players who, because of their identities, are unable to relate to established games (Shaw 2014). Apart from the fact that both identity formations and player preferences are more than complicated, there has been a push towards the idea that interests can be delineated along gender and sexuality (Shaw 2014: 18). Not only does the market segmentation of interactivity construct caricature versions of gendered taste (Shaw

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1   An example for this fringe marketing discourse is the label 'games for girls', which hails to young female audiences through a concrete formula: a simple interaction scheme dressed in gender-typical colours and narratives. Online game repositories like www.girl.me and www.games2girls.com offer a long list of free pink flash games revolving around the themes of fashion, cooking, animals, weddings, and maternity. Stereotypical assumptions about gendered gameplay are repeated on both on the levels of theming and ergodicity. The theming-level shoehorns girls as cute, caring, and domestic, while the interaction-level associates them with everything which is not fast-paced, action-packed resource management (Kirkpatrick 2011). This idea is promoted by 'girl game' developers themselves. At the European Game Developers Conference 2011, Dutch game developers Hofstede and Verbon recommend to apply the 'KISS' principle ("keep it simple and stupid") when making games specifically targeted at girls. They argue that in order to address girls, designers should avoid complex mechanics and control schemes, and instead invest in cute- and pinkness (Hofstede/Verbon 2011).

2014: 90), it also marginalises audiences which are already at the fringe of videogames.

This is where ergodicity and interactivity myths converge. Both talk about game representation in abstract terms, while referring to specific game examples. Mechanics outside an established norm of ergodicity and interactivity tend to be ignored, following a consensus that "these are not really games and their players are not really gamers" (Dovey/Kennedy 2006: 37, Italics original).

Ergodicity and interactivity myths share another feature. Apart from segmenting audiences into taste groups, they limit the bandwidth of what can be considered a game. As game scholar and designer Tommy Rousse observes, some games fail the requirements of interactivity and thereby "cease to be a game". He makes this case in reference to Dear Esther (2012), an atmospheric 3D game, in which the player simply follows the poetic proposition of the implied first-person narrator along. Rousse argues that in order to acknowledge Dear Esther as game, we would have to look at the player's reaction and "extend our notion of interactivity to warmly embrace any experience requiring interpretation and construction between audience and creator" (Rousse 2012).

In a similar vein, game critic Brendan Keogh argues that there is no such thing as a "non-interactive" or un-embodied media text, since "[e]very medium demands an active bodily engagement from the audience – a book needs a reader willing to turn pages in the right order no less than a videogame requires a player to press buttons at the right time" (Keogh 2014: 7).

Finally, Adrienne Shaw has made the important case that rather than immersing players, interactivity has been used for the sake of passive, apathetic play (Shaw 2014: 105). Passive play can take many forms, be it through actively rejecting a game's proposition while still enjoying participation, keeping games on as background noise, or dis-identifying with characters. One of Shaw's examples is an interview with Julia, a queer woman of colour, who talks about her relationship with Kratos, the player character in God of War II (2007). Instead of

empathising with Kratos' emotional struggle as a troubled god going through states of betrayal and revenge, Julia admits that Kratos "could be a bunny rabbit for all I care". To her, "[h]e's just the thing on the screen. He's holding the knives, that's all" (Shaw 2014: 97).

Interreactivity

If the interactivity myth shows anything it is that interactivity is poorly suited to account for the complex back and forth between videogames and players. Nevertheless, game-specific representation "is distinct from the one-sided interactivity experienced by readers interpreting a work of literature" (Smethurst 2015). To account for this difference, Smethurst proposes the term interreactivity, which stresses that what is going on in game-specific representation is a series of unpredictable reactions. She writes that interreactivity "allows for the fact that games change in response to user intervention. That is, interreactivity acknowledges that the user must make their agency felt in the game world by employing game mechanics, which are afforded and delimited by rules" (2015: 42).

The concept is based on Tommy Rousse's observation that games elicit reactions, irrespective of how sophisticated their interactivity is. Furthermore, she draws on Brendan Keogh's idea that this back and forth is structured as a cybernetic circuit. "When the player begins to play, they enter into a relationship with the game in which distinctions between the two are difficult to make, since each is so intimately attuned to the other" (Smethurst 2015: 42).

This draws attention to the activities a player can or cannot do when responding to a game system, and the changes evoked in system and player. These changes are not only emotional or intellectual—as with a novel—but additionally strategic and embodied. In response to the game's challenges, the player activates their repertoire of action; they may find different ways through a level, stop at a flower or animation, skip a conversation option. In order to put these techniques into play, players will push buttons on their controller in different ways and

intensities. The wires between themselves and the console will transmit different sequences of electronic pulses.

The program running the game accesses different data from the computer's hard drive and submit alternative combinations of ones and zeroes to its memory. The sound waves coming from the player's speakers will change their modulation and frequency. The display unit will emit different colours of light. The controller might rumble in the player's hands to match the on-screen action. Interreactivity accounts for all of this. All of this is part of a feedback loop between player and game, and the player's tactile experience of this technology is just as much a part of the game as the events taking place on-screen (Smethurst 2015: 42).

Smethurst mentions one limitation of the interreactivity concept, arguing that it is only applicable in situations where the player is in control; when they deal with ergodic elements. I suggest, however, that even in moments when players are disallowed response, this non-reactivity is part of the bigger cybernetic circuit of meaning that defines power and loss of power in the game world. Making players lose a piece of control which they previously felt they naturally owned because they were given the chance to react, is an important way in which games can communicate attachment, loss and grief.

Whether control loss is a part of interreactivity or not (I argue it is), the concept acknowledges the player as an active participant in the 'effects' of play. Depending on their interreactive circuit, they may use play in order to become critical, or disengaged. And, as I will argue next, it acknowledges games as sites for emotional projection and personal meaning making.

FIGURATIVE PLAY AND EXPERIENTIAL METAPHOR

Acknowledging that play is a back and forth between body, hardware and in-game action raises the question what playing a game feels like

for the player. As scholar and game designer Doris Rusch argues, "[t]he notion of embodied experience generally refers to how we make sense of games – i.e., learning by doing – but it also points toward a game's potential to evoke the actual experience of real-life experiential gestalts through quasi-bodily enactment" (Rusch 2017: 74). The idea is that players have the ability to make sense of game worlds in terms of their similarities to real life experiences. "This opens the door for a powerful form of metaphorical mapping and meaning generation" (ibid). Irrespective of designers' intentions, in-game experiences can serve to remind players of personal experience and be used as analogy to understand this experience better.

Within game studies, analogical approaches have been suggested before. One example is Janet Murray's famous exegesis of Tetris in her study Hamlet on the Holodeck (1997). Arguing that videogames can be unpacked as "symbolic dramas" waiting to be subjected to personal projection, Murray writes that the game represents "a perfect enactment of the over tasked lives of Americans in the 1990s – of the constant bombardment of tasks that demand our attention and that we must somehow fit into our overcrowded schedules and clear off our desks in order to make room for the next onslaught" (Murray 1997: 143-44).

In this reading, Murray compares Tetris' falling blocks to overcrowded schedules, making sense of the game through personal association. It is irrelevant whether or not this association matches the design intentions of the Tetris creators; Murray points to a possible meaning of the game by expressing what its dynamics feel like to her. She thereby performs a metaphorical projection which illuminates both how she thinks about late capitalism, and how she experiences the game feel of Tetris.

Game scholar Jason Begy (2013) stresses that instances of metaphorical projection during game interpretation are not arbitrary but based on pattern recognition: Players can recognise game systems as similar to their own experience because they share formal features. This means that "[m]etaphorical projection is not about associating

disparate objects or systems at will, but relies on systemic correlations" (2013: np).

The way Rusch and Begy consider experiential metaphor and metaphorical projection as emotional pattern creation is derived from Lakoff and Johnson's (1980) cognitive linguistic approach. These authors assume that our understanding of experience is grounded in a metaphorical process. This means that the way we experience a routine in daily life linguistically corresponds with other experiences which share a similar experiential structure. Applied to games, we can both discover experiential links to our life through play, and we can design games about life by setting up a system with similar experiential structures.

In other words, experiential metaphor allows players to access the non-ergodic continuum by letting their associations flow. Rusch's own example in Mechanisms of the Soul (2009) is the grappling hook sequence in God of War II (2007). She writes:

"One has to first identify and activate a grip point on a pillar to latch onto by pressing R1 on the PS2 controller. The grappling hook shoots out and attaches itself to the grip point. When the connection is made, one can jump with X and start swinging. Releasing R1 releases the hook. To attach to the next grip point on the next pillar one has to press R1 again. There is always a dizzying and enervating moment of free fall between two grip points. Pressing R1 too quickly after a release latches the hook back to the former grip point. If one waits too long before pressing R1 again one misses the next grip point and falls to one's death. Timing is of the essence, both in terms of how long one waits before reattaching and in terms of when one lets go of the former grip point. If one releases at the wrong time, one flies off in the wrong direction.

Real life rarely offers the opportunity for comparable physical exercise, but the grappling hook pattern still resonated with me in a profound way. By affording the player to enact courage to let go of a safe but unsatisfying status quo in order to move on to a more promising state it evokes associations to a range of similarly structured experiences. The reluctance to let go, the exhilaration of the free fall as a moment ripe with possibilities but without security, the panic that

makes one latch back to the starting point, the anguish that comes with the realization that it is too late to go back, to the feeling of triumph and relief when the adventure has come to a successful conclusion – all these elements can also characterize various experiences of transition and change, be that quitting a job (before having a new offer), getting a tattoo, or breaking up with a boyfriend." (Rusch 2009: np)

In this metaphorical reading of GOWII, the game's features and interreactive dynamics are described in great detail to show how they evoke emotion in the player-researcher. The situation includes "enervating" moments, mixed with moments of "exhilaration", "anguish" and "triumph". By relating technical aspects of game controls and mechanics to emotional mechanics, Rusch interprets functionality in terms of a personal analogy.

As we have seen before in Julia's approach to GOWII, and the way she reduces Kratos to being a "thing on screen", metaphorical projection is an optional part of player reception. Games are unpacked in multiple ways depending on the unique game/player combination at any one time. Metaphorical projection enriches this multitude of possible interpretations. Rusch concedes that rather than replacing literal analysis, personal analogy "provide[s] an additional interpretative cue that helps game comprehension along" (2009: np).

APPLICATION AND LIMITATIONS

I suggest that the three concepts of ergodic continuum, interreactivity, and experiential metaphor are useful to study videogame representation as a coming together of hardware, software, players' bodies and minds. Throughout analysis, they serve to explore the following questions:

- How have videogames in the past constructed scenarios of attachment, loss and grief between characters?
- What (non)ergodic devices have they used to construct meaning around these experiences?
- What interreactive strategies have videogames used in the past to engage players emotionally?

A text-based study can only ever imagine the social effects of design devices, without knowing for sure what happens to meaning after design. This naturally limits the scope of my study to the question what games do to hail to their players and provide spaces for emotional projection. Unlike ethnographical research, textual research is confined to speculations about the responses of grievers in front of the computer or gaming console. It can address the way meaning is constructed through game-specific representation, but it cannot determine the consequences of representation (Shaw 2014).

Furthermore, my approach has a descriptive rather than prescriptive focus, meaning that analysis results will not be comprehensive, or present a complete account of what is possible in videogame representation. My selection of analysis samples is confined to five games which match the criteria of featuring an important relationship between two characters that ends tragically. I analyse these relationships as case studies into how game design has been used in the past to tackle attachment, loss and grief compellingly.

Needless to say, other approaches would have been possible. One possibility would have been to study how players become attached to, and lose aspects of gaming. For instance, there are cases in which players invest a significant number of hours into a game before they lose a favoured item, progress, or their avatar. Other players use gaming to work through their personal traumas (Hernandez 2014).

In this study, I am more explicitly interested in how game designers can build compelling character moments. I suggest that design de-

vices must be reflected in the ways they hark into social and cultural reality. A close reading allows me to look at both, the practical dimension of how devices work, and what they do as cultural tools with a referential function.

Videogames can create tangible scenarios for inter-character bonding, but they often do so by drawing on established stereotypes like the strong male protagonist caring for a less capable damsel in distress.

It is therefore pertinent, for scholars and designers alike, to consider the cultural and pragmatic function of games in tandem. Informed design choices are hardly made by a tunnel gaze on production, but in awareness of the cultural mechanics at work. Cultural scholarship, on the other hand, profits from a look at the 'nasty down below' of assets and algorithms to add substance to reflectivity.

My analysis has an explorative focus in that game devices are identified as they emerge from the sample and its different materialities, scopes, genres, and themes. This is the reason I selected single player games which are fairly diverse in these regards. The design strategies I identify address five dimensions of game design: Rules/mechanics, control scheme, spatial devices, character design and aural representations. The idea is to first delve into the details of how games have used these dimensions to construct love, loss and grief, and to then review their potential use for future game design.

The ergodic continuum allows me to consider social aspects such as markers of age and gender as design devices. Whether consciously or not, game designers make use of these markers to structure parts of their gameplay and to encourage interpretations.

For instance, a player may feel invited to role-play as a mother, because of the way a game represents adults in contrast to children's bodies (Shelter). In conjunction with gameplay, gendered and age-specific character skins make specific claims about love and grief, such as: This is what maternal love feels like.

Through such claims, videogames operate as cultural representations. They use ergodicity to gameplay reference images, stories and ideas which we already know from other media and update them in

media-specific ways. In this book, I look at both: What have video-games done to repeat tired stereotypes, and what can they do to form new approaches to bereavement?

Since attachment matters to understand loss and grief qualities, all analysis chapters start with a section on inter-character care. I observe that games use different interreactive rituals to portray characters' relationships and their power dynamics. Games have suggested nuanced ways to sculpt these dynamics, including constellations of dependency and eye-level relationships.

In most of the games, loss comes surprisingly and unannounced, but games have used different strategies to represent this rupture. Some games use purely non-ergodic devices to portray loss as agency loss. Other games use interreactive strategies to make players walk through their characters' acute loss reaction. Levels of player involvement are games' unique expressive possibilities when it comes to portraying trauma (Smethurst 2015).

Finally, I look at the reaction of an in-game survivor to their loss, as well as the coping strategies developed by fans. Looking at practices of traumatic retelling, hacking and modding, I explore how video-games have put players in the position of 'working through' ludic trauma.

1.2   Understanding Bereavement

This chapter provides the conceptual and historical context in which I explore bereavement as subject in games and game design. A dominant view on grief is that it is a universal process, a kind of 'work' which can be performed in more or less successful ways to arrive at the goal of overcoming.

As opposed to this view, the constructionist grief approach I prefer to work with looks at the language of grievers as the source of understanding grief experience situationally. This pushes the authority of knowledge from scholar to experience expert. What is important is the grievers' imagination and the narratives and meanings it elicits. I argue that this can be a rich resource for game design and analysis.

ORIGINS: ON MOURNING AND MELANCHOLIA

It is difficult to find an academic text on the subject of loss and grief that does not contain a reference to Sigmund Freud's essay "On Mourning and Melancholia" from 1917. This essay is acclaimed as the beginning of medical grief studies (at least to Western minds), holding the status as the first attempt to systematise and bring to public attention grief as a core experience in human life.

The goal of Freud's essay is an ambitious one, to capture the emotional mechanics of loss and grief. What happens to the psyche when

a person goes through an irreversible separation from a loved object, whether a person, thing, or abstraction? Freud seeks to explain possible outcomes of this separation through a universalist model. The two titular terms – mourning and melancholia – stand for a desirable and a less desirable outcome of grief work.

In mourning, which Freud considers the 'normal' outcome, grief work is used constructively to 'work through' the loss and distance oneself from the lost object. Freud describes the mechanics of this process as follows:

"Reality-testing has shown that the loved object no longer exists, and it proceeds to demand that all libido shall be withdrawn from its attachments to that object. This demand arouses understandable opposition – it is a matter of general observation that people never willingly abandon a libidinal position, not even, indeed, when a substitute is already beckoning to them. This opposition can be so intense that a turning away from reality takes place and a clinging to the object through the medium of a hallucinatory wishful psychosis. Normally, respect for reality gains the day. Nevertheless its orders cannot be obeyed at once. They are carried out bit by bit, a great expense of time and cathectic energy, and in the meantime the existence of the lost object is psychically prolonged." (Freud 1917 in Strachey 1961: 234)

The economics of "normal grief" that Freud describes here come with a set of assumptions. First, the notion of "reality-testing" treats emotional attachment as a fact whose presence or absence in the life of the mourner can be determined ("tested") with certainty. On the one hand, this acknowledges that the deep connection someone might have to the deceased may feel as grave as a "fact".

Secondly, the absence of this object of love naturally issues a request. That request is to withdraw emotional energy from the love connection in order to overcome it. The assumption is that loss comes with a particular order, a demand that shapes the requirements for normal grief by pushing the griever towards letting go. This push is met by "natural" resistance and protest in the mourner, since "people never

willingly abandon a libidinal position". In conclusion, there is a particular set of emotional turmoil, a particular kind of "painful unpleasure [that] is taken as a matter of course by us. The fact is, however, that when the work of mourning is completed the ego becomes free and uninhibited again" (Strachey 1961: 245). In other words, there is a point of overcoming, a win state, which distinguishes successful from unsuccessful grief work. This moment of completion equals emotional freedom.

Mourning, if done right, is an act of liberation from a cathectic involvement that, through loss, has turned unfeasible. The mourner can turn themselves into a 'winner' by cutting bonds with what is inevitably lost. In Freud's words, mourning "impels the ego to give up the object by declaring the object to be dead and offering the ego the inducement of continuing to live" (257). The libido to the object is disparaged, denigrated, "kill[ed]" (ibid).

This imperative of separation presents the grief situation as a zero-sum game: The mourner can choose between survival of the lost object or survival of the self. Attachment is something that has sutured the self into a certain libidinal place, a place that can only support and benefit the ego if the loved object is alive. Upon the loved one's death, the self has an unpopular choice: It either stays in place and 'rots' with the lost object, or it painfully cuts itself out of the attachment and finds a more appropriate position for new attachment. Only by 'undoing' previous bonds can the mourner's position be re-crafted, re-invented, re-immersed in new attachments. There is a particular procedure that is supposed at the core of any process of overcoming: There is the ego, the lost object, and a separation that is first met with difficulty but eventually carried out.

What, then, if a bereaved individual felt no sense of protest or resistance against the demand of separation – what if, instead, such a demand was denied, and with it the 'success' of overcoming? There is the possibility to fail the process of overcoming, in which case Freud speaks of melancholia. In melancholia the mourner does not give up on the lost object, but instead turns against themselves in reproach and

accusation, what Freud calls a "disturbance of self-regard" (Strachey 1961: 244).

This, Freud speculates, may be the result of identification with the lost object: The mourner might have had a 'strong fixation' on the loved object that induced them to incorporate it. What happens is that the object falls on the ego "like a shadow" (ibid: 249). Instead of giving up the lost object, the mourner incorporates loss and thereby gives up themselves. Yet why should a mourner do this? Freud suspects that the reason is a complex, ambivalent relationship to the loved person:

"In melancholia, accordingly, countless separate struggles are carried on over the object, in which hate and love contend with each other; the one seeks to detach the libido from the object, the other to maintain this position of the libido against the assault [...]. In mourning, too, the efforts to detach the libido are made in this same system; but in it nothing hinders these processes from proceeding along the normal path[...]." (ibid: 256-257)

Ambiguity means that either the cause or the quality of the loss may be hidden from the mourner; "hate and love contend with each other". The "object has not perhaps actually died but has been lost as an object of love" (ibid: 245), such as in a loved person who has become unavailable as a friend or lover.

By conserving the lost object, the mourner can continue to make sense of this ambiguity. This sense-making, as Freud observes, largely consists of self-reproach and "heightened self-criticism" (247). This is what compels Freud to think of melancholia as a pathological state. Self-reproach "behaves like an open wound, drawing to itself cathectic energies [...] from all directions, and emptying the ego until it is totally impoverished." (ibid: 253). This metaphor of the wound is most effective at medicalising grief as a potential disease with grave consequences.

Overall, Freud presents with "On Mourning and Melancholia" an economic zero-sum model of grief, whose two trajectories – 'good' grief and 'bad' grief, simply put – seem to summarise the challenge of letting

go[1]. This has inspired a tradition of grief psychology, whose goal it has been to further categorise the 'symptoms' of grief. Through different comprehensive models, 'grief work' has been split into tasks, and stages, steps and tracks which still resonate in popular ideas of grief today.

MODELS TO GRIEVE BY

Most models of grief today build on Freud's 'grief work' narrative but present it through a psychologised potpourri of stages, phases, and tasks. Their main paradox is that each model claims completeness, while providing an almost arbitrary number of stages.

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1   Some critics have put into perspective that this economic view is at odds with what we know about Freud's personal approach to becoming a bereaved father and grandfather (Silverman/Klass 1996: 6, Clewell 2004, Mallon 2007). It is documented that the loss of his daughter and grandson shook him profoundly (Silverman/Klass 1996: 6), and when his friend Ludwig Biswang lost his son, Freud wrote: "Although we know after such a loss the acute state of mourning will subside, we also know we shall remain inconsolable and will never find a substitute. No matter what may fill the gap, even if it be filled completely, it nevertheless remains something else. And, actually this is how it should be, it is the only way of perpetuating that love which we do not want to relinquish." (Freud 1961: 239, as quoted in Silverman/Klass 1996: 6). Grief scholars Silverman and Klass have argued that the dissonance between Freud's medical view and his own life is typical for a modernist reductionist discourse of emotion. Freud's economic view on 'good grief' and 'bad grief' is part of a 20th century zeitgeist of understanding human experience through rationalisation. According to sociologist Zygmund Bauman, one of modernity's core features is the conviction that order and knowledge can be achieved "through the ultimate taming of the inherently chaotic natural forces and by systematic, and ruthless if need be, execution of a scientifically conceived, rational plan" (Bauman 1991: 29).

The lowest number of stages has been proposed by Rubin's (1999) so-called Two-Track Model of grief, which frames grief as wedged between individual needs (Track I) and relationship to the deceased (Track II). The model stresses grief as ambivalent activity; one can be anxious on a track I level, while simultaneously holding positive affect vis-a-vis the deceased on track II. Another bifocal model of grief is Stroebe's and Schut's Dual-Process Model (1999). Reiterating much of Rubin's cross-disciplinary concern, grieving activities can be "loss-oriented" and "restoration-oriented".

The number three plays a role especially in early 20th century models, including war traumatologist Erich Lindemann's (1944) three-stage idea of cutting bonds, adjusting to the new situation, and forming new relationships[2] (1944: 190). Two decades later, attachment scholar and neurobiologist[3] John Bowlby (1981[1969]) builds on Lindemann's

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2   In his influential essay *Symptomatology and Management of Acute Grief* (1944) he observes that "the duration of grief reaction seems to depend upon the success with which a person does the grief work, namely, emancipation from the bondage to the deceased, readjustment to the environment in which the deceased is missing, and the formation of new relationships" (ibid: 190). This passage highlights two aspects of medicalisation which continue to matter in clinical discourse. First, efficiency is expressed through time and the "duration of grief". Lindemann assumes that the faster grief can be concluded, the more successful the griever. Lindemann is explicit in pointing to the therapists' role in expediting grief. At a different point, he even provides an estimation of the therapy sessions required to take a normal griever from loss event to overcoming; "eight to ten interviews" (ibid: 199)

3   John Bowlby's opus magnum *Attachment and Loss* (1981[1969]) popularised the notion of grief work widely (Parkes 2010). underscores the importance of childhood bonds when it comes to loss in adult life. However, he updates the psychoanalytic approach to attachment, adding a neurobiological angle. During childhood attachment, Bowlby argues, a person develops "working models representing principal features of the world about him and of himself as an agent in it. Such working models

three-phase principle. The first phase is characterised by yearning and searching for the deceased, followed by a time of disorganisation and despair, which is believed to be eventually replaced by some degree of reorganisation (cf. Davis 2004: 508, Field 2005).

Therese Rando (1984) suggests that the stages decathexis, development of a new relationship with the deceased, and formation of a new identity can be divided by two, turning the three stages into six 'R-processes' of mourning: recognising the loss, reacting to the separation, recollecting, relinquishing attachments, readjusting, and reinvesting in life. When it comes to numbers, Rando thus presents the most elaborate grieving system. As clinical psychologists Bonanno and Kaltman (2001) point out, however, the more elaborate the system, the more likely it is to be "rife with assumptions about what grieving should be, or how bereaved individuals should feel, and how long they should feel it" (2001: np).

Four has been the titular number in William Worden's tasks of mourning (1982). This model is inspired by Worden's observations from clinical practice, and it suggests (1) acceptance of the reality of the loss (2) working through the pain of grief (3) adjusting to an environment in which the deceased is missing and lastly (4) withdrawing emotional energy and reinvesting in another relationship as activities which must be mastered in consecutive order by any mourner. While these tasks might be relevant to specific situations, like conjugal bereavement, their appropriateness has been challenged for other contexts, such as parental grief (Rando 1986, Davies 2004).

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determine his expectations and forecast and provide him with tools for constructing plans of action" (Bowlby 1981[1969]: 140). During later life, these models mediate instances of love and loss, imposing an unconscious ruleset which Bowlby believes determines how we connect to others and cope with loss. From his Darwinist-biologist perspective, loss events always threaten established working models, and the individual's psychosocial survival. Healthy grief work, then, constitutes the successful "unlearning" of the attachment to the deceased (Davies 2004: 509).

Finally, Elisabeth Kübler-Ross' (2011[1970]) five stages of grief is the most popular bereavement model in our Western collective memory (Wambach 1985). The famous stages of denial, anger, bargaining, depression, and eventually acceptance, are widely applied in terms of a 'complete' picture of successful grief work, both by mourners and care takers (Wambach 1985, Silver/Wortman 1980, Izod/Dovalis 2014).

However, Kübler-Ross's ambition with *On Death and Dying* has been more global. As a part of the hospice movement in the 1970s, her interest was in demedicalising death by speaking to the 'lay' mourner. Kübler-Ross draws from a range of clinical examples while breaking with convoluted medical language. Her work features expansive interviews with the dying. However, by mapping those voices to the five-stage model, she again reduces people's rich narratives to a formula. Precisely the claim that the model is people-centred has given rise to abuse, such as in a case where nurses expected their patients to die in the "correct order" (Silver/Wortman 1980: 332).

To be fair, there is evidence that grief models can serve as tool for comfort and validation in some cases (Wambach 1985, Bradbury 1999). This is even possible if grief models are appropriated and diverted from their clinical sources[4]. Individuals who do not match the mode, however, are often left with feelings of inadequacy also known as the disenfranchisement of grief (Doka 2002, Attig 2004).

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4 As a widow in Mary Bradbury's (1999) ethnographic study Representations of Death reports: "I mean, a friend of mine told me there are three stages you go through when you lose someone. First of all you can't believe it, then you go through a stage of anger and then in the end you accept it. But, I certainly haven't got to anger yet (Christine)." (Bradbury 1999: 172). Christine's sentiment indicates that 'grieving by the model' means making sense of one's own experience through an external filter.

OVERCOMING: THE GAME

The propositions and limitations of the grief work hypothesis should now be clear in theory, but how do they feel in practice?

With the design of *Overcoming*[5], I intend to demonstrate two things. First, translating aspects of the grief work hypothesis into gameplay, it demonstrates what it feels like to perform a universal task of grief work in the most effective way, measured on a normal/pathological binary. In theoretical writing, the experiential quality of relinquishing bonds with the deceased can be concealed by the use of technical terms like decathexis, liberation, or emancipation.

Figure 2: Screenshot of Overcoming, *a literary review game about the 'grief work' hypothesis*
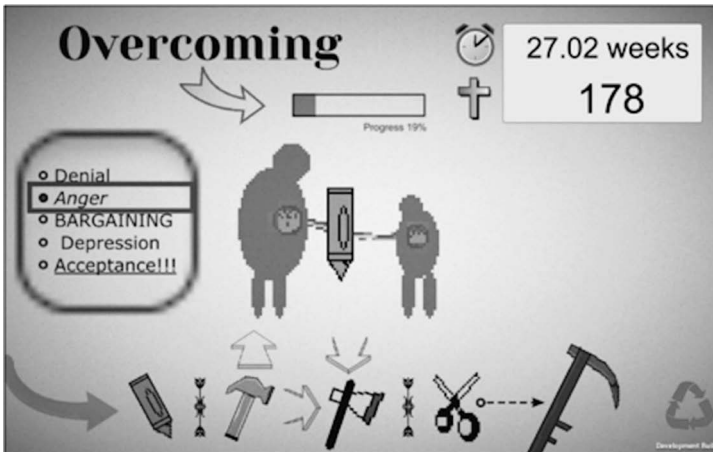
Source: author

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5   A prototype of Overcoming is available for MacOS on: https://enibolas. itch.io/overcoming.

In a game system, the requirement of relinquishing the bond, and 'killing' the libido can be expressed through a stressful task.

Secondly, by translating the mourning/melancholia binary into a win/lose system, *Overcoming* demonstrates how well the grief work hypothesis and its assumptions suits itself for game design. To game designers this may suggest that grief itself can be accurately expressed through a simple win/lose economy. To show the problems with this idea, *Overcoming* emphasises the generic, arbitrary nature of grief work as stressful task which follows an extrinsically imposed sequence.

Overcoming translates three features of grief work into gameplay; the idea that there is a universal task which is carried out to relinquish bonds with a deceased, secondly that normal grief work happens inside of a time window which can be quantified, and thirdly, that the success of a grief process is evaluated from the outside, by the grief scholar or therapist.

In the centre of the screen, we see two characters connected by a bond. This is the bond between griever and deceased which must be relinquished as the main objective of the game. Below the characters, we find an array of tools which can be selected and repeatedly clicked on the bond to sever it. As a generic mechanic, clicking refers to the 'universal' nature of grief work; slightly boring, while still requiring some effort. Clicks must be fast in order to be effective, and the mechanic stays the same across all 'grief stages'.

The list on the left indicates which stage the griever is currently at and determines which tool must be used to 'grieve correctly'. Through trial and error, the player must learn how tools and stages correspond. The graphics are supposed to be informative and confusing at once. They represent the inconsistency through which grief models communicate their universality claims.

The progress bar indicates how far the griever is along in the process of overcoming. An empty progress bar indicates the beginning of grief work, while a full bar indicates the moment the game is won. A full progress bar epitomises progress in our current 'digital age' and is therefore a suited as a signifier for the grief models' progress rhetoric.

A progress bar pushes attention to the goal of completion, and in *Overcoming*, it claims that emotional labour can be quantified.

There are two other items which refer directly to *Overcoming*'s quantification of grief; the timer and the score count on the right side of the screen. The moment the game starts represents the moment of loss. This triggers a stopwatch, counting up the weeks from loss to overcoming (or failure). The time limit used to indicate failure is inspired by treatment plans to what grief psychology calls 'complicated grief disorder' (Shear/Shair 2005).

While the timer counts up consistently, the scoring criteria are less transparent. The score count is based on a secret algorithm providing secret quantified information which cannot be deciphered by the griever-player. The number stands for the implied knowledge of grief psychology evaluating the 'success' of grief work. All the player can hope for is to make a difference through repetitive clicking and taking pride in their arbitrary score.

There is a second ending that is reached when the player does not do the grief work successfully and fails to fill the progress bar in time. Instead of filling up, the progress bar stays empty while a dark shadow of depression envelops the characters, 'emptying' and 'consuming' the ego until it finally disappears.

My review of psychopathological grief literature and the mechanics of *Overcoming* point to a central flaw of the grief work hypothesis. All authors imply attachment as an important prerequisite of grief, but the abstract nature of the model keeps them from explaining what this attachment means in the lives of grievers. In *Overcoming*, the bond between deceased and bereaved is the central element on screen, and the object players must engage with to win the game. And yet the player is never told why they should care about the bond in the first place. The grief work hypothesis uses a level of abstraction which removes it from the reasons for attachment.

Attachment is most generally referred to as cathexis, a universal energy currency that must be a converted from the purpose of fostering attachment to fostering overcoming. In *Overcoming*, clicking on the

bond is a dull experience because it is dissociated from the person we are connected to. This suggests that in order to understand grief as lived experience, we need to understand the embodied features of attachment. Why do the bereaved care, and how? To find out, constructionist grief theory has proposed to look at grievers' language, and the way they make sense of their feelings.

CONSTRUCTIONIST GRIEF THEORY

Constructionism argues that loss is an undoing of previously stable assumptions about the self and others; it challenges salient "narratives of self" upon which the individual used to rely (see also Thompson 2003). If loss challenges the cohesion of self-narration, grief narratives are a way of exploring new meanings. Rather than serving narrative templates from the outside, like the modernist grief work model would suggest, constructionism locates the source for cohesion in the griever's own imagination.

Social scientist and grief scholar Paul Rosenblatt observes that from a cognitive linguistic perspective, the grief work hypothesis also already proposes a particular imagination of grief (Rosenblatt/Bowman 2013). It constructs it in terms of an "ontological metaphor" (i.e. Lakoff/Johnson 1980), a discrete thing. He elaborates: "We talk about all sorts of nonconcrete things, as grief, as though they were concrete, discrete, and bounded like solid things are, like a piano or a cup, but grief is not a discrete object. It is a sociolinguistic construction" (Rosenblatt/Bowman 2013: 83).

While the ontological metaphor of grief has fed into the normal/pathological binary demanded by modernity and medicalisation, Rosenblatt argues that it has done little to "understand and help" the bereaved. This is because it silences what he calls the "hyphenated feeling/thought" of the bereaved, the felt constellation of a specific grief situation (2013: 83). He proposes that grief scholars start paying attention to this constellation by looking at the metaphors the grievers

design themselves to make sense of their experience. The kind of images, symbols, verbs used to describe a loss or grief situation indicate both priorities in the grievers' lives, and appropriate ways of addressing it as bystanders, therapists, and scholars.

Discussing the symbol of the hole, which he identifies as recurring element in griever's loss narratives, Rosenblatt demonstrates how metaphors can be critically engaged by therapists and scholars:

"Is a hole bond? That seems paradoxical, but maybe missing someone is always a connection to that person. Is a hole something to fill in? The message I hear with the hole metaphor is often, "This will always be with me, and it should be". But then the hole metaphor may seem to imply something that needs repair or filling in or a loss of self that needs to be repaired." (Rosenblatt/Bowman 2013: 84)

This passage illustrates how the engagement with the self-chosen language of the bereaved pushes attention to the griever's personal needs. Their feelings become a legitimate starting point for making sense of the grief experience. Rather than analysing how the griever's experience would fit inside an externally created template, experience is taken seriously as expert source from which appropriate self-narratives emerge. Secondly, this means that rather than moving away from the griever and their lived concerns in order to arrive at a solid true meaning of grief, meaning is assumed to be located in the griever's capacity to formulate appropriate metaphors. Thirdly, this enables understandings of grief in the plural, acknowledging the complex nature of emotion as a multimodal and multidimensional process floating between different thoughts and feelings.

Constructionism re-envisions the role of therapists and scholars from grief experts to empathetic listeners. This is discussed by clinical psychiatrist Laurence Kirmayer in his essay *Failure of Imagination* (2007). Kirmayer asks what happens when the self-narratives of clients clash with the expectations of the therapist. "If the story is incoherent, implausible or unordered to us, what will we do?" (Kirmayer 2007: 363).

The modernist view of grief work would reduce incoherence to a sign of defectiveness and "slot various experiences into categories as symptoms", practicing a "hermeneutics of suspicion" (Kirmayer 2007: 377). Kirmayer contends that this rarely happens consciously but is the work of prolific media stereotypes of 'good' overcoming to which neither grievers nor clinical staff are entirely immune (2007: 378). The task of a clinician, however, would be to battle engrained assumptions and imagine grief along with the visions of their client. This requires the professional to expand the "vision of the possible", listen to client's "stories and their potential truths" and thereby give authority, depth and texture to such an account (ibid: 369). In other words, one of the core competences of grief therapists and scholars is the ability to listen and give space to the expressions that be.

Grief and the Expressive Arts

This new focus on the imaginations of grievers, and the ethics of professional listening has been related to the process of art making. Expressive art counsellor Barbara Thompson suggests that loss puts the bereaved in a "state of liminality" (Thompson 2003: np), the undoing of certainty and stability, which can serve as inspirational context for art making. She argues that imagination, the crafting of symbols, allows lived experience to become real. As demonstrated in their anthology Grief and the Expressive Arts (2014) Neimeyer and Thompson, this can happen through diverse artistic modalities; dance, singing, poetry, painting, drawing.

In her approach to music therapy, Joy Berger stresses music as a catalyst for memories, which can be constructively tapped during grief to "call forth deeply personal, relevant emotions, stories, and meanings connected with one's loss" (Berger 2014: 38). Inviting grievers to recall their relationships with the deceased by listening to a music piece, the idea is to "hear and resonate with the person's current mourning, here" and to "create a new musical memory that can be revisited in this person's future ahead" (ibid). Berger points to the importance of

practicing shared music listening with an affirmative, open and empathetic attitude. This creates "a safe conduit for the person's vulnerable emotions and rich life stories to emerge" (ibid).

Shanee Stepakoff's (2014) "graphopoetic process" is a technique which uses poetry to reflect on the experiences of the bereaved. First, a poem is selected by the facilitator in response to the client's or group's themes. After letting the poem sink in, the group share their responses, engaging aspects of the poem in respect to their own experience, and emerging feelings. Secondly, the group are invited to write in silence, which, according to Stepakoff is a powerful way to reveal things which would not be expressed through speaking. This writing exercise can take a structured form. The author points out that poetic structure can give useful constraints to help participants contain feelings that would otherwise be difficult to process (2014: 68). The graphopoetic process concludes with the opportunity to read one's poems out loud and receive respectful attention by facilitator and group members.

Finally, an example for visual arts techniques is given in Leigh Davies' article "Drawing on Metaphor" (2014). Davies argues that "metaphorical imagery allows holding on and letting go, grieving and creating, to occur simultaneously" (2014: 146). She argues that possibilities for meaning creation do not only exist in the content of visual images, but in their artistic elements, materials, lines, colours, and textures. This means that the grievers' treatment of art materials can be an important resource for communication: "If, for example, a client talks about the colours of the materials available, repeatedly reorganises them and repackages them but doesn't use them, the therapist might become fascinated with the colours" (2014: 146). This underscores the importance of the facilitator's attitude, and the willingness to invite with curiosity what is there. A visual image may first not be ready to be addressed consciously, "yet it exists and can be dealt with if and when the time is right" (ibid). When this is the case the metaphorical image can be explored "to see what it can do" (147). By doing this, Davies argues, the facilitator allows the griever to treat reflections in their own terms; "to take what is timely and helpful and to leave the rest" (ibid).

While inviting meaning making through different registers, these techniques have one thing in common. They provide what Jordan Potash and Rainbow T. H. Ho (2014) call a "dual communication", on the intrapersonal (within the griever) and the interpersonal level (2014: 29). First, intrapersonal validation emerges from the process of making, and the conscious focus on lived experience through what Stephen Levine calls poiesis. Poiesis is "the basic activity of shaping in response to what is given" (2014: 14). By immersing participants in verbal and non-verbal expressions, the techniques above demonstrate that poiesis can be initiated in different ways. In the centre of poiesis is a search for appropriate language through introspection. The outcome of this introspective process is engaged carefully and respectfully.

Secondly, rather than a work requiring critique, the art object is an opportunity to observe and resonate with the griever's feelings. This moment of interpersonal validation by viewers who care, has been consistently emphasised in constructionist literature (Thompson 2003, Potash/Ho 2014, McGuiness 2014, Berger 2014, Stepakoff 2014). These can be therapists, family, group members or a general public (Potash and Ho 2014: 28). There are two features in particular, which predestine art objects as mediators for interpersonal validation.

Levine (2014) has pointed out that art objects differ from ordinary things around us in terms of their madeness, and their freedom from utility (Levine 2014: 15). According to Levine, "the work of art does not disappear in its utility; rather, it demands to be seen for its own sake. As a result, it can have a powerful effect on us, an effect that we call an aesthetic response, the experience of having our breath taken away and feeling moved or touched" (ibid). This in itself, he argues, can spark reflection about ways to live on after loss.

Secondly, Potash and Ho (2014) point to the memorialising function of art as objects with the ability to transcend time. The outcome of art making "reminds the viewer of the original event long after it has passed, allowing for continuity and immortality. This last point extends art from personally meaningful object to intergenerational symbol" (ibid: 29). They observe that especially in contexts of shared art making, group

members are eager to form connections reinforcing validation and mutual acknowledgement.

VIDEOGAME DESIGN AS EXPRESSIVE ART?

I would argue that the dual communication principle of the expressive arts can be applied to practices of game design and play. Making a videogame involves many of the expressive modalities discussed in Neimeyer and Thompson's *Expressive Art* volume; visual arts, music, writing, and spatial choreographies, for example. This creates opportunities for personal expression and intra-personal reflection.

I suggest that searching for a gameplay metaphor can be used to develop one's idiosyncratic grief language, just as can dance, poetry and story making. While game making includes different already explored expressive art techniques, it would also introduce the new feature of interreactivtiy, and the composite, dynamic nature of the ergodic continuum. Designing gameplay requires a focus on performance, possibilities, and atmospheres. This means that when grief is modelled through gameplay, the metaphors used become dynamic. To make them dynamic, the griever-designer would have to explore their image in-depth, "to see what it can do" (Davies 2014: 147).

Revisiting Rosenblatt and Bowman's (2013) metaphor of the hole in in the context of game design would allow us to explore the 'holeness' of grief in terms of dynamics, mechanics, and aesthetics: Depending on whether the hole is a bond or something to be filled, something to be repaired, etc. different experiential meanings emerge. Through play, the properties of these meanings can be explored in visceral ways, adding tangibility to words.

The benefits of both crafting and experiencing games which are based on grievers' metaphors can be seen in extension of the expressive art process unpacking what images "can do" to make us understand grief (Davies 2014). Unlike other artistic methods, however, game design engages metaphors through multiple modalities at once; rules, haptics,

graphics and sounds. While this adds complexity to the ways a metaphor can be engaged, it is possible to accommodate different priorities of grievers. For instance, if the hole metaphor evokes strong aural associations while the visual aspect is less pronounced, they might also choose an audio-based mechanic for their game. As composite texts with different levels of ergodicity, games can model different sensory aspects of what is currently most important for the griever. Even if the "rules" of grief are hidden for the griever, this hiddenness itself can become part of the game system, i.e. by designing a floating experience which allows players to soar through space like the griever does.

Like other art objects, the outcome of such a design process can invite validation through interpersonal communication; reception (Potash/Ho 2014, Levine 2014). In a videogame context, reception happens through play and therefore through an embodied participation in the interreactive scenarios (Smethurst 2015) representing the emotional landscapes of grievers. Compared to other modalities of reception, play invites the receiver to become part of a symbolic world, allowing an embodied connection to personal contents and themes. To acknowledge a griever's expressions by playing their game, one participates in their emotional landscapes and symbolically goes a piece of the way with them.

Expressive art literature reminds us of the non-judgmental attitude that would be required to "play with" the bereaved (i.e. Thompson 2003). If play is a receptive modality with the same advantages of empathetic listening and viewing, it means that gameplay is there to be experienced rather than critiqued or assessed. However, in analogy to compassionate listening (Berger 2014) and compassionate viewing (Davies 2014), compassionate play may also provide a starting point for respectful observations. Stepakoff (2014) points to the method of the respectful echo, the quiet repetition of a phrase or element that resonated for the listener. Similar to this, players may investigate a gameplay element that is particularly evocative for them: What does it mean, and what feelings does it evoke? To engage with these feelings may be a way

of honouring not only the feelings of the bereaved, but the effort done to give structure to their experience.

The way I connect metaphor and game design is inspired by Rusch's (2009, 2017) approach to experiential metaphor and emotional projection discussed in the preceding chapter. Far from being merely a tool for analysis, Rusch proposes experiential metaphor as a compelling tool to both interpret and create games in personal ways. While metaphorical interpretation unpacks gameplay in terms of its personal meaning for the player, this process is reversed in metaphorical game design. Rusch demonstrates this in games like *Akrasia* (2008), *Elude* (2010), and *Soteria* (2016), all of which address complex human experiences; addiction, depression, and anxiety.

However, there are ways in which an expressive art approach used in this thesis challenges Rusch's cognitive linguistic approach to metaphor. First, Rusch assumes that "[a]ll of our inner, emotional processes are abstract. We only have direct access to their symptoms – we can see someone go red in the face, frown, or smile – but what goes on inside remains hidden from direct observation" (Rusch 2017: 48). Emotion here is assumed to be a kind of information which resides in abstract properties 'hidden' inside the experiencer. This view coincides with the informational paradigm, which according to HCI researchers Kirsten Boehner and colleagues (2007) dominates affective computer discourse. They observe that "affect is often seen as another kind of information – discrete units or states internal to an individual that can be transmitted in a loss-free manner from people to computational systems and back" (2007: 59).

As opposed to this, they propose an "interactional view" on emotion as "culturally grounded, dynamically experienced, and to some degree constructed in action and interaction" (ibid). Applied to Rusch's example above, this would mean that going red in the face, frowning, or smiling are already parts of an emotional interaction, rather than mere symptoms of an emotion hidden inside. Furthermore, rather than neutral bystanders, we would look at the person's face from a culturally grounded stance of interaction, interpretation. Seen from this

perspective, emotional processes are concrete rather than abstract, since they emerge from a social space between people whose sense of touch, feel, sight etc. impacts the quality of emotion felt inside. This also means that emotional processes are ordinary in that they reside in the small acts of everyday life; for example the choice of a bereaved sibling to sleep in clothes of the bereaved (Foster 2011); Mrs. A's letter sorting activities after the death of her son[6] (Klein 1940).

I suggest that the interactional paradigm of emotion is not only suited to explore game design in the context of expressive art therapy, where the focus is on collective expression and communication (Levine 2014, Potash/Ho 2014). It also responds to Rusch's (2017) idea that lived experience can be made tangible through game design, while resolving a central paradox: Identifying structural aspects of experience and turning them into a formalised game system is a process of abstraction (Rusch 2017: 52). But if experiences are abstract to begin with, we would turn one abstract concept ('trust', 'grief') into another one (the game). At what point has the emotion been more than a concept, an idea? When has it touched people's lives?

An example for this paradox has been delivered earlier with *Overcoming*: This game translates a rational economic view on grief into the abstract mechanic of clicking and severing bonds. Rather than helping players to "become conscious of our experiences" (Rusch 2017: 47) the game ignores lived experience by abstracting it. I suggest that modelling experience through gameplay requires attention to its

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6   Mrs. A is the client of psychoanalyst Melanie Klein (1940/1994), who struggles with the sudden death of her six-year-old son. In her essay "Mourning and its Relation to Manic-Depressive States" Klein observes Mrs. A's elaborate rituals of rearranging furniture and sorting out letters of the deceased. Engaging with her lost son urges Mrs. A to perform specific everyday life activities confirming a connection with the deceased. In good Freudian fashion, Klein expects, however, that the 'excess' care Mrs. A. puts into the commemoration activities will stop once Mrs. A has completed her 'grief work' successfully and 'restored' her sense of self.

concrete 'livedness' and 'feltness'. What is it that makes up the messy, embodied sensation of dealing with a loss?

At first glance, this seems at odds with a tenet of game design – that game design needs precision, while experience is fuzzy. As Rusch writes:

"If you intend to make a game about something, it is not enough to have a fuzzy sense of what that something is. You cannot be vague when you are defining rules and behaviour. Rules are not like words that can tiptoe around an idea, hint at it, and make allusions. Rules lay down the law. They define how it is." (Rusch 2017: 48)

Game rules certainly "lay down the law", but from a constructionist standpoint, laws do not lay down meaning. The identical game rules mobilised in different player contexts can have vastly different consequences on the levels of engagement, perception and projection. And as I have previously argued, ergodic features do not make games more special than other media. Rules are like words in that they define possibilities for communication, which can be used in different ways to carry narratives of the bereaved.

Part 2: Analysis

2.1 Of Limit Breaks and Ghost Glitches: Losing Aeris in *Final Fantasy VII*

> When you lose someone you loved very much you feel this big empty space and think, "If I had known this was coming I would have done things differently". These are feelings I wanted to arouse in the players with Aeris's death relatively early in the game.
>
> *Yoshinori Kitase, Edge (2003)*

PROLOGUE

As a Japanese role-playing game, *Final Fantasy VII* (*FFVII*) is both rooted in an RPG tradition of turn-based combat mechanics dating back to a dice-throwing Dungeon & Dragons tradition (Poole 2000: 77), and the tightly authored experience of becoming a character (Burn/Schott 2004). Its core mechanics feature both the conventional RPG ingredients of "fighting and magic" (Poole 2000: 77), and "heavy characters" (Burn/Schott) 2004), whose relationships emerge from the way they grow over the course of the game.

In the game, the player embodies Cloud Strife, a pensive, impulsive mercenary who joins the environmentalist movement Avalanche in an attempt to prevent the evil megacorporation Shinra from world domination. The convoluted story arc starts in Aeris's home city, Midgar, an industrial complex with a rigid class system, where the player learns how to control Cloud Strife's body and engages in the first Action Time Battles (ATB), *FFVII*'s interpretation of turn-based combat. ATBs occur frequently, interrupting the flow of exploration on the map, and in city areas. They establish combat as an ordinary element to be expected constantly. In conventional RPG manner, these battles facilitate the growth of characters by awarding Ability Points (AP) for each victory. These gradually level up the characters, which means that their stats, including strength (HP) and magic points (MP) increase.

The distribution of AP, rather than purely mathematical, have an impact on inter-character relationships. AP translate into different skills, characterising protagonists as aggressive, resilient, or talented at magic. Apart from these character metrics, the contribution of different party members during battle has a social meaning, suggesting different kinds of chemistry between the characters. This is where the relationship between main character Cloud and NPC Aeris is set in motion. Although she is just one among nine available optional characters who can be included in the active battle party, there are ways in which the game establishes her as an indispensable choice. This makes *FFVII* an early example of how videogames can express inter-character attachment through pawn metrics, algorithms and battle mechanics.

ATTACHMENT

British game scholars Andrew Burn and Gareth Schott (2004) have called Cloud Strife a "heavy hero" and compared his recognisable features to Homer's Achilles. This does not only refer to his signal look, but the way Cloud's personality traits as aggressive, melancholic hero are reflected in gameplay dynamics.

On a social level of inter-character dynamics this means that Cloud is the measure according to which the inclusion of other characters is decided. Are they a good match for Cloud? Since the battle party is restricted to three members, this is a strategic question asked to the player, who is in charge of identifying favourable constellations, and maximising synergies with Cloud. At his point, the game introduces several encouragements to pick Aeris as a compatible party member.

Limit Break

Since character metrics are hidden, players learn only slowly that Cloud's straight-forward aggression is mediated by an algorithm that makes him grow offensive skills faster than any of his allies. By contrast, no other party member, Cloud included, is as fast at developing magic skills as Aeris. This subtly suggests that Cloud and Aeris are a well-balanced duo, a fact which can be particularly well observed in regard to the so-called *limit break*.

Figure 3: Screenshot of Final Fantasy VII*, Aeris's limit break 'Healing Wind'*

Source: Square (1997)

In *FFVII*, limit breaks are individualised strikes performed by a character who has taken a serious amount of damage during battle. Inside the ATB window (fig. 3), limit breaks are represented through a progress bar next to each character's HP and MP count. This progress bar fills up whenever a character is hit; a process that may stretch out over several battles or happen multiple times throughout a single fight. When the bar is full, the character's personal limit has literally been reached, and they will perform a special attack without consuming any points.

The limit break mechanic taps into common imaginations of what it feels like to reach a point of mental or physical breakdown. The progress bar stands for the amount of insult and injury a character is willing to take before they will lash out or intervene more constructively. This moment is expressed by the sparkling, colourful appearance of a filled limit break bar, and the rushing 'fill bar' animation taking the character to their next turn more quickly than otherwise.

The discharge of limit break energy happens through a unique spectacular move predefined for each character. As the character develops, so do their limit breaks, making more choices available. This means that committing to a character means investing in their limit break as well. Here is where we find perhaps the most important synergies between Cloud and Aeris. In the *FFVII* universe, the common sense reaction to stress is retaliation, which is why most characters perform their limit breaks as a particularly strong attack. Aeris is an exception; instead of violence, she converts suffering into healing.

In figure 3, Aeris has just performed 'Healing Wind', her first limit break, which restores the HP (health points) and MP (magic points) of all party members by 25 percent. The green numbers indicate the amount of HP received by each party member. Interventions like these make her indispensable for the team, since limit breaks tend to occur in situations where at least one party member is sufficiently weakened. Apart from a strategic advantage of combining physical prowess (Cloud) with potent healing (Aeris), Aeris's limit breaks have economic advantages. The player uses fewer health potions if Aeris is around, saving 'Gil' –

FFVII's currency – as well as the effort to stressfully browse the inventory for curative items while the team is about to die. On a symbolic level, Aeris's 'healing reflex' characterises her as resilient, solution-oriented, and spiritually balanced.

Character Appearance

On the level of character design, the oppositional roles of Cloud and Aeris are reinforced both through the presentation of bodies, fashion items, weapons, and other symbolic attributes. This visual strategy is used throughout the game in many different ways, but as a point in case, I would like to describe the staging of Aeris and Cloud in the initial cut sequence.

This sequence starts as a non-ergodic cinematic clip right after the player has pressed play in the start menu. It begins with a meditative pan shot through a star-spangled night sky, which transforms into green energy particles that slowly materialise into Aeris's face, looking the player straight in the eye. There is the cosmos, there is peace, and there is Aeris. We hear high-pitched synth strings and a sequence of chime sounds vaguely reminiscent of the beginning of Mahler's *Titan Symphony* (1898), before the soundscape turns more intimidating. Aeris turns around, distracted, revealing a long, buttoned pink dress, a pair of functional brown boots and a giant flower basket lightly dangling from one arm (fig. 4). As the camera zooms out, Aeris's location is exposed: She is standing amidst an urban, industrial landscape surrounded by skyscrapers, and next to a sign saying 'Loveless & Sons'.

This is the first glimpse into the dichotomy we have seen before on the level of battle mechanics: 'Loveless', aggressive masculinity, sacred femininity. Now, in juxtaposition with the floral theme, Aeris is established as the 'other' in a dark, smog-infested stronghold, dominated by the male-led Shinra corporation. As the camera zooms out from Aeris's whereabout, we oversee their work: A network of reactors linked through giant steam engines.

Figure 4: Two screenshots of Final Fantasy VII*: Aeris as a character to be looked at (above), Cloud as a playable character (below)*
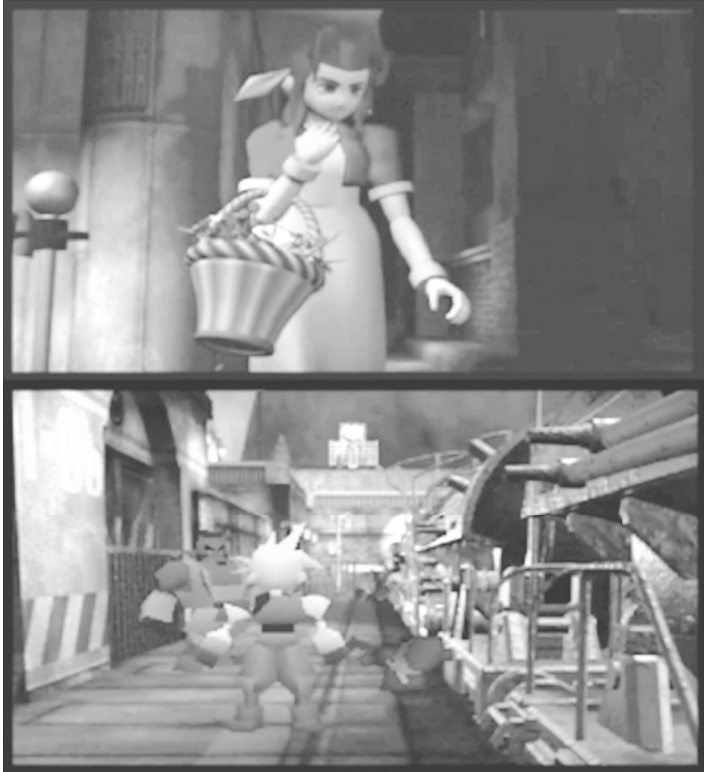
Source: Square (1997)

As the music picks up an erratic pace mimicking engine sounds, the camera pans in on another location. We are at a train station, where we see Cloud Strife for the first time (fig 4). Unlike Aeris's serene first impression in high resolution, we see him somersault from the train in his lowest polygon count. Most notable is his spiky ash-blond hair and the purple onesie, as the game transitions from cut scene to playable. As we take control of Cloud, the screen freezes and blurs, accompanied by

the threateningly hissing Action Time Battle sound. After a black-out we see our first battle screen, featuring a different visual representation of Cloud. Instead of the low-polygon Cloud, we see a well-armoured leather-clad mercenary in oversized boots and an androgynous face, inviting multiple gender interpretations (Burn/Schott 2004). Most outstanding, however, is the massively oversized sword, with which he smoothly defeats his first enemies.

This introductory scene sets the tone in terms of character presentation: Aeris and Cloud are oppositional characters, who belong together due to their differences. This is a theme that will be repeated until Aeris's death, and in the initial sequence it is foreshadowed on three different levels. First, there is the level of symbolism and visual attributes. Aeris's simple, gendered outfit, the flower basket, and her connection to the cosmos characterise her as sacred feminine, detached from the urban environment. The floral theme signifies innocence, wholesomeness and organicity. As we later find out, she is able to grow these flowers in the midst of the city's slums, indicating both resilience and mystical powers. In contrast to Cloud, we first see Aeris unarmed, marking her as vulnerable in her violent surroundings. In stark opposition to that, the first we see of Cloud is as a somersaulting, sword-swinging mercenary who seems well attuned to handling danger. His leather-clad appearance and the over-dimensional weapon characterise him as aggressor, and seamlessly blend him into the dark environment.

Secondly, there is a difference between who looks and who is being looked at. The initial close-up of Aeris's face, and the way the camera pans over her body to reveal her attributes in detail, positions her as object of first the player's, and later Cloud's gaze. In contrast to this, Cloud's first visual representation is a low polygon body that can be immediately inhabited. As opposed to the invitation to look at Aeris, Cloud comes with the invitation to act. In gameplay terms, Aeris's and Cloud's first impression are structured around non-ergodicity (Aeris) versus ergodicity (Cloud). Although this awakens interest in who the flower vendor might be, it also defines whose view we are going to take, and whose world we are going to inhabit.

This first division into agent and object of gaze is later challenged, even before Aeris's inclusion in the party. Minutes after the first cut scene, Cloud and Aeris need to escape an unforeseen attack in Aeris's church, and we get to experience Aeris's battle proficiency while Cloud tries to distract the perpetrators. By switching back and forth between Cloud and Aeris's point of view, the game provides a glimpse into how it would be to include her in the team. There is some variability in how the game moves back and forth between establishing Aeris as object of Cloud's gaze, and equal by his side. As a reprise to the beginning, the event of her death again constructs her as spectacle to be looked at and objectified in high definition, while the mourner, Cloud, expresses his sorrow as the same low-count polygon we have seen in the beginning. He is the agent of attachment and later loss.

Thirdly, the pacing of the starting scene says something about the characters' personalities, starting out with a meditative, timeless pan shot across the sky and Aeris's contemplative posture, and transitioning to a hurried staccato rhythm leading up to Cloud's somersault from the arriving train. The extremes of meditative versus impulsive, passive versus aggressive are not merely facets of the game to be played in a moment, but anchored as qualities of the two characters. The beginning thus foreshadows that part of the game will revolve around negotiating Cloud's and Aeris's relationship; balancing the tension between their traits.

Musical Theming

Videogames have a long tradition of using music to anchor the meaning of spaces and characters, particularly in the RPG genre, where elaborate musical scores accompany the epic journeys of player characters (the *Ultima* trilogy (1989) comes to mind).

One game-specific demand is that scores respond to the interreactivity of games, and the fact that players explore environments in different paces and orders. This is why games often use short repetitive loops which can accommodate a sudden change of scenes, or a triggered event (i.e. a random Action Time Battle in *FFVII).* When it comes to attachment strategies, music has a specific function in *FFVII.* It uses the Aeris leitmotif to firmly anchor the character as part of the game world, suggesting belonging. The element of repetition here is important. Playing the theme again and again in signal locations, the game marks those locations as legitimately owned by Aeris.

In particular, this applies to two places: The church, and Aeris's family home, both located in Sector 5 of the Midgar slums. In both places, the track *Flowers Blooming in the Church*[1] is played. This is an adaptation of the Aeris leitmotif interpreted by a synth flute and marimba. Rather than concluding the leitmotif, it repeats the initial part of the melody in soft, contemplative triplets. The soothing quality of *Flowers Blooming* suggesting safety and warmth is also emphasised through the way we enter Aeris's spaces. In both cases, Cloud goes through some kind of danger to arrive at Aeris's locations. To enter the church, Cloud loses a battle against a Shinra robot, falls, and breaks through the church roof, where his fall is cushioned by Aeris's mysterious indoors flower bed. There is a transition from industrial to organic, profane to spiritual, hard to soft, which is further mediated through the meditative loops of *Flowers Blooming*. As the name

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1 Sound available at: https://www.discogs.com/Nobuo-Uematsu-Final-Fantasy-VII Original-Soundtrack/release/329627

suggests, it is supposed to indicate Cloud's return to an organic, sacred space uncorrupted by industrialisation.

Like Aeris's church, her house of birth is located in the most devastated, dangerous region of Midgar. To visit this location, players have to navigate the party through the slums, which is characterised through a dissonant musical theme dominated by agitated hi-hats (*Underneath the Rotting Pizza*). Navigation is also frequently interrupted by random ATBs featuring the aggressive battle theme.

Finally, reaching Aeris's locations, the soundscape marks the player's arrival at a safe space. Rather than in the centre, the theme provides the background to a narrative scene in which they learn more about Aeris's past, are free to roam her house, and discover helpful items in the garden. By composing a musical transition from a slum environment to Aeris's oasis, the description of Aeris a peaceful, non-aggressive character becomes stronger. The repetition of parts of her leitmotif has three important functions: First, it provides context for what Aeris stands for in a world dominated by fight and violence: While the visual symbolism of flowers and churches is more aggressively defining Aeris as virtuous, sound is a subtle means to turn her places into 'safe havens'. Secondly, repetition produces familiarity and therefore legitimacy. The more time players spend in Aeris's signal locations, the more often they will get to listen to her loop, and the more likely they will memorise the melody. This creates a nostalgia effect which is used later when Aeris is assaulted and killed by Cloud's arch-enemy.

TRAUMATIC IMPALEMENT, SECONDARY LOSS

At the end of the first of the three *FFVII* discs, Aeris has disappeared. She has retreated to the Temple of Ancients, a giant mysterious seashell hidden in the Secret Forest, where she is at work summoning protective spirits in a last attempt to save planet Gaia. After catching up with her by navigating Cloud towards the sacred site, the party leaves Cloud's body, and the game switches to a cut scene. The camera displays Aeris's

face in deep meditation, while arch enemy Sephiroth dashes down through the roof and impales Aeris.

The details of this impalement are disclosed in a cross-cut; a rapidly descending Sephiroth with erect sabre; a closeup of Aeris's relaxed face; the penetration by sabre, the separation of body and mind, as represented through the disembarking White Materia bouncing down the stone pillars. In a sense, this is the reversal of Cloud's earlier fall through the church roof, where Aeris's flowerbed had saved his life. In the parallel scene now, Cloud's alter ego takes Aeris's life, similarly by entering her sacred chambers through the roof. Kotaku games journalist Jason Schreier (2012) reminds us of the careful composition of this death moment, in which "no shot is wasted". For the first time, we now hear the full Aeris Theme, which starts with a soft but confident harp triad, and builds up to become a full-fledged string carpet elaborating on the theme. Schreier notes that the bouncing movements of the life materia is slightly off the rhythm of this theme, emphasising the randomness of her death. When the cut sequence ends, the music continues. It is stuck in a loop, accommodating the ensuing scripted dialogue between Sephiroth and Cloud. For the incredulous player, Cloud makes explicit what just happened, holding the collapsed Aeris in his arms:

> Cloud: Aeris is gone
> Aeris will no longer talk, no longer laugh, cry...or get angry...
> What about us...what are WE supposed to do? What is this pain?
> My fingers are tingling.
> My mouth is dry.
> My eyes are burning!

Source: Square (1997)

In this little monologue, Cloud uses the collective pronoun 'WE', which can be taken to refer both to himself, the party, and the player. Translated to the gameplay level, the fact that "Aeris will no longer talk" means

that Aeris may no longer be a party member. This, indeed, raises the question 'what we are supposed to do' on a very pragmatic level.

As much as it illustrates Cloud's emotional world, it points to the uncertain status of the player grappling with the loss of ludic opportunities. In a world where Aeris's limit breaks are no longer available, where one has relied on her healing abilities, and invested in her growth, what are we supposed to do? Cloud's lines are visually supported by a shaking and trembling low-polygon character sprite. Arch-enemy Sephiroth towers right behind him, unimpressed, as he summons the Jenova Life monster boss.

As the scene blackens out and the battle screen appears, we notice a difference to regular boss battles. Instead of the default boss battle theme, the player still hears the Aeris's melody. This creates a 'lag' effect, as if Aeris's friends are still in shock, while the world has moved on. It is possible to read Jenova Life as the cynical representation of Aeris' death and its impact on the player-characters.

Jenova frequently launches a powerful magic attack named *Aqualung*, whose impact often kills a single character immediately. Since Aeris's limit break is not available, this puts the player into a vulnerable position. To resuscitate a character, they are forced to scroll through the inventory, find an expensive healing item, and thus lose time and money. This is a stressful loop which previously had not been necessary. It forces the player to learn new survival tactics on the fly.

This is a powerful analogy for post-loss depression created entirely through ergodic means. The death of a friend can 'kill' others as well, and in order to move on with the loss, one has to fight for new survival tactics. In this sense, Jenova *Life* stands for the characters' life after death. At least one character must stay alive in order to beat the boss.

Aeris's demise leaves a permanent mark on the gameplay structure, which the player needs to make up for. From the perspective of grief theory, this is a phenomenon known as "secondary loss" (Stroebe and Schut 1999). The idea is that the death of a loved one does not only cause emotional distress, but often comes with "additional sources of stress" which "add considerably to the burden of loss" (Stroebe/Schut 1999:

214). Particularly in intimate relationships with distinct roles, a loss may require the learning of a new role or ability.

In *FFVII* the player has to relearn being a healer, yet might find this stressful, given that no character in the game can match Aeris's abilities. For some players, this has been a reason to cultivate an ongoing relationship with Aeris after her death.

GRIEVING OVER AERIS: TWO FAN PRACTICES

There is not much the game leaves of Aeris after her loss. The boss battle concludes the first of three disks, so when Cloud and his party leave the Ancient Forest, *FFVII* has only just started and progresses without structural changes. The ATB and levelling up system is still in place; life goes on, so to speak, and next we hear of Aeris is right before the end, dozens of hours later.

Since the game ignores the player's struggles to come to terms with the loss, shere is room to come up with creative practices of staying in touch with Aeris. I have found two fan practices particularly interesting; the *Aeris ghost glitch*, which expresses yearning and searching for the character, and the *resurrection hack*, which denies her passing.

I find it useful to look at these fan practices through the lens of *continuing bonds*, a grief studies concept which Silverman and Klass (1993) describe as the need to "remain involved and connected to the deceased, and that the bereaved actively construct an inner representation of the deceased that is part of the normal grieving process" (1996: 16). I argue that the two fan practices indicate players' continuing bonds with Aeris, and therefore demonstrate how *FFVII*'s attachment devices have evoked a 'normal grieving process'.

Aeris's Ghost Glitch

The appearance of an Aeris sprite after her death is documented in the game's fan wiki finalfantasy.wikia.com. In order to see it, one has to make a detour to Midgar and enter Aeris's church. In this case,

"Aeris comes into view on the flower bed. She flickers and disappears when the player moves across a certain spot on the ground or attempts to leave the church. Moving across the spot on the ground when approaching the scene cancels the event permanently, as Aeris's appearance is a one-time-only event. It is possible to move next to her if the player moves past the spot next to the broken pew before the location fully loads. In this case Aeris will not disappear, but she cannot be interacted with[2]."

Figure 5: Screenshot of JBedGames' YouTube tutorial detailing how to find the Aeris ghost glitch in Final Fantasy VII

Source: JBedGames (2012): www.youtube.com/watch?v=G9UEXLMarb0

In order to take a fleeting glimpse at Aeris, the player not only has to visit a certain place but requires knowledge about how to move and where to position Cloud. They either have to time their navigation across a particular spot ("next to the broken pew") correctly or, alternatively wait and look at Aeris with some distance. This indicates how fragile a

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2   This description can be found on FFVII's fan wiki: http://final-fantasy.wikia. com/wiki/Aeris's_ghost

ghost encounter is; one wrongly timed step "cancels the event permanently" (fig. 5).

However, if done 'correctly', as YouTuber JBedGames demonstrates[3], players can experience different versions of the ghost glitch, variously interacting with and looking at Aeris. This scenario expresses a desire to continue bonds with Aeris in three ways. First, there is some effort in deliberately ignoring the direction of the main plot for the sake of being with Aeris. Going back to the church is a detour; both in terms of acquiring knowledge to find the glitch, and the act of virtually travelling there. This demonstrates the lengths to which players choose to go to revisit the flickering image of the love object.

Secondly, the activation of the glitch itself requires particular skills, such as being in the right spot at the right time and pacing one's walking speed correctly. The back and forth between the broken church pew is not unlike the liminal space grievers navigate when cultivating contact with the deceased. Like bonding rituals to the dead are flexible rather than stable over time (Klass et al 1996: 16), so are the different glitch versions.

Thirdly, by navigating Cloud in and out of the church, the continuation of bonds is characterised as his project, his commitment to Aeris. The commemorative stance he takes in the church, the distance between their bodies, and the imperative to stand still or the glitch will disappear, evoke a sense of awe and respect. Although initiated through him, it is the player who decides to continue this bond, and the game provides a (conscious or incidental) platform.

Coded Denial: The Resurrection Hack

The second commemoration strategy has been more proactive and driven by an insistence that Aeris's loss is unacceptable. Players have

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3   A collection of Aeris's ghost glitches can be found at https://www.you-tube.com/watch?v=G9UEXLMarb0

conceived a piece of code which promises to "get Aeris back in your party[4]".

Hacker Niai Mitch elaborates that not only will this enable Aeris to use "her best limit breaks", but there will be "moments when you can catch a glimpse of her on screen in the field with your party even when she is dead". On a more cautious note, there are also "times when you should avoid using her so as to avoid your game crashing. I very much hope that you find this guide useful, and enjoy!". This already indicates that using the provided cheat code to continue the game with Aeris comes with a compromise. Like in the ghost glitch, players must know about the correct rituals to sustain a connection to the dead.

Unlike the glitch, the resurrection code is invasive, and introduces situations in which Aeris is 'safe to use', and others which will make the game crash. In the context of grief discourse, this reflects the concern that continuing bonds may both be a healthy and a dangerous grief response (Stroebe/Schut 1999).

'Bringing Aeris back' means bringing her old sprites, dialogue options, battle skills and animations back. Aeris does not actually contribute anything new, and in moments in which this is asked of her, the game crashes. Although the hack constructs her as alive, this illusion breaks as soon as we realise that there is nothing new, nothing creative about the 'returned' Aeris.

Her presence merely consists of traces of a past that through player effort have been woven into a compelling memory of her. This activity of yearning, seeking and coding fabricates a small fantasy bubble in which Aeris continues to matter.

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4   A description of the resurrection hack can be found here: http://www.gamefaqs.com/pc/130791-final-fantasy-vii/faqs/38201?print=1

2.2 "You Were There": Losing Yorda in *Ico*

> Fleeting memories rise
> From the shadows of my mind
> Sing nonomori – endless corridors
> Say nonomori – hopeless warriors
> You were there.
> *Yorda's song / Ico*

PROLOGUE

Ico is a Japanese action-adventure game released in 2001 for the PlayStation 2. It is currently playable on PlayStation3 and Xbox as well. In the game, a horned boy named Ico is navigated through a mysterious castle in the hopes of escaping, accompanied by non-player character Yorda, a tall, fragile woman who does not speak Ico's language.

Over the first hours, the game revolves around Ico's and Yorda's relationship. As early as in the introductory cut scene, the game world of *Ico* is established as a sublime universe. The camera follows a group of nameless riders wearing armour and horned helmets. Riding through an illuminated forest, they hold a horned boy captive, the player character to be. As we hear the soft sounds of birds chirping and winds shaking the leaves, the horses come to a sudden halt in front of a gigantic abyss. A mysterious chant sets in, accompanied by chimes, while the camera zooms out, revealing the landscape through a soft-focus lens.

The abyss is indeed a moat, separating a magnificent castle from the mainland. Panning over the complex contraption of bridges and walls, the title letters softly fade in.

Although the castle's doors are wide open, they are inaccessible for the men, who consequently seek access by water. From an intricate cave system on the bottom of the castle they work their way up inside. On the way there, a number of anthropomorphic doors open as the men touch them with a glowing sword. These are the doors Yorda will open later throughout the game.

The boy is taken to a spacious chamber reminiscent of a mortuary: Countless vessels resembling coffins are fitted into a wall. One of them throbs with energy; it is the boy's assigned tomb. The men apologise as they conceal the boy inside the vessel. As they leave, the room starts to rumble. Ico's coffin breaks loose, and Ico tumbles down, head first on the stone floor, where he faints.

In the next shot, a dream sequence, we see Ico anxiously explore one of the castle's rooms during a stormy night. The scene is dominated by lightning, sounds of thunder, and heavy rain. Ico's gaze moves up towards the ceiling where one would expect a large chandelier. Instead, there is a spiked cage hanging, from which black ooze drops to the floor. A black creature emerges from inside the cage while Ico is being pulled into a black hole. This is how the dream sequence ends and the player gains control over the character back in the mortuary.

From this first scene, it is established that space will play a central role in *Ico*. There is a notable size difference between characters and environments, evoking associations to 19th-century landscape painting conventions[1]. Against the magnificent castle architecture, the characters appear minuscule and insignificant, underscoring the theme of

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1   Characteristic of this convention is the painting *Mount Adams, Washington* from 1875 by the US-American painter Albert Bierstadt. The contrast between gigantic landscape formations and First Nation tribes in the foreground characterises nature as something powerful and awe-inspiring.

abandonment which players witnessed in the initial cutscene: A boy has been locked away and left to die in a wondrous space.

This is where we start navigating Ico around, using the left thumbstick on the PS2 controller. Since the game uses a third person view, Ico's body is visible at all times, a continuous reminder of the castle's dimensions. As he runs around, we notice his boyish, tumbling movements, occasionally followed by playful exclamations. The camera is adjustable through the right thumbstick. The remaining commands are located on the right side of the controller and mapped in alignment with Ico's physical abilities.

Upwards motions (jumping, pulling up from a ledge) are performed by pressing the top/triangle button; downwards motions (dropping down while hanging) are mapped on the bottom/cross button. The square and circle buttons, which are located to the left and right, stand for Ico's hands. They are used to attack and interact with objects. The shoulder/R1, located on the back of the PS2 controller (fig. 8) holds a special significance in our ensuing interaction with Yorda.

Liberating Yorda from her cage comes with a bleak realisation; Yorda's freedom causes dark shadows to emerge and pull her towards a black hole similar to the one from Ico's nightmare. Yorda is helplessly delivered to these assaults if the player does not realise within seconds that Ico must pick up the stick and fight the ghosts. At this moment, there is no way players have internalised the controls necessary to achieve this.

Unlike Cloud's heroic introduction, *Ico* makes its protagonist seem weak and clumsy, hinting at the many paranoid moments to follow (McDonald 2012). If the player fails to protect Yorda in time, the shadow creatures will pull Yorda into one of the dark holes in the ground, the game screen is engulfed by a black fog, and the game ends. This first traumatic moment introduces *Ico*'s core object: Defend Yorda from the spontaneously spawning shadows while solving a number of puzzles leading to the escape of the two characters.

ATTACHMENT

When it comes to attachment, Ico is the character through whose eyes we see the world, from whose perspective bonding happens, and whose inner life is expressed through mechanics – management of space with Yorda – and the visceral, haptic connection to her. In what follows, I discuss the wide jump, the shadow fight, and the idol door as recurring situations. Their repetition reinforces the difference between the characters, lending the attachments an aspect of co-dependency.

Dependency Rules

First, the wide jump emphasises Ico's and Yorda's physical difference, the way their bodies relate to space, and how confidently they move in it. Ico is clearly superior; his movements are faster, his jumps are longer, and his climbing skills are more advanced than Yorda's. Unlike Yorda, he possesses the skill of pulling himself up onto ledges, holding his own weight, and running faster than the shadows.

One of the more subtle effects is that Ico will pull Yorda behind him whenever they walk hand in hand. Like an impatient child pulling on the hand of his parent, Ico pulls and yanks Yorda's hand, forcing her to stumble closer towards him. When jumping is required, the effect is more dramatic. During countless situations, the characters are faced with a gaping abyss which Ico masters without hesitation. When Yorda is asked to jump by pressing the R1 button, she will first nonverbally communicate her refusal and deny the jump.

To make her jump anyway, Ico has to jump first and kneel down at the edge of the cliff. When R1 is pressed again, Ico will say a word of encouragement and gesture Yorda to jump. In an attempt to obey, she tries and fails; her hands do not even touch the platform edge, but instead she lands in Ico's stretched-out hand. Unless the player lets go of R1, Ico can now pull Yorda up to the platform. This simple interaction, which is repeated over and over in the game, uses Yorda's weakness for the purpose of a quick thrill: Each time the player spots an abyss, she

will correctly anticipate Yorda's failure, evoking a simple question: Will I be able to help her this time?

A similar dynamic is introduced during the ghost fights. As discussed in regard to *Ico*'s opening scene, Yorda's liberation from the cage is staged as the origin of the shadow attacks. Eliminating the shadows is Ico's task, while Yorda passively awaits her fate in what seems to be anxious paralysis. This is afforded by the circumstance that picking up objects and using them on other game objects is an action exclusively available to Ico. Yorda's fear does not translate into self-defence but triggers a flight response. Unfortunately, her in-built maximum pace is too slow; without Ico's intervention, the spirits at her heels will eventually catch up and take hold of her. By rendering Ico physically superior, the game introduces a sense of moral duty. As the stronger character with a greater action repertoire, Ico needs to help and protect Yorda by making her run faster or eliminating shadows.

The player can decide between an offensive and a defensive approach. The offensive approach would be to try and destroy all ghosts as they attempt to abduct Yorda. The ghosts never initiate aggression against Ico directly, but some of them will strike back if under attack. In this case, they will knock-out Ico for some moments, during which Yorda is unprotected. Another risk of the offensive approach is that Ico might be occupied with fighting one creature while Yorda is kidnapped by another.

Part of the game's increasing difficulty curve has to do with the progressively more versatile shapes and actions of shadow creatures. As the characters progress in the castle, the spiritual realm seems to undergo a kind of evolution, starting with simple spider-like forms whose smokey bodies can be dissolved simply by waving the stick. Later permutations include winged creatures and large anthropomorphic beasts growing thick, oily bodies. These advanced shadows are fast, efficient, and coordinated, endure a number of strikes, and are capable of powerful retaliatory attacks against Ico. They easily pull Yorda from Ico's grasp, shoulder her, and run or fly away quickly.

This is why playing aggressively in a later stage may feel overwhelming. One can choose, instead, an escape strategy, running towards one of the many magic idol gates, hand in hand. Aesthetically, this escape scene gains a dramatic edge through Yorda's restless turning around towards the threatening shadows. If they have navigated a level successfully, Ico and Yorda eventually reach an idol gate characterised by two anthropomorphic pillars which will forcefully break apart as soon as Yorda approaches them. As a collateral effect, an energetic flash is released, strong enough to eliminate all shadows in the room. This allows a powerful defence strategy; instead of bothering with awkward shadow fights, the player may simply run and let Yorda unleash her powerful energy flash.

In any case, it will be Yorda's ability which allows the couple to progress, which characterises the relationship as co-dependent, encouraging different interpretations. Yorda both represents a living key which enables Ico to progress, but she is also in charge of the mysterious doors, suggesting that she has her own, hidden, agenda behind following Ico. Indeed, Yorda seems to know the surroundings and solutions to the castle's many puzzles excellently. When the player gets lost, Yorda will give subtle pointers by calling Ico over or looking in the direction of progress.

Gender: Yorda, the feminine other/ed

We cannot fail to notice that Ico's and Yorda's division into aggressive and impulsive versus fragile and defenceless characters is gendered. This pushes the meaning of bonding with a less capable other towards a heteronormative narrative: Ico cares about Yorda because he has found in her an attractive counterpart confirming his identity as masculine protector. In terms of visual staging, there are parallels to Cloud and Aeris in *FFVII*: Yorda's petite feminine body contrasts Ico's stubbly appearance. Her overly white limbs glow against Ico's brown skin when their hands touch.

Fashion choices complement this difference. Yorda wears fringed, flowing garments, while Ico, as the bolder character, is allowed to wear

a bright red shirt tightened around his waist by a brown leather belt. Ico's clumsy stumbling and the echoing sound of his feet on the ground emphasise that he is grounded, while she hardly touches the floor. Binary aspects on the level of character design are rounded off by Ico's signature object, the erect wooden stick, displayed on both versions of the game's box art (fig. 6). In both illustrations, this symbol for male aggression protrudes directly from his hips, while Yorda is the mysterious background figure or the rescuee dragged along.

Figure 6: Ico*'s box art as used for the release in the Japanese and PAL regions (left) versus the US (right)*

Source: SIE Japan Studio (2001)

There is one visual element which troubles a straight-forward reading of the Ico-Yorda connection as a romantic heteronormative narrative; the size difference between the characters, which invites the reading of an age difference. While Ico is clearly a child, Yorda's age is left ambiguous by making her significantly taller. This could mean that Yorda is an adult attachment figure, perhaps even Ico's mother (McDonald 2012). This leaves heteronormativity unchallenged – the

child can still desire their mother – but the act of aggression, the demand for attention, and the pulling of Yorda's arm gain a slightly different meaning. Instead of showing superiority, the child is demanding his mother's attention.

The overemphasised frailty of Yorda signifies an infantile fear of losing the beloved mother, and the paranoid shadow fight is an attempt of keeping the mother ideal intact. McDonald demonstrates that this reading goes far in explaining *Ico*'s Manichean universe. As the mother ideal, Yorda is inherently connected to the dark Queen who represents the 'bad' maternal aspects which need to be repressed in order to be with 'good' mother Yorda. From this perspective, the stick as male aggression is impotent to begin with: It can only achieve as much as to repress (kill) those dark aspects of their relationship which threaten the infantile mother ideal.

Fort-Da: Elastic Bonding

Spatiality in *Ico* is constructed through a spectacular setting in which the two characters appear fragile and lost. But the environmental challenges, and the fact that space is contested, renders the space between Ico's and Yorda's bodies precarious as well. The elastic bond device is used to create a suspenseful pulsation between separation and return, risk and relief, simply by defining the physical space between Ico and Yorda as contested.

Given the mysterious adversary Ico and Yorda are exposed to, the castle is an agoraphobic place; it is precisely the vastness and spaciousness that is threatening. It creates an ideal environment for the dancing, attacking shadow creatures. Under such conditions, the game teaches us early on the imperative of keeping minimal distance between Yorda and Ico, since closeness translates to safety. Not only do shadows emerge less frequently when Ico and Yorda share a personal space, but Ico is also able to protect Yorda more readily.

At the same time, progressing in the game affords Ico to leave Yorda on an exposed spot at times to pull a lever, climb a rope, or open a door. The shadow mechanic effectively characterises such situations of

separation as dangerous. The player is put into a position where they will anticipate the emergence of shadows as soon as they have left Yorda alone. It is this anticipation which causes stress. We have witnessed before what happens when we leave Yorda alone; it is likely to happen again. The only questions left to answer are how many shadows will emerge, and how long it will take them to abduct Yorda this time. A player may ask: Will I be fast enough to prevent the worst? I handled it before, but will I handle it this time?

Needless to say, there is pleasure in answering these questions affirmatively and returning to Yorda before something serious happens. This pleasure is not unlike what Freud described in his *fort-da* game in "Beyond the Pleasure Principle" from 1920 (Strachey 1962). Freud observes a toddler boy repeatedly throwing a wooden reel into his cot, where it is invisible to him. He then pulls it back again with pleasure. The name fort-da is derived from the boy's exclamations during each action, commenting on the object's status; "fort" (German: absent) stands for the tense moment in which the reel temporarily disappears, whereas the much more joyful "da" (German: present) celebrates the moment when the reel returns to the boy. Freud concludes from this observation that to the toddler, this game holds significance as a symbolic negotiation of maternal absence. The reel acts as a stand-in for the mother whose temporary absence the toddler must learn to cope with. To deal with the separation, the toddler symbolically enacts the joyful return of the mother.

Ico exercises the fort-da game on a basic level. Throughout risky puzzle sequences, Yorda is put into a Fort position and thereby established as a vulnerable object worthy of protection. Ico's return to her creates a pleasant Da moment, which can feel like the player's personal victory. We do not want Ico to leave her personal space, unless for the sake of such a pleasant return. Throughout the game, Ico's Fort moments become longer and more difficult to master, but the pleasure of reunion grows proportionally, too.

The Call-Response Controls

The call/response device is a haptic strategy which defines communication between Yorda and Ico as essential part of the gameplay. Pressing the R1 button on the PlayStation2 controller stands for Ico's desire to connect to Yorda. Yorda will do whatever she can to accommodate Ico's wish by coming closer, holding his hand, or carrying out an assisted manoeuvre like the wide jump. This is even possible in a universe where Yorda and Ico do not share a spoken language.

Yorda's belonging to the mythical castle is underscored by the fact that her speech is encrypted, and even translated into fictional subtitles (fig. 7). Though being inherently alien to both Ico and the player, Yorda still consents to communicate with them on a physical level.

Figure 7: Screenshot from Ico, *Yorda's fictional language expressed through playful hieroglyphs*

Source: SIE Japan Studio (2001)

Where spoken language fails, there is the tangible level of the hand-controller relationship, which is the only medium to bridge the gap between the characters. McDonald (2012) has shed light on an interesting parallel between the anatomical nomenclature of the R1 button (shoulder button) and its use in *Ico*: Through it, Ico literally rubs shoulders with Yorda, and, as McDonald suggests, the rounded shape evokes associations to the comforting maternal breast.

This comfort – the response Yorda gives to Ico's calls – can be achieved in several ways, depending on the context and the space between Ico and Yorda. When far apart, R1 triggers Ico to call out for Yorda, and she will try to come closer if possible. Only if separated by an obstacle unsurmountable to her will Yorda refuse Ico's call. In this case the onus is on Ico to find a solution.

Figure 8: Ico*'s control scheme*
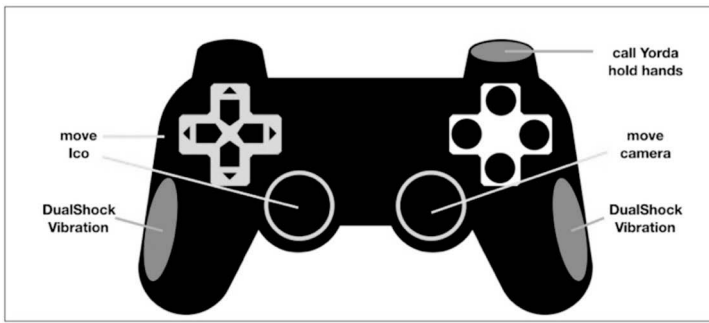
Source: author

We have seen the case in which the R1 button can be used to make Ico stretch out a helpful arm to catch Yorda after her jump. A similar dynamic is at work when Yorda faces an inaccessible ledge. If Ico jumps up first, R1 makes him reach out and pull Yorda up by pressing the square button. As shown in fig. 8, the mapping of R1 does not interfere with any of the other commands. Actions mapped to the right side of the controller are triggered with the right thumb, while R1 is activated using the right index finger. This means that irrespective of what Ico does, contact with Yorda can be maintained at all times.

The most powerful deployment of the R1 button is certainly when Ico and Yorda are within each other's reach. In this case they will hold hands, triggering the DualShock feature of the PS2 controller to send a soft vibration feedback to the interreactive player. As indicated in fig. 8, this vibration feedback is felt on both grips of the controller. In

conjunction with the action of holding hands, it underscores a sense of intimacy and safety, just like feeling another person's pulse during skin contact (McDonald 2012). If the player identifies as Ico, the controller may stand for Yorda's hand. Otherwise, the comfortable vibration may simply feel pleasant in its own right, contrasting the fast-paced action during combat, and the performance pressure imposed by a gaping abyss.

Altogether, these three design devices of dependency, spatial elastic bonding, and call/response mechanic anchor Yorda as a natural part of the game's objective. The first establishes responsibility of a helpless other as a core motive to care, the second presents intimacy as an advantage for survival, and the third emphasises the pleasure of reunion. Connecting with Yorda becomes as natural to the player as the action of navigating Ico around. There is one objective – escaping the castle – and this objective is based on the premise of a shared space. By repeating bonding exercises on the mechanical, spatial, and haptic levels, shared space becomes a given, taken for granted by the player. It will only be at the point of separation that the player realises how much Yorda has been sutured into Ico's universe, and what he loses when Yorda becomes unavailable to him.

THE FAREWELL TROPHY

Ico's separation from Yorda is introduced via a dramatic scene in chapter six, around two thirds of total playing time. Hand in hand, Ico and Yorda have finally reached the castle's front gate and set out to leave it via the gigantic stone bridge connecting the castle to the forest. The weather is bright and calm, although clouds start forming in the distance. Halfway over the bridge, the castle's dark Queen approaches and pulls back part of the bridge. A gap widens between the two sides, separating the couple. Inverting the established power dynamics, Yorda stretches out her hand, and Ico needs to jump. If the player times this jump correctly, Ico grasps Yorda's hand.

Foreshadowing the imminent change of gameplay, Ico's weapon slips and plummets into the moat. Meanwhile, the Queen's shadow has reached Yorda, and starts engulfing her. Thus paralysed, Yorda's hand lets go of Ico, and he tumbles down. Yorda whispers the word nonomori, which will reappear later in the lyrics of Ico's final song *You Were There*.

Following Ico's fall in the abyss, the screen fades black. The soundscape changes, indicating that the weather has changed to a thunderstorm. In the PlayStation3 version, a small message pops up on the top right corner of the screen, connecting the diegetic inner game screen with the extra-diegetic black frame (see fig. 9). It reads "You have earned a trophy[2]. Farewell". At the same time, we see the castle from a low, tilted angle, towering over Ico's new location in the rain – a giant cave.

Although the 'farewell trophy' is visible only for seconds, it is an interesting addition to the PS3 version of *Ico*. In this version, trophies are used as extra-diegetic elements to comment on a task ('Rescue') or geographical location ('West Gate'). What the 'Farewell' trophy does is to rationalise and finalise the separation of Yorda and Ico, using the authority of the generic trophy animation. The fact that "you have earned a trophy" means that a chapter of the game is now irrevocably closed. What we have 'earned' is an official confirmation which may or may not help players find emotional closure.

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2   The trophy feature is an in-game reward system introduced with the PlayStationNetwork (PSN) in 2006. It allows players to compare their achievements and share secret findings via the PSN. Developers can incorporate trophies of four different levels into their games (bronze, silver, gold, platinum), suggesting a certain competitiveness. However, it has also become popular to use trophies for narrative purposes.

Figure 9: Screenshot of Ico, *Farewell trophy after the fall from the bridge*

Source: SIE Japan Studio (2001)

GAMEPLAY DEPRIVATION

Ico's postlapsarian life is not quite what it used to be. For the first time, he will be on his own, in an environment that has notably changed from the familiar castle setting. While a thunderstorm is raging outside, Ico finds himself inside a cave, standing on a dark, spiked, hanging cage. This exposition mirrors the game's opening scene in several ways. First, this is a place not unfamiliar to the attentive player who will recognise it from the introductory scene, as a place the three horned riders traversed before imprisoning Ico. Ico is again imprisoned, but this time from Yorda's perspective, on a hanging cage. Secondly, both of Ico's awakenings are traumatic. Initially, the game's transition from cut scene to interreactive action happens via Ico's fall from the tomb/womb. In the mirroring postlapsarian scenario, Ico is exposed on what might be the cave's most dangerous spot.

The shift of scenery from a warm and homely indoors space to a rough outdoors environment is exploited symbolically. The player has been familiarised with the castle's architecture, its solid, tiled structure,

its trimmed court gardens, and its balconies with a view. The weather had been bright and clear, allowing an unconstrained look at the promised land in the distance; a land seemingly bare of obstacles and therefore preferred to the castle's unpredictable mysteries. In other words, the spectator/player had been allowed to project hopeful future dreams on Ico and Yorda. In contrast to this, the rocky insides of the cave in the now are trenched in a greyish mist, making the organically shaped level structures difficult to read.

When we first find Ico, balancing on the narrow, dangerously dangling cage contraption, we realise he is surrounded by a confusing number of cages that need to be navigated to reach a solid precipice. Like other essential puzzle pieces ahead of us, this precipice is almost invisible, hidden in the dark. This breaks with established principles of level design lighting which usually aims at providing player guidance (Jenssen 2012). Players are literally left in the dark about the path towards progression, introducing moments of guesswork and disorientation. Climbing passages start in unlikely spots, seemingly blind alleys turn out to be the way towards progress. Yorda's direction pointers certainly would have been helpful here.

Although the game contained water-based puzzles before, there is a new focus on swimming, falling into, and being washed away by water, indicating Ico's loss of stability. Through tricky rope climbing passages the player is landed in a dull cycle of climbing, falling, and climbing again. The rain outside and the waterworks inside the cave produce deep roaring noises and a thick greyish mist, two effects adding a depressive tone. Ico must follow a dark, confusing, and depressing path through organically winding tunnels, across rusty pipes, and barely intact cogwheels.

This means that Ico's life after the fall is characterised by gameplay deprivation. First there is a loss of important gameplay routines, such as the pleasurable fort-da dynamic. This introduces uncertainty: Can the game provide an adequate replacement for a previously fulfilling task? On a narrative level, Ico's identity as heroic leader is put into question.

Ico's purpose of being in the world so far has been the aggressive protection of a weaker partner, and the constant search for intimacy.

Part of his agency has been constructed around defeating Yorda's enemies, literally pulling her out of trouble. By removing this role as helper and protector, the game shifts focus on what is left of Ico: A character who is no longer needed and whose place in the world has become precarious. His first encounter with an idol door is another way the game puts the player in touch with this precariousness. We remember Yorda's ability to effortlessly open the idol door, while Ico has to take a significant detour to find an idol sword, a prosthesis substituting Yorda's natural born instincts.

Finally, there is a loss of the soothing DualShock vibrations whenever Yorda's and Ico's hands had met. Here, the game's previous investment in a single-button ritual mediating communication translates into a tragic effect: Since the player has become used to the sensation of hand-holding, the absence of the soft rumbling construct additional loss of purpose. *Ico* acknowledges that the hard-to-grasp sensual dimension plays a role during attachment. It mimics the subtle sensory complex of a partner's idiosyncratic touch, smell, and sense of presence which is hard to let go of. Through the call/response mechanic, the game has created a sensual 'Yorda complex' whose meaning changes when R1 is pressed in Ico's new situation. In this case, Ico will still call out for Yorda, but his call will die in the cave's void without response. Ico's dying voice thus confirms that pleasant bonding rituals like the wide jump, hand holding, a hand-in-hand escape from the shadow monsters, or simply a partner responding to the wish for proximity, have become a thing of the past.

Like in *FFVII*, *Ico*'s gameplay deprivation comes with a secondary loss. Yet while Aeris's removal from the battle party changes only parts of the player's strategic setup, Yorda's loss significantly changes Ico's relationship to the world and removes the game's core objective of escaping together. Ico and the player have to deal with a loss of self in the form of Ico's heroic identity: The focus shift from socially oriented towards self-oriented shakes the foundations of what it means to be Ico.

This shift is reinforced through an emotionally charged visual and auditory landscape. There is a transition from bright to dark, solid to liquid ground, from domestic to wild, from clear to clouded. Furthermore, the level design plays with the conventional metaphorical dichotomy *up is good/down is bad* (Lakoff/Johnson 1980). One starts high up on the castle platform, signifying the hope to be in charge. Hundreds of metres above the ground, Ico's elevated emotional journey takes place mainly on a horizontal plane. Although this introduces the fear of falling – culminating in *game over* situations in which Yorda's shadows push Ico off an exposed platform – there is hope, expressed through well-lit, accessible passages.

Ico literally falls deep from this plane of hope. His place after the fall is close to the sea, the lowest point of the environment. From the initial cutscene, we know that there are two ways to go from here; out (representing resignation) and up (representing yearning for Yorda). However, at this point the game forces Ico to go up. Ico cannot let go of his hopes to reconnect with Yorda.

Although these hopes turn out to be unrealistic, Ico refuses to give in. On the contrary, he forces his way into the castle once again, where instead of Yorda, he finds the Queen. His attempts to kill the Queen, using the idol sword, are successful, but this does not bring Yorda back or grant Ico control over the situation. In fact, he loses his horns and passes out while the castle starts crumbling.

This is when the game's final cutscene starts, and Yorda makes her last appearance in the shape of a shadow ghost who tucks Ico's unconscious body into a boat. She then pushes the boat off onto the open sea, while the castle dramatically collapses. Yorda's climactic appearance is all the more dramatic for its music. Since the game's soundscape has been minimalistic so far, listening to a song feels out of the ordinary.

> Fleeting memories rise
> From the shadows of my mind
> Sing *nonomori* – endless corridors
> Say *nonomori* – hopeless warriors
> You were there
> You were there
> Am I forever dreaming
> How to define the way I'm feeling
> You were there
> Countless visions they haunt me in my sleep
> You were there
> Though forgotten all promises we keep

Source: SIE Japan Studio (2001)

These lines are sung by a child's voice that may belong to Yorda, Ico, or both. As mentioned, the central word is the ominous 'nonomori', the magical formula Yorda's whispers on the bridge during the moment Ico's hand slips from her grip. Through repetition, nonomori becomes the joint between past ("You were there") and the present ("Fleeting memories rise"), an evocative spell inviting the player to contemplate special moments in the game before they put it aside.

Furthermore, as an encrypted phrase, nonomori has inspired fans to speculate about its meaning. Some believe that the phrase means "thank you" in a reversed version of Japanese romanji[3]. While no evidence exists that this is the case, fan Rune proposes: "Instead of saying "Thank You", start saying "nonomori" to people; on the internet or in real life"[4].

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3   Fan speculations about the purportive meaning of Yorda's language can be found in forums like neoseeker: http://www.neoseeker.com/forums/543/t933514-yordas-speech-at-end-spoilers/

4   Rune's suggestion can be found here: http://thecolorless.net/posts/48790

That way, Rune hopes to spread Yorda's word, and become a part in ordinary language, expressing the wish to honour her in everyday life.

TO BOND OR NOT TO BOND WITH YORDA?

While discourse around Yorda's language points towards interest in the character, players have responded to the game's construction of attachment and loss in different ways. The inequitable distribution of power among Ico and Yorda has elicited frustration as well as emotional commitment.

For some players, the imperative to protect and defend Yorda makes her appear disproportionally useless, undermining bonding. As user Jack reports: "It'd have worked a lot better if when you find a better weapon, you give her your old one, so she can at least attempt to defend herself. The game's pretty much one big escort mission, which is probably the root of me finding it to be stunningly average[5]."

When Jack refers to "escort mission" as a problem, he points to the often-deplored design trope of a weaker side character whose behaviour does not match their vulnerability. Their poorly designed AI, or "artificial stupidity" induces them to throw themselves into danger, undermining the player character's attempts at protecting them[6]. Jack implies that Yorda's "uselessness" affiliates her with this trope and compromises her role as a partner to be taken seriously. If only she

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5   Online source: http://www.rllmukforum.com/index.php?/topic/77573-ico/&page=2

6   The TV trope wiki defines Artificial Stupidity as a recurring consequence of an Artificial Intelligence (AI) failing to choose an appropriate move for a simulated character. This failure of a computer to make a contextually appropriate decision is the most visible in role-playing games, but also prevalent in escort missions, where NPCs often demonstrate "suicidal overconfidence":http://tvtropes.org/pmwiki/pmwiki.php/Main/Artificial Stupidity.

would be allowed to participate in the action and show her commitment to the mutual cause.

For others, Yorda's passivity enhances a feeling of paranoid commitment and the fear of inadequacy. In the same forum thread, Cyhwuhx writes, "The very first time she was pulled into the shadows, I felt a shiver down my spine. Everything... black.. I felt sickeningly empty". For superstarbeejay, "[t]he panic and urgency as you hear her yelp from a different room is spine tingling". In both cases, dependency is a meaningful source for emotional projection: The sole responsibility of Ico over a weaker other adds weight on the players' shoulders, causing them to experience "panic" and "emptiness".

For these players, the game communicates paranoia of loss successfully. What characterises the relationship is a constant feeling of alertness. Yorda's dependency is not unpacked in terms of her own uselessness but the player's potential failure at providing and protecting. Emotional projection allows these players to become vulnerable, putting themselves in a role where they can use the game to confront their own insecurities concerning questions of attachment and loss.

What is notably absent from fan forum discourse is that Ico's vulnerability is channelled through a gendered binary in which the masculine is active and the feminine is passive. *Ico*'s dependency rules and the call/response controls force player's attention to Ico's inner life, while we know little about Yorda's dreams and ambitions. Since all of her actions are responses to Ico's demands, we never find out whether she even has a will on her own, or truly wants to follow Ico to begin with. The game never brings up the question of consent. Yorda is hard-wired to respond to Ico's request positively, without ever challenging his way or uttering her opinion. This makes *Ico* a game in which feelings around love and loss are constructed around the total victimisation of the feminine other; a male-owned paranoia fantasy.

2.3   Conjugal Love:
Losing the Spouse in *Passage*

> He saw death standing beside him and
> knew that he was about to die.
> *Philippe Ariès/The Hour of Our Death*

PROLOGUE

Passage is a short, minimalist 2D game by American indie game developer Jason Rohrer and was published in 2007 for PC, Mac, and Linux. In it, a pixelated representation of the game designer Jason Rohrer traverses the eponymous passage on a 2D plane, and there is the option to meet his wife and continue the journey as a couple.

Over a playing time of five minutes, the couple is subtly pushed towards the right side of the screen until the spouse reaches the right edge, transforming into a gravestone. The player has to decide how to spend the player character's remaining lifetime as an aged, significantly slowed-down widower. For fans, much of the attraction of *Passage* is due to the simplicity through which this story is told (i.e. Fagone 2008).

The game does not feature any sophisticated bonding rituals or fleshed out character representations. Rather, its minimalism provides an interesting case for how emotionally engaging representations of attachment, loss, and grief can be conveyed through a simple ergodic spectrum.

When opening the game, one cannot fail to notice *Passage*'s unusual proportions. The game takes place inside a 100x16 pixel corridor with large chunks of the screen above and below it blackened out (fig. 10). In conventional platform game manner, the player character starts on the left side of the passage. This initially suggests that the direction to go is eastward. To move the character, the four arrow keys are used, taking real-time control over a stylised representation of Jason Rohrer. The camera follows the character movements, scrolling the aisle-shaped window as he moves.

Traversing the passage, the character explores more of the initially blurred environments in front of him. Objects materialise as obstacles, decorative items, or treasure chests, some of which contain rewards. Such rewards translate into a number of points added to the score displayed in the upper right corner of the screen. An additional point is rewarded for each step taken to the right. Apart from indicating progress, the score does not hold any significance for gameplay.

The dimensions of right and left, as we shall find out, are packed with symbolic meaning. Encoding left as past and right as future, they draw on what visual semioticians Gunther Kress and Theo van Leeuwen call 'Given' and 'New'. In their book *Reading Images: The Grammar of Visual Design* (2006), they write that "[f]or something to be Given means that it is presented as something the viewer already knows, as a familiar and agreed-upon point of departure for the message" (Kress/van Leeuwen 2006: 181).

Comparing visual texts across genres, they observe that the Given of a message is usually located on the left. *Passage* is no exception. Starting on the very left of the screen, the player character is Given, both as controllable player unit and as discernible human character. The rest of the environment is blurred, indicating that the New is still out of reach.

For something to be New means that it is presented as something which is not yet known, or perhaps, not yet agreed upon by the viewer, hence as something to which the viewer must pay special attention. Broadly speaking, the meaning of New is therefore "problematic",

"contestable", "the information 'at issue'", while the Given is presented as "common sensical, self-evident" (Kress/Leeuwen 2006: 181).

Little is known or agreed-upon about the blurry, garbled heap of pixels in front of the character. He faces an uncertain situation that might be 'problematic' but also hope-inspiring. The objects in the distance are New enough that they haven't taken shape yet. This can be changed by approaching them. Since the field of vision moves with the character, approached objects turn from blurry to concrete, from New to Given.

Apart from the character's movement in space, he is also moved by space. Starting out on the left, his position is constantly advancing towards the right. This suggests that the progression from left to right also stands for ageing, for being in time. By doing this, *Passage* draws on another visual convention, namely representing time through space (Boroditsky 2000, Lakoff/Johnson 1980).

Expanding on Lakoff and Johnson, psychologist Lera Bodoritsky (2000) has suggested that thinking about time in terms of space is just as useful as using temporal information (Boroditsky 2000: 1). Among the spatial relations conventionally used to talk about time are front/back, as in someone being ahead of her time, and the notion of moving through time, or time moving us.

In *Passage*, these metaphorical conventions are translated into propositions of the game space. First, the character exerts agency by 'going forward', by 'moving ahead'. Secondly, due to the shape of the passage, which is wider than it is high, the most straight-forward way to go is literally forward. Since the game's tunnel vision conceals regions above and below the character, walking up or down is comparatively risky. It would mean to move towards the (visually) unknown. Thirdly, the score only increases when we move from left to right, indicating that going forward is objectively more rewarding than going up, down or left.

In addition to player-controlled movement, there is also the passive being-pushed forward as the game progresses. This reduces the distance between Given and New: The character is pushed towards a point where

he has 'seen it all', nothing about life is New, a moment which elegantly coincides with the time of death.

The movement towards the right creates an anticipation of death. Game journalist Anthony Burch (2007) recounts that it took him

"almost half the game to notice I was aging. By the time I realized what was going on, I suddenly became much more frantic; I no longer had the ability to see what was coming, and I took on a much more panicked pace as I tried to quickly progress through the landscape..." (Burch 2007: np).

At the point of noticing the passing of time, noticing that the character is being pushed forward, Burch is confronted with the question of mortality, and how much time there is left until the rest of his life becomes Given.

While the unusual format of the passage pushes our attention to the left/right axis, it is also possible to move up and down. The division into upper and lower parts of the landscape is once again metaphorically charged. The 'surface' level is easy to traverse because it is free from obstacles, but it is also free from interesting elements which can only be discovered by going deep. In contrast to this, the low regions feature an intricate maze, sprinkled with treasure chests and visually stimulating decorations. The choice is between living a simple, conformist life which is boring, or a full life which is hard to navigate.

To go deep is to walk off a path which – through the score count – one is objectively told to pursue. Instead of doing the 'right' thing, one commits to experimentation, and thereby dismantles the myth that life is flat, one-dimensional, and must be traversed in linear ways.

ATTACHMENT

If one follows *Passage*'s visual pointers and walks the character straight to the right, it takes some seconds to run into the arms of the spouse, whose presence in the world has lingered there from the beginning as

blurry silhouette (see centre of fig. 10). The moment of walking into her space has consequences for the rest of the game. Henceforth the player navigates as a couple, classified as heterosexual by conventional gender markers.

In what follows, I will discuss three moments in the construction and maintenance of this union: The way we fall in love, the way we go through life together, and what this suggests about imagined gender roles and the notion of romantic love.

Figure 10: Screenshot of Passage: *The starting position of the main character (left), future spouse in the distance*
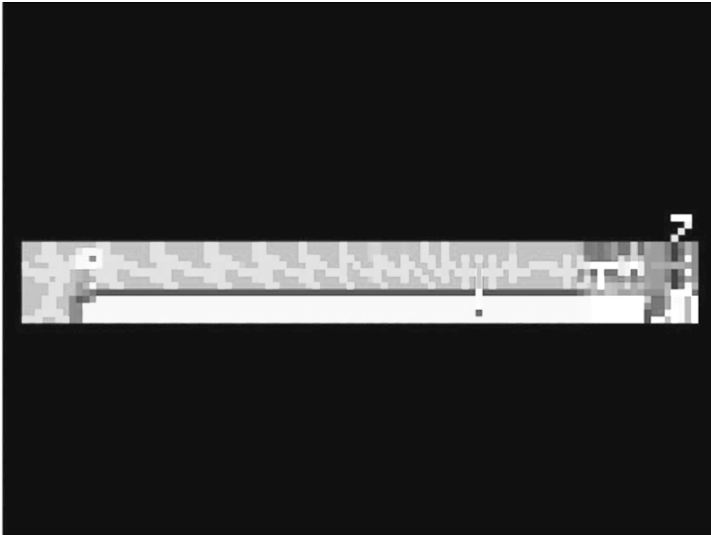
Source: Jason Rohrer (2007)

Falling in Love as Incorporation

Upon moving closer, we turn the spouse character from a blurry, latent New into a recognisable Given; a red-headed woman in a bright green

dress. What distinguishes her from the player character is her static posture. Is she human after all? Curiosity may lead us to move closer.

Figure 11: Screenshot of Passage*, meeting the spouse*
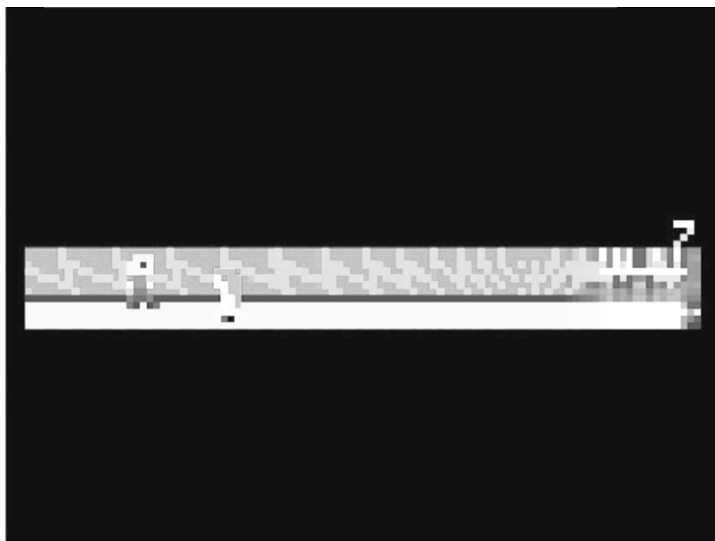
Source: Jason Rohrer (2007)

Figure 11 shows the situation right before entering the spouse's personal space. Once we do, a bright red heart envelops the couple. This moment in which "there is love" (Oliu 2014) is also the moment in which the hidden incorporation rule is triggered. This means that the woman is 'turned on' into an animated wife-being, turning around to face the same direction as her husband and starting to walk in sync with him. There is no space between the characters, so the player suddenly needs to navigate a conjoined couple, dealing with the resulting alteration of game space.

Incorporation imposes a sudden turn of events, which takes first-time players by surprise and constructs a certain notion of romantic love which is worthwhile disentangling in game design terms. First, touch is

not only defined as an expression of 'falling in love'. It also function as the cause of a permanent shift in status from single to couple. Once incorporated, the presence of the spouse is no longer up for debate. Love is circumstantial rather than a matter of choice. This is quite different from the attachment quality in *FFVII* and *Ico*, where players are interreactively involved in forging a bond.

In *Passage*, the player has to come to terms with love as it strikes, love as something overwhelming to be adjusted to. This is problematic considering how the relationship is established. While 'falling in love' comes unexpected, advancing the spouse is still an act committed by the male character, while the woman waits to be 'taken' as a wife.

Man Acts, Woman Appears

Like in the games previously discussed, *Passage* uses gender to say something about the attachment quality, the motives of bonding, and the characters' identities. Due to the game's minimalism, this happens through simple binaries. First, conventional markers like the long dress and the long hair are used to distinguish female from male character. But these markers correspond with a gameplay dichotomy of passive versus active. It is worthwhile looking at how this construction happens from the beginning.

When they enter the game the player character's gender is ambiguous. They are only defined through what they can do; traverse the passage. When we meet the spouse, the visual markers introduce a gendered difference, and therefore encourage a heteronormative reading of the situation: The player character turns from genderless to male. However, since the player character and his behaviour are Given, it is the woman who appears as other. This is in line with what cultural critics Laura Mulvey (1999) and John Berger (2008[1972]) describe as mechanics of the male gaze. In her influential essay Visual Pleasure and Narrative Cinema, Mulvey observes the conventional staging of women as image, as a thing to be looked at, while men are the bearer of the look. Berger, similarly, writes that "men act and women appear. Men look at

women. [...] The surveyor of woman in herself is male: the surveyed female. Thus she turns herself into an object – and most particularly an object of vision: a sight" (Berger 1972: 42).

The spouse is a 'sight' in the most classical sense. Before we 'activate' her she behaves like other landmarks in the player character's environment, "like a lamp-post", as a player observes[1]. A visual detail shown in fig. 2.8 is that before attachment, the woman, though positioned on the same plane, is slightly beneath us. In the second 'love' envelops the characters, she is lifted and clicked into place side-by-side with the male character.

The portrayal of romantic love in *Passage* proliferates a traditional gender pattern we know from Grimm's fairy tales and 1960s and 70s Disney princesses (Stover 2013).

In her essay Damsels and Heroines, Cassandra Stover discusses Snow White and Cinderella (both in Grimm/Grimm 1812) as prototypes of women "wishing for the one she loves to find her" (Stover 2013: 4). According to Stover, Disney has moved on towards a post-feminist rhetoric of the strong female character fighting for autonomy. *Passage*, in contrast, presents waiting for love as the only objective of the spouse. This is illustrated by the case in which she is not picked up. In this case, she will indefinitely wait in her corner in the North-East, her gaze turned towards the past, from where she suspects her lover. Since the woman is reliably passive, the player can explore the passage until they get old, deciding last-minute whether to spend their last days in company. In case players cannot find her, they can conveniently track her down using Rohrer's coordinates[2].

The way gender markers are deployed do not get less problematic when considering the autobiographical dimension of the game.

1 Retrieved from the Penny Arcade fan forum: http://forums.penny-arcade.com/ vanilla/discussion/48341.

2 Rohrer includes directions of the spouse in his creator's statement, which can be found online at: http://hcsoftware.sourceforge.net/passage/ statement.html.

According to Rohrer, the characters are representations of himself and his spouse. In the closing note of the creator's statement, he writes: "That's me and my spouse in there, distilled down to 8x8 pixels each.[3]" The claim of authenticity in such a statement has led to a collective journalistic blindness towards *Passage*'s misogynistic undertones.

Given the wide reception, any reaction to the problematic portrayal of the spouse is surprisingly absent (Burch 2007, Grossman 2007, Koster 2007, Meer 2007, Siegel 2007, Thompson 2008, Fagone 2008). The loud appraisal of *Passage*, as an "art game hit" (Koster 2007) and Rohrer as "programmer saving our 21st century souls" seems to look through and past the spouse's object status. Instead of seeing the passive woman for what she is – a fantasy woman produced by selective, male-focused design decisions – the 'autobiography' label seems to function as an excuse. In fact, Rohrer's one-sided portrayal of romantic love seems to be celebrated as artistic genuineness; as an 'authentic' expression of human existence. This is done despite the fact that the real-world spouse portrayed in the game is never invited to speak about her own experience. Reducing her to a collectible in the game does not make the game more 'authentic'. It only highlights that what's going on is a symbolic act of silencing. The suspiciously male-dominated, journalistic enthusiasm around *Passage* indicates that not only is this acceptable, it is not even noticed as problematic.

Marriage as Unification

Passage expresses marriage as the melting together of two bodies. Forming a union, causing "two to become one" is an old expression for romantic love, featured both in a Spice Girls' song (1996) and the *Old*

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3 Read Rohrer's creators statement here: http://hcsoftware.sourceforge.net/passage/statement.html.

Testament[4]. In both popular texts 'becoming one' denotes sexual intercourse, while in *Passage* physical conjunction has more to do with giving up privilege in exchange for a life with someone else. Moving as a couple means that we can only move so far. Some of the deepest layers of the passage will have become impassable, and one may be confined to the 'ordinary' surface level of a 'simple life'. However, if one manages to find a treasure chest, rewards will be doubled, as indicated in the score.

For some players, moving as a double character, however, has been a cause for frustration. As user Scosglen sarcastically asks in the Penny Arcade forum: "Is the hidden lesson that marriage will hold back your treasure-getting opportunities?[5]" For the user, the change from being single to being married equals a loss of opportunities, evoking a sense of compromise. Since the possibility space has been diminished, sharing space with the wife signifies a lack of freedom. The increasing score count provides only a meta-commentary on the relationship. Like an advertisement in a lifestyle magazine, it attempts to sell heteronormative commitment as a project worthwhile pursuing (Ingraham 2005).

What makes the union device work as a design element fostering attachment instead of mere frustration is the space-is-time rule. The push forward in time now applies to both characters. Since the spouse walks ahead, the anticipation of an end – and the worry to lose her – can be projected onto her. What if she reaches the end of the passage? Will she die? Will both characters die? Being pushed towards an uncertain end creates suspense. Time is a threat unifying the couple not only spatially but emotionally. They are in this together.

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4   In the "Genesis" verse 24:2 of the *Old Testament*, God commands: "Therefore a man shall leave his father and mother and be joined to his wife, and they shall become one flesh" (New King James Version 1982).

5   Online source: http://forums.penny-arcade.com/vanilla/discussion/48341.

Ageing Together

The collective push towards the right is related to the fourth device, ageing. Not only is the environment transforming in front of our eyes, but so are the characters' bodies as they get older. The first soft hint at this temporal progression is the constant change of the characters' pixelated fashion. Over time, the suggestion is, interests and tastes change. Simultaneously, hair colour changes as well; a particularly strong hint at deterioration being the moment Rohrer loses his hair.

These dynamics introduce a presentiment of death, of transitoriness. However, even in the light of physical markers of old age and the diminishing space between the couple and the right side of the passage, it is impossible to foresee what will happen. After all, through the past minutes, players have become used to the monotonous pace of their walk, accompanied by equally monotonous, repetitive chiptune music. Additionally, what may keep hopes for eternal life up are the very conventions of side-scrolling games, in which death is usually only a provisional state. As much as *Passage* gives us cues toward its built-in mortality rule, we would not be surprised if the game presented us with a *deus ex machina* mechanic ensuring replayability.

RULES OF DYING: MORS REPENTINA AND THE TAME DEATH

Soon enough, the game demonstrates what it means to arrive at the right side of the screen. The spouse performs the death rule, showing that the end of the passage is the end of a character's life. There is a specified spot, some pixels before the end of the screen, where the spouse avatar will instantaneously turn from person into gravestone. By putting her "ahead" of the player character, the game decides that the spouse dies first. Her transformation stays noticeably uncommented. The only change that occurs is that the player character is visibly bent over with grief, and from now on will move slower.

Passage's rule of dying is both shocking and instructive. It is shocking for its matter-of-factness: The game simply swaps the spouse's

sprite from human to gravestone. There is no additional effect like in the moment of falling in love, which is accompanied by a simple falling in love animation. Neither is there a blackout, nor any other kind of cesura indicating that something important has happened. Death is instantaneous and ordinary. On the other hand, this moment is informative because it demonstrates what will happen to the player character sooner or later.

Assuming that a similar transformation will occur to the husband as well, players can only guess how much time is left in the game. This gives the player some seconds for contemplation. They know, with some certainty, that their own death is imminent, so how are they going to spend their last moments?

I would argue that although the rules for both deaths are identical, they come with different ideologies, best demonstrated through two concepts by French death historian Philippe Ariès (1974). Ariès noticed that among some common attitudes towards death in Western history are the notions of the tame death, the idea that death makes itself known by those who die, and its opposite, sudden, traumatic death, a death that has been considered shameful and ignominious. He calls this second death the 'bad' death, using the Latin phrase *mors repentina*.

I would suggest that by means of its spatial set up, and the ageing device, *Passage* models temporality and evokes the anticipation of death. However, we do not know death until we see it in the sudden splitting away of the spouse. This makes the spousal loss a *mors repentina*; an unannounced, and, in Ariès terms, scandalous version of dying. The scandal lies in its sudden, traumatic nature, for which the player is unprepared. While they might suspect that death is possible, the game has not told them how. In Western death culture, particularly during medieval times, unexpected dying has been conceived as 'bad' death, contrasted by the controlled, certain, and announced 'good' death.

Passage gives us a chance to experience this good, tame death as well, and it incidentally does so by using the woman's 'bad' death as an example. Spousal death incidentally educates us about the rule of dying, and thus prepares us for what the player character is in all likeliness going to experience in a moment. In other words, the death of the spouse

tames her husband's death: It provides knowledge about when and where death will occur and gives the player a chance at planning the last moments of the main hero. The wife is not only used as object of love and projection for feelings of grief. She is also sacrificed to make the player character's death less shocking, providing a tame death experience for her husband.

What would happen if the roles were reversed? Only a slight modification – a swapping of character sprites when falling in love – would suffice to introduce a situation in which the spouse outlives her husband. In this case, the male character would carry the burden of performing a *mors repentina* with its shock effect. The narrative would change to focus on the widow. For the first time active while single, it would be an entirely new experience to make her search the landscape for a treasure chest of her own before she realises it is time to pass.

While swapping gender roles, this scenario would not break with Rohrer's intention of an autobiographical narrative. Since his wife was still alive when the game was released in 2007, *Passage*'s death rule is a construction of an imagined future to which there are alternatives. When deciding who dies and who survives, game designers consciously or unconsciously make use of available narrative templates. *Mors repentina* versus tame death are such templates, which *Passage* updates to the affordances of simple gameplay rules, presenting them as gendered events.

Death of the Other, Passivity, and the Ethics of Mourning

Apart from the different versions of dying, I would like to look at the seconds of the game between conjugal bereavement and the player character's death. Arguably, this moment presents players with a moment of choice concerning the question of continuing bonds (Silverman/Klass 1996). How do they spend their last days in the light of a loss? The spouse was part of their life, part of their virtual body through which they explored the world. After the radical separation, the

only thing reminding them of this connection is the gravestone, now firmly planted in the ground.

On the other hand, after the separation the player character is free and unconstrained again. Free from the bond, he can go wherever he pleases. Surviving conjugal loss has weakened him, slowing down his pace remarkably, but apart from this he is still able to move.

Given that their clock is ticking, the player is put before a dilemma: Should they move on in the hopes of a last stimulating experience, perhaps a treasure chest, or an interesting landmark? This would mean, however, to lose sight of the gravestone, separating them forever from the wife's memory. Should they stay, and refuse to move on? In gameplay terms, this is a decision between acting and viewing, interreactivity and the refusal thereof.

For some players, maintaining visual contact with the gravestone has been an important symbolic act of attesting to spousal attachment; more important than their own ability to move on. I first observed this 'passive' player ethics when discussing the game in a class of fellow PhD students in Vienna. To introduce the premise of *Passage*, I asked a colleague to play the game in front of the class. When they reached the moment of spouse loss, they stopped. Then they let go of the controls and announced that playing on was futile and they would like to just wait for their own death.

Other players have reported similar experiences online. User LewieP writes in the Penny Arcade forum: "When my wife dies, I stop exploring, and stand by her grave so we can be together forever". When another user calls this response "disturbing", LewieP explains: "I knew I was going to die soon after her, and I wanted our graves to be side by side. If I had carried on exploring, our graves would have been no way near each other."[6] Like my fellow student, LewieP is willing to trade the player character's ability to move for a few last moments spent with their wife.

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6   Online source: http://forums.penny-arcade.com/vanilla/discussion/48341.

The wish to 'be near each other' induces the player to perform what I argue is a transgressive act against the game. By letting go of control the player disobeys the game's imperative to 'move on'. They are denying interreactivity, treating the game as a non-ergodic text, a spectacle. On the symbolic level, this transgression in terms of a play against play can be understood as a denial of normality, doing business as usual.

Stillness is a way of protesting the narrative of 'moving on', which is offered, but not enforced by the game rules. The player does not have to mod *Passage* but can simply choose to spend a contemplative moment in silence before the game ends. As LewieP puts it "what you can see on screen is what you can remember, had I let my wifes gravestone go off screen, that would represent forgetting about her".

Overall, the meaning of walking away as forgetting and staying as commitment to memory resonates with Freud's mourning/melancholia binary (Freud 1917, Strachey 1961) discussed in chapter 1.2 of this book. Freud associates "normal" mourning with the act of cutting bonds with the deceased, a radical closure through the efforts of grief work. In *Passage*, cutting bonds would occur in the moment when the spousal gravestone disappears off-screen behind the zealous griever. Squashed into the pixelated rest of past memories, the spouse becomes a trace, no longer occupying the bereaved. Letting the gravestone go off screen is a tangible image for this radical step of cutting bonds. Players' protest against this image can be understood along Silverman and. Klass's critique and the proposition of "continuing bonds" (Silverman/Klass 1996).

From the paradigm of the dominant model, standing still might not be "normal" – after all one does have the option to move on, to move away, to act. Moving one's hands away from the keyboard may first seem like a destructive act, since it challenges the status of the game as interreactive experience and breaks with the established flow of the game: If traversing the passage is life, standing still is death. The option to stand still, then, could be read as self-reproach. The player gives up

their right to move (live) in solidarity with someone else's loss of movement (life).

This means that standing still is an ethical act by which players claim agency. The decision to stand still against the interreactive 'dictate' of the game expresses players' emotional priorities. Since the game ends after five minutes, the player seizes control over the point of time at which the character no longer moves. They enact their last wish to be with their wife. Precisely by calling ergodicity, the rule of the game, into question, the player achieves a connection with the deceased.

2.4   Losing Big Brother in *Brothers: A Tale of Two Sons*

PROLOGUE

Brothers: A Tale of Two Sons (2013) is a story-driven 3D adventure game by the Swedish game studio Starbreeze developed for Xbox 360, and also playable on Windows PC and PlayStation 3. In it, the two titular brothers are navigated through an epic, tightly controlled fairy tale world, travelling through enchanting villages, deserted battlefields, experimentation sites, caves and castles, in an attempt to procure medicine for their mortally ill father. Unlike any other games discussed, *Brothers* features what the makers call "co-op play in single player mode"[1]. This means that both brothers are controlled at the same time, negotiating their relationship on the level of gameplay. Most of the game's puzzles require a combination of the brothers' skills, resulting in an integration of gameplay progression, player character development, and environmental storytelling (May et al. 2014).

The game starts with the traumatic death of the mother and ends with a family grief scene at the grave of Big Brother Naiaa. When the game opens, we see the title in bold, meandering letters evoking associations

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1   Retrieved from Starbreeze studio's Steam description on: http://store. steampowered.com/app/225080/.

to a Grimm fairy tale book, and resembling *The Path* (2007), a horror game interpretation of *Little Red Riding Hood*. Selecting 'play' from the menu initiates a cut sequence in which we see a blond boy kneel in front of a gravestone, overseeing a spectacular, montane landscape. We hear a slow, elegiac folk melody set in a minor key. The sostenuto strokes of a viola and the high-pitched female voice continue as a flashback gives us a glimpse into the context of grief: We see the boy stretch out his arm from a tumbling boat as his mother's body is pulled away by the sea. This traumatic witnessing of maternal death will serve to establish the boy's fear of water later on. He is pulled out of his reverie when his Big Brother calls him from off screen. As the camera pans to the right towards the boys' house, we see Big Brother help the mortally ill father onto a wheelbarrow. Then, the camera swings over to the path leading from the house into town, showing the direction of gameplay progression and switching into ergodic mode.

The prologue starts. Two visual prompts appear, instructing novice players to control 'Big Brother' by using the left thumb stick and trigger button, and 'Little Brother' via the same controls on the right side. The two conspicuous handles on the wheelbarrow indicate that the brothers must be navigated to either side in order to transport the ill father to town. Some more obstacles are introduced on the way: There is a bridge controlled by a lever, which only Big Brother can operate. There is a ledge, which Little Brother can jump if boosted by Big Brother. These coordination exercises serve to establish Brother's core mechanic of environmental exploration and contextual action (May et al. 2014).

As the brothers reach the medic's hut, another cut sequence informs us about the game objective; travel to the Tree of Life to procure medicine for the perishing father. As to the reason why we do what we do, this is already a bonding motif: The brothers lost their mother already; they cannot afford to see another family member die. Furthermore, the endangered attachment figure is their male role model, marking the adventure as a project to bond over and restore a troubled sense of masculine identity (whether or not it succeeds is a different question). At its core, however, the game revolves around the sibling

relationship, and the way it is negotiated through the brothers' different skills and roles.

Game scholars Aaron May et al. have argued that that besides physical characteristics, *Brothers* uses contextual action to portray Nyaa's and Naiee's personalities (May et al. 2014: np). They observe that simultaneous real-time control over the characters enables the game to anchor their similarities and differences in environmental and social contexts. Not only does the brothers' reactions to ledges and levers differ; the game also contains a number of NPCs whose presence triggers specific types of action depending on the brother.

Based on these observations, learning to read *Brothers'* environmental cues is not only a means for progression. It is also a means for storytelling. That Big Brother is the only one able to push the lever means that he is stronger than Little Brother. That Little Brother will sneak through fences and iron bars does not only make him the "little one" but also the "bold one", the "sneaky one". This demonstration of storytelling through repetitive action challenges the well-established game studies assumption that pattern repetition and narrative are naturally opposed (Lindley 2002, Kirkpatrick 2011). Exemplary for this is Lindley's claim that "repetitive patterning involved in gameplay gestalt formation is found to undermine deep narrative immersion" (Lindley 2002: 203). In contrast to this, *Brothers* uses repetition to help us understand the brothers' personalities, and how they function as siblings in their cooperative brotherhood project.

If play is simultaneously also narrative, who tells the story? As players, we are put in the shoes of the brothers, but also slightly besides them. We are the lubricant facilitating the relationship between the brothers and the environment. We learn about them with them and through them, but their abilities are prefabricated, and we must learn to read, rather than build them. They are what Burn and Schott would call "heavy heroes" (Burn/Schott 2004).

ATTACHMENT

In regard to fraternal bonding, the single player co-op setup comes with interesting opportunities for game design. Navigating two characters around affords a different kind of investment, both in gameplay and the relationship emerging between the characters. I will look at these dynamics in terms of four devices: synergy rules and mechanics, tandem controls, the spatial elastic bond, and markers of gender, suggesting that they articulate a notion of male sibling attachment.

Synergy

On the level of rules and mechanics, efforts are made to characterise the brother relationship as synergetic. This is done through what May et al. (2014) have called contextual action. Contextual action, the situation-specific activation of a game object, can have two functions. On the one hand it can express a unique skill of one brother, as in the example of the lever, which only Big Brother can control. On the other hand, there are objects like the wheelbarrow which must be operated by both brothers at the same time.

Depending on the gameplay situations, these two functions of synergy must be combined to solve puzzles throughout the game. When it comes to unique contextual actions, these are always balanced between the brothers to make them contribute equally. For example, Big Brother's lever-handling skill is complemented through Little Brother's ability to slide through narrow fences and bars. We first learn these individual skills in separate occasions during the Prologue, before they merge into combination puzzles. Releasing the giant from the cage in chapter 2, requires a combination of previously learned contextual action vocabulary: Little Brother needs to sneak through the fence to steal the guard's key and lure him into the cage, while Big Brother is responsible for opening and closing the cage door. In order to master this symbiotic teamwork task, we first solve the puzzle conceptually by recognising what each brother can do, and then solve it spatially, through correct timing and action.

Figure 12: Screenshot of Brothers: A Tale of Two Sons*, a tandem contraption requiring simultaneous action*

Source: Starbreeze Studios (2013)

The game also introduces situations in which synchronised movement is required. Unlike symbiosis, which emphasises difference and complementarity, synchronicity emphasises what is shared. At all stages during the game we encounter suspicious two-handle contraptions like the wheelbarrow intended to be operated by two brothers at once. The mentioned cave in Chapter 2 is especially sprinkled with two-person contraptions, such as the prominent crank lifting a platform in fig. 12. While the game does not obscure that these objects are made for two, their specific functions have to be learned and 'practiced' in order to solve the puzzle.

This also applies to social situations. At the end of the prologue, the boys meet a sleeping guard who must be convinced to lower the bridge. If Big Brother's contextual action is used, the boy will politely address the man, which proves ineffective. If we act as Little Brother, the boy will pour a nearby bucket of water over the man's head, waking him up and making him available for Big Brother's more constructive approach. In social situations like this, the game elegantly couples problem solving with storytelling. By progressing through each puzzle, the players get to

explore each brother's strengths and weaknesses, and their teamwork abilities a bit more.

Over the course of the game, we learn that Little Brother is more childish, playful, and sneaky, while Big Brother is more serious, mature and solution-oriented. Again, nuances emerge from repetition, as in the case where numbers and algorithms express personalities (*FFVII*). I would argue that from this combination of symbiotic and synchronic tasks emerges a sense of equality. As players, we are repeatedly told that the brothers share not only space for action, but initiative, and that without mutual initiative, progression wouldn't be possible.

Tandem Controls

Brothers' control scheme has been rightfully acclaimed for its intuitive use of the Xbox 360 controller and its mapping of both brothers' simultaneous actions. What could have been a confusing, hard-to-handle setup is made accessible through comprehensive spatial design, especially through the controller's narrative division into left and right hemispheres (fig. 13). Here, the designers took advantage of two features, the symmetrical layout of the Xbox 360 controller, and the fact that, unlike other controllers such as the Wii mote or the PlayStation move controller, it is intended to be held in two hands. This allows the game to map the brother characters to one respective side of the controller. Each of the player's hands controls one brother.

This mapping comes with a couple of narrative implications. First, the controller doubles as the 'collective space' of brotherhood. It mediates all of the siblings' actions. It is the 'platform' of shared efforts and achievements. In that way, the mapping connects the brothers. Yet,

Figure 13: control scheme of Brothers: A Tale of Two Sons

Source: author

secondly, the mapping also splits the controller space into two equally important halves. This means each brother has a specific role inside the collective space and can perform this role through a thumbstick (movement) and a trigger button (interaction) each. Unlike *Ico's* mapping, *Brothers* distributes agency equally among the brothers, indicating an eye-level relationship. Even before we know specifics about each brother's action repertoire, we feel that they have a similar impact on the world.

Thirdly, although the same action buttons are used, the contextual actions of each brother are different. This underscores the individuality of Little Brother and Big Brother and offers opportunities for characterisation: Big Brother swims while Little Brother clings on to him; Big Brother communicates in serious ways, Little Brother is more cheeky and affectionate

Finally, the control scheme affects the way players manage the brothers on-screen. Since bigger brother is mapped to the left-hand side, and Little Brother on the right-hand side, it makes sense to align their positions to visually match this experience. The control scheme imposes a 'sibling constellation', which matches visual grammar conventions of presenting old, established information to the left (Big Brother), and future-related new contents (Little Brother) to the right side of the image.

Furthermore, the division between left/old and right/young coincides with the convention to map orientational action, like walking or adjusting the camera on the left, and initiative action, like fighting, picking up objects, interacting with people and commands on the right hemisphere of the controller[2].

This characterises the brothers as 'orientation' brother versus 'initiative' brother, which is in line with the unfolding of the plot. In fact, as holder of the Tree of Life map, Big Brother is established as the team's guide early on, while Little Brother will have to use his initiative to finish the adventure on his own. Arguably, these subtle connotations will only be accessible for players familiar with dominant mapping conventions of console games. For such players, however, Brother's particular right/left division adds a nuance to the brothers' character traits.

Sibling Space

Like in *Ico* and *Shelter* (discussed in the following chapter), bonding rituals are realised inside the affordances of a 3D space. These two games feature different ways to regulate inter-body space, using an elastic bond (*Ico*) or a programmed invisible bond between the characters (*Shelter*). *Brothers* uses a combination of these devices. The invisible bond device is used to regulate the maximum distance between the character.

Like in *Shelter*, this produces normalcy: The brothers simply stick together because they cannot be apart. On the other hand, the player needs to interpret what to do within their defined 'sibling space'. Again, an ideal solution emerges from the tightly authored puzzles, and the affordances of left and right controller space.

Contextual action allows the game to play around with different spatial constellations. While the brothers usually walk side by side, there

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2 Examples for this convention can also be found in both console games, *FFVII* (chapter 2.1) and *Ico* (chapter 2.2).

are situations in which one brother must take care of the other. Two examples are the swimming sequences, in which Little Brother has to hold onto Big Brother's shoulder due to his post-traumatic fear of water, and the campfire scene, in which Big Brother must fend off wolves with a stick, while Little Brother hides behind him.

These situations are similar to the shadow fight dynamics in *Ico*. Yorda, too, needs to be kept close, and like in the case of her demise, an attacked Little Brother means game over. However, there is a significant difference. In *Brothers*, both characters always actively take their roles, even the role of hiding behind a stronger brother, or fearfully clinging onto his shoulder. By comparison, we do not have to make Yorda's anxious jump, just to witness it through the perspective of Ico.

Figure 14: Screenshot of Brothers: A Tale of Two Sons*,
the rope- swinging scene*

Source: Starbreeze Studios (2013)

The possibility to take both roles in the experience of sibling bonding is also important in the rope-swinging scene in chapter 3 (fig. 14). In this scene, the brothers tie a rope around their waist to secure each other while climbing the castle ruins. The sequence starts by jumping the brothers onto a ledge, holding both triggers. The rope will dangle loosely

between the them until one trigger is released, causing the respective brother to fall into the rope. The dangling brother is now free to be swung around, using his thumb stick. When he reaches the next grappling point, the player can cling on to it by pressing the trigger. Now the opposite brother needs to let go, while the other secures him, and so on.

Performing this swinging ritual is the climax of the brothers' trust exercises in a double sense. In a narrative sense, the brothers demonstrate their mutual trust by putting their lives in the hands of the other. On the ergodic level, these are the hands of the player, who is trusted to have mastered the controls at this point in the game. The successful coordination of the bodies requires literacy on which button directs which body. That the roles of dependable securer and exposed hanger are changing is additionally challenging, but it also reinforces the message of sibling equality: It shows that no difference in their personalities prevents them from experiencing times of weakness and strength; times which require being supportive, and times which require letting go and trusting in being held. The player is this lubricant holding the vulnerable brother as the strong other.

Gendered M/others

Thirdly, the bonding project between the brothers is implicitly and explicitly also a gendered project. There are two ways in which the game others female characters in order to expedite sibling bonding as male bonding. The first kind of othering is used in the portrayal of the dead mother, who appears as a ghost at various stages in the game.

This presence of the ghost mother has two functions. First, she illustrates the possibility of parental loss, introducing the fear to lose the father too, and secondly, she is used to establish Little Brother's fear of water. In either role, she appears rather than acts (Mulvey 1999), and we are not encouraged to interact with her. Rather, her appearance impacts on the brother's mutual relationship: Due to Little Brother's trauma, Big Brother can offer a shoulder to swim both through water. In gameplay terms, the mother's life is traded for coherence of the swim mechanic, and to foster closeness between the brothers. The appearance of the

mother's ghost has no impact on gameplay itself. It only serves as decoration, and as narrative cue reminding us that the boys are bereaved.

The second type of female othering happens in the portrayal of the antagonistic spider woman in Chapter 4. Here, the woman does act, but it is a toxic action responsible for Big Brother's later demise. The spider woman first appears as young seductive woman who lures Big Brother into a cave, where she transforms into a venomous 'Spider Lady'[3]. Helped by Little Brother who is caught in a cobweb, Big Brother needs to subsequently pull out the spider's legs to "disarm" the woman.

This presentation repurposes the vagina dentata myth, in which a "mysterious, cavernous, unpredictable, dangerous" female must be destroyed (Raitt 1980). According to historical theologian Jill Raitt, vagina dentata tales often represent the normalisation, or eradication of dangerous female sexuality symbolically through the removal of teeth. The Spider Lady in *Brothers* does not only lose her legs through a cruel act of mutilation. This work is also done by a male teenager whose awakening sexuality was responsible for entering the spider's cave to begin with.

This penetrative act is punished by the game's sweeping moralising gesture; death from poison. Moreover, it confirms the castrating power of female sexuality in inducing real agency loss. Henceforth, Little Brother and the player have someone to blame for the loss of the brother.

LITTLE BROTHER'S BURIAL CHALLENGE

Brothers is most explicit in how it expresses reactions to loss in gameplay. This is particularly obvious in the game's dramatic peak, the

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3   In the fan wiki, the female antagonist is referred to as 'Lady' or 'Spider Lady' despite having only six legs: http://brothersataleoftwosons.wikia.com/wiki/The_Lady. This 'disability' underscores the Lady's characterisation as a monstrous other. When turning from a deceptive seductress into a spider, she turns into a deformed spider.

death of Big Brother under the Tree of life. It is instructive to take a closer look at the devices used during this pivotal moment, particularly the shift between non-ergodic cut scene and playable sequences. I argue that the composition and pacing of this sequence constructs a farewell ritual, which presents an alternative to game designers' tendency to model grief through Quick-Time Events (QTEs).

QTEs are linear cut sequences frequently interrupted by prompts demanding player input. In games such as *Batman: Arkham City* (2011) and *Call of Duty: Advanced Warfare* (2014), this mechanic has been used to make the player 'pay respects' by holding a single button. This attempt to capture grief through a mechanistic, extrinsically motivated action has been mocked by players and game journalists who have called this the "Hold X to Pay Respects" mechanic (Hall 2014). *Polygon* journalist Charlie Hall points to the underlying irony of this device, noticing that "games like Call of Duty often try to straddle the line between respect for real soldiers and their losses, while also doing everything they can to romanticize the act of war" (Hall 2014: np). Just as war is trivialised by reducing it to rapid fire action, grief is depleted of substance by reducing it to a prompted QTE. One possible conclusion is that using interreactivity to represent grief naturally leads to trivialisation (Grant 2011). This is challenged in the following burial scene in *Brothers*.

Leaving the spider web, a significantly weakened Big Brother has to be carried towards a slope that lands the boys directly at the Tree of Life, the designated goal of their journey. At the roots, Big Brother eventually collapses after handing Little Brother a flask and pointing him to fetch the wanted medicine via a short cut scene. This is the last time Big Brother is seen alive. As we navigate Little Brother up the Tree of Life, illuminated by a breathtaking, hope-inspiring *aurora borealis*, we are for the first time controlling a single brother. Little Brother's emotional landscape is expressed in three ways; through a spectacular, yet calm audio-visual surrounding, a smooth, unblocked path, and the spatial metaphor *up is good* (Lakoff/Johnson 1980). On the way into the tree's

crown, we pass a giant bird's nest which seems to belong to a griffin[4] we freed from a giant's cage earlier on.

Way up inside the tree's crown, we collect some of the desired medicine, sparkling in a fluorescent turquoise. From there, Little Brother slides down the tree, while the music stops.

As Little Brother lands on the ground, the first cut sequence starts: Little Brother approaches his brother's lifeless body and starts attempts to resuscitate him with a few drops of the medicine. When this measure fails, and Little Brother breaks down to cry, the high-pitched grief theme sets in, and the camera slowly zooms into a blackout. The next shot has an undeniable resemblance to *Ico*'s post-loss low-angle shot exposing a changed environment. Like in *Ico*, it rains, a device which conveniently washes out saturation to match Little Brother's emotional state. We see him contemplate his loss, while the camera zooms out and Big Brother appears through a vision. While offering his embrace to the surviving brother, the camera takes time to pan a full circle around the siblings, and then Big Brother is gone. After a blackout, suggesting that the rain has subsided overnight, we find Little Brother put the final touches on what seems to be a freshly-dug grave.

A burial is about to take place, but instead of including it into the cutscene, the player takes over from there. In this critical moment, both brothers are framed in one shot, Little Brother facing the direction of the dead body in the distance. This visual composition suggests that Big Brother's body needs to be carried to the grave, using Little Brother's controls. While walking, we notice the slowed-down pace of Little Brother, as he puts one step before the other, shaking. When reaching

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4   According to heraldry, the griffin is a mythological animal, half bird, half lion, which carries medicinal connotations (Friar 1987: 173). It is fair to say that *Brothers* does not hold back in exploiting these. First, the griffin is wounded and locked up in a cage, pointing to the central theme of health in danger. Releasing the griffin is a collaborative effort. Finally, the griffin flying off signals the brothers might stand a chance procuring the wanted medicine.

Big Brother's npdy, the right trigger is held to pull the body across the ground, towards the hole. Once Little Brother grabs onto the corpse, his sobbing noises increase in an otherwise silent environment. Via an animation, Little Brother adjusts the position of the corpse before he leaves the pit, suggestively positioning himself in front of one of the conspicuous soil piles framing the grave. Gameplay ensues, and it is again the player who needs to initiate the placement of soil onto the body. This cannot be done in one go. Little Brother must be navigated around the grave in a monotonous ritual, pushing one pile at a time into the grave.

This scene represents bereavement as an active, material process. Big Brother's corpse does not disappear. It fills up space, functions as a game object, and must be taken care of by the player. Furthermore, the material act of taking care of the remains is presented as slow, menial task. Little Brother's walk takes time. He must push each soil 'object' individually into the grave, move on, push the next soil 'object', and so on. Thus, the effort invested in closure – the covering of the entire body – is framed as a journey, rather than single moment.

Furthermore, the 'burial challenge' is not time-based, as would be a QTE. It allows the player to grapple with the situation in their own pace. There are no explicit prompts about what needs to be done. It is left to the player to explore the situation and initiate action when they are ready.

Mechanically speaking, the burial isn't particularly exciting, but it is effective in communicating the boy's ordeal and effort. That Little Brother's actions are overly mechanical – putting one step after the other, pulling brother, pushing soil, one after the next– resonates well with the context of his recent traumatic bereavement: He just functions, and we are invited to suffer through this with him. Apart from that, the decision to not only display a dead child on screen, but to enable interaction with it, breaks with the trend to mystify child death through flowery symbolism (a red balloon in *Heavy Rain* [2010], a teddy bear in *Watch Dogs* [2014]), or silence it altogether, as in most of *The Sims*

titles[5]. In *Brothers*, we get to deal with a corpse and its transport from A to B.

The relevance of this portrayal is demonstrated best when we look at players' responses. "At least we have time to say goodbye", says YouTube star Joseph Garrett, whose Let's Play videos are targeted at a young audience. This is the moment in which he drags the lifeless body of Big Brother towards the grave. He continues:

"This is all because of that spider woman. We should have just left her when we saw her. We shouldn't have meddled in other people's business, you know, assuming that all the men were mean and they were trapping this woman. We should have just walked on by and we would have been fine."[6]

The meditative task of the burial leaves enough time for contemplation and regrets. There is space to gather oneself, work through what happened, and utter a first emotional response. In this case, the response is anger and regret to have fallen for the spider woman's tricks. Bonding around gender identity, the YouTuber confirms solidarity with his brother.

Another thing this comment encourages is the enabling of rape culture (don't meddle in other men's business), a reading which, through YouTube, becomes available as interpretative template for several thousands of viewers. To be fair, the construction of the spider woman's impact and Big Brother's death doesn't leave much room for speculation: The player is locked in a tight meaning system explaining causes and effects of Big Brother's death. This could have been different would the cause of death have been left more ambiguous. Rather than

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5   With the exception of the first The Sims title, the death of children is impossible. This is remarkable, since the game series is otherwise known to provide countless opportunities for killing characters.

6   Garrett's walkthrough can be viewed on YouTube: https://www.youtube. com/watch?v=rUoHvcOfaCk.

righteous anger, emotions could have included helplessness and emptiness.

MECHANICS OF COMMEMORATION

The burial is followed up by another cutscene. The camera zooms out, overseeing the Tree of Life for the first time, while a soft guitar melody sets in, followed by a bird scream. We recognise this scream from the injured griffin we rescued before, and which now arrives to take Little Brother under its wings and offer him a ride back home. As an orchestral piece builds up into a crescendo, the griffin takes us across parts of the landscape, revisiting some of the places the brothers have visited together.

This short moment of remembrance ends in a sunset, after which we find Little Brother, completely alone in a rainy, stormy night. In terms of atmosphere, this might be the actual parallel to *Ico*'s transition from the castle into the cave. The camera briefly establishes that the medic's hut is within eyesight, but in order to reach it the boy needs to swim across the town's creek. Knowing about his phobia, and familiar with the fact that the boy requires his brother's shoulder to hold on to, this task seems impossible. The events to follow can be unpacked along the grief-theoretical concepts "inner representations" (Klass 1993), and "continuing bonds" (Silverman/Klass 1996, Packman et al. 2006).

When we trigger Little Brother's contextual action in front of the water and attempt to go inside, he will, as always, refuse. The player has to find out that, additionally, Big Brother's action button needs to be held. In the moment they do so, Little Brother overcomes his fear and enters the stormy waves, accompanied by his brother's whispering voice. Pressing Big Brother's button while swimming as Little Brother feels like remembering what the dead would have done were he here with us. Big Brother is needed, but he is gone, so Little Brother's only choice is to take over his role. This process is not straightforward but

involves a change in the controls. The player must understand that Big Brother's action repertoire is now embodied by Little Brother.

It is worthwhile taking a look back at Klass's (1993) inner representations and their purpose of integrating the spirit of the deceased in the life of the bereaved. After Big Brother is physically gone, his trigger button becomes his "inner representation", retaining importance in Little Brother's life. This importance is expressed through impact on gameplay. Using Big Brother's button to assist, Little Brother succeeds in swimming through the creek. This success is observable from the outside world by potential bystanders watching the game being played. However, Big Brother's presence can only be felt by the player pressing down their left thumb. They are the only ones to feel Big Brother's contribution to the things they do on screen[7]. This is not unlike the experience grievers describe when talking about their dead loved ones: As "inner representations" they are tangible to the grievers, while invisible to the outside world (Klass 1993).

The scene also evokes the concept of continuing bonds, the reluctance of a griever to relinquish bonds after bereavement (Silverman/Klass 1996). Compared to *Passage*, where continuing bonds is a choice of the player waiting for their own death to happen in front

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7   This does not apply to play contexts in which two players decide to play *Brothers* as multiplayer experience, holding the same controller. Following reports on fan forums, Big Brother's loss has been intense, because the positions of the fictional brothers on screen are directly mapped to the players' actual positions in space. The loss of Big Brother equals the loss of a player. What happens then? Does the 'dead' brother player remove their hand from the controller? Does their friend play on without them? Does the 'dead hand' stay on the controller in the hopes that something more will happen? Although the meaning of "inner representations" (Silverman/Klass 1996) might not be as pronounced in this constellation, the two-player setup seems to intensify the quality of loss. For a report of the two-player experience, see fuze 9's report on: https://www.gamefaqs.com/boards/684836-brothers-a-tale-of-two-sons/68812082.

of the spouse's gravestone, *Brothers* characterises a sibling bond after death as necessary requirement for Little Brother to continue. This is in line with the importance of continuing bonds in the sibling loss literature (i.e. Packman et al. 2006).

Packman and colleagues (2006) have observed that the quality of a post-loss bond between siblings differs according to individual, social and environmental factors, such as sibling order, quality of relationship between the siblings, and the question how the loss happened and how it is negotiated in the family.

In *Brothers*, we see an unproblematic, supportive brother relationship, which has been constructed around complementary, non-rivalling abilities, a taken-for-granted physical connection, and a shared gender identity. What connected the boys further is the collective fear of losing the father figure, and the shared trauma meeting the 'feminine other' – the devious Spider Lady.

When it comes to sibling order, the game makes absolutely clear that we know what sibling role is lost with Big Brother. He has been the mature; socially competent one; the protector of Little Brother, the voice of reason; in short, his role model.

A factor identified as important in continuing bonds is that a post-loss sibling bond develops slowly over time, not as something that immediately arises at the time of death (ibid: 836). To craft a connection after death, siblings "puzzle over who they are now and how they are different without their sibling's presence" (ibid: 834-835).

In *Brothers*, the act of "puzzling" is taken literally, as players adapt to the new rules guiding the absence and presence of Big Brother. After his death, Big Brother is permanently absent on the visual level, but haptically present when Little Brother faces an interactive object that used to trigger Big Brother's contextual action. In a process of adaptation, players must find out that even in Big Brother's absence, his contextual actions can be carried out with Little Brother if the player presses both action buttons at the same time. Instead of using a prompt after Big Brother's death, the player is left to figure this out through experimentation. Thus, forging continuing bonds is portrayed as process

rather than straight forward command, i.e. "Press X to remember Big Brother".

Thirdly, Packman et al. point out that continuing bonds are expressed through siblings continuing to think about their brothers and sisters at special occasions, during important life events, and might keep evocative objects reminiscent of the lost sibling (Packman et al. 2006: 833). In *Brothers*, this is expressed through game objects which Big Brother could operate, either in tandem with Little Brother, or complementary to his skills. Facing the lever after Big Brother's death does not only evoke a memory of Big Brother's loss but also his skill set, his character. On the level of gameplay, the need to think about and learn from him is naturally implied: The player either understands that Little Brother has to do what Big Brother would do, or he would not progress in the game. The notion of memory and personal growth are elegantly combined through a re-contextualised Big Brother button: Pressing it feels like stepping in Big Brother's shoes, and thus like overcoming obstacles that were insurmountable before.

Packman et al. (2006) report that some siblings felt their experience facilitated the development of a sensitive outlook on life; and their learning had been enriched in the sense that they had matured and they felt better about their abilities to handle adversity" (Packman et al. 2006: 828, also Davies 2004). In *Brothers*, this growth is expressed most literally through the taking over of Big Brother's tasks. With one brother gone, there is room for Little Brother to "expand" to the left side of the controller as well and slowly learn to become the more mature sibling. As Packman et al. point out "growth may begin even before the death" (2006: 828). Little Brother had ample opportunity to learn what one can do as a Big Brother, so when separation occurs, he is prepared and able to get on without the other sibling's physical presence.

The Politics of Being Dead:
Brothers Act, Mothers Appear

Since *Brothers* is a game which brims with moments of death and trauma, it is worthwhile taking a look at the different choices to stage those moments. While Big Brother's death is clearly designed to matter to the player, a different choice is made for the mother, whose occasional appearance as a ghost has a marginal impact on gameplay. Instead, the mother's death is instrumentalised to deepen the boys' personalities as half-orphans. As a 'bonus', the game utilizes her dramatic drowning death as a tool to establish Little Brother's water phobia, and thereby add an exciting puzzle game element. When we get annoyed with Little Brother for struggling to enter the water, we can conveniently blame it on the mother.

Compared to this treatment, Big Brother, 'owns' one half of the controller, and is therefore given agency. He does not even need to appear after death. In fact, being dead as a mother and a brother is expressed via complementary strategies: Big Brother does not even have to appear as a ghost; his presence is firmly established on the haptic dimension of gameplay. By contrast, the mother is excluded from the controller to begin with. Her purpose is to add tragedy, not to own space.

Overall, *Brothers* incidentally creates a gender politics of being dead, according which male ghosts exert influence and female ghosts appear. The convention of the male gaze (Mulvey 1999, Berger 2008[1972]) seems to defy death. The subtle gender differences of being dead reflect in YouTuber Garrett's wording: When he promises his audience that Big Brother is not alone but protected by his family, he says that the mother "watches over us", while Big Brother is "there" with us.

Before Little Brother finds home, Big Brother's "being there" is demonstrated in two other instances; the lever, and the tandem ladder, both of which Little Brother activates with great effort when the player presses both triggers. These are objects which we have previously seen used either exclusively by Big Brother (lever) or through teamwork

(ladder). Little Brother has given his all, and, upon reaching the medic's house collapses on the floor.

In the game's final scene, Little Brother wakes up by the sea, next to a pile of pebbles, ready to play. We can either engage in a meditative round of pebble throwing – an activity celebrating the boy's new-won playful relationship with water – or we can make our way up towards the town. The weather suggests that things are back to normal, and when we take the first bend, we see father's silhouette at mother's grave. As the player approaches him, they notice a second, smaller gravestone, and when they decide to join father's grieving moment the last cut sequence starts. As the two characters face the graveyard, spectacularly lit through the tree's leaves, the game's melancholic theme sets in. This is the moment emotion overwhelms the father and he breaks down in tears, comforted by his remaining son. The camera pans into the sky, towards the mountains, and we see the griffin fly off for a last time towards the Tree of Life.

2.5 "Let's All Be Good Mothers OK": Losing the Badger Cubs in *Shelter*

> In my first playthrough I lost Wendy
> to the river. My heart hit my throat
> when it made the cry as the wave
> swept over us all...
> *Psymon/Shelter Steam Forum*

PROLOGUE

Shelter (2013) is a 3D adventure game by the Swedish independent game developers Might and Delight, currently available as downloadable title for Windows and Mac OS. It uses a third person perspective to tell the story of a badger mother[1] protecting five young cubs while journeying from burrow to burrow. While traversing a serene, yet danger-ridden landscape, she must look after the wellbeing of her offspring, hunt and gather food, navigate wildfires and waterfalls, and escape predators. The danger of these situations is underscored by the use of a permadeath mechanic, which renders the death of a cub or

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[1] The player character's gender is left ambiguous, but there is a consensus among game designers that she is a mother. Furthermore, the developers mention "all mothers" in the thank you note at the end of the game credits.

the mother irreversible, in the latter case leading to an early end of the game.

Besides its sequel, *Shelter 2*, *Shelter* is one of the few commercial video games casting a mother as the protagonist, and to touch on the experience of maternal loss. Games discussed in previously chapters have featured mothers too, alas in passive or antagonistic roles (from the 'ghosted' mother in *Brothers*, to the dark Queen in *Ico*), while the attachment and grief experience is mediated through a male character. In *Shelter*, however, we negotiate the game world, and feelings of attachment and potential loss, through an implicitly maternal body. This makes *Shelter* an interesting example to learn from for my case study on pregnancy loss as a game design context.

Drawing on my first playthrough, I will discuss the case of maternal bereavement, and the consequences of losing all badger cubs during a play session. In this case, the establishment of care and protection as the sole purpose of the mother badger backfires and translates into a 'depression narrative', where the landscape has lost its nourishing function. I argue that this reproduces the myth of maternal loss as pathologised[2] "worst loss" (Rosof 2014[1994]). Minor adjustments could have led to a more empowering notion of post-loss survivorship.

When opening the game, we see the start menu embedded in an idyllic pastel backdrop of the autumn forest. The waterfall completes this first harmonious look at nature. We hear the meditative purling of the water and a frog's soft rhythmic croaking, while Shelter's slow theme music sets in; a contemplative ballad in minor key, performed on acoustic guitar. As we press 'start', the waterfall becomes louder. We have entered the comfortable burrow behind it and are immediately put into the role of the badger mother. The first thing we hear is the whining sound of the small badgers demanding the mother's attention. They are

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2   Child loss and parental bereavement is frequently related to "maladjustment" to loss, and diagnoses such as Complicated Grief Disorder and post-loss morbidity (Shear/Shair 2005).

miniature version of mother badger, but they each come with slightly different fur patterns.

Figure 15: Visual prompt explaining how to pick apples in Shelter

Source: Might and Delight (2013)

Upon pressing the WASD keys, the mother can be navigated through the 3D landscape, mouse movement adjusting the camera position, and the left mouse button interacting with the environment. When pressed with no game object around, the mother opens her mouth and growls at her young. The young respond in a high-pitched yelp. Wherever the mother navigates, her four badgers will try to follow and remain in her personal space. The fifth cub is greyed out and lies motionless on the floor. Is it dead?

A green leafy object can be pulled from the ground. It is a root, which the mother can carry in her mouth and feed to whoever needs it most. When fed to the perishing cub, a banjo jingle is played, indicating success. The badger cub's fur turns brown, like their siblings', and the

reunion of the family is complete. It is time to leave the burrow and learn about hunting and gathering activities in the open field. Like in *Brothers*, instructive prompts are used to illustrate these core mechanics. In fig. 15 the player is shown how to shake fruit off a tree by sprinting towards it and ramming the stem. Doing so is impactful and rewarding. When a tree is rammed, the screen shakes, and we hear the dull plummeting sound of the fruit hitting the ground. This is an example of what Steve Swink calls "polish" in his book on *Game Feel* (2009), an aesthetic factor that contributes to a gratifying gameplay experience.

The mother can leave the fruit on the ground, in which case the fastest cub will pick it up. Otherwise, she can interact with the fruit to pick it up and have the group of badgers collect around her, yelping with anticipation. The mother can then move closer to a cub of her choice and feed it the fruit. Moments later, players encounter the first rodent, fox, and frog, accompanied by similar instructive prompts. Hunting is done by the same principle of sprinting combined with a well-timed attack using the mouse button.

While we are informed about the possibilities of hunting and gathering, the consequences of failing to feed a cub are only learned through eventual experience. As foreshadowed in the cave, cubs can die, but before they do, they will slow down and experience problems following their mother. This has consequences for the upcoming challenge; the crossing of a field which is dominated by birds of prey. Running from cover to cover as a group is only possible if all cubs are strong enough to catch up in time.

These first moments in Shelter characterise mothering both as a vulnerable and a powerful task. This is indicated by the opposites of a meditative, low contrast environment and the choice of 3D controls which are traditionally used in fast-paced first-person shooters like *Doom* (1993) and *Quake* (1996). Having entered the game via a pastel-coloured, contemplative opening screen, and the family scene in the burrow, associations to violent actions seem out of place, but in fact they hint at the reality of permadeath threatening the parenting project.

The mother is the heroine in charge of survival; not just of herself, but of the whole group. This power is first indicated by the resuscitation of the greyed-out badger in the corner of the first burrow. At the same time, the threat of death is directly related to the mothering performance: Timing jumps against the tree, finding roots, and making informed choices about which cub to feed next are required, or the badgers will turn grey and starve. Mothering is not restricted to tasks like hunting and gathering, but the mother's every move is characterised as precarious. As the leader, she can walk her offspring into danger and they will follow blindly.

ATTACHMENT

In this section I will unpack Shelter's principle of mothering and maternal bonding along four game design devices. First, the game uses dependency rules that program the mother in terms of two tasks, protecting and nurturing. This allows the game to construct a dichotomy of giving/receiving between mother and children.

Secondly, on the spatial level, the invisible bond device represents infant bonding as a natural, instinctual thing. The NPCs' pathfinding activities mimic a need for closeness with the mother.

Furthermore, the contrast between who takes and who receives care is emphasised on the visual aspects of the character design, in which markers of age are used to indicate responsibility or vulnerability.

Finally, the game presents an interesting case of auditory synaesthesia, in which sound is used to emulate the badgers' collective sense of danger and satisfaction.

Dependency: Protecting and Providing

Feminist thinker and motherhood theorist Nancy Chodorow (1978) has pointed out that rather than an innate instinct or identity, motherhood is best thought of as a task. The task of mothering in Shelter is expressed as two acts of giving: The act of giving protection, and the act of giving

care. First, on the basic level, Shelter's mothering comprises (spatial) planning, well-timed navigation, and observation, both of the children and of the environment.

The imperative of survival in a potentially dangerous open field, and the condition of potential predator attacks and starvation, focuses the player's attention to the well-being of the cubs: Is it safe for them to follow where we go; can they follow in time? Is the distance between two patches of protective grass short enough to pass?

The flexible camera movement allows regular nervous looks over one's shoulder if one suspects a cub to be lost. Such anxious questions and manoeuvres are reminiscent of the paranoid bonding rituals in *Ico*, yet with the justified fear of permanent separation. Two situations in which this fear of separation is particularly invoked are the bird-infested meadow, and the creek crossing.

In the first scene, the shadow of a bird must be constantly observed while the family runs from one patch of grass to the next. The player has to keep a focus on the goal of the journey while also ensuring that all badgers reach a protective patch of grass before the bird can dash down and snatch them. Difficulties can arise if the player feeds a cub on the way, triggering an eating animation which stops the cub in the open field. It is possible to distract the bird, but if struck, the mother will suffer an agonising death herself, and the game will end prematurely.

The creek crossing scene requires a monitoring of the rhythmically recurring waves, and the identification of protective areas sheltering the cubs from harm. Like on the bird meadow, this scenario requires well-timed decisions, as well as an understanding of the cubs' ability to follow their mother.

This ability is diminished in case the mother has neglected her second task; providing food. As demonstrated in the beginning moments of *Shelter*, the game makes a binary distinction between active hunter/gatherer and passive eaters. It is established that the cubs must eat but that they are also incapable of procuring their own food. This is underscored by their anticipatory bouncing in front of a desired root or

fruit tree, while they patiently wait for their mother to prepare the item for them.

While nourishment is an important concern for the young, the game portrays the badger mother as beyond material needs. In fact, she does not have any prescribed needs at all, apart from the urgency of survival which coincides with the player's objective to complete the game. The two mothering tasks of protecting and providing work within the binary of giving and taking, make the mother's sole purpose to become the dependable provider. Like Ico, she needs to be needed.

Intuition: The Invisible Bond

There is an 'intuitive' connection between mother and children, expressed through an invisible bond between them. Wherever the mother goes, the offspring will follow, or at least try to do so. This constructs the space between bodies in terms of an instinctual connection. The badger cubs are programmed to literally follow their mother's path and stay connected on a physical level. This is similar to the unity device in *Passage*: In both cases, the connection and the imperative to bond physically is imposed by design.

However, even though the children follow blindly, there is still space between their bodies. As a result, we can distinguish between the body standing for responsibility, and the bodies standing for vulnerability. This is the case because the mother badger can navigate and go wherever we like, while the cubs are delivered to our navigation. Infant-mother bonding is evoked as something that is naturally given and that is, like the marriage in *Passage*, non-negotiable.

This constellation hails at the player to become the dependable caretaker: There is someone who will trust them with their life; will the player live up to it? The mission is to keep the family close. This is not always easy, particularly at night, when the badger's field of vision is dramatically reduced, and an approaching wolf pack can cause the badger cubs to disperse in panic. The only way to prevent the loss of a young one is to run after them and find them within seconds.

Another challenging situation is the crossing of a wild river, which needs to be timed so that even the slowest badger can follow in time. In other words, *Shelter* is much about looking out for others and adapting one's speed and strategies to those who are more vulnerable than the player character. Over time, the badger cubs gain in size and speed, until they are almost equal to those of their mother. This is a way in which the game subtly rewards the badger mother's efforts, which smoothly translate into players' accomplishments.

Age Markers

Age is expressed through the cubs' bodies, which start out as miniature versions of their mother, clumsily waddling by her side, and grow as the game progresses. Due to the size difference to their mother, the badger cubs are immediately recognisable as fragile, helpless others, worthy of adult, nurturing attention. This effect is described in Elisabeth Isbister's (2006) character design manual, in which she points to the babyface bias in social psychology. According to this model, childlike features are more likely to evoke assumptions of dependence, reduced responsibility, submission and manipulability in the player (Isbister 2006: 10).

In *Shelter*, this effect is used to encourage the player to take over a caretaker role as a responsible badger, and to emotionally invest in the young. As I will discuss later, the appearance of the 'babyface' badgers has motivated some players to give them names, indicating a kind of attachment comparable to pet ownership.

The impression of an age difference is not limited to the visual level, but addressed through sound as well, as described in the idle call-response ritual. Here, the low-pitched brawl of the mother represents adulthood, while the badger cubs' 'cute' response reinforces their waddling, helpless appearance as legitimate receivers of care.

Auditory Synaesthesia

Shelter's delicate graphics palette and the diffuse nature of the lighting push attention to other levels of perception. The auditory synaesthesia

device produces the coupling of sensations (Pichlmair/Kayali 2007), i.e. through the mimicking of the badgers' sense of smell through audio cues.

Predators and environmental dangers, like the wildfire, have their characteristic sounds, and they are audible before they are visible. Becoming attuned to one's auditory surroundings, then, can be a matter of life and death. If the distressing, dissonant signal of the bird of prey appears, for instance, we are well advised to seek refuge in the tall grass even before we see the bird's shadow on the ground. This kind of auditory player guidance simulates the badgers' instincts and sensual experience. The audio interface operates like a sense of smell, which informs the animals about possibilities and dangers.

Auditory synaesthesia is also used to characterise what kinds of dangers and predators the badgers currently face. The bird theme is a hectic and energetic rhythm sequence accompanied by wind noises, mimicking a predator which will swing down speedily and snatch a child. The nocturnal wolf theme is smoother and slower, invoking the stealthy nature of a wolf pack lurking in the shadows. Yet the device is also used to characterise positive experiences, such as acts of feeding, in which we always hear the reassuring banjo jingle. When we reach a safe area, the badgers' sense of safety is expressed through an uplifting guitar arpeggio or a variation of the theme music.

THE WORST LOSS:
BEING A BEREAVED BADGER MOM

While the premise of the game is to keep as many cubs alive until the end of the game, the permadeath mechanic allows moments of loss to happen at various points in the game. These moments of loss are varied, ranging from the attack by a bird of prey to the slow starvation of a young. Sometimes, the cause of death is indicated on the diegetic level, as in the high-pitched screech of a cub being stolen by wolves at night. Sometimes, the cause of death is extra-diegetic, such as in a technical

error, like a glitch, or a pathfinding mistake that has a badger prematurely leave their cover on a hawk-infested meadow. In such cases, the only indication is a missing badger graphic.

Irrespective of the cause of death, it is introduced matter-of-factly, refraining from dramatic commentary, synaesthetic response or change of environment. This is unlike *Ico*, where we have seen the emotional-landscape-device at work, or *Brothers* where death is framed as tragedy through carefully composed grieving rituals. In *Shelter,* life continues for the bereaved, and the lack of mechanical, auditory, or visual closure invites feelings of guilt and a sense of having failed as a caretaker. In what follows, I will discuss this construction of the bereaved mother as ultimately failed identity, based on my first playthrough of *Shelter*.

Maternal Bereavement as Ultimate Failure

When I first entered the game, I was overwhelmed with the camera controls, and missed the tutorial lesson that feeding the cubs was mandatory for their survival. This is why after some time one of my cubs went grey and was left behind, motionless. This taught me to forage for roots, rodents, and frogs with some degree of desperation, as seeing another cub perish like this seemed unbearable. Each fruit shaken from a tree, each root pulled from the ground, picked up by mouth and fed to the cubs renewed my spirits. The soothing banjo jingle accompanying each feeding action affirmed that an act of caring had taken place.

Only minutes later, during the night, the next incident happened. While the cubs scattered around in fear of predators, my attempts to search for them by running in arbitrary directions proved futile. One nauseating screech later, the group had gathered, but one young was missing. This moment has been characterised by journalist Cara Ellison (2013) as a feeling of "huge loss, somehow, at the fact that a little badger graphic has disappeared". By the point I realised that I had miscalculated the distance from one shore to the next, I had given up on seeing my three remaining cubs alive. And indeed, I left the creek alone, as a fully bereaved badger.

Feeling a deep sense of purposelessness, I also noticed that the bereaved badger parent was still able to use the environment, hunting and gathering as before. Perhaps she could at least engage in some self-care activities, now that she was on her own and unconstrained by the demands of her offspring. When I hopefully pushed her against a tree and picked up an apple, she picked it up with its mouth, as usual. Yet, instead of doing the obvious and eating it herself, the apple remained in her mouth. It was as if she wanted to offer it to her dead offspring.

I walked my badger in a random direction and pressed the mouse button again. The apple dropped to the ground, uneaten. For the lack of other options, I picked it up again and carried it through the forest, until I found a rodent, which I hunted and started carrying around instead of the apple. I used the badger to randomly pull out roots, shake apples off trees, and hunt animals down, hoping that she would finally understand that it was okay for her to eat, too. In the end, I was surrounded by a pile of edible items which had lost their function. To me, this indicated that my badger had given up on life itself. Clearly, the absence of her young had made her dysfunctional. It had never been as clear as now that the landscape around her, and all the objects in it, were designed for the benefit of my badger's children. They were never intended to nurture her. Now that her children were gone, so was the point of any of her action. The forest had become a place of cynical abundance, in which her vital life-saving skills had been reformulated to become destructive. As the piles of dead rodents and useless apples around her demonstrated: My badger had become a useless plunderer; a failure at life.

It is likely that the experience described above is a result of lacking rather than conscious game design decisions. However, *not* choosing for the badger mother to have needs – as well as abilities to address those needs – makes up part of the game's ideology. It includes the statement that 'if you are a mother, the death of your children will make you dysfunctional beyond recovery'. This statement is made simply by failing to change the mother badger's rituals along with her identity status: Losing her cubs requires a new focus on the self and survival.

In the current game, the mother is incapable of shifting the focus back to herself, leaving untouched the food she is so willing to procure for others. Associations to eating disorders are obvious. If the bereaved mother's rituals do not change, this communicates that she is 'stuck' in the past. Part of what makes her appear as destructive is that she is literally programmed to cater to children who are no longer there. She will continue to work for these ghosts without accepting any rewards. She will continue to repeat this delusional mode of existence until she accepts that her purpose has ended, or until she is captured by a bird of prey; which is how my depressing gameplay session ended.

There exist historical templates for the kind of bereaved motherhood incidentally created by *Shelter*. In her book *Motherhood and Representation* (2013[1992]), E. Ann Kaplan describes the myth of the self-sacrificing mother. According to this myth, motherhood is tightly linked to an imperative of self-neglect for the 'better' of the offspring. It is clear that, under these conditions, child loss translates into the "worst loss" (Rosof 2014[1994]). A bereaved mother does not only lose her children. She loses her identity, and is, therefore suspected of never adjusting to the loss. This myth also circulates in clinical psychology discourse, where a causal link is made between the loss of children and the risk of 'morbid post-loss behaviour' (Shear and Shair 2005). *Shelter* reproduces this dominant 'maladjustment' narrative of maternal grief by characterising the badger's post-loss life in terms of depression beyond repair.

From the beginning of the game, the mother's tasks have been reduced to caring for the children. This is also reflected in a game environment whose delicacies have been designed to be consumed by the cubs. The mother's body, apart from being a vessel of care, is absent as subject for care or concern. Like it, the mother's needs are absent from the game. This game design decision backfires in the situation of full bereavement, where the body of the mother – and her lack of self-concern – becomes visible. It becomes transparent that the badger-as-mother was never designed to have needs, and therefore cannot start to learn to have needs after surviving her maternal role.

As an agent without needs, the bereaved mother can choose between two unattractive options. She can either refrain from engagement with the world; stopping to hunt and gather, two activities which signify care. The other option would be to live on in dissociation; denying the fact that loss has happened. Since a third option of self-care has not been programmed into her system, she cannot acquire self-care skills. Self-care does not exist on the performative spectrum of a self-sacrificing mother.

There is another interesting aspect of *Shelter*'s bereavement ideology which demonstrates how gameplay can repurpose discourses on bonding and grief. *Shelter*'s motherhood is combined with a nature discourse, which according to *Killscreen* journalist Filipe Salgado sparks associations to the nature-programme broadcasting voices of David Attenborough and Werner Herzog (Salgado 2013). *Shelter*'s anthropocentric ideal of the self-sacrificing mother and the maladjusted, bereaved mother are embedded in a 'cycle of life' narrative, which presents this kind of motherhood as natural. This naturalisation discourse silences the mother's feelings and needs, including only those parts of 'wildlife' which sustain the romantic motherhood-as-sacrifice myth.

Sacrifice after bereavement is clearly in contradiction with the need to survive and procreate in 'nature'. A badger in the wild would start feeding herself in order to start mating again. While there is no doubt that new-born badger cubs are helpless and dependent, there is no immediate reason why parental commitment would continue after death, and why, as a part of this commitment, the mother would neglect herself.

What is powerful about this discursive construction of "natural maternal sacrifice" is that it cements the myth through simple economics of gameplay. During the first minutes of the game, we learn that the mother's physical needs are absent. Instead, we get to see her body as a vehicle to provide for others. Meanwhile, we are confronted with "the cruel unblinking stare of nature" (Walker 2013), but never at the cost of sacrificial motherhood.

One possible player response to this is the experience of shame and guilt over bereavement, often reported in *Shelter*'s online forums.

"I'm a terrible mother": Maternal Guilt Online

Shelter's focus on care as a priority of badger behaviour comes with two characteristics. First, the uniqueness of a loss situation due to permadeath, and secondly the lack of 'handholding' concerning explanations of the loss. There is no post-loss ritual, no funeral scene that makes sense of a badger's demise. The player is left alone with their interpretation of the traumatic event and must make sense of it without guidance.

For some players it has therefore been important to share their badger loss stories with fellow players online. I argue that this is not unlike what constructionist grief therapy calls "meaning reconstruction" (Neimeyer 2000). According to Neimeyer, the need for meaning reconstruction after loss arises from the loss of identity and self-concept after bereavement (2000: 552). He argues that rather than in isolation, attempts to find new meanings are always situated within the discourses, rituals, and cultural traditions of the grievers. (ibid.) Online forums and journalistic writing can be seen as such a discursive space for players trying to make sense of their traumatic gameplay experiences.

After playing *Shelter,* journalist Cara Ellison confesses that "I cry out at my monitor, and a feeling of intense sadness falls around me as only four cubs run up to my side. I feel numb as I carry on, and I wonder if I will get over it." (2013: n.p), and her colleague John Walker (2013) reports to have felt "shame" over losing a cub. Guilt and shame are also recurring themes in Shelter's Steam forum. User Psymon writes:

"In my first playthrough I lost Wendy to the river. My heart hit my throat when it made the cry as the wave swept over us all... Ian was taken by the bird in the

last area. I could tell it was going to happen, and immediatly [sic!] regretted my bad timing. I'm a terrible mother :C"[3]

Three things stand out in this small dramatic testimony: The use of the pronoun 'I', which suggests identification (Burn/Schott 2004), the tone of self-accusation, and the naming of the cubs. These dimensions are related. By choosing the pronoun 'I' rather than 'her', 'it', or 'them', Psymon conflates the positions of the player and the badger mother. The account switches between description of gameplay ("my bad timing"), and description of the narrative ("I lost Wendy to the river"), with emotional phrases ("My heart hit my throat") to serve as lubricant between player and protagonist.

This frames the badger identity as a double responsibility of the player-mother. In the self-accusative "I'm a terrible mother", Psymon accepts liability on both levels. This requires that Psymon has internalised the motherhood premise of the game. They take for granted that the cubs are unable to sustain themselves, and that dependable action (good timing) is required from them.

Guiding 'Wendy' safely across the river, and 'Ian' across the hawk area are not merely acts of gameplay; they reflect something about the player's ability to be an empathetic care taker. This can be inferred from Psymon's "regrets" about bad timing as well as the user's choice to give the cubs names. *Shelter* is used as a platform to negotiate loss-related fears, such as causing the death of a more vulnerable other through neglect or dangerous behaviour. Speaking 'through the badger' is used as an update of allegorical fable telling. Like in a fable, the badger's properties serve to explore questions of ethical and moral conduct without addressing them directly. As obvious from the report, the questions revolve around the ethics of being a good mother, and the conditions of failure. Yet unlike written fables, *Shelter*'s gameplay puts

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3   Online source: https://steamcommunity.com/app/244710/discussions/0/666 826250814499557/.

the players inside the moral system, where the myth of the sacrificial mother and its consequences are experienced first-hand.

The choice to identify with the badger mother, like the choice to name one's children, is a player-driven activity, nowhere suggested by design. Nevertheless, some players take naming for granted as common practice, as in the Steam forum thread "What did you name your children, and which ones didn't make it?".

Since naming conventionally takes place at the start of a life, it is expected to take place at the start of a *Shelter* play session as well, indicating the intention to bond. Players are creative in coming up with naming techniques, drawing on the cubs' coat patterns, or naming them after characters from blockbuster TV-series *Game of Thrones* (2011-), which is famous for the merciless execution of key characters.

In other words, through creative acts of naming, players forge attachments with the traits of 'their children'. The extra effort of naming expresses an intention of attachment, and the willingness to invest stronger emotions in the loss experience. This is tangible in Psymon's account, but user Hyde uses a similarly affective tone: "I remember the piercing cry as Splotch was taken, then desperately searching for my little badger, only to realize what had happened. And then when the water washed over Jeremy..... I was just traumatized."[4]

It would be wrong to say that witness reports like the ones above can only be understood in terms of identification. In fact, dramatic wallowing in traumatic witnessing may also be used for comic relief and emotional distancing. The Steam forum thread "GOD WHY?",[5] for instance, is initiated by an author venting their shock over their cub's loss: "o god... o my god! the... the bad bird ate my baby!!!!" The thread subsequently turns into a mixture of other trauma reports and self-help jargon ("we're here for you"). User Scary Jesus points to the "need to

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4   Online   source: https://steamcommunity.com/app/244710/discussions/0/ 666826250814499557/.

5   Online   source: https://steamcommunity.com/app/244710/discussions/0/ 864977479829251642/.

start a support group for this game", concluding: "Guys lets all just be good mothers ok". User Arpogest responds by bringing up the mother's culpability as a predator herself: "How many foxes and little rodents did you kill through the game, how many families did your mother-badger ruin? :)". This puts a new twist on the guilt question, having Cougarific conclude "o god!!! now we need a carnivore-guilt support group!!!".

In contrast to this emotional mode of retelling, the second type of report constructs loss as a technical subject, frustrating to an emotionally distanced, mastery-focused gaming discourse. In this discourse, practices of naming are absent, and even explicitly opposed, as in User Deadpan Serious' comment: "i'm so glad i never named them. i lost the first simply because the AI pathfinding must have got it stuck and when i counted only four cubs i went back but never found it."

Seeking emotional distance through technical discourse, Deadpan Serious frames the refusal to invest emotionally in terms of a refusal to deal with inferior software. This expresses a different attitude of gaming as an escapist activity from real-life emotion. *Shelter* is primarily seen as an entertainment product which is supposed to 'function'. As already mentioned, *Shelter*'s many glitches and pathfinding errors introduce sudden, unexplained deaths, which some users take as an opportunity for roleplay and others as a reason to complain. In the comment section of *Eurogamer*'s *Shelter* review[6], user chop-chop complains that

"[m]y first cub died because of poor game design. In the 2nd level... while I'm grabbing some food, one of the cubs gets snatched without warning. No sound, nothing. Just the sound of the wolf enjoying his meal. Cool. My 2nd cub died because of a bug. He got stuck in an endless running animation in the middle of a river, where the 3 other cubs and myself walked just fine, and of course got killed by the incoming wave. What's even worse than the death of this little cub, is that I think my interest for this game died with it..."

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6   See online at: http://www.eurogamer.net/articles/2013-09-11-shelterreview.

In this report, badger death is framed in terms of technical error. Instead of blaming themselves and their failing mothering, the user blames "bad game design", the lack of feedback, flawed animations, and glitches for the loss. In comparison with Psymon's reconstruction of meaning, where the player "lost Wendy to the river", chop-chop constructs emotional distance by focusing on the technical side of drowning, the "endless animation" beyond his control. Rather than a dramatic trauma report, affecting the player-badger emotionally, loss of control over a badger's life is nothing to be playfully appropriated. On the contrary, the loss of control over life is the loss of interest in the game.

I would suggest that on a broader scale, these two types of meaning reconstruction say something about player-specific attitudes to representations of grief. Do players see their medium in terms of an invitation to live through someone's life; experience someone's perspective? The first kind of witness report answers this question positively.

The proposed guilt narrative of maternal grief is accepted as experience to empathise with through gameplay dynamics. The second kind of narrative shows, however, that some players prefer to reject the negotiation of real-life experiences through games. Games are expected as a medium to grant them control over life. If this control is taken away, gaming is experienced as 'unfair', as 'badly designed'. From one perspective, it is 'life' or 'nature' that's unfair, from the other perspective it is the game designer. Whether as dramatic confessions of parental guilt, or as rationalisation of technical errors, *Shelter* has encouraged players to engage in traumatic retellings, and to bond over ambiguous loss situations. This shows that players are active co-creators of the grief narrative.

2.6 Designing for Loss and Grief: A Summary

By looking at what video games have already done to model these subjects on an ergodic spectrum, the previous chapters have identified some devices and the way they make space for player projections. The intention was both to contribute to the growing body of game analyses which address video games as cultural text (i.e. Smethurst 2015), and to provide a pragmatic starting point for grief-based game design. Apart from making strategies available for my own design-based case study (to be discussed in the next part of this book), the hope is that other game designers will find the suggestions in this chapter useful for their own practice.

As should be clear by now, the choice of game design devices influences how games divide social power among characters, who the player is encouraged to side with, and through whose perspective and body a grief narrative is told. I have observed that rules and mechanics regulate the gameplay bonding rituals and so construct reasons to care for an other. By defining what we can and cannot do, game systems do not only constrain possibilities, but incidentally construe motivations for attachments. These motivations cannot be divorced from the players' social background, and existing cultural notions of dependency, friendship and responsibility.

While rules provide the set-up for social roles, it is also important how performing these roles *feels*. This is where controls come in, and

their ability to haptically involve the player through interreactive[1] options. Through control devices, we can model characters' presence and absence. Control schemes regulate who acts, and whether agency is distributed equally or unequally among characters. A character whose presence is tightly integrated in the controls will be physically missed when removed from the game.

In *video*games, the way we experience the other as present or absent is often a matter of what we see on screen. Different bodily constellations in virtual space invite players to interpret what is going on between characters. Are attachments secure or precarious? Are they being taken for granted by the characters, or do they need to be fought for?

Character design, the way bodies look like when they meet in space, is necessarily related. Size differences, as well as the use of identity markers characterise bodies in a way that can proliferate (or challenge) stereotypes. There is a point in treating markers such as gender and age as game design device: They make tangible part of the attachment and loss quality on a social level (i.e. they make *Passage*'s attachment tangible as spousal, and *Shelter*'s relationships as parental commitment).

Finally, auditory representation can illustrate individual character traits in less explicit, more subtle ways. They can be used to anchor characters in their worlds, adding a sense of legitimacy to their presence in the game's/the player's world.

Rather than as separate units producing particular effects in isolation, design devices only make sense in the context of a larger (non)-ergodic spectrum. For the purpose of understanding the choices game designers have when constructing notions of attachment, loss, and grief, however, I will first address them individually. The chapter closes with an overview of how they have been used in context.

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1   For a discussion of this term and why I use it as an alternative to the concept of interaction, see chapter 1.1 of this book.

WORKING WITH RULES AND MECHANICS

I have observed three ways in which the bond to another character, be it an NPC (*Ico*) or a second player character (*Brothers*), is communicated through rules and mechanics. To distinguish different constellations, I have named these incorporation, dependency, and synergy rules, respectively. Incorporation rules impose a bond and thus characterise it as fact beyond the player's control. Dependency rules motivate caring through a power divide between the characters, and synergy rules foster attachment through an eye-level relationship. Irrespective of the differences between these connections, the sense of collectivity can be amplified by the use of an adversary threatening the inter-character bond.

Incorporation rules merge two separate characters into one controllable unit. This strategy is used in *Passage*, where the player character starts out as single person, and through the fateful entering of the NPC's space ends up blending with her. We are not told about this rule until the game puts it into effect. This surprise fusion makes three claims about the attachment (or more precisely, heteronormative romantic love). First, "falling in love" is presented as event beyond one's control; something overwhelming both the character and the player by being a fact of nature.

Secondly, relationships are *made* but not chosen. After the 'love' event, the characters stay attached without raising the need for consent or negotiation. Staying together is a natural consequence of falling in love. Thirdly, the two character models touch on a physical level, proliferating a conservative world view of "two becoming one" as soon as they engage in physical contact.

This last point is particularly problematic when considering that incorporation is achieved by an 'incorporator' who is incidentally male, and done to a passive 'incorporated' who is incidentally female. This enforces a possession narrative, inducing some players to talk about the spouse as an object to be "taken" as a wife. Since the wife is passive, being 'taken' is an act which she cannot question or protest.

Nevertheless, *Passage* demonstrates that incorporation can be useful to convey a notion of commitment over a short playing time and through simple means. Rather than investing in long-term bonding rituals, imposing a rule which suddenly merges two characters demands adjustment from the player, and changes the character's place in the world. Another pragmatic advantage is that incorporation can be simply reversed to introduce separation: While the condition for incorporation in *Passage* is touching the spouse, the condition for separation is that the spouse touches the right side of the screen. In other words, a spatial rule is used to both establish and undo attachment.

I suggest that the incorporation device can be used to evoke narratives beyond the misogynistic version of spousal attachment proposed in *Passage*. A simple gender swap would be the most obvious possibility to avoid the hegemonic cliché of male agency and female passivity. Another option would be to modify the separation condition to allow for breakups, perhaps by the introduction of landmarks, treasure chests, or new characters which may motivate separation.

Rather than imposing attachment, dependency rules structure gameplay around the need to help a more vulnerable character and motivate attachment through the feeling of responsibility. *Shelter*'s win condition is to survive in the wild, but its rules and mechanics focus heavily on keeping the cubs' wellbeing in mind while traveling from burrow to burrow. This is reflected in the mother badger's ability to forage for food, which the badger cubs must eat in order to survive. At the same time, the cubs are defined as vulnerable and trusting, following their mother even when she walks off into the habitats of predators, and starving when she fails to feed them. This dynamic is constructed through a permadeath rule: Once attacked or perished, the cubs disappear forever; there is no quick save option to bring them back. This frames death as the *player's* failure to provide rather than presenting it as part of an inevitable narrative moment. Each death comes with the question, *Could I have done something different to prevent this loss?* Due to interreactivity, the answer is always yes, encouraging emotions of guilt.

Although matching the theme of survival in *Shelter*, permadeath is not required to construct dependency. *Ico* uses the device to produce elaborate rituals around helping a less capable other. Examples are Yorda's jump into Ico's arms, the fights against shadow creatures, and the escape towards the next idol gate. These rituals instil a sense of responsibility which can turn into gameplay deprivation when the dependent other is gone. In both *Shelter* and *Ico*, the loss of the other is the loss of the ability to help. With Yorda gone, there is no one to fight for, and no one to escape with, while the loss of a badger cub, as we have seen, evokes guilt over being a bad parent.

Game designers using dependency to motivate attachment should not forget that this device is based on an inequitable distribution of power between two characters. If players emotionally invest in dependency they do so because they feel responsible for a weaker, less dependable, or completely helpless other. This can be appropriate in some cases, as in the portrayal of an infant-adult relationship (*Shelter*). In the case of *Ico*, however, the power divide coincides with a gender divide, characterising agency as an incidentally male quality, while Yorda's physical inferiority is *also* coded as feminine trait.

Another consideration is that escort missions, which both *Shelter* and *Ico* are examples of, are often blamed for characterising the helpless other 'artificially stupid'. This means that while characters are programmed to be vulnerable, this does not reflect in their behaviour, such as when they run into a line of fire or confidently attack clearly overpowered enemies. *Shelter* and *Ico* circumvent this problem by disallowing the NPCs to autonomously interact with enemies. The downside of this strategy is that they have no autonomy and are therefore inferior by proxy.

A third attachment device is synergy, which is when two characters' roles and abilities are defined as complementary and equally strong. The motivation for attachment is not the need to assist a helpless other, but conversely, to respect a similarly strong partner through fun collaboration. Synergies can be prescribed by or subtly emerge from the game rules. *Brothers* is an example of prescriptive synergies, since the

only way to progress is to use the complementary abilities of Big Brother and Little Brother. The brothers collaborate on eye-level, and all elements in the game world are custom-tailored to accommodate teamwork. The rules of interaction are simple: Each brother owns a button that triggers a contextual action depending on the game object in front of them. This way, the game conditions players to interpret some tasks as 'Big Brother tasks' and others as 'Little Brother tasks', dividing responsibilities equally.

While in *Brothers* synergy is authored and pre-defined, *FFVII* uses synergy more subtly, through character stats and battle dynamics. Instead of forcing the players to recognise Cloud's and Aeris's chemistry, the game balances their character profiles in ways which encourage Aeris's inclusion in battle party. Cloud is optimised as a physically strong character who is good on the offensive. Not only does he acquire fighting skills faster than others, but his limit breaks feature mostly aggressive strikes.

Aeris, conversely, develops mage skills swifter than any of the remaining characters, and performs otherwise expensive restorative moves for free. Over the course of many battles, players are allowed to explore these synergies and may come to the conclusion that Cloud and Aeris are a good match. Like in a mutually beneficial long-term relationship, or a friendship, synergies are nuanced and may create attachments which – as I have shown in my discussion of fan hacks– are difficult to let go.

When it comes to loss, the way we have invested in synergy dynamics matters. If synergy has been imposed, as in *Brothers*, separation is a matter of scripted events as well. Contrasting *FFVII*, where attachment is a player's personal choice, *Brothers* talks about rather than elicits emotion in players. If synergetic attachment has been a personal choice by the player, like in *FFVII*, players can feel shocked by the separation, feeling a "secondary loss" (Stroebe/Schut 1999) of their strategy setup, and develop fan practices of "continuing bonds" (Silverman/Klass 1996) with the lost character.

Including an adversary is part of the conventional videogame formula, in which an enemy or evil force exerts aggression against a game hero and needs to be overcome to win the game. But an adversary can also serve to foster belonging between characters. In all games I have discussed, a friendly other is made important by making them the target of some antagonistic force, whether evil or a force of nature. Yorda is attacked by shadow creatures which only Ico can get under control, Big Brother and Little Brother bond over the fear of the evil Spider Lady, and *FFVII*'s battles against fantasy monsters make up the better part of time spent with Aeris. The badger cubs are in a constant threat of being killed by predators, flames or high water, and the progression of time in *Passage* conjures up the question of how long the couple will stay together.

In any of these cases, danger to the team unit serves two functions. First, it strengthens collective identity by drawing a line between 'us' and 'them'. This line emerges from who the rules define as victim (us) and as perpetrator (them), constructing a sense of belonging. Secondly, danger foreshadows an inevitable or possible separation. The shadow creatures in *Ico* do not take Yorda away from Ico, but they point to Ico's paranoid fear of loss in an uncertain future. Indeed, the shadow-fighting rituals foreshadow this loss. In a permadeath scenario like *Shelter*, the adversary does not foreshadow but produces loss immediately. One wrong step and one badger graphic is missing (Ellison 2013). While the devices described above characterise specific attachment qualities, the adversary device can be used to amplify a sense of in-group belonging.

WORKING WITH CONTROL SCHEMES

As input devices, controllers make what is happening between characters physically tangible. Control schemes communicate who is imbued with agency and create a sense of presence. Game designers can use control schemes to model feelings of presence and absence through interreactive strategies, designing haptic rituals to realise a connection. I have observed two ways in which games have done this compellingly,

through devices I call the tandem controls, and the call-response controls. The former constructs presence by mapping two characters on the controls simultaneously; the latter models yearning for a desired character, focusing attention on the desiring character.

Brothers demonstrates that instead of channeling all action through the perspective of a single character, video games can use the device of tandem controls to divide gameplay rituals among several characters. In the game, the controller serves as a haptic proxy of the sibling constellation we see on screen: We see Little Brother on the right side of the screen and press the right action button on the controller; the left side is reserved for Big Brother.

Over time, our hands are conditioned to feel the brothers in terms of 'their' space on the controller. The real-time sharing of space among characters is different from role-playing settings like in *FFVII*, where several characters take turns. Tandem controls express a notion of equality by making several characters 'own' space simultaneously. This avoids creating the feeling of a hierarchy or a 'pecking order' between characters.

Through repetition, *Brothers's* controls normalise the equal presence of the brothers. This feeling is then exploited in Big Brother's death to create a powerful sense of bereavement. Even as Big Brother is visually absent, his action button remains in the hand of the player. Big Brother is present as an "inner representation" (Klass 1993) in Little Brother's world, from where his actions become tangible memories with an impact on the game world.

This demonstrates the potential of tandem controls as design tool for narratives of commemoration and remembrance. Once the presence of a character has been established on the haptic level, designers can combine visual absence and haptic presence to suggest that a character continues to matter after their death.

While the tandem scheme maps the actions of several characters at once, the call/response device focuses on a single character's yearning for another. *Ico* only addresses the main character's wish to be with

Yorda, which can be expressed by pressing the shoulder button on the controller.

Unlike *Brothers*, in which each character owns a button, and therefore agency, the call/response scheme characterises Ico as an agent uttering a request, and Yorda as the addressee following suit. This amplifies the asymmetrical power distribution, since the game never explains Yorda's motivation to follow Ico. Her actions always happen in response to an external demand, so we are left in the dark about her true ambitions and intentions, including whether the desire for intimacy is mutual. It is not her choice to hold hands, it is Ico's anxious demand.

This means that by putting a single character's emotional requests in the spotlight, *Ico*'s call/response controls characterise one character as hungry for attention, while the feelings of the desired characters are unknown. Nevertheless, by rendering Yorda's responses reliable, making her consistently jump across the abyss into his arms, or holds his hand, the player comes to expect that the call is always followed by a response.

When Yorda disappears, players can still press the 'desire' button, but Ico's voice goes into the void. His unrequited shout feels like a desperate attempt to stay connected to a lost other, which is a more uncertain post-loss scenario than the tandem control's certainty of *being* connected beyond death. Due to this uncertainty, the call/response scheme characterises attachment as precarious and fragile, characterising love and loss as an ambivalent experience which can never be fully understood.

WORKING WITH SPACE AND ENVIRONMENT

If videogames represent characters on screen, both the distance between them and their movements can express different attachment qualities. How and to whom is space granted or denied? I have observed different spatial strategies games use to answer this question, which I have called *the union*, *the invisible bond,* and *the elastic bond*. In the union, there is

no space between characters; the invisible bond makes an NPC automatically follow the protagonist in an effort to keep close; and the elastic bond has the player negotiate the distance between characters through gameplay decisions. These three constellations make two claims about relationships. First, they decide to what degree intimacy can be taken for granted, depending on whether the space between characters is safe or contested. Secondly, they determine the quality of loss when the other is removed from the constellation.

The union appears in *Passage*, where the player navigates a double character unit through space, adjusting to an altered size imposed by incorporation. In the maze environment of *Passage*, a double body unit tells a story of compromise: The player can no longer reach the treasure chests they used to reach, and this is a direct result of connecting with the wife. The couple is not only controlled by the player, it is also controlled by space. Tapping into the convention of left as past and right as future (Kress/van Leeuwen 2006), the union is pushed towards an uncertain future at the end of the right screen.

This has two bonding effects: First, since the couple is pushed towards the right edge together, the question of what awaits them affects both of them. Will things stay as they are? Or will they be separated soon? Secondly, since the spouse is heading the party, we can expect her to reach the right side of the screen first. Some players may anticipate her loss and thus hold on to her while the bond lasts. Since the rule of death –hitting the right edge of the screen – has not been established yet, players have no way of telling whether things will improve, worsen, or end. The only thing to do is to spend one's remaining time as a couple to the best of one's abilities.

An invisible bond is established when the distance between characters is automatically regulated by the game. We have seen this strategy in *Shelter* and *Brothers*, where it is used to express the 'natural' belonging of a family bond: In *Shelter*, the badger cubs follow their mother wherever she goes, since proximity is synonymous with better chances of survival. If malnourished, the cubs may slow down, and make the crossing of a creek, or the traversal of hawk-ridden landscapes more

risky. Maintaining a good relationship is thus a matter of lubricating the invisible bond by feeding the cubs regularly.

Shelter also demonstrates how, for extra effect, the family bond may be temporally broken, as in the nocturnal 'panic' mode when the cubs, scared by the presence of predators, disperse in different directions. In panic mode it is again the mother who is fully responsible for getting her young back and re-establish the safety of the family unit.

In *Brothers*, the invisible bond is introduced in the form of a maximum distance between the characters. While solving puzzles, the brothers must not leave a given area, reinforcing a sense of collective sibling identity, albeit without the power hierarchy the 'follower' dynamic creates in *Shelter*. Within their identity space, the brothers can roam around freely, and interact with the environmental.

In both games, there is an invisible, hard-coded attachment space. It indicates that relationships are given rather than player-made. This strategy allows game designers to prescribe a sense of belonging. The relationship is something natural, something taken for granted by the characters, as is often the case in real-world family scenarios. Neither in *Shelter* nor in *Brothers* do the players have to construct togetherness and intimacy from scratch through hard work. It is there by default.

This is different in the elastic bond, where intimacy is something desirable but also something contested. In *Ico*, the two protagonists struggle through an adverse environment, where staying together grants benefits but is not always possible. Distance is defined as dangerous: The farther the characters are apart, the more exposed the NPCs are to aggressors. However, Yorda does not 'instinctively' seek Ico's space, like the cubs in *Shelter* do. She needs to be explicitly called over, and sometimes left alone when the game disallows her from accessing key areas. This forces the player to take the risk of temporary spatial separation, followed by a pleasant reunion. The elastic back and forth frames intimacy as a precious resource that must be earned rather than expected.

Overall, the elastic bond is a device which can be used to characterise relationships as problematic, tense, or tragic. It

communicates that the presence of the other can never be fully owned, even if this is a collective wish.

WORKING WITH CHARACTER DESIGN

Visual design, the way characters and their environments look, can do much to portray experiences of bonding, loss, and grief. They add a socio-cultural dimension to the loss experience, using identity markers such as age, gender, and kinship. Throughout my analyses I have focused mainly on these three identity markers and how they have invited players to care. Furthermore, I have observed how visual design can be used on a metaphorical level to express character emotions via emotional landscapes.

Gendering, or the characterisation of protagonists along a female/male binary, has been used to foster bonding in two ways: bonding over gender difference, and bonding over similarity. Bonding over gender difference is used by games which imply bonding as heteronormative longing for the opposite gender (*FFVII, Ico, Passage*). Part of the motivation to bond is a romantic interest.

In *FFVII*, gender difference structures who acts and who is looked at (and by proxy who desires and who is desired), which is similar to *Passage*, where incorporation is marked by a gender divide. Long hair and skirt are conventional markers of femininity on the spouse; these markers happen to correspond with a role of the passive object waiting to be incorporated by a male protagonist. Visual gender markers, then, define whose experience we side with. In *Ico*'s dependency constellation, gender serves a similar purpose of declaring different abilities male or female. Through gender, the game designers portray Yorda's inability to swim, climb, fight, and run as feminine traits.

The second function of gender is same-gender bonding; loyalty over the fact that one shares gender aspects with someone else. This is done in *Brothers*, where gender markers regulate the boundary between friend and foe. The two prominent female characters personify existential

threats. The ghost mother, whose appearance is confined to Little Brother's hallucinatory episodes, explains Little Brothers' post-traumatic fear of water. The other woman – an evil, seductive spider witch – is responsible for Big Brother's death and is thereby cast as a convenient hate object facilitating male bonding. Women are not othered to be desired, they are othered to provide a context for a male-centred grief narrative.

It is possible that *Brothers'* misogyny is a side effect of repurposing mythological archetypes rather than a matter of conscious game design intent. However, design ignorance does not excuse toxicity. The Spider Lady boss battle mechanic, in which Big Brother pulls out legs from the spider's body to disarm the woman's seductive charms is an obvious rehash of the *vagina dentata* myth and its century-long tradition of vilifying female sexuality (Raitt 1980).

Visualising age can flesh out the reasons for responsibility and care, like in *Shelter*, where the size difference between the badgers points to an adult-child relationship. The size difference makes immediately clear who cares and who is cared for, and achieves a cuteness effect: Through the relative smaller body size of the badger cubs, who clumsily waddle along with their mother, we understand that these cubs are worthy of our protection.

In *Brothers*, age markers are used to justify the distribution of skills among the brothers. From the beginning, it is intuitive to assume that Big Brother will pull the heavy levers and push Little Brother over the high latch. As *Ico* demonstrates, though, body size is not always used to mark age or competence. Yorda is much taller than Ico, but her size does not translate into skills or responsibility. If anything, it emphasises Yorda's unavailability, and invites readings of Ico's yearnings in terms of an infantile desire for the mother's attention (McDonald 2012).

Another use of age markers is shown in *Passage*, where character sprites change over time as to display varying fashion choices and physical conditions. This expresses the collective experience of ageing together as the couple is pushed forward in time. Here, age markers

represent a process and stress the character's collective experience of growing old, rather than marking different social roles.

While markers of gender and age are concrete ways to portray character traits, a more subtle visual strategy is to reflect a character's inner life in the game landscape. In *Ico*, bonding with Yorda takes place high up on the castle walls, which progressively crumbles throughout the game. While together with Yorda, the weather is sunny and clear; if outside, one can survey the surroundings, and the atmosphere is calm. The loss of Yorda coincides with Ico's fall from the bridge: The scenery changes from homely to rough. We are thrown into a dark cave framed by a thunderstorm. A loss of orientation accompanies the loss of bonding rituals. The environment is also used by *FFVII* and *Brothers* as additional indexical sign pointing to character traits. Aeris's birth house is located in the midst of the poor slum region in Midgar's Sector 5 but flowers bloom in her garden, indicating her resilience and innocence.

The journey through diverse landscapes and the use of day and night cycles, as well as different weather types, illustrate collective experience in *Brothers* and *Shelter*. Big Brother's death, as well as Ico's fall from the bridge, are accompanied by thunderstorms.

However well landscapes and weather can communicate characters' inner lives, *Brothers* is a good example for the overuse of this device. In the game, every landmark, tree, and animal in the landscape has an explicit meaning. Rather than making space for emotional projection, this puts the player into an emotional straitjacket, forcing them to follow the emotional message along or to be lost on the way.

WORKING WITH SOUND AND MUSIC

Sound can describe both the conditions under which attachment and separation is experienced and the personality of the character one relates to. If it is used synaesthetically, it characterises other sensations, such as smell or vision. Another possibility is musical theming, using a musical loop repeatedly to characterise a place, activity, or attachment figure.

Auditory synaesthesia, the coupling of sensations through music (Pichlmair/Kayali 2007) can simulate aspects of what it feels like to be in an attachment or suffer from separation. Used in game design, it can be used to simulate a sense of smell, like in *Shelter* where the badger mother's sense of danger is indicated through audible cues. Sound is used to heighten the sense of collective threat, but also to supply soothing feedback to a successful nurturing activity. This creates a panic/reward structure, which illustrates the emotional level of maternal caring produced by the gameplay ritual. Since rituals happen repetitively, the auditory structure provides a subtle expression guiding the players how they should feel.

Some games use musical themes, recurring melodies, which anchor a character in the game world. We have seen this at use in *FFVII*, where variations of the Aeris theme are played to mark geographical regions and events as 'Aeris-centric'.

The meditative tune both normalises and legitimates Aeris's presence in the game world and characterises her as calm and spiritual. This 'emotional payload' is evoked during her impalement, when the player is made to listen to the full version of Aeris's theme. Apart from hinting at the fact that we are about to lose an important character, hearing the tune continue during the post-impalement boss battle creates an effect of traumatic numbing. Aeris's friends cannot believe what just happened, can the player?

Another version of musical theming can be found in *Ico*, where Yorda's signal theme is casually played while the start screen is visible. A player will hear the beginning of the Yorda theme over and over again, depending on how often they open the game. Inside of the game, however, we do not hear this melody until the climactic end scene, when Yorda pushes Ico's boat out of the crumbling castle, remaining buried under it herself. Like in *FFVII*, the tune is familiar, so a nostalgia effect might kick in. We have heard this song before, but not until the end, and not in the context of separation. To very observant players it will occur that the lyrics of Yorda's song "You Were There" contain the phrase

Yorda whispered to Ico in the moment of his fall from the bridge. The song comments on the couple's being together and their separation.

WORKING WITH GRIEF CONTEXTS

As devices on an ergodic continuum, using interreactivity to different extents, the design strategies discussed here unfold their effects through interplay with other devices and in mutual exchange with the player over time. This interplay can be unpacked in terms of different loss gestalts, experience clusters which comprise dynamics of attachment, loss, and grief. By means of conclusion, I would like to review the different gameplay gestalts constructed by the five games, looking at the design devices in context.

First, *FFVII* constructs an ally loss gestalt through a combination of the synergy device (abilities on par with the main hero), musical theming, legitimising Aeris in the game world, and gender difference, which marks her as a potential love interest. During the loss, which is both staged and introduces a boss battle reminding us of our 'secondary' gameplay loss, the nostalgic function of musical theming is used to construct traumatic numbing. After the loss, the game does nothing to acknowledge Aeris' absence, and allows players to search and yearn for her through fan practices. This radical removal also needs to be seen in the context of dozens of remaining gameplay hours, for which the synergy device has created a powerful premise: Aeris' limit breaks, and therefore her contribution to the collective, will be dearly missed during the rest of the game.

Passage portrays conjugal attachment and bereavement, using the incorporation device in a gendered form: The man initiates contact, the woman is incorporated, and together, they become an unbreakable union. This union, a non-negotiable connection between two characters in space is embedded in a temporal order expressed through the age device. Simultaneously, they are pushed to the the right. This combination of the union and age marker introduces the question of what will happen as the couple reaches the outer right frame. When the wife

is split from the unit through the separation rule, we remember just how much we have taken her presence for granted. Her absence conjures up the question what the player character, thrown back to a single-unit character, will do next. Will he stay with the little gravestone and refuse to move on, or will he go and explore more of the *Passag*e at the cost of leaving the gravestone out of sight? This is how *Passage* frames the male character's repertoire of possible grief responses, providing the options to move on, or to preserve bonds through the refusal to move.

Ico models the problematic loss of an ambivalent love object, perhaps the mother (McDonald 2012). The game first represents the Ico-Yorda connection as an unstable, constantly threatened bond, using the elastic bond device and a call/response control scheme, which frames the connection as inevitably precarious and enabled by Ico's repeated demands. The motive of helping Yorda as the more fragile, incompetent, and incidentally female character is established through a series of dependency rituals establishing a power divide. The staged loss of these rituals causes gameplay deprivation: Only half of the mechanics are left, and they need to be performed in a more depressing environment. Here, a symbolic landscape is used to communicate a melancholic clinging on to the lost (m)other.

Shelter's child loss gestalt first constructs the mother as self-sacrificing caretaker, using a set of dependency rules, and the invisible bond device to identify the offspring as intuitively trusting. The age device is used to reinforce vulnerability and cuteness on the visual level. The synaesthetic soundscape characterises collective alertness of potential dangers. Loss is modelled through the rule of permadeath, which constructs bereavement as maternal failure. Post-parental life is presented as dysfunctional and without purpose, since the game world caters exclusively to the project of nurturing. Since hunting and gathering become pointless with the loss of mothering duties, fruit, roots and rodents cannot be put to their assigned use. The game thus incidentally characterises bereaved motherhood's only choice as destructive pillaging.

Finally, *Brothers* constructs a fraternal loss gestalt, using a combination of synergy rules, the tandem control device, and a strategic dynamic of same-gender bonding. Attachment is characterised as safe and taken for granted. It is the player who has to grapple with a control system that – if used correctly – will adjust the brothers perfectly to their environments. The brothers share agency, with differences only introduced on the visual level of age markers, indicating contextual action (i.e. Big Brother being more likely to carry out actions requiring strength). The fraternal bond is defined as intuitive by means of making it both invisibly fenced-in (a maximum distance between them) and elastic (a back and forth between different spatial challenges). After loss, the tandem controls are used to great effect, working with a visually absent but haptically present Big Brother. By requiring player inputs that have previously mediated Big Brother's actions, the game models the brothers' continuing bonds and Little Brother's inner representation of Big Brother.

The possibilities and limitations demonstrated in these loss gestalts highlight strategies for grief-centred game design. I have argued that while providing compelling cases for game coherence, the discussed loss gestalts also illustrate current shortcomings in the representation of attachment, loss, and grief dynamics. One example has been the absence of female-centred grief experience. When it appears (*Shelter*), it comes with undertones of dysfunctionality, echoing the tendency of medical grief studies to pathologise female experience (Bradbury 1999).

Critical game design practice demands that we learn from previous failures, and challenge stereotypes which incidentally slip into game design if we fail to actively seek appropriate alternatives. Apart from subverting existing expressions, as I have suggested with the role reversal in *Passage*, one thing designers can do is address experiences which have not been tackled through game design before. This is what I have in mind with *Jocoi*, a game about pregnancy loss, which I designed as a case study on how game design can make real-world grief speakable. The tools I have identified in this chapter will be helpful to engage in a design dialogue with the bereaved.

Part 3: Design

3.1　Grief-Based Game Design:
　　　A Case Study on Pregnancy Loss

INTRODUCTION

In the last five chapters, I have discussed design devices which are helpful to construct notions of attachment, loss, and grief. What I have shown across the five videogames is that the medium has a wide palette of opportunities to model human experiences through nuanced ergodic and non-ergodic means. They can characterise why we care, for instance by putting players into an inequitable distribution of power in which they engage in paranoid bonding rituals (*Shelter, Ico*), or by creating eye-level relationships between characters, which invite players to care about a character as an equal partner (*FFVII, Brothers*). While demonstrating rich methods of making nuances of inter-character relationships tangible, the five games have also indicated a tendency to prioritise male experience and silence other possible vantage points for grief-based game design.

Videogames' hidden preference for male experience spaces is a part of a wider problem in videogame culture (Alexander 2016, Code 2016). In 2016, videogame writer Leigh Alexander observer that "the industry model whereby wealthy white men peddle power fantasies that throttle everyone else's needs out of consideration remains alive and well" (Alexander 2016). According to her, not only are interests of "wealthy white men" overly catered to by the game industry, but this has effects

on those whose needs are systematically ignored by. In a similar vein, game developer Brie Code (2016) has argued that the gun-toting, rapid-fire-action aesthetics of arcade-style game culture do little to include a growing number of game audiences who would prefer games fostering care and empathy over fast-paced entertainment.

This case study joins this recent 'pro-care' videogame discourse by addressing the woman-focused experience context of pregnancy loss through game design. Given that for millions of women, grieving over the loss of a fetus or an infant is an ordinary experience[1], it is notably absent from videogames. By way of challenging this symbolic silencing, this case study looks at possibilities of grief-based game design, involving four bereaved mothers who were guiding the ideation process.

The participants constructed inspirational materials reflecting on their ongoing bonds with their fetuses. These materials were used to inspire the development of the digital game *Jocoi*. The women were contacted via the Austrian self-help group bereavement group 'Regenbogen', and game development was carried out with a student team at Aalborg University Copenhagen over the course of three months.

The aim of the study – designing a video game by addressing lived experiences of grievers – can be understood as a reflective design process (Löwgren 1995, Sengers et al. 2004).

Sengers et al. (2004) describe reflective design as follows: "Some of our products are things to use; some are things to think with. The latter might have little practical use but can encourage reflection on

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1   According to information by the World Health Organisation, "In 2009 there were 2.6 million stillbirths globally with more than 8200 deaths a day. At least half of all stillbirths occurred in the intrapartum period. Among the 133 million babies born alive each year, 2.8 million die in the first week of life." This suggests that losing a foetus or child is a common experience for many women world-wide. Source: http://www.who.int/maternal_child_adolescent/topics/maternal/ maternal_perinatal/en/, last accessed 23/3 2017.

technology, its situated meanings in people's lives, and our own role as researchers and designers" (2004: 15).

This case study uses game design as process to 'think with' in regard to three specific questions. First, how can the narratives and ideas of grievers be considered early on during ideation, not merely as part of playtesting? Secondly, how could inspirational material about lived grief experience be appropriately translated into gameplay? And eventually, how can the impact and purpose of a 'grief game' be assessed? Even though the case study is process- rather than product-oriented, the evaluation of responses to the final prototype of *Jocoi* inform perspectives on the use and value of grief-based game design.

MUSE-BASED GAME DESIGN: A METHODOLOGY

Concerning the question how to include the women's experience and backgrounds into game design, I found Rilla Khaled's (2012) muse-based design approach useful. Muse-based design is "an experimental empathic design approach foregrounding a dialogic artist-muse relationship between a game designer and player" (Khaled 2012: 721).

Khaled observes that while it is common practice for game designers to test their products on players late in the design phase, it is less common to include players' views at a point where they can impact the core design concept. This leads to missed opportunities regarding the innovation of design, causing game designers to gravitate towards a repetition of well-established creative formulae.

As opposed to this, muse-based design turns the focus to the tastes of (potential) players, and how they may challenge "existing assumptions surrounding the nature of game design" by means of fostering "designerly self-awareness" (Khaled 2012: 721-722). Instead of a conventional development cycle in which the player is involved only as playtester of a finished product, muse-based design invests in learning about the player early on and formulates appropriate design constraints in response to player inspiration. This creates a dialogic situation in which the player becomes the 'muse' inspiring ideation, and

the designer acts as 'artist' creating under idiosyncratic design constraints.

First, the image of the muse-artist relationship is not free from problematic associations, especially when we look at visual art history. The muse has dominantly been depicted as a young seductive woman offering her scantily clad body to the male artist's gaze, or 'inspiring' him through a kiss. Famous examples are Paul Cezanne's Kiss of the Muse (c. 1860) and Édouard Manet's Olympia (1863). In these paintings, rather than a dialogue partner, the muse is the sexualised object on display. Her cuntribution to the art-making process is systematically silenced.

I would argue, however, that Khaled's proposition of muse-based game design is a way of reclaiming the voice of the muse by bringing them back into dialogue. The artist-muse relationship is a pragmatic category whose function is to involve dialogue partners in design who are intimidated by the idea of making a game. Khaled argues that while designers often believe they can empower participants by putting them in charge of design tasks, this can backfire in situations where participants do not want to be 'empowered'. As she discusses elsewhere (Khaled/Vasalou 2014), the question of empowerment needs to be resolved contextually.

The role division proposed by the muse-based game design approach regulates design contributions in terms of clear responsibilities. "The role of the muse is to inspire, and the role of the designer is to respond through attempts to create interesting experiences that relate to and appeal to the muse. The designer's objective is to amuse the muse" (Khaled 2012: 724).

Finally, as an experimental design method, muse-based design stays open to the idiosyncratic needs of the participants rather than defining a procedure. In fact, part of the dialogue is to design a method which responds to wishes and fears the muses might have and provide a design context in which they feel safe and comfortable sharing their experiences.

PARTICIPANT SETTING

The muse-based design approach was set up to accommodate the given participant context in important ways. First, the reason the women joined the project was to make space for their children and share their stories freely irrespective of societal taboos. They expressed enthusiasm about the prospect of contributing to the destigmatisation of grief experience in public discourse, and about doing so using creative methods.

The denomination of 'child', preferred over 'fetus', and the consistent use of their children's names suggested that they cultivated "continuing bonds" (Silverman/Klass 1996), and that they stayed in touch with the deceased through "inner representations" (Klass 1993). Like in Klass' study, the women experienced the cultivation of their children's inner representations as a fulfilling aspect in their everyday post-bereavement lives. The desire to communicate about their children was not diminished by the time that had passed between the loss event and participation, which ranged from 13 months and 10 years. The muse-based design approach suggested that the women's rich narratives could be tapped for ideation, provided that this happened in an empowering setting.

Secondly, the women expressed some skepticism towards videogames because they had not previously identified them as meaningful expressive media. Much in line with Alexander's (2016) and Code's (2016) critique, the women asserted that videogames were not 'for them' and were understandably reluctant to embrace their roles as 'game designers'. Addressing them as 'muses' was helpful here because it reframed their contribution in terms of subject matter expertise. This assured their value to the project and lessened the burden of 'making a game'. In other words, the muse-artist division clarified expectations and areas of responsibility. Creating clear boundaries around the task to inspire without thinking too much about game design helped divert attention from videogames as objects of distrust and put focus on their experiences instead.

Hence, the muse-based design roles allowed putting the women's voices first and game development second, preliminary ignoring dominant ideas about videogames and dedicating ideation to what the women had to say. This implicitly turned the discourse from alienation into innovation: If the women were alienated by 'old' notions of video games, making a game based on their ideas would certainly inspire new ones. Alienation, if used right, could turn into a design resource.

THE *TRAUERSPIEL* WORKSHOP

The ideation workshop was carried out under the name Trauerspiel in the summer of 2014. Over the course of four hours, the women worked out personal symbolic expressions of their mother-child bonds, based on the principles of "dual communication" (Potash/Ho 2014) and "metaphorical modelling" (Rusch 2017).

As discussed in an earlier chapter, Potash and Ho (2014) have addressed two important moments during grief-related artistic expression; the moment of intra-personal communication or creation, also referred to as "poiesis" (Levine 2014), and the moment of inter-personal communication, or reception by a listener who cares (Thompson 2003). These moments were also important during the muse-based ideation workshop, as a process that first invited the participants to create, and later to observe and reflect.

During the initial Trauerspiel workshop in Vienna, metaphorical design exercises (Rusch 2017) were used to learn about the women's experiences. Rather than 'making a game', the goal was similar to group work in expressive arts therapy in that it involved person-centred "meaning making" (Thompson 2003).

Usually, metaphorical game design starts with a person's unorganised feelings, associations and expressions towards a phenomenon and, step by step, moves towards a formalised game system (Rusch 2017). However, since this method is individual-centred, a modification was used to create common ground for the group: The women were instructed to model their relationships with their dead

children through the image of a 'planet': They were asked to imagine themselves as explorers visiting the planet where their child lived, and to describe in as much detail as possible what they found there.

The shared metaphor of the planet was supposed to pave the way for observing similarities and differences across the representations in the sense of inter-personal communication (Potash/Ho 2014). First, crafting the planets required attention to 'what was there' in terms of the women's inner representations of the mother-child bond. After this phase of introspection and expression, the planets could be admired side by side as part of a larger shared 'galaxy', suggesting commonalities and making differences more transparent.

Another intention with the planet metaphor was the creation of a context for game design, since its confinement in time and space shares elements which can be directly mapped to a game. Planets have a surface (level design), an atmosphere (visuals, sound), inhabitants (characters), and natural laws (rules). In other words, they can be explored in terms of aesthetics, mechanics, and dynamics (Hunicke et al. 2004).

The planets served as evocative objects during the semester-long development of *Jocoi*, carried out with a student team at Aalborg University Copenhagen. The women's metaphorical landscapes presented a multi-layered canvas for empathetic game design: What desires, wishes, and fears were communicated through those models? How did they reflect grief? And what gameplay aesthetics, dynamics and mechanics did they represent? The students received photographs and transcriptions from the *Trauerspiel* workshop and were familiarised with preliminary observations about game-specific representations of loss and grief (Harrer 2013). These two resources were engaged with each other in terms of an ongoing dialogue: The women had started the design process; the goal was to complete it in a way that would resonate with their feelings.

DEVELOPMENT AND EVALUATION

Game development followed an iterative process (Fullerton 2008), during which different assessment methods were used to create functionality and user experience (UX) in line with the design goal.

The first iteration was addressed in terms of basic usability, the task efficiency (Bargas-Avila/Hornbæk 2011: 1), and functionality of the game. We wanted to know whether players could understand the controls and objectives of a game in a way that enabled them to play it without further instructions (Fullerton 2008: 279). The students were encouraged to use testing methods such as the think aloud protocol (Hoonhout 2008), interviewing and observation (Khaled 2012). These methods served to answer two central questions: How well was the game's functionality understood by players, and how well did it communicate the experience of loss?

The second iteration was tested in regard to UX, which meant it focused more on "dynamics of experience, and on modelling how interactive products, person characteristics, and context work together in shaping the experience of use" (Bargas-Avila/Hornbaek 2011: 1). In addition to student testers, the women were involved in assessment using cultural probes (Gaver et al. 1999). Cultural probes, as understood in this project, are activity packs with ephemeral value for the design process (Lange-Nielsen et al. 2012). This means that rather than an attempt at 'objective' data collection, probes are supposed to enrich the designer-participant relationship on a subjective level, provoking inspirational feedback (Gaver et al. 1999, Boehner et al. 2005, Boehner et al. 2007).

The cultural probe method was first used by experimental design researchers Gaver, Dunne and Pacenti (1999) in the *Presence Project*, who compared it to "astronomic or surgical probes". They "left them behind when we had gone and waited for them to return fragmentary data over time." With this poetic comparison, the authors illuminate the playful intentions with probe design. Subverting the meaning of 'probes' in a scientific context, they stress their explorative, ultimately uncertain quality. Neither scientists nor designers can predict what form

inspiration will take, but this is precisely the point of probe design to begin with. According to the authors,

"[cultural probes] address a common dilemma in developing projects for unfamiliar groups. Understanding the local cultures was necessary so that our designs wouldn't seem irrelevant or arrogant, but we didn't want the groups to constrain our designs unduly by focusing on needs or desires they already understood. We wanted to lead a discussion with the groups toward unexpected ideas, but we didn't want to dominate it." (Gaver et al. 1999)

This intention to simultaneously learn from unknown users but to do so in a non-dominating way explains the ambiguous nature of probe materials. According to Gaver et al, the design and presentation of the probe package is part of its functionality as an inspirational resource. The contents are not intended to narrow down respondents' answers in particular ways. They are expected to elicit unexpected ideas.

During the last two decades, cultural probes have been used in a variety of design contexts, including work with families (Horst et al. 2004) and children (Wyeth/Diercke 2006). Boehner et al. (2007) deplore that this popularisation of the method has led to a standardisation of probe materials, defying the method's original purpose of subverting rather than replacing existing methods of studying participant needs. Instead of aiming at eliminating subjectivity from the researcher-participant relationship, they seek to cultivate its personal nature through provocative, creative exercises. This means that the process of cultural probing cannot be formalised: The probe package follows contextual needs rather than standardised procedures or materials.

In my use of cultural probes, I wanted to acknowledge this intention. However, instead of designing the package as a welcome gift, as done in the *Presence Project* (Gaver et al. 1999), I constructed it as a farewell gift with a potentially inspirational use for the design team. I used the probes to get back to the women well into the design journey, as a way of thanking them for their participation.

*Figure 16: The cultural probe package (left), the 'You & Your Baby'
section in the feedback book (right)*

Source: author

The package contained postcards addressed to the development team, an
early prototype of the game, and a personalised scrapbook containing
three sections; a feedback section on the workshop, questions about the
current game prototype, and a section called "You & Your Baby" ("Dein
Baby & Du", fig. 16). This section invited the women's personal story,
an introduction of their child, and small associative exercises intended
to acknowledge the importance of the child. The booklets were thus
intended as ambiguous emotional objects lending themselves both to
intimate storytelling and an opportunity to share thoughts about the
project. When they were handed out mid-term, the women were
instructed to return as many objects as possible and were given the
option to receive the scrapbooks back after the project.

Finally, the end-term evaluation workshop was designed to assess
the artefact's role and relevance in the women's lives. It involved group
playtesting and a round of reflection provoked by five prompts (1. What
remains? 2. Your impulse, 3. Why and for whom? 4. What does it

evoke? 5. What would you like to do now?). After writing down initial responses to these prompts, the women discussed possible trajectories and limitations for *Jocoi* and its audiences. In the following, this process will be documented alongside the ethical question of game design as a practice of representing others and their intimate experiences.

3.2 Ideation with the Bereaved: The *Trauerspiel* Workshop

> Sometimes there is a little bit more to do, sometimes less. But the involvement never stops and won't ever stop in the future. And that's nice.
> *Anna/*Trauerspie*l participant*

PREPARATIONS

On a hot July morning, I met the four participants in the self-help group's community space, located close to Vienna's city centre. Besides regular meet-ups for mourning parents, this centre hosts pre- and postnatal courses and playgroups for parents with their children. This showed in the playful interior, accessories, and toys at our disposal. For the four-hour workshop, I had set up a room beforehand.

The first thing the participants would notice when was a white blanket spread out in the middle of the room. It contained 30 random objects, including toys, everyday practical objects, and musical instruments. The blanket was encircled by sitting pillows, and nine cards with hand-drawn 'key' stickers were arranged face down next to the blanket (fig. 17). A table on the side was covered with another white blanket. Hidden under the cover was a selection of art and craft materials, including paper, oil crayons, stickers, textiles, buttons, threads, and Lego pieces.

This setup was supposed to encourage curiosity: What was the point of the objects on the ground? What was under the white cover? Using sitting pillows instead of regular chairs invited an out-of-the-ordinary perspective on space, making space for the spontaneous and unexpected.

Warming up to symbolic thinking

After a general welcome, the participants were asked to take a seat, inspect the objects in front of them, and choose up to three objects used to introduce themselves. This was intended as a warm-up exercise introducing symbolic thinking. Besides attuning participants to object-based metaphoric communication, the exercise was supposed to help group bonding (Young 2007). The confines of the blanket expressed a playful invitation to insert oneself in a given symbolic context and appropriate it to accommodate preferred self-narratives.

The direction and meaning of 'introduction' was left open to interpretation, yet the participants consistently chose mother-child narratives as most appropriate. This was also reflected in the objects the women selected. Marie[1] chose a tiger which "would fit nicely to my son", but which also represented the unforeseen confrontation with a two-fold loss situation: She was left by her partner during pregnancy, and shortly thereafter, lost her son as well: "I just had to find out of my situation; how to go on with life. From "it's soon gonna be three of us to: OK, I'm single again, lonely, child also gone". This situation required a change of perspective best represented by the spectacle case.

Anna stresses that the object she picked up, a tiny doll, represents the relationship to her child, rather than her grief. She describes this doll as something that can be carried around easily without revealing it to the outside world; something that is constantly there.

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1   The participants and their babies have been properly anonymised. However, the babies' assigned genders have been kept.

Figure 17: Setup used in the introductory phase of the Trauerspiel*: workshop. Symbolic objects helping introduction (left), 'key' cards initiating ideation (right)*
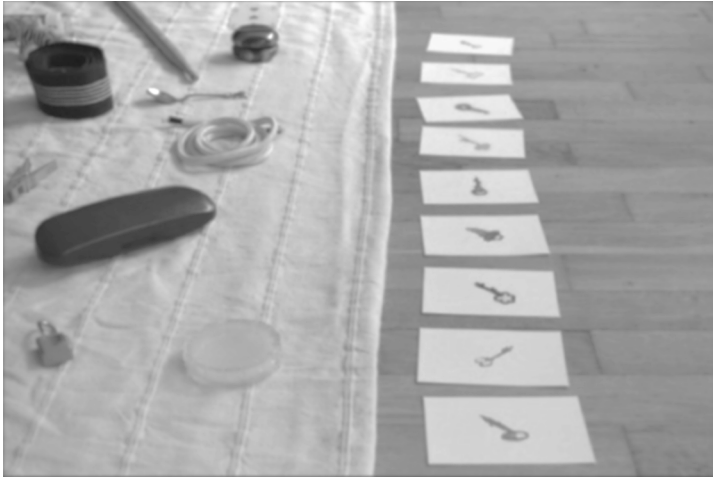
Source: author

It is important to her that the deceased son "appears as my child, and I introduce myself almost everywhere as mom of four children, not as mom of three children". She also chose a yo-yo – a toy consisting of a reel and a thread – describing that her occupation with the dead varies between closeness and distance. She compares this to the relationship she has with her two living children: "Sometimes there is a little bit more to do, sometimes less. But the involvement never stops and won't ever stop in the future. And that's nice. It's been ten years now."

Christina picked up three objects; an envelope containing basil seeds, because of her "connection to the garden", a spinning top, representing the "always recurring same" while "things go on", and a bottle of soap bubbles, which she considered an appropriate children's toy. It also stands for her dream of a third child, a dream she says that at some point had burst.

Finally, Sarah found the lighter the most appropriate to describe her responsibility as a midwife focusing on child loss. She emphasises her perspective as a companion or bystander, whose priority is on "seeing people, having time during counselling". She stresses warmth as the thing that needs to be cultivated in those situations.

The range of responses demonstrated the value of object-based association as a method to facilitate self-disclosure early on in the workshop. Figurative language enabled the group to bond quickly and intensely. The participants chose and related to their objects with ease and spontaneity, displaying a high amount of trust that the objects on the blanket had been prepared mindfully.

A GALAXY FOR GRIEF: METAPHORICAL MODELLING

After this introductory round, the metaphorical modelling exercise started. The participants were instructed to imagine taking their symbolic objects to a faraway planet, a planet inhabited by a child whose loss they had grieved as parents or bystanders. The expedition was identified as a personal mission, highlighting the participants' unique role as subject matter experts.

Attention was especially drawn on sensory qualities of their experience – what was there to see, hear, feel on the planets? The goal was to provoke associations on all sensory levels that gave a tangible quality to the abstract idea of bereaved motherhood. In the more specific wording of the task, focus was put on 'what is there' on the planet: The child, the participant, and everything else 'that is also there'.

This purpose of focusing on 'what is there' was twofold. On the one hand, it was supposed to root images of the griever-child relationship in the present moment. On the other hand, it was supposed to help this relationship gain a concrete ontological gestalt. The planet motif itself was chosen for several reasons. First, it suggested that an emotional complex like grief could be expressed in terms of a simple image;

countering one impossibility (representing grief) by another one (representing it through a planet) was supposed to liberate women "from the difficulty of the undertaking and encourage lateral thinking" (Andersen et al. 2003: 7).

Secondly, on the associative level, the image of the planet was supposed to enable a wide spectrum of associations, both towards the positive, negative, and ambiguous (i.e. ambiguous: space travel, astronomy, discovery, flora, fauna, space; dystopian: hostile life forms, apocalypse, adversary; positive: adventure, control, benevolent life forms, escape from Earth). The hope was that while the women would draw on the rich connotations of the planet metaphor, they would identify nuanced aspects of their situated grief experience and how it should be talked about (Rosenblatt/Bowman 2013, Lawley/Thompkins 2000).

At the same time, the shared metaphor of the planet was supposed to pave the way for observing similarities and differences across the representations. Another intention with the planet metaphor was the creation of a context for (covert) game design; a planet is confined in space and time, has a surface, and operates under certain conditions. These aspects are well-suited to become a milieu for systemic thinking without becoming too technical. The idea was to encourage game-designerly thinking without enforcing it on the participants. The women were supposed to choose for themselves how far they would go in thinking through the aesthetics, mechanics and dynamics of their planets.

A material element supporting this intention were the 'key cards', which were introduced as an optional tool for guiding imagination. In the task's narrative, they were presented as keys to 'enter the planet', marking the transition from workshop space to imagined planet space. Each participant picked up a card containing an ambiguous term. These terms, some of them borrowed from game design, were supposed to additionally inspire systemic thinking: They included 'goal', 'time', 'gestalt', 'space', and 'progress'.

Next, the participants were asked to visualise their planets by closing their eyes or focusing on a point in front of them. The art table cover was lifted, and the participants were asked to start crafting their images, using as many of the materials as they found appropriate. They were encouraged to follow their associations and create whatever they liked. They were also given the option to create multiple planets or redo their planets if they weren't satisfied. This was a task focused on individual crafting and with little to no interaction between the participants. The focus was on "poiesis" (Levine 2014) led by their idiosyncratic choices of material.

The metaphorical modelling task was carried out in two phases, moving from a broad towards a more specific direction (i.e. Stepakoff 2014): The three initial foci – child, participant and environment ('everything else') – served as entry points for sketching out a rough foundation of the planet.

When all participants had settled on a material form to represent them, a more particular block of questions was introduced: What laws and procedures could the women identify on their planets? Was there something that couldn't be done? What role, if any, did grief play on their planet? This set of questions invited the women to incidentally define interreactive elements for their planets, coming up with rules and mechanics. This was supposed to invite a transition from a static towards a dynamic model with a possibility space; a game system.

The floor gallery

During a coffee break, the art works resulting from this exercise were arranged into a 'gallery' on the workshop floor. When re-entering the room after the break, the participants found their works ready to be looked at in the new light of a shared 'galaxy'. They were asked to examine each work closely and respectfully, before we sat down to discuss each work in detail.

Similar to Stepakoff's "graphopoetic process" (2014) the goal was not to critique the models or distil an inherent 'true' meaning hiding inside. Rather, the invitation was to acknowledge particularly interesting

aspects and observe features particularly resonating with their own experience of loss, grief, and motherhood. They were also encouraged to ask questions of the artist. This was supposed to engage artists-onlookers in a personal discussion about motives, backgrounds, and associations evoked by the planets.

The women displayed great enthusiasm in both solitary crafting and collective sharing. It was noticeable that after a phase of withdrawal and creation, they were eager to share their creations and become mindful observers of each other's metaphorical landscapes. The 'impossible' task to express emotion through a planet concluded in a discussion on the love- and loss-related themes embodied in their models.

Figure 18: Results of the Trauerspiel *workshop, Sarah's planet*
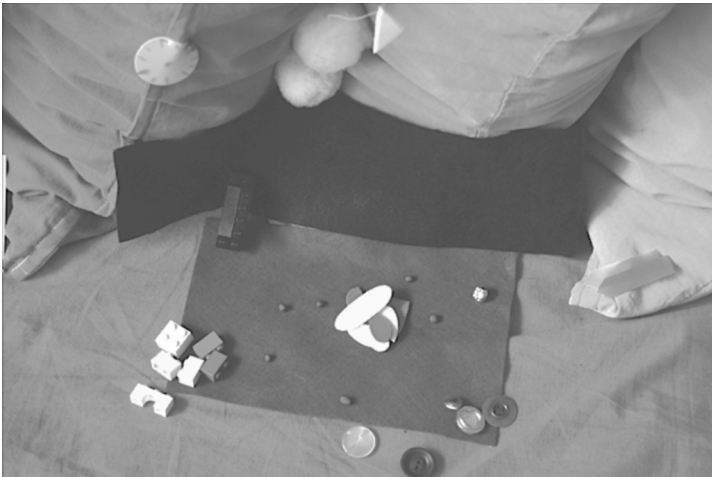
Source: author

The Fireplace

Sarah chose to address her feelings during a stillbirth she assisted as a midwife. When the death of baby Jenny had been confirmed during the 34th week of pregnancy, Sarah encouraged the parents to consciously

attend their baby's birth and to spend some time with her. The model that Sarah created focuses on the atmosphere during the first moments with the stillborn Jenny, held in her mother's arms.

Sarah reports that the first image she saw when she received the task was a sparkling flame, "moving between Heaven and Earth". To model it, Sarah integrated materials from the table into the workshop space itself, composing a three-dimensional structure out of pillows, threads, foam rubber, textiles, buttons, and post-it arrows (fig. 18). A red and yellow foam rubber arrangement marks the centre of the image; the fireside. The yellow triangular rubber piece dangling from the pillow indicates the campfire's dynamism; around the fire she imagines the scene's protagonists – mother, father, Jenny and herself.

Christina observes that the baby is missing from the scene, and Sarah responds that she chose not to represent any people in the scene. Instead, the focus is on the atmosphere, an atmosphere whose particularities slowly emerged from the initial image of the fireside. "They were somehow already included in it but came out step by step".

There are two materials immediately noticed by the observers; the buttons and the Lego pieces loosely scattered around the fire. Sarah explains that the Lego pieces are debris-like shards ("Bruchstücke"). Their pointy, fragmented nature stands for the confusing aspects threatening to overwhelm the parents in a situation like this. The black Lego piece leaning against the felt night-sky horizon appears particularly intimidating. Anna points to the golden rose which "certainly has a special meaning, too". Sarah responds that it belongs to the "treasures" ("Schätze"), moments of unexpected bliss and beauty that can also be discovered in the situation.

Beauty and threat coexist on the planet, but how they are seen by the parents is an altogether different story. Father and mother share a space at the campfire, but since they occupy different positions in space, and since the flames illuminate the environment in dynamic ways, their perspectives on the world differ.

The spatial language of the campfire allows Sarah to shed light on a potential source of marital and relationship conflict after child loss: Both

parents occupy the same challenging space, but their gaze on the situation, and their view of Jenny diverge. Sarah observes, for instance, that "the father saw more shards, while the mother saw more treasures". This dissonance, the clash of perspectives on a shared experience as intimate as becoming bereaved parents, imposes an additional burden, evoking Stroebe and Schut's notion of "secondary loss" (1999).

Sarah is very particular about including elements providing help and support. The red pellets on the ground stand for "all things nourishing", which she also identifies as her midwife responsibilities. A focus on the 'corporeal basics' is needed, to help parents survive. Another need, expressed through the very setting – a moon-lit night on the field – is a comforting space. Asked why she chose a rectangular, sharply cut-out felt piece to represent the ground, Sarah responds that imposing limits was not intended. On a second thought, she asserts that confines are needed to create a safe space. The environment is simultaneously expansive and cosy, confined and liberating.

Another source of comfort on the planet is the principle of timelessness and non-intentionality expressed through the handless clock. The space is not subject to temporal order, or any order which is not conducive to the parents' immediate wellbeing. The skill required to cultivate this wellbeing is an attitude of being in the moment and letting go of control. This skill of giving space to *what is*, or as Sarah calls it "putting being in the centre", instead of focusing on what should be, is a skill which, which society fails to provide. Sarah identifies this as something she has learned from her midwife experience.

The fireside planet is full of movement and development: On the micro level, the flames, as well as the full moon and the clouds (wedged between two pillows) are constantly moving. This dynamism has effects on the ground: Shards, treasures, and nourishment are illuminated and concealed dynamically; new perspectives on 'what is' are possible. The couple can stand up, roam the field, and find new orientation. The arrows are imagined more dynamically than they first appear in the model; they can twist and turn. Last but not least, the clock's hands can be reattached, a temporal order reinstated. All of these developments are hypothetical

and not immediately visible from the outset, however. The most important thing, for now, is 'putting being in the centre', taking in what the flames dynamically expose to be true, and practicing self- care.

The Riverside

As Marie had shared in the introduction, she experienced the loss of her son Jan during late pregnancy eight years before she attended the workshop. Unlike Sarah, she does not reconstruct the event from her past, but reflects on the current situation as a bereaved mother using the metaphor of a river separating two Lego tigers from a Lego sheep.

Sarah immediately notes that "for me this is really sappy, and due to the river – I am interpreting this as a river – everything is really soaked and fresh". Anna adds that the place is "paradisiac." It is a place where "all you need is there, and I also see this green meadow and the river, and the animals that seem to get along well". For Anna, the path also looks like a boardgame.

Christina is most focused on the separation between the animals. She asks why the sheep keeps a "safety distance" from the tigers. Eager to respond, Marie explains: "This is my great-grandmother and this is my son, Jan", pointing at the Lego tigers. The adult tiger is the one she initially chose for her introduction. In the planet model it has gained a new meaning to stand for her great-grandmother. "She was the first person who died that I was very attached to", which is why Marie chooses her as the protective figure taking care of Jan. Together, the tigers live in a house whose "windows are wide open. Every moment, someone could come and join them".

Marie elaborates that her first association was "green" due to her love for Ireland whose landscapes are "constantly green, unlike here [in Austria]". She suspects that she projected her "favourite holiday destination on the planet" and continues to associate: "And I'm the sheep. Ireland – sheep – I am clearly in the observer role". While the sheep is located "offside; not where the action is", as Marie puts it, she is still all but absent. Her gaze rests on the tigers playing on the other

side, actively and patiently indulging in the spectacle, where the meadow is adorned with button flowers and balloons.

Marie brings up the topic of grief, explaining that in her model it is expressed through the river, or more particularly, "tears swept away by the river". She points out that the river has undergone a change from a state back then when it consisted purely of tears to a state in which it calmly purls along. The three paper drops remind us of this tearful past, but "the river changed. Grief changes".

Figure 19: Results of the Trauerspiel *workshop, Marie's planet*

Source: author

While Marie suggests that times of acute sadness have passed, the river still remains, maintaining a spatial separation between the two riversides. What, then, is the purpose of the sheep on the meadow, as it is standing here, now? According to Marie, it is to be present, as a mindful observer, but theoretically, it could decide to wade through the river at any time. Paradoxically, this is what the sheep desires, and yet what it refrains from doing. It is complacent where it is. "I believe that the sheep looks totally grounded", Christina seconds.

During the closing discussion, the river as a symbol re-emerges: Sarah identifies similarities to the Greek mythological river Styx which divides the realm of the living from the realm of the dead. Marie's river signifies a transformation, expressed by "changing one's shape" from sheep into a tiger, or "the yellow gestalt", as Anna adds. This is clearly a symbol for suicide, an option which the sheep ponders while complacently observing the tigers. On the one hand there is the promise to reconnect with the dead, on the other hand, as Christina points out, it is far from certain whether and how such a reunion will happen.

The tiger gestalt conjures up diverse associations: Christina describes it as a "power animal", and Sarah mentions the lioness ("Löwenmama"), a fiercely protective mother figure[2]. While the lion used to stand for herself in the introduction, Marie reassigns the role of protection to her great-grandmother; the one who can take care of Jan where he is now.

Another association is the lion/sheep dichotomy. In a sheep world, lions exist as a potential danger, as predators. Marie points out that the sheep might be scared of the tigers due to the fear of being devoured. However, the women agree that attraction outweighs worry, and that there are other reasons to preliminarily resist the temptation of crossing the river. Belonging to a flock turns out to be important; there are family and friends on the side of the sheep – albeit not represented – who compel her to stay.

Marie points out that "the river is equally beautiful on both sides" and the sheep "would just like to observe" the tigers instead of rushing into the river. For Sarah, this pleasure of observing is also characterised by an aspect of yearning. It is a yearning, however, which appears to be pleasant, just as if the sheep "waved over to a couple of friends over

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2   There are associations to the "lioness-mother" ("Löwenmutter") which among the German-speaking participants has a colloquial meaning of a protective mother who is ready to fight. The German Duden dictionary establishes a link between "fight" (kämpfen) and the lioness mother: http://www.duden.de/rechtschreibung/kaempfen.

there". For Anna, both the river and the path on the other side have a certain direction: The river flows towards the future, indicating a time to come in which the path to the welcoming house will be walked.

The World within a World

Christina's loss experience is the most recent. Over a year ago, she experienced the still birth of her son Marc at 34 weeks pregnant. Her planet model is an intense engagement with the desire to reconnect to Marc and imagines an alternative in which the "dream bubble" of life with three children can become reality.

Figure 20: Results of the Trauerspiel *workshop, Christina's planet*
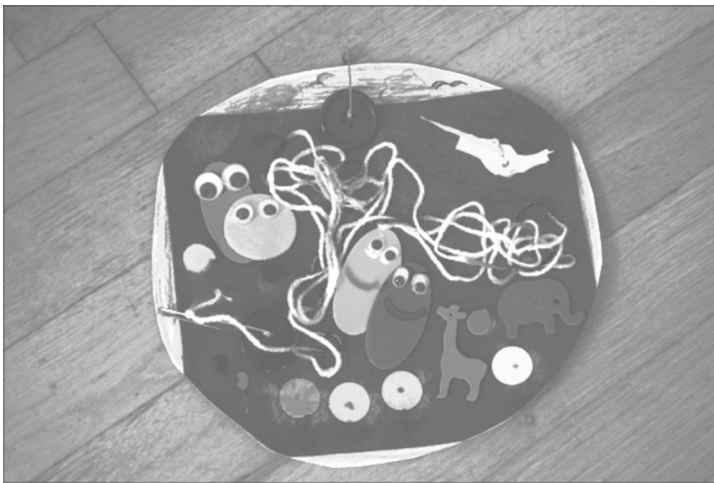
Source: author

Sarah first notices how refreshing, "fun", and animated Christina's planet is. "That it should be", responds Christina, since the first image she saw was a meadow, whose features Christina describes in great detail. "It wasn't a trimmed English lawn but a forest-countryside meadow; a farmer's meadow". These features are important, since one of the meadow's central affordances is to "hide in it", and to "simply

relax". All Christina hears on the planet is the laughter of her two living children who joyfully roam the planet without constraints. All the while, Christina holds Marc in her arms, and happily tries to catch up with her children, following either and none of the multiple paths that emerge but lead nowhere specific.

"What are the pins and the button?", asks Marie, noting the two safety pins fixing two big, black buttons into place. Christina explains that the safety pins are "only used for fixing" ("Montage") of the buttons. The buttons themselves stand for a number of abysmal craters which – to Christina's surprise and dismay – are also scattered around the planet. She admits that her first reaction to encountering a crater was fear and shock: "What if something happened to my living children? What if they fall?". However, moments later, she realises that on *her* planet, no such thing can happen to her children. The safety pin literally 'fixes' reality, imposing the law that no family member on the planet shall be negatively affected by a crater.

Christina mentions that the word on her 'key'card – 'goal' – did not matter to her since "there are no goals on this planet, simply roaming and lying down in the grass. And enjoyment". During discussion, she repeats the importance of goallessness several times, indicating that achieving goallessness may, in fact, be the goal.

"The one thing that I notice, somehow, for me it's such a world inside a world", observes Sarah, pointing to the double layers of paper and felt at the foundation of the planet. Her association is that the paper is "more real" than the felt, and that "from that reality something spills over, which is however not dangerous". This resonates with Christina, who admits that "reality of course doesn't look like this. But that (felt) is the ideal planet" from where a small part of "reality" was visible. "In this case reality was the sky".

From the comfortable, unthreatening confines of the ideal planet, however, there is no particular desire in facing that part of the sky. When I asked Christina what she saw when she looked up from the planet, Christina said: "Well, only clouds and birds... a sunny day. No grey clouds, but rather friendly. You wanted to snuggle into the clouds."

Christina mentions the weather conditions more generally, which were due to change ("sometimes it snows"), but none of these affected their mood or feeling of calmness and aliveness. "Our mood", she says, "is independent of the weather".

Overall, the symbols used by Christina underscore the central mission of a protective, sheltering planet; the meadow and its high grass which offers an excellent hiding space, the custom-tailored crater physics preventing accidents, the felt ground covering the harsh reality of the paper ground, and the detachment from potentially uncomfortable weather conditions. Thus equipped, the planet offers a rich 'world inside a world', where inhabitants and visitors can go about, carelessly enjoying the many attractions and activities. Although this might not be what reality looks like, the space invites Christina to celebrate the presence of her three children. "Grief", Christina says, "does not exist here".

The Cave

Anna also lost her third child, but well over ten years have passed since the event. Nevertheless, the question of her son's place in the family system continues to matter. In her model, which she already calls "my game", this is explored through the image of a cave.

The first question comes from Marie, who wants to know who the protagonists in the scene are. Anna explains that "it was totally clear to me that in my game... you need to bring people," which in the model are herself, her three living children, her husband, and a good friend who was important for her during the acute phase of grief. Together, these characters appear in a "cave, dark, but comfortable, tight and cuddly". Inside this cave is another, smaller cave where Jacob lives. This small inner cave can be accessed and left at will by all characters, but one rule which the planet imposes is that Jacob stays in his cave.

The cave, as Anna explains, is grief itself; the protagonists can enter or leave it, depending on their mood or character. Anna compares this to the back-and-forth of the yo-yo toy which she chose in the beginning. "Sometimes one enters the inner cave, or the outer one, sometimes one

exists completely". However, there is a collective task which needs to be mastered through cooperative effort of all family members and friends present. "Jacob needs to reach a certain size to be safe", and his growth can be facilitated by feeding and holding him. Once Jacob has grown strong enough to survive in the inner cave, the family's work is done and they will fly away in a spaceship; the goal of Anna's game.

In this scenario, shape and form are important. Anna is the only participant who includes the 'key' card as important design element (see fig. 21). She reports that the term 'gestalt' personally resonated with her because Jacob was born with a physical difference. In the game, it was important for Anna that all her children had the same blob shape, indicating the equal status of all her children, irrespective of whether they lived.

Figure 21: Results of the Trauerspiel *workshop, Anna's planet*

Source: author

Marie observes the distinction between adult shapes (square) and the blob-formed children. The appearance of these colourful, different-

shaped characters reminds Anna of the French cartoon characters from the animated series *Barbapapa* (1973-) by Annette Tison and Talus Taylor. Their main ability is wilful shapeshifting. Like the *Barbabpapas*, Anna's characters have the ability to transform as they wish, enabling them to interact with their environment in different ways. Another implication is that like the *Barbapapas*, Anna's characters are social, friendly, and family-oriented. This emphasises that the task of overcoming acute grief, rather than something depressing and lonely, is a social activity, fostering family cohesion.

Like in the other planets, friendliness was also reflected in the atmosphere of the planet, which Anna occasionally calls "island", too. Marie is fascinated by the feathers, which stand for the bird songs that are audible from different parts of the cave system. However, these sounds are as flexible and customisable as is the lighting of the scene. Adding to the pleasant shape-shifting of the protagonists, players should be empowered to select soundscapes and lighting according to their tastes.

Sarah mentions that "the eyes are one thing that I especially note", due to their clarity and orientation. There is a certain perceptivity, "not even the children are turning away", but everyone seems to look in the same direction, seems to be focused on something. She also observes the clear structure of the inner cave which stands out in terms of both colour and texture. The material makes her think of qualities like "making a nest, making it warm, soft, ready to cuddle in".

One point of discussion concerned the question of farewell, and how the family were to complete their task and leave the planet. Was the spaceship something to be built by the player? Did the player have to find parts of the spaceship? It was clear that the spaceship was a reward for mastery; it represented overcoming, and the end of acute grief, but this mission of overcoming was connected to the family's co-operation as a team. "It is important that everyone enters the spaceship at the same time", explains Anna. However, the type, difficulty, and pace of tasks accomplished by different family members varies, and some

protagonists might be already done while others still need to stay in the inner cave.

For Anna, respect for diverging coping styles is precisely the point. What matters is collective support, and as Sarah recommends "maybe the ones outside can assist the ones inside". This resonates with Anna and her idea that "feeding and caring" Jacob can be achieved in different ways. What matters is the reunion in the end, when the family meets at the spaceship.

DISCUSSION

The kind of metaphors that emerged during the workshop grounded the group discussion in concrete images, mechanics, and rules. In what follows, I will focus on the particular metaphors that were used to make something unknown (attachment, loss, grief) tangible via something known (the planet terrains). In Lakoff/Johnson's (1980) terms, the women used the source domain of the planets to make the target domain of the mother-child bond speakable. I will first review the way the women used materials and architecture to describe their inner emotional processes. Then I will look at similarities and differences in their attachment and grief metaphors.

Emotional Terrains

Looking at the various planet terrains, what immediately stands out is the choice of soft, comfortable, and warming materials. This indicates that the women's inner representations of the mother-child bond is in terms of a welcoming and accommodating space.

All women chose felt to model at least parts of their planet's surface. Felt is a material which is pleasant to touch and walk on; in everyday usage, it occurs in the context of protecting and warming (clothes), padding (furniture), and dampening (piano keys). On the planets, felt creates a protective 'foundation' on which the loss event and its aftermath can be safely engaged. In Christina's 'world inside a world'

planet, this foundation is shaky: The felt has a double protective function, covering a threatening paper ground which stands for an overwhelming reality.

The architecture of each planet gives a sense of structure and order, even if this order is intentionally missing in some cases. The architectural aspects of the fireside and the crater planet, for instance, afford free roaming and uncontrolled exploration, but also give less direction than planets whose architecture is neatly designed. Such 'messy' planets respond to a recent experience (Christina), or the immediate aftermath of loss (Sarah), while the more systematic architectures reflect on an experience that had happened some time ago.

If we look at the landmarks characterising each planet, the 'messy' planets contain a collage of scattered materials whose main purpose is to 'put being in the centre'. There are nourishing, exciting elements that can be experienced by the protagonist(s) in their own time: soap bubbles, fauna/flora, shards/treasures. The fireside as a landmark creates flexibility through dichotomies: It sheds light and shadow, it moves between Heaven (up), and Earth (down); it therefore articulates both hope and despair, love and separation. The main affordance of this place is to 'sit through' this ambivalence, and to face it by giving it attention, following the movements of the flames.

On the world within a world, there is no landmark that characterises the 'centre' of the image. However, there are the strong symbols of the high grass, the craters, and the sailboat which characterise the emotional affordances on the planet. First, the high grass exists almost everywhere on the planet and comes with the double function of being soft – embedding the reunited mother-child connection – and being an excellent hiding place. The grass is a protection against the antagonist of the sky (reality), it adds a protective layer to the planet's surface, much like hair protecting the skin.

The craters, on the other hand, are reminiscent of possible dangers that exist outside of the planet: Christina mentions that where there are craters there is no grass. Where there are craters, the landscape is exposed. It is connected to fears, which, through the absence of grass,

are fears of facing reality. This is where Christina introduces custom-tailored crater rules defying gravity, which prevents her children from falling. The sailboat has a similar purpose as a feature reinforcing comfort in the light of danger: Its function is to be hopped on and float in an undetermined direction, while, as Sarah observes, the sails are filled. The boat is moving, but the purpose of this movement is enjoyment rather than arriving somewhere. Everything on the planet, then, serves as 'safety features' disarming potential fears related to another child loss.

Marie's river introduces a clear boundary between two distinct spaces, the realm of the living and the realm of the dead. It is both a natural formation and related to magical, transformative properties: Going through it is risky; it stands for the unknown transition from living to dead. The river brings to attention the theme of separation and yearning. It splits the planet in two halves, both of which are desirable and welcoming, but one of which would mean leaving the other side forever. The purpose of this environment is to negotiate feelings of separation in the light of one's own death: The yearning for 'the other side' is a wish to reconnect with the lost child. On the other hand, following this wish is risky; it involves entering unknown waters and changing one's form forever.

The architectural element of the cave introduces a different regulation of space between the living and the dead. Unlike in the river model, the living can move back and forth between the space of the dead (inner cave) and the living; they are responsible for managing Jacob's survival in the inner cave. Like at the riverside of the dead, Jacob is confined in a certain space, yet this space is more personal and can be accessed without risk. It is more akin to a nursery than a realm of the dead. When the family has left the planet, it is a place where Jacob can live forever.

Weather, on all planets, was used to characterise emotions on the planets. Christina was most particular about the varieties of weather which, however, did not affect the moods or activities of the family. She went into much detail about sunshine, snow, and wind, which all served

the purpose of creating variety, rather than being an annoyance. Agency is detached from weather states.

A different take on meteorology is used in the cave planet, where players can select lighting and sounds themselves, exerting full control over the kind of atmosphere they find appropriate. Marie characterises the weather on her planet as more stable, likening it to the weather of her favourite holiday destination. It is fascinating and pleasant to her how little variance there is between seasons.

In Sarah's night scenario, meteorology plays a role in the way clouds and the moon move across the sky and add to the ambivalent lighting/shadow atmosphere. Overall, the kinds of weather repeat the emotional themes of each planet: Marie's 'holiday' weather expresses yearning, Christina's detachment from weather utters the wish to defy reality, Sarah's night sky adds to an ambivalent being in the moment, and Anna's selectable weather indicates the wish to handle emotions on a pragmatic level.

Attachment Metaphors

On the conceptual level, one prominent attachment symbol was *relationship as looking/observation*. On the fireside planet, engaging in relationships is expressed through the act of noticing treasures and shards around the fireside. In the riverside metaphor, the sheep's main occupation is displaying interest in the activities on the other side. Observation means cultivating a relationship with the deceased.

This metaphor highlights the desire to continue bonds with the dead, but from a position that is rooted elsewhere. While there is some interaction with the baby, feeding and holding it, the look is the central interactive modality occurring on all planets. Something that is looked at can be engaged and identified with, but that cannot be changed. However, there are different ways of looking at the facts of life: There are shards and treasures (fireside), there is the loving attention of the lioness, but there is also danger (river).

Secondly, a recurring image is *relationship as feeding*: In the cave model, the baby needs to be fed in order to grow and survive. This is in

line with Umphrey and Cacciatore's observation that bereaved couples often conceptualise their relationship metaphorically as something that grows (2014: 2). Here, instead of the conjugal relationship, the metaphor applies to the family-child relationship, and the way it needs to be nurtured by the whole family system to sustain itself. The task is to find out what food is appropriate and who can provide it in the given constellation. Relationship-as-feeding highlights that everyone needs to be fed, and that there are different sensitivities around what kind of food this should be.

In the fireside model, 'the nourishing' is more abstractly included as red pellets on the floor. It suggests that nourishment is simply available for those who pick it up. The question of nourishment also emerges in the sheep model; sheep and grazing are closely connected, albeit with a stronger association to self-care. Feeding oneself through grazing does not only stress the feeling of complacency; it also has a communal aspect. Grazing with one's flock, i.e. sharing a meal with friends and family.

Thirdly, the metaphor *relationship as collaboration* appears in reference to bereaved family members and friends. It features maybe most prominently in Anna's imperative to solve a collective task in order to 'master' acute grief. Relationship as collaboration stresses the notion of work and action, as well as the often-overlooked fact that grief does not exist in isolation but as part of a social system. In the cave model, collaboration also highlights the difficulty of learning about one's role in a fluent network of interrelations. It also sheds light on the existence of complementary or potentially conflicting grief styles. To collaborate means to explore what works and what doesn't work in a specific social context, and sometimes against one's immediate interests.

The fireside model shows that relationship as collaboration also faces the risk of failure. A shared trauma may be faced from different perspectives, requiring negotiation. There is the possibility that the parents part ways due to their inability to collaborate and accept each other's points of view. On the ideal utopian shelter planet, this uncomfortable realisation is unwelcome; Christina stresses how little

she had to "care about other's views"; part of the planet's purpose is to offer escape from social pressure.

In Christina's and Anna's models, relationship was also expressed through the metaphor of *proximity*. When we look at the way baby and mother are arranged in Christina's planet, they take an overlapping space, the baby attached to her in the most literal way: Attachment is a matter of sharing the same physical space. In the cave model, physical proximity to the baby is a requirement for feeding and holding the baby, and thereby getting closer to the goal of making him grow. The difference between these planets, then, is that in Christina's model the contact to the baby is sufficient. There is no further action required than to hold and 'feel' him.

In the cave, getting close to the baby is not necessarily a task everyone needs to carry out. There is more focus on the negotiation of space in terms of figuring out a balance between proximity and distance to the child, according to the abilities and needs of everyone involved. Nevertheless, both planets share a maternal yearning for establishing and maintaining physical contact with the child, regardless of everyone else's wishes. Proximity and contact are also introduced on the sheep/tiger planet, where they also serve as metaphors for care. However, the river disallows physical contact between mother and child. The loss event introduces a cesura (the river) between them, which changes the relationship from a matter of proximity towards a matter of looking. This change indicates that the relationship does not stop; it merely transforms. Physical proximity as relationship continues to matter on both sides of the river: The sheep is part of a social circle, a flock of sheep; the dead son is in the custody of the great-grandmother, a new caretaker.

Metaphors for Loss and Grief

When it comes to loss and grief, the metaphors used in the models contain motion, orientation and setting. Motion is a strong indicator of power and agency; the loss of motion, in several planets, expresses a loss of agency and action. In the fireside model, the flame moves, while both

characters in the scene, the shards and treasures, as well as time itself, are still. It is the loss situation itself that sheds light, and therefore determines the possible perspectives on the world. Since the fire's movements are organic, random, and unpredictable, so are the perspectives imposed on the parents. The latter will have to face and accept what they see before they can start moving and actively negotiate what to do with their situation.

In the riverside planet, the river both stands for grief and is the central object in motion. In contrast to a flame in motion, a river in motion has a direction; it goes somewhere, indicating a beginning and an end, as well as a journey between them. However, the metaphor is not to travel on the river, as in other frequently used relationship metaphors (Umphrey and Cacciatore 2014), but to contemplate its movement, origin, and the question of what would happen if one waded through it, crossed it.

What fireside and riverside have in common, then, is that the realm of the living is characterised by stillness, while action stands for being or becoming dead. In fact, the tigers on the other side playfully move about, while the role of the sheep is one of a physically passive onlooker only mentally participating in the activities on the other side. On the cave and shelter planets, the contrast between movement and stillness are reversed; it is the bereaved who engage in movement, while the dead are the passive beneficiaries of action.

On the world inside a world, movement is used to literally hide from loss, represented by the threatening sky of reality. Swift movements through the planet's high grass are required to escape this threat and achieve the goal of comfort through 'hiding'. On the cave planet, action is goal-led, coming most close to the grief work imperative discussed in a previous chapter.

Orientation plays a role on all planets, either as a possibility in the near future (fireside), as the direction of one's gaze (sheep planet), as a feature of architecture (in/out orientations in the cave model), or as something that was explicitly avoided (world inside a world). Orientation is consistently used as a metaphor to express intentionality;

a force that did not matter in environments which were dedicated to being in the moment (fireside, world inside a world). Orientation is connected with the need to face loss and deal with it through grief. This is why on Christina's planet, orientation is not yet speakable, while in the fireside model it is an explicit possibility.

In both the sheep and the cave planet, orientation is fully realised as a devoted gaze or action towards the deceased. How is a sense of orientation (or the possibility thereof) materially expressed? In the fireside and the cave model, arrows are used to indicate that direction and structure are possible or existing. In the sheep model, a clarity of perception and orientation are expressed by the positioning of the protagonist; the sheep's body faces the tigers. Here, the physical posture of the sheep indicates the direction of interest and with it a certain intention. In the cave model, interest and direction are coupled with action. The architectural structure of the cave facilitates a certain protagonist behaviour. Different directions can be found depending on the family members' needs, intentions, and the ways they can shift shapes. These needs and intentions are to be learned by finding out what direction is appropriate for every character in the game.

IMPLICATIONS FOR GAME DESIGN

These emotional landscapes point to implications for game design, in their conception of time, actions, and aesthetics. A commonality on all planets is the notion of timelessness. All models express the wish to spend as much time as possible with the deceased child: some women expressed a feeling of 'time standing still'. On the level of game design, this invites a contemplative atmosphere, excluding by default fast-paced dynamics, and time-based challenges.

This does not mean that action and challenge should not play a role. All planets feature certain tasks that need to be carried out; a purpose, and by implication a certain goal (paradoxically, even goallessness is a goal). The many relationship metaphors materialised on the planets have something in common: They all revolve around being with, nourishing,

and caring for the child. Whether it is paying attention through looking, being close, holding, or feeding; these activities express the wish for action with and around the dead child.

There is some understanding that grief as the processing of loss comes with a nourishing quality, and with an agency and intention directed towards the wellbeing of self and others. In terms of game design, this points to exploration and puzzle mechanics, and a strong focus on atmospheric elements, rather than kinetic, skill-based challenges.

Another commonality is that the child, though always in the centre of attention, does not have agency. As little tiger and baby in the cave, the child is confined in its place; it can sometimes be carried, but not walk itself. It does not have its own perspective. From a game design angle, the protagonist of the game should hence be the mother rather than the child. Her abilities are widely expressed as those of a caretaker able to hold, feed, give shelter, and even shape-shift to fulfil the child's needs. This suggests that the child takes the role of a dependent NPC receiving attention.

In terms of aesthetics, the planets were consistently beautiful with threatening elements (shards, craters) smoothly integrated in a appealing environment. The women were somewhat specific when describing the planets' soundscapes as mantric, full of laughter, and bird-tweeting. For game design, this suggests that some care needs to be invested in the design of visual and auditory features, and the creation of a positive, sensual atmosphere creating a digital comforting 'nest' for the deceased.

3.3 Designing *Jocoi*: A Game about Pregnancy Loss

This chapter addresses the process of designing *Jocoi*, discussing features of the final prototype[1] and the way we got there. In previous write-ups of this process, I have focused on the movement from brainstorming to final prototype in chronological order. This came at the cost of explaining how we actually adapted design devices to accommodate participant stories. To show how the ergodic continuum works in practice to address lived experience, I found it more useful to switch to a structure which resembles the analysis chapters in part 2 of this book. This acknowledges that *Jocoi* exists within a design tradition. It is part of a history of games which have used different strategies to make love and loss tangible.

Based on the women's priorities emerging from the planet models, the game design goal was to respond adequately to these themes through a videogame. This required a balancing of design autonomy, accepting liability for the process and the final prototype but also implementing it in a way that would appeal to the women's tastes. The idea was to continue the muse-based design process in a way that would 'amuse the muses' and lead to interesting observations about designing for grief.

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1   *Jocoi* is currently available for MacOS on: https://enibolas.itch.io/jocoi.

CONCEPTUALISATION

The first weeks of development were used for brainstorming and paper prototyping. Association exercises were used to explore planet features in terms of game verbs: How would activities of looking, feeding, or holding work in a game?

Based on Rusch's (2017) reminder that it is useful to develop a core metaphor as early as possible around which to design the rule, we initially gravitated towards the cave and its clear design vision. In fact, as Anna says, it is "already a game", and as such appeared as the most obvious starting point for the game design. It already comes with a clear starting proposition, a core mechanic, and an end goal: One starts as a multiple-character complex navigating a cave in an effort to feed and thereby help the baby survive. There is a clear sense of progression: The baby is small in the beginning and grows over time as the family learns to organise themselves. There is clarity in the kind of gameplay appropriate for this scenario: a cooperative puzzle mechanic. There is also a central conflict: The baby may not leave the cave, and the protagonists must find the parts of a spaceship which allows them to leave the planet together. The goal is to gain access to building materials by feeding the baby sufficiently.

Paper prototyping this scenario helped expose some questions – and, indeed, challenges – we had initially overlooked. How did one control the characters? Since there were multiple characters, did we want to make a multiplayer game? On the other hand, one chooses the characters in the beginning. This suggested a single-player game with changing roles – a tough technical challenge. How should this collaborative network of people be introduced? What tasks should the characters carry out? They should-shape shift (again, a technical challenge), and feed the baby, but where did they find food? How should the cave work? One should be able to get in and out, but from which perspective, and why? How should the baby be represented? Should the spaceship parts be hidden, constructed from scratch, or found? Addressing each question led to an every-growing feature list and the frustrating insight that we

had successfully cultivated a brainstorming monster that was about to overwhelm the team and its abilities.

The paper prototype swiftly demonstrated that building the cave scenario was not feasible within the given pragmatic constraints. Furthermore, the organic scene of the cave somewhat disallowed addressing the origin or "history" of the baby in the cave. The baby had been explicitly born there, which meant that attachment was already taken for granted. How could that be communicated? Question after question emerged from the paper prototype, until we decided, not without frustration, that the core metaphor was not clear enough.

Preliminarily leaving the cave scenario behind was helpful to reestablish contact with the other models and investigate their features anew. The students were asked to identify a single metaphor from the planets that resonated most strongly with them. While they discovered a variety of interesting starting points, we were collectively fascinated by the image of the river and its twofold potential to tell a bonding story. First, as a landscape formation, the river-as-grief metaphor contains a notion of historicity: The river had been created over time, and its flowing, constantly changing quality expressed that "grief changes over time" (Marie).

In the workshop before, and in the design team later, this image sparked conversations about past and future: How did the river get there? What had the world looked like before mother and child were separated? Had there been a prelapsarian universe where they grazed together? In the present, what would happen if the sheep walked through the river? In other words, the image allowed us to reflect about all moments in the attachment, loss, and grief journey. Secondly, the river metaphor was part of a fable world; a world in which sheep and tigers negotiated their relationships, and thus symbolically raised questions about the ongoing connection to the dead and the mother's responsibilities in the world of the living. This was the beginning of designing *Jocoi*.

PLAYING AT MOTHERING:
JOCOI'S ATTACHMENT MECHANICS

Fast-forward to the final version of *Jocoi* in January 2015. The player enters *Jocoi* through a start menu displaying an animated campfire whose meaning is yet unclear. When pressing 'play', the game starts with a black-and-white tutorial, in which the game's main controls are explained. The game is played as the mother sheep exploring a bright 2.5D meadow with her little lamb. A flock grazes idly in the background. Apart from a meditative forest soundscape, no music is playing.

By pressing the mouse buttons, the mother sheep navigates across the screen, followed by her baby linked to her by an invisible tether. Pressing right and left mouse buttons, flowers and patches of grass can be eaten or fed. This gradually adds music to the game, which stands for the mother-child relationship. Playing around for some minutes, the idyllic atmosphere is suddenly broken by an earthquake, removing lamb and music without explanation. Based on recollections of the soundscape, and aided by hints one can hear when looking across the river, the player engages in commemoration, eventually acquiring the ability to move on with the flock.

Rules

Two aspects from the planets fed into the decision of rules and mechanics: First, in the mother's inner representations, their baby was consistently modelled as the recipient of care or nurturing efforts. This also means that there was a clear boundary between giver and receiver of attention, who is the agent and who is the object of love. In what we have seen in previous games, this would speak most to a dependency device. *Shelter's* representation of nurturing as feeding comes closest to the women's vision of core activities in the game.

However, a second commonality expressed in the planets was the wish for a timeless, carefree place, in which mother and child could celebrate their bond beyond the pressures of lived reality. In gameplay

terms, this speaks against *Shelter*'s fast-paced action mechanics and the constant peril of a starving, drowning, or attacked cub. More generally, it suggested the exclusion of mandatory game goals as such, even though some planets included at least potential goals.

What seemed most appropriate was an exploration or puzzle mechanic with the central focus of "feeding and caring" (Anna). Since the child is both the object of love and the mediator of a maternal identity, we found it appropriate to make gameplay revolve around building something together. By left-clicking on a flower, it is fed to the lamb, using a mouth-to-mouth feeding action similar to *Shelter*. The consequences of this action are expressed symbolically. By feeding the flower, the player simultaneously selects a music track and a fur pattern, which is added to the lamb. By left-clicking on the lamb, the camera zooms into a close-up of the lamb, allowing the player to take a closer look at the new fur. Simultaneously, the flower's associated music track starts looping as a more subtle illustration that the world has just become a richer place. In this world of unlimited parental control, sounds and fur patterns which are no longer desired can be removed by feeding a patch of grass. This responds especially to Christina's wish for a carefree bonding experience without lasting consequences.

The two devices resonating the most with the women's wish to experience closeness with a vulnerable baby were dependency and synergy: By following the mother and being fed, the lamb is dependent on her service. On the other hand, its fur and the music it 'gives' to the world co-constructs a shared environment which is pleasant to inhabit for both.

The women's inclusion of family and friends as available resources is expressed in the flock's quietly roaming around in the background. In an early version of the game, the flock's only function was to be there, and provide a visible context of belonging. This relative passivity, and their unavailability for interaction, made the flock appear ignorant, even arrogant to some players. This was particularly tangible in the moment of loss, when the flock would graze as though nothing had happened.

Although this resonated with some player's personal experience of a helpless surrounding unequipped to deal with someone else's loss, the flock should also represent a support network as described by the women. At the same time, a solution for respawning the meadow's flowers had to be introduced in order to provide resources for bonding. This is why when left-clicked, mother and lamb approach the flock and the whole group lies down to doze and snuggle up. The weather animation triggered by this action was based on the mothers' associations to weather change. While cuddling, the sheep can observe, together, how different seasons go by, and decide when to wake up to a desirable weather state.

Another left-click on the flock causes the current weather to freeze and spawns a fresh array of flowers. Four weather types are available, each coming with their unique set of colours and sounds. Since each weather state offers a different variety of flowers, which will again feature different sounds and fur colours, the flock thus stands for the 'safe base' from which these new grounds can be explored.

Initially, we wanted players to discover this option rather than be told about it through visual prompts or head-up displays (HUDs). However, the women's wish to be told about controls beforehand led to the conclusion of explaining this interaction in the initial tutorial.

Apart from the open-ended activity of customising looks and sounds, 'being with' the lamb, there is no goal in *Jocoi*. However, the game's only HUD element, the flower bar on top of the screen, opens the floor for interpretation. Some players have taken this as a hint for a puzzle: Does one have to collect flowers of all patterns or colours to "win" the game? This concern for doing things 'correctly', and gaining control over a situation, in which there is none, resonates well with the project of parenting. *Jocoi* offers space for projecting the wish to objectively 'know' which flowers are the best, and which music tracks are the 'winning' combination. The alternative would be goalless exploration, in which the player listens to what feels right in the moment irrespective of objective external restrictions. In *Jocoi*, like in life, finding 'truth' in parenting is possible, but only through projection.

On the invisible level of code, the number of times the lamb is fed flowers and patches of grass is added to a counter calculating the moment of separation. We intended to make this moment appear randomly, 'out of the blue', interrupting the meditative, mundane bonding phase.

Controls

Jocoi's simple mouse control scheme responds to two intentions. First, we wanted to reach players beyond an established gamer audience, who might be alienated by complicated controls. In her recent essay *Mouse Power* (2016), journalist Emilie Reed points to the forgotten role of the mouse as a pervasive piece of hardware in many homes and offices. While she identifies the mouse as something which made her feel empowered when first learning about computers, it is consistently rejected by game studies as an inferior entertainment device (Reed 2016: 113).

For my purpose, the ordinary, low-profile status of the mouse becomes an advantage. Since the women know this piece of hardware from contexts other than gaming, it does not pose an immediate 'threat' – as a game console would. In addition, for players like Reed, who is attuned to mouse-based exploration adventures from the 90s, the mouse offers a nostalgic value.

The second intention was to model a sense of the baby's presence in the mother's life, and the mouse allowed us to do so through a simple binary mapping. As discussed earlier in the context of *Ico*'s call/response and *Brothers*' tandem controls, the physical dimension of controllers can play an important role in naturalising a relationship between videogame characters. We adapted this principle of zooming in on a character's needs by representing them through a control element.

Figure 22: Jocoi's *control scheme*
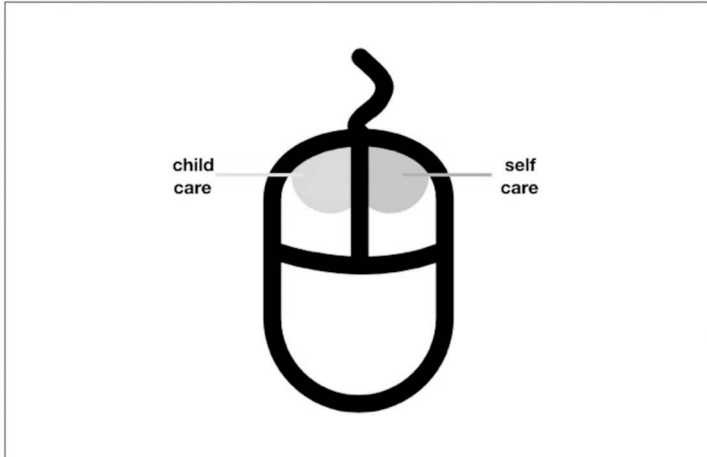
Source: author

We divided the mouse into two 'hemispheres' representing different needs of the mother sheep (fig. 22). While the left click represents the need to take care of the baby, the right button represents the need for self-care. Most of the actions in *Jocoi* can be seen through either of these lenses. For instance, if one presses the left button on a flower or a patch of grass, the 'nurturing' lens is triggered, and the mother feeds the lamb. Right-clicking on same object makes the mother feed herself. A similar principle applies when walking around by clicking on the meadow. A left-click triggers a playful, child-friendly skipping animation, while right-clicking triggers the mother's own calmer and slower pace.

In designing this dichotomy between left/right mouse buttons as nurturing/self-care, we aimed at creating an imbalance which invites the player to first exclusively focus on the act of nurturing. This responded to the women's reports that all actions on the planet revolved around the mother-child connection. The deliberate imbalance between child-focus and self-focus emerged as a result of two factors.

First, rather than a neutral piece of hardware, the mouse controller is constructed according to a dominant hierarchy between 'first' (left) and 'second' (right) mouse button. Using the index finger, we use this 'first' button to open website browsers, applications, and documents, while the right mouse is mostly used to open contextual menus and provide background information. We expected this convention to impact players' relation to *Jocoi* as well, making the left mouse button more important by default. This convention is in line with a visual tradition of framing left and right information as Given and New (Kress/ vanLeeuwen 2006).

In the chapter on *Brothers* (2.4), I have addressed how game controllers translate this visual tradition to the haptic dimension of the controller/hand space. On *Jocoi*'s mouse control scheme, the Given, as the kind of information we take for granted and which is no longer challenged, is mapped to the index finger, while challenged, less established, New information exists in the space of the middle finger (Kress/van Leeuwen 2006). As a result of this visual-spatial regime, we expected the left mouse button to be more in players' focus than the right one.

In addition to being conventionally more dominant, *Jocoi* constructs the left mouse button to mediate more interesting experiences. Mothering activities have a greater impact on the game world than actions of self-care. In fact, eating a flower or patch of grass during the first part of the game seems superfluous, characterising the mother's initial feeling that attentiveness to the child is all that counts.

Over the course of the first minutes, these dynamics reinforce an engagement with the left side of the mouse which teach the players that the left mouse button is all that is required to play the game. In fact, the players may forget about the existence of the right button altogether. As the player is now conditioned to the simple principle of feeding and tending to the child, the mother-child bond has been normalised.

When the lamb disappears, the left mouse button changes its function. Without the lamb, the mother sheep cannot use it to walk or nurture. These were contextual actions focused on the lamb. Instead, the

left mouse button, pressed on any object in the game, elicits a scream. Based on user testing, this has been an impactful design decision. Players expressed helplessness and a sense of shock when the mother-child controls were no longer available. For a playtester who was also a father, the controls were "too much. This game shouldn't be shown to parents". Most observed players showed a moment of helplessness and frustration when they repeatedly pressed the left mouse button, listening to the same 'bah' sound over and over again. This is an intended moment of control loss, when established mechanics fail to work, imposing a need for adjustment. It is in this moment that the self-care skills mapped on the right side of the mouse come into play. Following a short moment of stagnation, players usually find this option, and 'relearn' the right mouse button.

Mother-Child Space

As mentioned before, the women consistently modelled mother-child space in terms of two priorities, intuitiveness and safety. In three out of four models, the mother's physical presence to the child is a default condition, or a possibility on the planet. Christina reports that the ability to hold and be there with Nino was most fulfilling. Anna defines picking up and holding the baby in the cave as an ordinary, essential activity to help him grow. Even on the fireside planet, where people are not represented, the baby is implied in her mother's arms. In none of the scenarios is this connection threatened or challenged.

We therefore found it most appropriate to use the *invisible bond* spatially linking mother sheep and lamb. As described previously, particularly in the *Shelter* chapter, the invisible bond device defines the space between game characters as given, and therefore as intuitive. It also involves a power divide between leader and follower, nurturer and nurtured, which resonates with the way the women described their connection to the child. In *Shelter*, the effects of the invisible bond are twofold: The connection emerges from their tribe-like presence, their spatial proximity by default, which makes them strive for survival as a

collective. Although this is not spelled out, players have felt it that way (Walker 2013, Ellison 2013).

While the invisible bond seemed appropriate to frame the mother-child relationship in *Jocoi*, there is also the relationship to the flock. This stands for the support by friends and family members which the women reported to have some importance. In contrast to the intuitive mother-child relationship, however, contact with the flock is voluntary and needs some initiative (clicking). The role of support is expressed through the 'snuggling' mechanic which turns the collective into a temporary union. As described in the analysis chapter on *Passage*[2], the union device eliminates the boundaries between characters and turns them into a single unit. Rather than controlling this unit, however, players of *Jocoi* control the time at which to connect and at which to let go of the collective support. By doing so, new resources (flowers) are spawned, symbolising the nurturing quality of the family bond.

This means that there are two types of inter-character spatiality; a spatiality describing the intuitive, uncontrollable bond between mother and child, and a spatiality describing the wilful connection to a collective in the background. In *Jocoi*, spatial proximity deliberately exists without adversarial aspects. Rather than alert, we wanted players to be relaxed and observant while exploring the affordances of the mother-child bond and the support of the flock, rather than being afraid to lose them. As the women described it, there is time to 'just be', and we focused on this feeling of being by creating an uncontested space. In terms of level design, this is the playing field of the meadow separated from the forest through an invisible wall. In a previous iteration, we toyed with the idea of foreshadowing danger by triggering a growling sound effect when the mother sheep walked too close to the forest. When some test players then identified the game as a horror game, we decided to remove this element, but kept in mind the important role audio can play in framing events.

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2   For a more detailed treatment of the union device, see chapters 2.3 and 2.6.

Visual Design

When it comes to visual and character design, the decision of using sheep resonated with the fact that animals were recurring symbols in most of the women's models. Besides the sheep and tigers on Marie's planet, Anna could hear birds from inside the cave, and compares nurturing the baby to something a bird mother would do. There are wild animals on Christina's planets, including giraffes and elephants. This suggested that animals were appropriate player proxies for the women. Our decision to use simple graphics, made up of similar pentagon shapes responds to the observation that shape seemed to matter: Christina and Anna chose similar rubber plates to represent family members, including the deceased baby.

In both models, the shapes used to represent children and adults are similar, and in Anna's case this is a deliberate choice. Pointing to her key card, which says "gestalt", Anna points to the special meaning of this term, given that her baby was born with a physical difference. Her wish to represent him in terms of a 'normal' shape competes with the wish to acknowledge the form he was born with. Looking "like the others", "looking normal" stands for the wish to include the dead baby among the living and give it equal importance. The development team expressed this wish by making child, mother and flock look alike in the first part of *Jocoi*.

While in the beginning of the game, the whole flock is white, the colourful patterns which form on the lamb's fur are supposed to express the child's individuality in the eyes of the mother. The mother as an agent of attention is further stressed by the possibility to zoom into the lamb's fur and look at it in detail. This means that there is sameness in the beginning, sprinkled with small differences which are explored through the choice of picking up different flowers representing different nurturing styles.

During the first part of the game, the intactness of the family unit is communicated through the sheep form, while in the second part, a transformation of the child happens. This transformation is based on

Marie's symbolic distinction between the realms of the living and the dead as distinction between livestock (sheep) and predator (tigers). In this metaphor, which resonated with the remaining women as well, physical difference stands for separation. To underscore the difference between the sheep's meekness and the tiger's predatory features, we settled on the mythological sheep/wolf binary. The intention was to communicate the opposite natures of life and death and imply that the mother's yearning for the child was a yearning for something dangerous and transformative. At the same time, the baby wolf keeps the 'customised' fur throughout the transformation. To the mother's gaze on the other side of the river, the wolf continues to be the beloved baby, irrespective of the altered shape.

Apart from the dichotomy of sheep and wolves, we used *age markers,* one of the devices described in previous chapters. Inspired by *Shelter,* we turned the lamb into a miniature version of the mother, hopping to catch up with her. Like the badgers' delightful waddling, we wanted these movements to have a charming effect, to be perceived as cute by the players. Observing that the size difference between lamb and mother effectively communicates who is in charge and who is nurtured, we positioned the lamb as worthy of the mother's/player's unconditional protection.

The size difference responds to Anna's 'Tamagotchi' comparison, in which she identifies the baby as someone who needs to be nurtured without the expectation that it look after itself. This is why we decided to leave the baby small throughout the entire bonding phase. In an earlier build, we had experimented with a growth effect as a consequence of feeding. In some cases, this meant that the baby outgrew the mother, challenging the meaning of vulnerability and cuteness. We decided that it was enough to represent the parenting effects through the introduction of colour on the lamb fur and the changing soundscape.

Gender markers were deliberately excluded for two reasons. First, none of the women had mentioned gender in their models, implicitly or explicitly. If anything, dominant gender assumptions were at work in the way they described their 'mothering' role as nurturing and caring

(Kaplan 2013[1992]). As we see in *Shelter*, representing such activities in a videogame is enough to establish a consensus among players that they engage in 'mothering', rather than 'fathering', or 'uncleing'. While nurturing activities are enough to spur readings along dominant ideas of 'mothering', this reading is not enforced by gender markers which narrow down the dominant meaning. This is a second reason to refrain from explicit gendering; the possibility to invite alternative appropriations from a father's, sibling's, or friend's perspective. While players have the ability to meaningfully engage with characters who do not share their demographic profiles (Shaw 2013), leaving the adult sheep's identity up for negotiation can invite a multiplicity of contextual player meanings.

Sound and Music

The act of listening, as opposed to watching or acting, requires attention to environmental subtleties which we thought appropriate for modelling the women's focus on being in the moment and paying attention to the baby. This is why music plays a central role in *Jocoi'*s gameplay. Even before the player presses a mouse button, simply wiping the mouse over a flower triggers an animation and a music track. The player can listen to this track for as long as necessary to decide whether to move away or 'commit' to it by pressing the left mouse button. When the flower is fed, we hear two things; a 'being fed' jingle akin to the arpeggio sound in *Shelter*, and the flower's music track, which continues playing until we either feed a patch of grass, or a differently coloured flower of the same pattern.

This means that we used the *synaesthetic device,* defining sound as a stand-in for the instinctual bond between mother and child and for the quality of parenting choices. These parenting choices have a rational and an emotional component. On the one hand, the mother sheep goes out and compares sounds of flowers in order to select the most appropriate one. On the other hand, the selection of a flower is based on a deeply personal understanding of what can count as appropriate. While it is a

matter of responsibility to engage in the act of nurturing, it is a matter of taste to settle on a particular flower.

Figure 23: Second iteration of Jocoi*, flower bar and 'admiration' zoom function (below)*
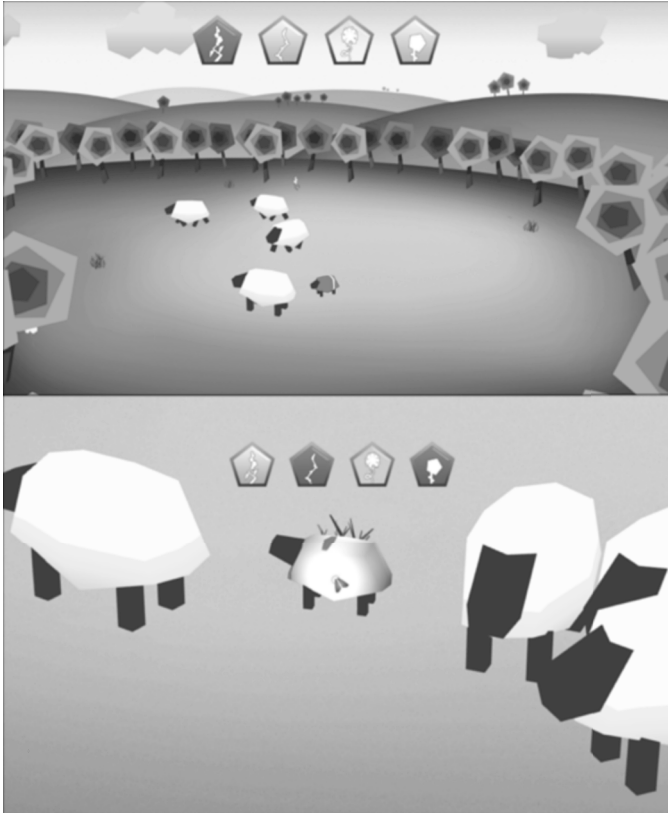
Source: author

As the flower symbol bar on the top of the screen (fig. 23) fills up, this subjective emotional space of appropriate parenting choices becomes richer in sound, too. We intended for this richness to have a personal

meaning for the players, and for the mechanic of composing a soundtrack to be clear enough to make players remember their compositions after separation from the lamb. This turned out more challenging than expected; few players could distinguish different sound layers or memorised the sound of a flower after they had included them in 'their' soundtrack.

This impacted the overall understanding of the second part of the game, which is based on the player's recollection of previously encountered sounds as well. In keeping with the auditory as a symbol for the emotional, we created a sound-based puzzle in which the player 're-collects' the combination of flowers last heard before the lamb's disappearance. When facing the river, players can hear this composition. They then have to go back to the meadow and identify flowers matching the sounds they just heard by means of grazing off the patches of grass covering them. This means that a sound puzzle has to be achieved blindly: The sheep mother does not see the one she misses, but she can make an effort remembering them by listening to shared memories and engaging (eating) with them.

AND THEN THERE WAS
THE EARTHQUAKE: SEPARATION

At a random point during this bonding phase, the screen starts shaking, we hear the sound of thunder rolling, and the screen fades to black. This is the moment of an unexplained loss, a moment which was not addressed by the women in detail, suggesting that reasons for their pregnancy loss matter less than its impact. As a metaphor for loss, the earthquake stays ambiguous while clearly communicating a cesura. Players have not seen such a moment before; the black-out breaks with the idyllic, monotonous 'being there', and the growling sound replaces the music which players composed before.

One message we wanted to avoid by randomising the earthquake moment was to blame the player for 'failing' as a parent. This is the case in *Shelter*, where permadeath frames loss as a failure of mothering. A

more appropriate example for where we wanted to go is *Passage*, where death is defined as a condition of life, as a condition of the gameplay system. However, the space-equals-time logic of *Passage* allows an anticipation of death. We wanted to introduce death as an aspect of the game system rather than a scripted moment, while on the level of player experience this moment should come out of the blue.

Furthermore, players should have had enough time to bond and be engaged in collecting flowers and adjusting their soundtracks or pursuing self-imposed goals. This is why the time of the earthquake was based on two facts: The time since starting the level, and the amount of flowers that had been fed to the lamb. If, at a random moment inside a time window, at least three flowers had been fed the earthquake was introduced.

Testing the first prototype showed that this often led to a situation in which feeding a flower directly triggered an earthquake, leading to an undesired cause-effect narrative. Some players believed that they had accidentally poisoned the lamb by feeding a toxic flower, retroactively reading the colourful dots and stripes on the lamb's fur as signs of illness. This led them to think they were incompetent parents, expediting a reading we had hoped to avoid.

In the next iteration, we worked on discouraging a causal connection between nurturing and loss by defining that loss can never happen directly after a feeding event. Additionally, we changed the colour scheme and patterns on the sheep to hopefully look less poisonous.

The First-Person River

When the game fades back in after the earthquake, we see the mother sheep and the flock in the weather state we have seen them in before, but the music layers, flower symbol bar, and the lamb are gone. Additionally, we see a river in the right corner of the screen, which can be entered with either mouse button.

The intention here is that the loss of the lamb also brings new opportunities: looking over the river and admiring the lamb, which has now transformed into a wolf cub, and, as mentioned, wears the lamb's

old fur colours. On this screen, the player views the other side of the river from a first-person perspective. This 'first-person river' view (or FPR), as we called it, was supposed to communicate the immersion of the sheep mother when watching her child. On the other side of the river, the wolf cub and an adult wolf – the great-grandmother in Marie's model – sit around a campfire. We see a cave in the background, which might be their burrow, and from time to time, the wolves stretch their legs or howl.

Figure 24: First iteration of Jocoi*, bonding phase (above) and first-person river view (below)*
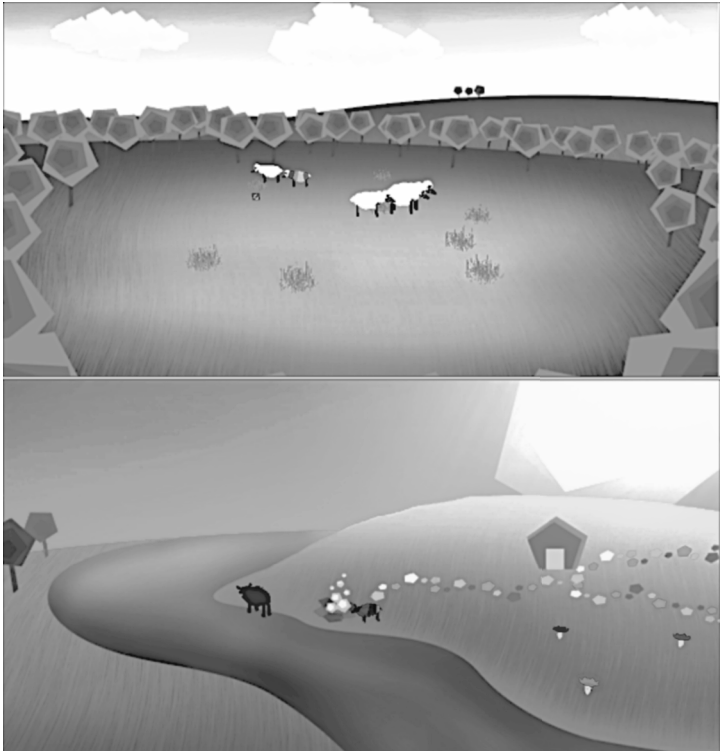
Source: author

Furthermore, the moment the player enters the FPR, they hear the last melody before the earthquake, and the symbol bar reappears. Instead of the full flower symbol, only the outlines are coloured. We thereby indicate that the feeling of attachment to the child is no longer the 'full' experience but has become a memory. However, when mousing over the flower symbols, their music is still audible. This is relevant for solving the music puzzle to follow.

Some seconds after they enter the FPR scene, the player sees an arrow symbol, the game's only visual prompt suggesting the player to go back, to leave the scene. This arrow symbolises the common sense voice indicating that in order to live on with the loss, the sheep must leave the FPR and focus on her own life. However, one can resist this voice and instead stay focused on the lamb by holding the left mouse button pressed on it. The camera moves forward, imitating the sheep's walking movements. A prompt appears: "Let go". If the player lets go of the mouse button, the camera zooms back, and the sheep is pulled back to the side of the living. If the player resists again, they have committed to the other side, and the credits roll.

RE-COLLECTIONS

After the player has revisited this memory by looking across the river, they find themselves back on a meadow sprinkled with patches of grass. These patches of grass cover the flowers which spawn on the meadow and stand for the now unavailable 'happy moments' with the lamb. Using the right mouse button, the sheep mother can eat off a layer of grass, uncovering the colour, and later, the shape of a flower.

This activity stands for facing the loss and making oneself vulnerable by peeling off 'protective' layers of memories. The act of eating is at once a symbol for processing ('stomaching') and unpacking themes of the past. That this is a tedious process is expressed by the two layers of grass, requiring repetition to uncover and eat a flower. One also takes a risk by confronting the loss. If one eats a flower which has not been

included in the soundtrack, the sheep is overwhelmed by sadness and the puzzle resets.

This can be prevented by listening carefully and picking flowers only if one is sure the melody matches one heard in the FPR scene. Anytime during the puzzle, players can go back to the FPR to listen to the soundtrack and mouse over the symbol bar to listen to individual sounds. Back on the meadow they can also listen to flowers even if they are covered by grass.

Re-collecting the correct flowers might require asking for the flock's support. Interaction with the flock works as usual, which has been experienced as callous by some players: The flock seems to be ignorant about the fact that a loss has just happened. Instead of reacting to the mother's helpless calls, they continue living their lives as though nothing had happened and are only available if explicitly asked for support. On the other hand, they never refuse giving help, either. Like on the planets, the women take center stage, while they are embedded in a family-and-friend collective.

Once the players have re-collected the three or four flower sounds that were active when they last saw the lamb, the forest gives way to a path leading the flock to a new meadow. While the flock marches off, the screen fades to white and the game ends. Although this is an open ending – we don't know whether they will just move up the river and maintain a connection to the wolf cub on the other side, or whether they leave it behind – it still invokes the 'grief work' paradigm[3].

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3   The 'grief work' paradigm is a dominant way of making sense of grief during the 20th century which argues that grief can only be 'successful' if the griever goes through a pre-defined set of activities. As I have argued in chapter 1.2, this view on grief is potentially disenfranchising since it assumes a more or less successful way of grieving. However, some grievers find the idea of closure empowering, such as Anna, who talks about tasks which must be completed to leave the 'grief planet'. The women agreed that solving a hard puzzle to manage the first intense grief resonated with their experience.

3.4   On the Question of Impact: Evaluating *Jocoi*

How can a game about grief be evaluated? What should be the 'impact' of play? This chapter discusses playtesting, and what playing *Jocoi* with the bereaved can mean for the future design of games about grief. The chapter is structured into three parts, each of which addresses a step within the iterative development process.

When it comes to the first prototype, our main concern was whether players understood what actions are possible in the game. This concern can be split into questions of usability and user experience (UX). While usability asks for functionality, whether "players can use the controls and make the game progress" (Fullerton 2008: 270), UX tests whether the intended play experience occurs (Bargas-Avila/Hornbæk 2011). The latter is necessarily elusive and vague: Did *Jocoi* evoke a sense of mother-child bonding and subsequent loss in our players?

Based on early player feedback, we devised a second iteration of *Jocoi* which was part of a cultural probe package (Gaver et al. 1999) which the women received to evaluate their involvement in the project. As a method carried out mid-term, the cultural probe package was intended to provide inspiration for refining the game feel[1]. Although functionality remained a concern, we focused more directly on the women's

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1   For a discussion of cultural probes also see chapter 3.1.

responses: How did they relate the game to their own experiences? This intent was expressed in the design of a memory booklet drawing together narratives of the mother-child bond, reflections on the muse workshop, and first impressions of the game.

More broadly, the development team used probes as a method to inspire a deeper connection between development team and participants, in order to prepare and implement appropriate adjustments to the prototype. A second intention was to provide a gift for the women which they could keep after the project ended. By addressing three moments in our handling of cultural probes – design, distribution, and returns – I will illustrate what worked and what did not work. The intention is that this will shed some light on the advantages and disadvantages of cultural probes in grief-based game design.

The third prototype was evaluated through a group discussion with the participants. Since it was the final prototype, the discussion focus was on potential uses of games like *Jocoi* from the perspectives of the bereaved. It was notable that even though the game was far from 'feature complete' or smoothly balanced, the women consistently reported that *Jocoi* managed to accurately capture some of their emotional struggles. This is not entirely surprising, given that the women were part of the creation process. In fact, their appreciation for specific game elements may be an effect of participating in the design process, rather than being 'authentically' reflected in the product.

ITERATION 1: UNDERSTANDING EMOTION

When we started out evaluating the first prototype of *Jocoi*, we had two questions: How well does the game communicate what needs to be done to play, and how appropriately does it portray the experience of loss and grief? The difference between these interests can be understood as difference between usability- and user experience testing; the former focused on efficiency and functionality of tasks, the latter on the quality of experience (Bargas-Avila/Hornbæk 2011).

One usability concern was whether or not the navigation of the sheep and the option to nurture the lamb were intuitive. At that point, *Jocoi* came with a keyboard-based control scheme. To move the sheep, the player had to press the arrow keys. When the mother sheep approached a flower, the letters 'G' and 'F' appeared on the screen, indicating that they could graze or feed a. flower to the lamb.). Prior to playtesting, we had assumed that players would understand these letters as prompts for interaction. This was only the case for playtesters who also identified as 'gamers', while testers closer to the target audience were puzzled by these controls.

A possible explanation for this difference is that we inadvertently tapped the convention of Quick Time Events (QTE), in which a visual prompt needs to be matched by pressing the corresponding button on the controller. Console-game literate audiences understood these prompts as invitations to act, while non-players read them as (however confusing) parts of the landscape. Rather than input mechanisms being neutral, this initial finding showed that functionality is always caught up in a social contexts of use.

The question 'Do *Jocoi*'s controls work?' is necessarily tied up to the question 'Who do they work for?'. To accommodate our audience of non-gamers, we decided to overhaul the control scheme completely. We assumed that the mouse, as a piece of hardware pervasive in households and office contexts (Reed 2016), would be a more approachable, less alienating game controller. This suspicion was affirmed by a female playtester who, when seated in front of the computer and asked to play the game, inspected the hardware and looked as though something was missing. Then she asked for the mouse.

A second insight gained from usability testing was that the role of sound was insufficiently understood to solve the puzzle. As a response we prioritized visual design. First, mouse-based interaction made it possible to hover over a flower before clicking on it. This, we expected, would define picking a flower as a personal choice, and strengthen the impression of building up the soundtrack. Secondly, we added the head-

up display (HUD) element of the flower bar, providing additional visible feedback whenever the lamb was fed a flower.

The status of usability, and the most common game moments in which players got stuck, lost orientation, or interest, was inferred from observations: When playing the game, did users ask back or try to solve puzzles by themselves? Did they wait for 'something more' to happen, or did they feel free to explore and experiment? One important observation was how long players would try to play the game, and whether the game provided enough direction to encourage players to try things out rather than to remain stagnant and uncertain.

The question of whether *Jocoi* appropriately communicates loss and grief experience took us back to Boehner et al's (2007) interactional paradigm of emotion. Against the "laboratory-science tradition of studying emotion", the authors suggest that emotion is better treated "as a social and cultural product experienced through our interactions" (Boehner et al 2007: 276). The authors concede that this does not only have ethical consequences, moving the focus from helping computers make sense of human experience towards helping humans understand their own experience, using computers. It also changes the role of the designer from absent engineer towards involved person and calls for new evaluation methods which account for the fluid nature of emotion emerging between designers and users.

While understandable in theory, the application of this paradigm raised some concern among the design team. It questioned an established idea that experience design equalled control over a particular experience outcome. Rather than quantifiable items on a quantifiable scale, players' emotions emerged in conversations during or after play. Rather than a monolithic 'target emotion', there was a network of associations changing with each player's unique situation.

We noticed that some players were more self-aware, imaginative or articulate than others when it came to associations. Some players kept focusing on rules and mechanics and speculated about possible goals and causalities. Others took a role-playing approach and identified as mother, uttering exclaims like "Where is my lamb? Oh god, my lamb is

gone". Yet other players compared gameplay and character behaviours to personal experiences.

One player reported that the flock reminded them of their passive family members offering little support during a time when they faced a traumatic separation from a childhood friend. In fact, in this early build the flock had a passive role. While the sheep mother/player struggled for survival and actively roamed the meadow, the flock just stayed in the background and post-loss continued to idly move back and forth as if nothing had happened. Players' associations helped us work on the flock as supportive family system in line with the women's description. While in later prototypes of *Jocoi*, the mother-child connection is still more in the centre than the family system, we changed the family's role from absent to available[2].

Overall, what we learned from the first playtesting iteration was the value of conversational and associative feedback, engaged through conversation rather than quantification. Both measuring functionality and emotional impact were better explored by looking at players' reflections about the game than by measuring whether the game system had 'produced' the right emotion.

ITERATION 2: CULTURAL PROBES

With the second iteration of *Jocoi*, we addressed the women using the method of cultural probe packages. Cultural probes, as described in chapter 3.1, are activity packs with ephemeral value for the design process (Gaver et al 1999, Khaled 2012, Lange-Nielsen et al 2012). In our case, they served as inspirational method halfway throughout the

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2   In the final prototype, the flock acts as a 'social support network' which can be accessed through closeness. Snuggling up with the flock represents nourishment and revival, as expressed by the flowers which grow back when the player leaves the flock.

development process, continuing (rather than initiating) dialogue with the participants and gaining further insight into their lives.

In what follows, I will discuss three aspects of the cultural probes process in this study; design, launch and inspirational feedback.

Designing the Probes

When designing the probe package, the primary concerns were twofold: The participants' reflections on the provided materials should both teach us something we did not know yet and be an appropriate farewell gift after the project had ended. I settled on a package including three objects: a scrapbook, a postcard, and a USB stick containing the second iteration of *Jocoi*.

The most elaborate object was the scrapbook, since it included handwritten questions and tasks focusing on the muses' lives, their participation in the workshop, and their impression of the game. While the basic questions and prompts in the scrapbook were the same, leaving personal traces of the researcher – both in the form of black-ink handwriting and small decorations – was important. It was supposed to remind the participants of our dialogue, and make the book resemble a family or friendship album more than a questionnaire.

The booklet contained three sections: 'Your Baby & You', in which they could share their stories, objects, songs, and rituals around their mother-child connection and their expectations from others. The second section addressed their workshop participation, asking for memorable moments and things they liked and didn't like about the collaboration. There was also a section on their planet models, including the questions of whether they would add another material to the planet now, and what this would stand for. The idea here was that the models crafted during the workshop were situational, and something might have changed over time. To answer this question, the probe package contained a button and five pieces of fabric: a piece of shiny, smooth but thin aluminium foil, a white handkerchief, a cotton cloth, a soft and a rough sponge, as well as a button. The idea was that looking at, touching, and then choosing one

of these materials was a way of engaging with what was appropriate for the women now.

Apart from the book, each cultural probe package contained a postcard saying 'note to the developers'. The intention with it was to invite a terse response by the muses, invoking "connotations as informal, friendly mode of communication" (Gaver et al 1999). Furthermore, I included a USB stick which contained iteration 2 of *Jocoi*, and which was supposed to be played together after the women had opened their packages and were introduced to the contents.

These items were wrapped in a coloured, padded envelope which was supposed to be handed over and explained to the participants. The idea was that after clarifying initial questions, we would move on to playtest the game on the women's devices, record their responses, and take the results back to the development team. Other probe returns should be reviewed later, some time before the end of the semester project.

Launching the Probes

In their Presence Project study, Gaver et al (1999) describe the decision to present and explain the probes personally as "extremely fortunate", because it spurred some discussion and allowed the designers to gain a first glimpse into whether this unconventional method was accepted. Our intention was to launch the probes as a way to reinitiate contact after a month-long pause and use this opportunity for playtesting.

This plan was complicated when two muses had to cancel, had the probe package mailed to their homes instead, and were asked to play the game individually via the supplied USB stick. The other participants received personal instructions and displayed positive surprise over the materials. Attempts to start the game on their personal computers failed, however, and a different device had to be used. The game worked, but not on the hardware on which it was supposed to work.

Soon thereafter, the muses who couldn't join the probe launch reported technical issues as well. This situation impacted the women's

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answers in the scrapbook: For those who couldn't play the game because they hadn't attended the meeting, an entire section of the book could not be used. Furthermore, the inability to play the game also reflected on a low postcard return: What was there to say to the developers if the game could not be opened?

This highlighted a problem with our probe design, namely that the materials and questions were too mutually dependent. Instead of evoking separate inspirational responses, the materials cross-referenced each other, and while the look and feel of the package was attractive to the women, many of the tasks included in the book could not be solved independently of the game prototype. In retrospect, it would have been more effectuve to divide the probes into smaller portions, reducing the importance of. the scrapbook.

Receiving the Probes

On the other hand, the importance of the scrapbooks was reflected both in the rich reflections the women included in it, and the fact that all of them were returned. The section 'Your Baby & You' featured intimate narratives, some of which directly addressed their babies ("this was the time you left us"). This indicates that the book was a welcome medium to once again update the mother-child connection and cultivate inner representations of their babies. In all four books, responses to the section "How it all started: space for your shared experience" filled several pages. The workshop section of the book received a similarly strong resonance.

Overall, the women remembered the atmosphere as respectful, and they positively remarked on the possibility to be close to their babies. One muse explicitly mentioned the planet as an appropriate metaphor to explore the topic of loss in a creative way.

All but one woman responded to the task "add a new material to your planet and explain what it stands for". This task claims that neither the mother-child relationship, nor grief as an experience, nor the mother's interpretation of it, can be assumed to be stable, and might therefore

require an expressive 'update'. As Marie put it, "grief changes over time". There is a diversity of grief "across people and within a person from one time to another" (Rosenblatt/Bowman 2013: 83). That the women did not reject the task as impossible but were willing to re-engage with their planets through new materials indicates that symbolic models are situational rather than universally appropriate. While the development team used the planets as inspirational surfaces, they were in fact snapshots of an emotional 'world in progress'.

One thing that was reconfirmed with the return of the probes was the mothers' ongoing concern with finding a positive space for their deceased children. The detail to which they described their own stories, and the register they chose to do so, spoke of the warmth and affection which we also wanted to communicate in the appearance, sound, and feel of *Jocoi*. In keeping with what Gaver et al. (1999) describe, we experienced probes as a method of subtly inspiring rather than directing design. We responded by making the landscape even more fantastical, adding snowflakes, bubbles and butterfly particles corresponding to the seasons. Another change that was made was the inclusion of a tutorial which explained all basic actions through black and white prompts. This had been an explicit wish by the women which emerged during our play session.

ITERATION 3: THE PURPOSE OF AMBIGUITY

After development had ended, the women were invited again for a review workshop. This time, the purpose of evaluation was to discuss the women's personal responses to the game and share ideas about *Jocoi*'s potential purpose for grievers. In terms of method, we used a structured group discussion format divided into three parts. Following an introductory part reviewing the workshop and design process, the women played the prototype in silence and responded to five prompts eliciting quick emotional responses. Finally, these responses were engaged in a discussion throughout which we identified potential purposes and contexts of 'bereavement play'.

In order to refresh their memory, the women were shown photos from their work and the four planet models. It was remarkable that while recollecting details from each model, the women showed no interest in attributing them to a particular author. For instance, the sheep's conundrum – whether. to cross the river and be with her young or to stay with the flock – was remembered, but it was no longer important who created it. The image had become part of a shared memory owned by the group.

This highlights the ephemeral nature of symbolic modelling. During the workshop, the muses had self-identified as authors and artists owning their images. Some months later, this personal identification was no longer important. The muses had moved on with their lives, leaving their creations as parts of a shared creative effort in the past. While the models back then had expressed salient aspects of the women's emotional lives, they had now changed their significance. The women had changed, and so had their attitudes to images expressed in the past.

Moving on to playtesting, the women were instructed to play *Jocoi* without talking and each note their spontaneous response to the game on five coloured posters. These posters contained short evocative prompts, which were supposed to start a discussion on potential contexts and purposes of playing *Jocoi*. With the instruction to play in silence and react in written form, we intended to provoke genuine responses, avoid distraction from others' opinions, and ensure that the ideas spawned from play were as diverse as possible. This was equivalent to the crafting phase during the workshop, when the women turned their attention inwards before they had engaged with the group.

The five prompting phrases were 'Your impulse', 'What remains?', 'Why? For whom?', 'What does it trigger?' and 'What do you feel like doing now?'

Surprisingly, the item 'Your impulse' elicited a conversation about usability, and the question how to improve gameplay and include elements that were missing. The women consistently asked for clearer instructions. One idea was to include a flavour story creating suspense in the beginning and carrying the players through the first part of the game. Some participants reported that they wouldn't have the patience to wait

for the earthquake without an initial hint that something was going to change the mother-child idyll.

At the same time, they mentioned boredom as a vital building block for the experience of loss. The women recognised elements like seasonal change, eating, and the fact that actions take long and are sometimes tedious as appropriate aspects of nurturing. They understood associations to everyday life and its mundane processes. Specifically drawing on the question of grief and its reflection in the game world, a participant found *Jocoi*'s proposition "appropriate for the mourning process. This means on the one hand, that you find things again that you shared with the child, and on the other hand also that you do what you have to do every day" (Sarah).

The question 'What does it trigger?' evoked responses to the game's different phases and the emotions inspired in the women. The mothers had no difficulties projecting their own mother-child relationship to the first part of the game. Yearning ("Sehnsucht") was mentioned as a strong emotion during the first scene. The scene made them miss their babies and the harmony they had wished to experience with them. This was also why two of the women felt like playing the game again. After the earthquake, there was a wish to relive the connection to the lamb, while after the loss they reported feelings of helplessness and chaos.

Another motive to replay the game was to discover part of the world they had not experienced before. Most surprisingly, the women had different ideas about the meaning of the wolf cub across the river. Opinions diverged between interpretations of the baby wolf as a perpetrator having captured and devoured the lamb, and the intended meaning of the lamb's transformation into the wolf baby. At the same time, both groups of women said that the game adequately portrayed their relationships to their dead children and the kind of loss experience they went through.

The questions "For whom?" and "What remains?" initiated discussion about *Jocoi*'s potential uses and meanings. One concern was whether the symbolism was too esoteric to be understood by players outside of the group.

STAYING OPEN FOR INTERPRETATION

This conjures up a more general question related to metaphorical game design: How to deal with the necessary ambiguity of symbolic images? In a reflection on their metaphorical game series *For the Records,* Rusch and Rana (2014) argue:

"While metaphors are powerful tools to communicate otherwise incommunicable concepts, they are not always easily understood. They might be the only way to represent what is going on "inside", but that does not mean that they do not require further explanation. One of our biggest challenges was and still is to find the right balance between staying true to the metaphors that arose from our conversations with people with lived experience and presenting these metaphors in a form that others can grasp them. There is evocative power in a subjective and artistic piece, but there is also the risk of it not being understood." (Rusch/Rana 2014: 362)

In their anti-anxiety game *Soteria* (2017), the authors resolve this tension between artistic subjectivity and the need to be understood by adding quotes and voice-overs. One game even includes a 'what it means' page, which explains the intended meaning of metaphorical aspects and clarifies what the interactions with different game elements stand for (ibid).

A different approach to the problem of understanding is advocated in Gaver et al. (2003), who argue that ambiguity can be experienced as "intriguing, mysterious, and delightful. By impelling people to interpret situations for themselves, it encourages them to start grappling conceptually with systems and their contexts, and thus to establish deeper and more personal relations with the meanings offered by those systems" (2003: 233).

Similarly, Sengers and Gaver (2006) have argued that staying open for interpretation and embracing a potential divergence between designer and user meanings can be valuable for both. After all, "[n]o single one of these perspectives may necessarily be "correct;" instead, all may

be useful in highlighting aspects of how systems will be understood, be used, and find roles in individual's and community's lives" (Sengers/Gaver 2006: 3).

This suggests that dealing with uncertainty is an active part of sense-making and therefore part of the empathetic dialogue we wanted to initiate with J*ocoi*. Rather than stable, the meanings of the planets had always been in flux. Although the women had used concrete materials and narratives to express themselves in the muse workshop, the resulting emotional landscapes had evoked different interpretations in other muses. During the discussion phase of the muse workshop, a priority had been to give space to these reactions and to cultivate sense-making both towards collective and individual meanings.

Narrowing down the game in terms of a single 'correct' interpretation seemed counterintuitive to this process. At the moment the game was experienced by a player they were implied in this dialogue as a part of a struggle for meaning. One use of *Jocoi*, as the women saw it, was as a self-help tool in bereavement groups like 'Regenbogen'. This was yet another reason for ambiguity and against closure: Rather than explaining loss and grief to the grievers, *Jocoi*'s uncertain symbolic world offers a canvas for projection, accommodating a variety of child loss experiences.

Making Space for Grief:
Conclusive Thoughts

In this study I have used a multidisciplinary lens to investigate the expressive possibilities of videogames when it comes to representing bereavement.

I first conducted five analyses of single-player games and their portrayals of attachment, loss, and grief in inter-character relationships. The analyses were conceptually rooted in the idea that games exist on an ergodic continuum (Newman 2002), involve players in interreactive ways (Smethurst 2015), and invite metaphorical projections (Rusch 2017). The goal was both to learn from the nuanced ways games have portrayed psychodynamics of bonding, separation, and grief in the past, and to critique limitations and problems with the chosen examples.

I then applied the learnings from the analysis to a participatory design study on pregnancy loss. Using muse-based design (Khaled 2012), this case study investigated how underrepresented grief narratives can be included into game design. Four Austrian bereaved mothers were invited to inspire the ideation of the game *Jocoi*. They participated in the metaphorical modelling workshop *Trauerspiel*, for which I adapted strategies from expressive art therapy (Potash/ Ho 2014, Levine 2014) and personal game design (Rusch 2017) to the needs of the participants.

Harking back to the question of how videogames can make space for bereavement, I will review my findings along three spaces of impact.

The first space, which I call *game space*, addresses opportunities for grief-related representation using game-specific means as suggested in this study.

Secondly, there is the *emotional space* of players who invest effort in making sense of games through emotional projection. This space can be consciously addressed when making games about attachment, loss, and grief.

Thirdly, the *design space* addresses game design as a way of opening spaces for collaboration, spaces in which designers and grievers can interact. One finding of this study is that interaction through game design not only can inspire game design ideation, but also offers a possibility for intimate conversations and mutual validation for grievers.

GAME SPACE

First, this study has contributed to a formal understanding of video games as expressive media, and the way the ergodic spectrum can be used to create emotionally charged game spaces. When it comes to formulating nuanced dynamics of attachment, loss, and grief, game designers can model game spaces to show players why they should care, and hence, what it is precisely they lose when a character is removed from a game. During analysis, I have identified attachment devices for five dimensions of game design; rules, controls, space between bodies, visual and auditory design.

I have suggested that on the level of rules, game design can encourage different motives for attachment, such as dependency and synergy. One example is *Shelter*'s construction of a dependent group of badger cubs counting on their mother's care. Losing a badger due to a mistake affects players differently than the loss of an eye-level character like Aeris. Her absence in *FFVII* comes with the loss of a strategic advantage. When designing *Jocoi*, we adapted the rule devices in response to the women's imaginations of the mother-child bond as something that can be fostered through feeding and caring. Unlike *Shelter*, where the young are in constant peril, the mothers imagined the

bond as something timeless, adding value to life. This is why *Jocoi* combines dependency and synergy aspects: The mother sheep needs to feed the lamb, but only in order to enrich her own world by adding colour and sound.

Attachment quality can also be sculpted through the design of space between bodies. While rules regulate which bonding rituals are possible, they come to life in inter-character space. *Ico*, for instance, uses an *elastic bond* between player character and NPC to communicate precarious intimacy. In *Shelter*, on the other hand, mother-child intimacy is presented as something intuitive by using an *invisible bond* which regulates that the cubs follow their mother. In the design of *Jocoi*, *Shelter*'s invisible bond was used, too, since the quality of a natural mother-child connection resonated with the mothers' ideas of staying connected with the deceased. Unlike the automatic spatial connection between mother and child, contact with the 'family collective' of the flock must be actively initiated by clicking on them. This emphasises the special intimacy of mother and child.

The design of control schemes can do much to anchor a character's presence or characterise their desire for another character. The *tandem controls* in *Brothers* create a safe space in which two characters cultivate a wholesome relationship. When one character is removed, the player has resources to draw on this relationship and commemorate it. A more precarious yearning for the other is constructed through *Ico*'s *call/response* device, which only focuses on one side of the relationship, the perspective of the yearner. In *Jocoi*, we adapt the scheme for the mouse-based *feed/be fed* controls. During the first part of the game, they condition the player to expect an endless care-giving loop. When the lamb is lost in the second part, the care button is lost as well, producing the gameplay deprivation effect learned from *Ico*.

I have discussed how games can use non-ergodic elements to characterise the social and emotional quality of a bond through visual and auditory cues. For instance, gender markers encourage readings of romantic relationships (*FFVII*, *Ico*, *Passage*), or facilitate same-gender bonding (*Brothers*). The way characters appear has consequences for

how players participate in the game and what narratives they will feel invited to project. In *Jocoi* we used age markers to refer to the mother-child bond, putting weight on the infantile cuteness of the lamb character. Furthermore, the simple art style reflects the women's colourful 'grief planets'. When it comes to the role of sound in *Jocoi*, we used listening as part of the player's intuitive caretaking activities. Listening to a flower's sound before it is fed signifies paying attention. In the first part, it stands for the careful selection of appropriate nourishment for the baby. After separation, it mediates recollection and the pondering of what remains after loss.

One argument I made in this study is that game space can be used expressively to respond to situational affordances of lived grief experience. I have shown this in my adaptation of the design devices in response to the bereaved women's tastes. For future game design, this suggests that different, currently untapped grief experiences can be addressed as well, using a similar method.

A selection of five games is hardly sufficient to capture the expressive capacity of video games comprehensively. Rather than claiming that the design devices discussed in this thesis are all games can do to represent grief, they demonstrate the variety of strategies that have been used so far. However, this study was supposed to initiate rather than to end the quest for grief representation devices. One obvious place to continue text-based research would be in single-player games which feature more complex character constellations, or by focusing on the avatar-player relationship, as done by Smethurst (2015). Other interesting territories would be multi-player spaces and virtual worlds, both of which offer rich possibilities for negotiating death and bereavement to players (Gibbs et al. 2012).

EMOTIONAL SPACE

Game spaces cannot impose the meanings they construct, yet I have shown evidence that players use emotional projection to both bond with important characters and to find creative coping strategies when these

characters die. Examples are the *resurrection hack* and the *ghost glitch* in *FFVII,* as well as *Shelter* players' narratives of guilt and trauma shared online. These examples demonstrate the link between design devices and players' emotional realities while they participate in the interreactive circuit of play. By engaging in emotional projection they actively make sense of games in a way that matches their unique personal contexts.

The personal nature of emotional projection was demonstrated in the participants' responses to *Jocoi*. The women disagreed on the meaning of *Jocoi*'s symbolism, attributing different qualities to characters, events, and the overall play experience. Some read the baby wolf across the river as a predator; others saw it as a transformed lamb. However, there was an agreement that *Jocoi* represented their feelings appropriately, indicating that they identified with the game.

I have argued that this confirms the importance of ambiguity as design resource Gaver, et al. (2003). *Jocoi*'s ambiguous game space allowed the women to perform appropriate projections that resonated with their own context. The different readings of the lamb/wolf symbolism demonstrate that in order to be impactful and personally meaningful to players, gameplay narratives do not necessarily have to be explained. In fact, doing so would have undermined personal readings which, as designers, we could not predict when designing the game, even when including the women's hand-crafted models.

This suggests that emotional spaces are in flux rather than containing solid truths about grief-related feelings. While we used the women's symbolic expressions as a source for inspiration, the women themselves did not display any strong sense of attachment to their metaphors. These images, which had emerged as their most intimate representations of the mother-child bonds during the workshop had become distant memories by the end of the project. This indicates that the women had moved on from one emotional space to another throughout development. They remembered details but had forgotten about their authors. Rather than reliable and eternally true, these images were fleeting glimpses into their

worlds, which are worlds in constant change. As Claudia put it: "The river changed. Grief changes."

If grief changes not only inter- but intra-personally, design must make space for this flexibility, broadening rather than constraining interpretation. The challenge is that ambiguous design strategies make the designer more vulnerable, because they can no longer pretend to fix the final meaning of their game. The point is to open a game space in which grievers can experience their emotional projections, and this happens beyond the designer's control. Rather than a disadvantage, however, *Jocoi*'s reception suggests that ambiguity ended up strengthening respect for personal grief narratives. The women already knew how to feel about love and loss; we did not have to educate them through a game. Instead of telling them what to feel, ambiguous elements like the baby wolf made space for their situational projections.

DESIGN SPACE

The aim of the case study was to open an experimental space in which a dialogue between grievers and designers could be initiated. Including grievers into game design from an early stage (Khaled 2012) required providing a space which would take their needs and fears seriously. Dealing with the taboo experience of pregnancy loss, not only did the women come with the wish to make this experience more speakable; they also came with a deep alienation from video game culture. Creating clear roles through the muse-based design scheme (ibid.) helped frame their contribution as an inspirational input without the pressure to deliver a 'game'.

In hindsight, the women's participation as design partners and playtesters was equally important to the 'product' of the final game. Through their cultural probe (Gaver et al. 1999) sketchbooks, they reported that they experienced the workshop as a comforting space and considered the exercises appropriate to engage their stories. This suggests the relevance of game design as method for an art-therapy context. Designing a game can facilitate validation through introspective

crafting or poiesis (Levine 2014) and receiving attention by empathetic listeners (Thompson 2003).

The development team started in the role of such active listeners, engaging with the evocative planet models in an attempt to formulate a respectful response. This process came with two benefits for the design team. First, the recurrent wish for 'timelessness' and 'goallessness' challenged established ideas about video games and inspired unorthodox thinking.

Secondly, engaging with grievers' emotional landscapes meant to make a gift for someone whose tastes had previously been off the radar for videogame designers. This came with small surprises for the design team, such as the fact that the women enjoyed sharing stories about their children and imagined their grief worlds in colourful ways. The planet models are a far shot from the widespread idea that bereavement is the end of care.

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