

Hailey J. Austin*
Lydia R. Cooper**

Feeling the narrative control(ler): Casual art games as trauma therapy

Abstract

Through a combination of aesthetics and game mechanics, casual art games offer unique engagements with trauma, allowing players to practice grief or empathise with the traumatic experiences of others. Both *Spiritfarer* (Thunder Lotus Games 2020) and *Mutazione* (Die Gute Fabrik 2019) utilise similar aesthetics (2D art, pastel colours and calming music) alongside agency-driven gameplay mechanics (choosing when to let spirits go or how to react to a character's trauma) that create a safe space. This is possible because neither game is competitive, nor does it allow the player to lose. Instead, agency is given to the player through narrative choice and exploration of the beautiful storyworld. We argue that games like *Spiritfarer* and *Mutazione* can be used as models for the further development of casual art games that can be used as art therapy through their emotional connections embedded in both the aesthetics and gameplay.

Keywords: aesthetics, videogames, trauma therapy, casual games, art games, *Spiritfarer*, *Mutazione*

Introduction

Casual art games – that is, non-competitive, artistically-rendered videogames – offer unique insights into the ways that games, as aesthetic and integrative experiences, might offer therapeutic interventions in trauma studies. This paper will examine

* Abertay University, e-mail: h.austin@abertay.ac.uk

** Creighton University, e-mail: LydiaCooper@creighton.edu

the aesthetic and narrative structures of two such games, Thunder Lotus' *Spiritfarer* (2020) and Die Gute Fabrik's *Mutazione* (2019), as case studies demonstrating how these games allow players to "practice" effective therapeutic interventions for healing from trauma. Specifically, as short, "casual" games, they help players reorganize traumatizing events (such as death/loss of a loved one and/or coming out as a queer person) into coherent, meaningful experiences. Through repetitions of short narrative pieces, players practice expressing grief and attachment; and they calibrate or control risk, centring the element of choice, a critical step to re-empowerment. Finally, the games' aesthetics, from colour schemes to animation choices, work to create an immersive experience where players can transform otherwise traumatic events into organized, meaningful narratives.



Figure 1. Thunder Lotus Games, *Spiritfarer* (2020), Steam.

It is not a novel claim that art can have therapeutic purposes (see e.g., Kramer, Gerity 2000; Rolling 2017). What we want to establish here is that casual art games offer potentially innovative and powerful therapeutic interventions because of unique interactions and hybridities between their aesthetic and narrative aspects. Some scholars distinguish between artgames and game art, basing the distinction on the premise that "artgames focus on playability and rhetoric, whereas game art focuses on unplayability and aesthetics" (Moring 2021, p. 30). Similarly, comics are a hybrid medium that combine narrative and aesthetics. Aesthetics, in this sense, refer to the artistic principles involved in the creation of a storyworld which can vary across genre and modality. Comics and games, thus, can both be understood

as hybrid mediums that combine aesthetic and narrative. Andreas Rauscher et al. find that “it is possible to frame the ways in which comics and videogames borrow, adapt, and transform a diverse range of aesthetic, ludic, and narrative strategies conventionally associated with the ‘other’ medium in terms of *hybrid medialities*” (2021, p. 2). While aesthetics tend to be divorced from function in certain mediums, we argue that particularly in the case of casual art games the conjunction of these two is of value to the player experience, creating a unique therapeutic potential.



Figure 2. Die Gute Fabrik, *Mutazione* (2019), Epic Games Store.

We define “casual art games” as games whose characteristics share key attributes of casual games and art games. According to Aubrey Anable, “casual games” encompass several different genres, but can be classified as casual because they have simple graphics and mechanics, are low cost to play, and are designed to be played in short bursts (2013, p. 1). Carlos Mauricio Castaño Díaz and Worwawach Tungtjitcharoen define art games as having “the purpose to provide the player an *experience of reflection* outside the gameplay,” but note that they go beyond normal play “by focusing on aesthetic looks, concepts and plots rather than competence” (2015, p. 4). In this way, casual art games stay with the player, allowing them a space to reflect on their experience rather than focusing on competitive play. Díaz and Tungtjitcharoen also find that “the main value of art games is *the transmission of feelings*” (2015, p. 6). By our definition, casual art games are designed to elicit emotional responses and to privilege the emotional content of the narrative. That is, rather than focusing on competition and precise gameplay, art games focus on

emotions and feelings. Because of this, they can be considered body genres which privilege a bodily reaction (see Clover 1987; Williams 1991). Casual art games tend to elicit emotional responses through their colour palettes, music, interactivity, and narrative control. Ernest Adams finds that “interactivity operates in a tension with narrative: narrative lies in the control of the author, while interactivity is about the freedom of the player” (Adams 2014, p. 421). It is this interactivity that allows casual art games to operate therapeutically.

Clinical trauma therapies and how they work

It may be helpful to begin with a brief overview of trauma before describing how casual art games might intersect with therapeutic interventions for PTSD. Trauma is not an event itself (e.g., a car crash), but rather the “imprint left by that experience on mind, brain, and body” (van der Kolk 2014, p. 21). That imprint takes the form of disorganized or unprocessed memory. That is, traumatic events trigger a reaction from the amygdala, the brain’s evolutionarily ancient core meant to warn humans of danger and issue imperatives (fight, flight, or freeze), with corresponding visceral emotions (alarm, panic). A traumatic memory is when the traumatic event becomes “trapped” in the amygdala, so that, even years later, external stimuli that triggers a recollection of the past-event evokes a strong bodily reaction as though the past traumatic event were happening in the present (p. 42). Trauma causes us to get stuck in the traumatic event, to make the pain-event the fixed focal point of our narratives.

Talking about trauma is necessary: sufferers cannot be fully healed without breaking the seal of silence. However, talk therapy alone has been shown to be ineffective in healing the psychological wounds left by trauma because a traumatized person may not be physically capable of organizing the non-processed trauma memory into a coherent story (van der Kolk 2014, p. 233). Trauma patients’ brain-imaging scans reveal abnormal activation of a part of the brain that “integrates and interprets” the input from various organs – our sense of “being” in our own bodies. The sufferer therefore feels alienated from their own physical reality.

Effective trauma therapies therefore have to work with the sufferer’s body as well as their mind. Therapies such as EMDR (Eye Movement Desensitization and Reprocessing), CBT (Cognitive Behaviour Therapy), and other body/brain therapies such as mindfulness, somatic processing, and yoga each “rewire” the brain through engaging the body, so that the brain can begin to cognitively process – to organize – the traumatic event. Francine Shapiro explains that “[m]emories that have been processed naturally... are transformed into learning experiences so that the disturbing emotions, beliefs and physical sensations are no longer held in our memory networks” (2012, pp. 71–72). In these therapies, the trauma memory is

evoked while the patient is “grounded” in the present through physical stimulation (through eye movement in EMDR, breathing in mindfulness, etc.), which keeps the prefrontal cortex engaged even while the amygdala is activated. The trauma memory, stuck in the amygdala, begins to be processed by the prefrontal cortex. As the therapeutic practice continues, the patient begins to notice that their alarm or panic at recalling the trauma event lessens, while their memory and language centres increasingly organize the trauma. Ideally, the patient eventually no longer feels distress when recollecting the event and can narrate it with a clear sense of personal meaning.

The goal of trauma therapies is to bring the sufferer into a place of feeling whole, of once again being inside their own bodies and alive in a world that is no longer terrifying. Organizing memory is at the heart of healing. Van der Kolk says, “Our sense of Self depends on being able to organize our memories into a coherent whole” (2014, p. 249). While traumatic memory is a past event erupting violently into the present, freezing the sufferer in a disembodied sense that they are outside-of-time, trauma therapies “create new emotional scenarios intense and real enough to defuse and counter some of those old ones” (p. 310). Effective strategies for clinicians working with trauma sufferers focus on helping individuals organize the traumatic event, reprocess the negative emotions surrounding it, and integrate the reprocessed memory into a coherent sense of self.

Casual art games as trauma therapy

Multiple studies point to the unique possibilities of addressing cognitive deficits through gaming. Daphne Bavelier and C. Shawn Green provide a multi-study overview that suggests videogame play “boosts a variety of cognitive skills” through requiring players to focus on detailed visual aspects of gameplay while engaging responsive fine motor skills in the game. In their study, players who engaged in multiple hours of nonviolent gameplay showed “heightened sensitivity to visual contrast,” as well as being able to multitask and “mentally rotate objects more accurately” (2016, p. 26). Emerging from work on the cognitive benefits of gaming, new studies have begun to look at gaming’s impact on trauma. “By experimenting with player agency and interactivity, videogames have the potential to work with psychological trauma in ways that more traditional media such as books or films cannot,” says Tobi Smethurst (2015, p. 817).¹

¹ Smethurst’s case study is the game *Limbo*, which “uses the unique characteristics of the game medium” to evoke traumatic responses in the player by creating a scenario in which the player must “caus[e] the death of the protagonist – a small boy – in countless gory ways.” Smethurst suggests that the medium of role-playing games may access trauma and offer new opportunities in trauma therapies (2015, p. 819).

Currently available research on trauma and videogames tends to focus on Virtual Reality (VR) gaming (Kniffin et al. 2014) or on warfare-based videogames and military veterans experiencing trauma (van Gelderen et al. 2020; Etter et al. 2017). We are not the first to suggest the potential therapeutic uses of casual games; Whaley (2019) examines a Japanese game which uses the aesthetics of “disaster photography” to represent the catastrophic 2011 earthquake that triggered a tsunami and resulted in a nuclear reactor meltdown. This article specifically reveals how the artistic medium draws attention to marginalized victims overlooked in national narratives about the event, but also, in the interactive framework of the game, allows players to become victims of the tragedy in their own way, personalising their own expression of victimisation.

Casual art games have the potential to become art therapy when the narrative and aesthetic strategies combine to allow players to construct alternate or reiterative storylines that illustrate or practice the process of integrating traumatic memory into processed memory. The reiterative aspect of play, where players can re-engage with the short game multiple times, functions similarly to reiterative sessions of EMDR or other visually- and narratologically-engaged trauma therapies. We will now look at two games that deal with more general traumatic situations – death and grieving in *Spiritfarer*; natural disaster and queer identity in *Mutazione* – to examine how these games offer therapeutic possibilities.² The aesthetics of these two examples maintain a consistent calming effect, while gameplay guides the player through a series of narrative choices that result in non-traumatic reactions to difficult subjects, creating a sense of calm or control around those subjects through repetition, and even moving players towards a more active understanding of healthy attachment to others.

***Spiritfarer*, and learning how to let go**

Because the single greatest indicator of well-being is our capacity to experience healthy attachments to others, attachment disruptions are one of the most common sources of trauma. Stephen Porges’s Polyvagal Theory (2017) is derived from the neurobiology of attachment. Porges offers compelling evidence that our mammalian species needs to feel safe with others in order to be physiologically and emotionally “well”: “to connect and co-regulate with others is our biological

² For the purposes of this paper, we are looking at games with similar aesthetic approaches, which are integrated with the content and narrative in a way that makes them particularly good case studies for our argument. However, the aesthetics of casual art games vary as widely as the games themselves. We are not narrowing our definition of which aesthetic strategies are most likely to be effective in therapeutic contexts, but rather giving one specific example.

imperative” (p. 51). The absolute rupture of death therefore provides one of the most common sources of distress for humans. Saying goodbye, experiencing the emotional tides of grief, loss, panic, suffering, and absence, is one of the most difficult actions humans undertake – and yet learning how to say goodbye, how to grieve, is necessary for the loss of a loved one to become an organized memory, rather than a traumatic rupture.

Spiritfarer, a game “about dying,” gamifies the practice of grief. Traumatic grief – when the sufferer experiences the heightened fear of trauma alongside an overwhelming sense of loss – traps the sufferer in the devastating “now” of bereavement. In *Spiritfarer*, the protagonist Stella ferries spirits to their afterlife. The player’s game choices focus on aspects of life (building and expanding her ship, developing relationships with different animalised spirit characters). The player must develop a narratological attachment to the spirits, taking care of them, finding out their favourite foods, and eventually taking them around the map to come to terms with their past and unfinished business. When the spirit is ready to cross over to the spirit world, the player must make the decision to take them to the Everdoor. They then hug them before the spirit floats upward toward the stars and into the next plane of existence. Completion of this journey results in release, both physically in the story-world, and emotionally for the player. This is possible because of the hybrid medialities of in-game aesthetics and mechanics.



Figure 3. Thunder Lotus Games, *Spiritfarer* (2020), game still as Stella hugs the spirit Gwen before letting go.

Aesthetically, *Spiritfarer* is a hybrid mediality mixing several international visual styles: 2D French comics-inspired *ligne claire*, manga-inspired cut-scene animation, and backgrounds akin to Japanese woodblock paintings. The comic book style of the 2D art is stylistically similar to that of *bande dessinée* or traditional French comics that have historically been heralded as high art, like Hergé's *The Adventures of Tintin* (see Groensteen). This is not surprising as the studio is Canada-based with several French and French-speaking creators. The manga-inspired cut scenes transport the player into part of the spirit realm to meet Hades, an owl that confronts the player and forcefully reminds Stella of her traumatic past as a nurse who could not save all her patients. The background art was inspired by Japanese woodblock painter Hiroshi Yoshida, providing open spaces that encourage casual exploration. The colours throughout the game also inspire the player to relax, as there are no harsh tones or contrasts. There is no true or fully black tone featured in the game. The dark colours instead consist of dark blues and dark greys, while the majority of the game features comforting pastel colours (Escapist 2021).

As a hybrid mediality, *Spiritfarer* also weaves in several gameplay mechanics, effectively making it a narrative-driven management platformer that is engaging rather than competitive (Escapist 2021). It is a casual management game in that the collection of items for spirits, the dynamic and pleasing music, and hugging mechanic create a safe space to feel emotion and practice grief. The controlled environment means the player can build relationships with the spirits throughout the game. The player can hug spirits at any time, usually resulting in an increase in the spirit's happiness and an accompanying satisfied sound.

Porges claims that the future of trauma therapy lies in developing our understanding of "how our relationship with others enables the co-regulation of the physiological state" (2017, p. 195). Our bodies experience our emotions with changes in our physiological states. Hugs, for instance, are key physical attributes in co-regulation. Porges describes the difference between a body that is "tightly wrapped" – muscles tense, breathing shallow – indicating a person who experiences anxiety, a lack of safety. By contrast, a body in a hug is relaxed, muscles conforming to the shape of the other body, breath becoming synced with the other (pp. 222–223). A hug indicates the dominance of parasympathetic autonomic system function, but it is important to note that a strong hug can also *trigger* a transition from that state of sympathetic arousal to a decelerated, calm, even peaceful state. Thus, in certain cases, a person in distress may find their bodies physiologically transition from heightened anxiety to calm while in a hug.

In *Spiritfarer*, the player also must make the ultimate decision to let the spirits go, something that is not always the case in real life. In the game, loss is triggered not by rupture or disruption but instead by coregulating with the one leaving, and then engaging in a choice (to let go). In so doing, the player enacts a physiological

process that moves through the undertaking of healthy, regulated grief: care for the other, coregulation with the other, and release of the other. Sorrow – but not the dysregulated panic of traumatic grief – may follow. The player practices this hugging and letting go 11 times with 12 characters throughout the game (more characters have been added in recent updates). By playing this game, players are able to practice letting go and saying goodbye to animal spirits that they have built emotional connections with. In order to accomplish this, the game creates a safe space where the player cannot fail (Escapist 2021). It is almost impossible to burn food that is cooking, and the player does not have to reset after failed attempts at anything. The player is allowed to try again in a casual and safe environment made possible through repetitive actions and calming art aesthetics.

Identity and choice are also important aspects of the gameplay that intersect with the aesthetics of the game. The protagonist, Stella, is a woman of colour and as such is a marginalised identity. The players, who are less likely to be from this particular marginalised background also have the ability to play as an identity that is likely to not be their own. This is balanced, however, with the choices of when to say goodbye to the spirits as well as the different outfit colours and customisable colours of the cat companion, Daffodil. These customisable aesthetics are unlocked through in-game achievements and add an important ability to choose within the game.

Spiritfarer thus straddles the line between narrative control and interactivity, as Adams suggests art games do. The game allows the player to practice and work through the inevitable grief of saying goodbye to others, and eventually themselves. In order to complete the game, the player must let themselves/Stella and their cat (Daffodil/Daffy) go through the Everdoor. In an emotional display, see-through versions of all the spirits the player already fared through the Everdoor appear to hug and thank Stella once more. The game ends when Stella and Daffy let themselves go, coming to terms with their own mortality with the knowledge that they have helped several other souls.

As a casual art game, *Spiritfarer* allows the player to adopt a different identity and practice saying goodbye, eventually teaching them to let go of themselves when the time comes, reframing death and letting go, and allowing them to process and reframe possible traumatic experiences in their lives. In fact, while playtesting the demo, emotional responses from players were overwhelming with many reduced to tears (Escapist 2021). This cathartic emotional experience occurs because of the multimodality of the aesthetic, the art, colours, music, casual gameplay, and character development, allowing players to understand their own loss and grief by working through trauma in a repetitive and safe manner.

***Mutazione*, interactivity within an empathetic, healing world**

While *Spiritfarer* focuses on letting go and coming to terms with grief, *Mutazione* focuses on the ways in which the cultivation of community and empathy can help others work through their trauma. The game focuses on character choice through dialogue; agency through exploration; and, having fewer repetitive actions, it elevates the importance of listening, exploring, and empathising. In *Mutazione*, the player assumes the identity of Kai, a young woman of colour, who visits the island *Mutazione* one summer to see her dying grandfather. While exploring the island, the player discovers several traumatic events have happened to the islanders, including a meteor strike that killed the majority of the inhabitants. The game focuses on the aftereffects of this natural catastrophe, with the mutations of humans, plants, animals and fungi creating an emotional backdrop to the small island.

Mutazione is a mutant soap opera which focuses on the dramatic as well as the domestic through an ensemble of characters. It is a “cosy” adventure game that promotes agency through exploration of the beautiful, mutated world, but also a narrative-driven game where the player is encouraged to learn more about the inhabitants by talking to them. The interactivity of the aesthetics and game mechanics, including the musical gardening and the branching option of the narrative, make it a casual art game that allows the player to safely experience and practice empathy towards others and a compassionate and healing encounter with traumatic events.

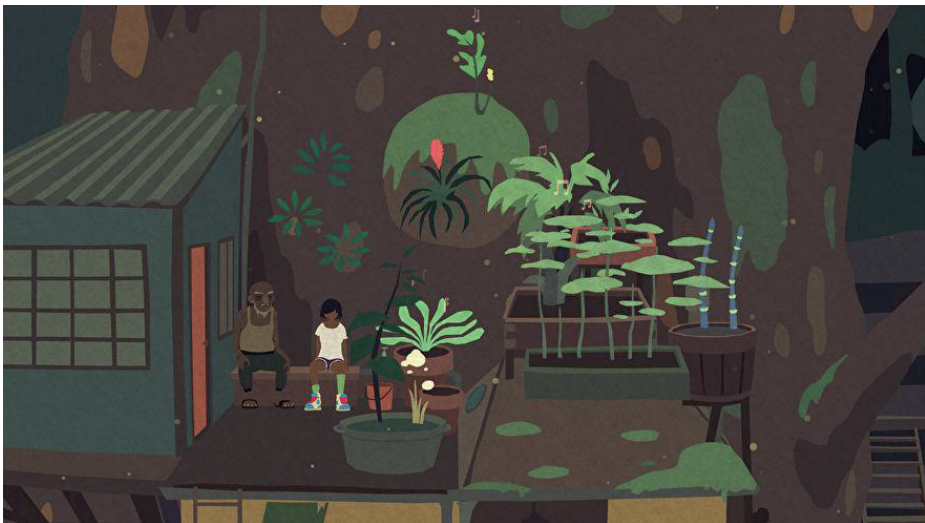


Figure 4. Die Gute Fabrik, *Mutazione* (2019), game still as Kai gardens with her grandfather.

Aesthetically, *Mutazione* employs a bright and calming colour palette similar to that of *Spiritfarer*. The 2D art is flatter and more muted than *Spiritfarer*, but this adds to the mysticism surrounding the island and its mutated inhabitants. The cartoonish appearances of the characters are less detailed than the spirits, but complement the fantastical, mutating plants without going overboard and overwhelming the player. One of the most important aesthetic features of the game is the garden. The player cultivates seeds on different parts of the island, and chooses where they will grow and flourish best with gardening technique learned from Kai's grandfather and in conversation with other people on the island. On top of having calming colours, the plants also emit different sounds. The player can create pleasant harmonies or disparagingly sad sounds depending on what seeds are planted. The goal of this game is to reorient the player to a better and healthier relationship with the natural world and to promote consideration of their own position towards others in the game-world. The gardens create both a sense of calm and control. The player chooses which plants to cultivate where as well as what sounds the garden can emit. In this way, the game gives agency and calm through the aesthetics of the artistic and musical components of the game.

Equally important, however, is the branching narrative of the game and the ability of the player to choose how they react to the island inhabitants. The player is able to choose different responses while in conversation with characters on the island that affect the discussion and how other characters feel toward Kai. This control is important. Montford considers games to be where interactive art and interactive fiction meet, allowing players to interact with a world where they feel like they can influence events (2006, pp. 731–735). The powerful feeling of narrative control is also helpful in trauma therapy. Because “[t]rauma robs you of the feeling that you are in charge of yourself,” an important aspect of trauma therapies is allowing the individual to feel that they are “in charge” of their own choices and that their choices can change outcomes (van der Kolk 2014, p. 205).

The narrative design structure of the game is unique because, there are “multiple middles” rather than alternate endings (Nicklin 2020). The mechanics manipulate time so that a player can complete as much or as little as they want and still progress the plot. The aesthetic choices of the garden and 2D art, however, encourage the player to explore the island beyond the amount needed to progress time in-game. This gives “agency through exploration”, both allowing and encouraging players to spend more time investigating, giving them a better understanding of the community (Nicklin 2020). The player has control over how Kai responds in normal interactions, whether she jokes, tries to diffuse the situation, or stays silent. While there are branched conversation choices, they close on a similar result at the end of the conversation. This narrative construction allows the player to interact more with certain characters (or all of them) to better understand their

backgrounds. Once different members of the island have a good rapport with Kai, several characters choose to speak through their traumatic experiences with her.

A challenge for traumatized people in their healing process is that the experience of trauma is deeply isolating, but the root of healing lies in developing and maintaining meaningful attachments to others. Part of the success of this narrative control is that the player has the power to decide how Kai reacts to the other characters when they divulge their traumatic experiences, and whether she should reveal secrets of her own. The player can choose whether to console, blame, or say nothing to characters who divulge various traumas, including unplanned pregnancy and child death. While Kai's choice of response elicits different emotional responses from the island inhabitants, it does not change the overall game. This allows the player to practice or consider various responses without the fear of failing or losing the game. The game not only rewards the player for exploring and connecting with other characters but allows them to practice empathy in *Mutazione* that could also be implemented in real life.

Similarly to *Spiritfarer*, *Mutazione* is a casual art game because of the mix of identity and narrative control. Kai is a queer woman of colour, and the player can choose whether or not she comes out to some characters. Through the gamified conversations, players are able to act out self-disclosure in a non-traumatic context. For queer players who may have experienced trauma related to their own coming out disclosures, this type of practice can create new framing for the trauma, de-normalizing traumatic experiences and normalizing healthy and supportive responses to coming out. In addition, the gamification of listening to self-disclosure helps the player engage in active listening, an important action for a person supporting someone suffering from trauma. As van der Kolk says, the "challenge of recovery is to reestablish ownership of your body and your mind" (2014, p. 205). The player's ability to control Kai's conversational and disclosure choices practices this experience of being "in charge" of narratological experiences that can feel particularly "out of control" in the real world.

Unlike *Spiritfarer* which is a longer game where you can have over 100 hours of gameplay, *Mutazione* is a short game, often completable in a weekend. Multiple middles allow the player to pace themselves and experience their own journey through the story, giving them the chance to do the same with trauma in their own life, or be better suited to empathising with the trauma of others. Trauma from the past changed the flora and fauna of the island; it informs the player's current actions; but it does not result in tragedy. Through empathy and connection with others, the player heals from traumatic rupture in ways that they can take with them into the real world.

Conclusion

Because of their capacity to mediate artistic and emotional experiences, casual art games may offer uniquely rich engagements with trauma, allowing players to practice letting go or empathising with the traumatic experiences of others. Both *Spiritfarer* and *Mutazione* are casual art games that utilise similar aesthetics (2D art, pastel colours, calming music) alongside agency-driven gameplay mechanics (choosing when to let spirits go or how to react to a character's trauma) that create a safe space. This allows players to practice overcoming their own trauma and/or empathise with others who have experienced trauma. This is possible because neither game is competitive, nor does it allow the player to lose. Instead, agency is given to the player through narrative choice and through exploration of the beautiful storyworld. The casualness of the game allows the player to choose when they are ready, a rarity in real life in terms of loss, grief, or trauma. *Spiritfarer* and *Mutazione* can, and should, be used as models for the further development of casual art games that can be used as art therapy through their emotional connections embedded in both the aesthetics and gameplay.

Bibliography

- Adams, E.W. (2014). Will Computer Games Ever Be a Legitimate Art Form? In A. Clarke, & G. Mitchell (eds.), *Videogames and Art* (pp. 419–429). Bristol–Chicago: Intellect Books.
- Anable, A. (2013). Casual Games, Time Management, and the Work of Affect. *Ada: A Journal of Gender, New Media, and Technology*, 2.
- Bavelier, D., & Green, C.S. (2016). The Brain-Boosting Power of Video Games. *Scientific American*, 315(1), 26–31.
- Clover, C.J. (1987). Her Body, Himself: Gender in the Slasher Film. *Representations*, 20, 187–228.
- Díaz, C.M.C., & Tungtjitcharoen, W. (2015). Art Video Games: Ritual Communication of Feelings in the Digital Era. *Games and Culture*, 10(1), 3–34.
- Escapist (July 19, 2021). The Making of Spiritfarer | Escapist Documentary. *Youtube*. <https://www.youtube.com/watch?v=qxx8sEGjntI>
- Etter, D., Kamen, C., Etter, K., & Gore, F.C. (2017). Modern Warfare: Video Game Playing and Posttraumatic Symptoms in Veterans. *Journal of Traumatic Stress*, 30(2), 182–185.
- Groensteen, T. (2007). *The System of Comics* (B. Beaty, & N. Nguyen, trans.). University of Mississippi Press.

- Kniffin, T.C., Carlson, C.R., Ellzey, Al., Eisenlohr-Moul, T., Beck, K.B., McDonald, R., & Jouriles, E.N. (2014). Using Virtual Reality to Explore Self-Regulation in High Risk Settings. *Trauma, Violence, & Abuse, 15*(4), 310–321.
- Kramer, J., & Gerity, L.A. (2000). *Art as Therapy: Collected Papers*. Art Therapies Series. Jessica Kingsley.
- Montford, N. (2006). *Interactive Fiction*. Amsterdam: Elsevier.
- Moring, S. (2021). Artgames v. Game Art – Diskurse und Strategien der Computerspielkunst zwischen spielbarer Rhetorik und unspielbarer Ästhetik. *Informatik Spektrum, 44*(1), 30–37.
- Nicklin, H. (November 10, 2020). Multiple Middles & Mutazione. *YouTube*. <https://www.youtube.com/watch?v=OULwwBNESpU>
- Porges, S.W. (2017). *The Pocket Guide to the Polyvagal Theory*. W.W. Norton & Co.
- Rauscher, A., Stein, D., & Thon, J. (2021). Introduction: Comics and videogames. In A. Rauscher, D. Stein, & J. Thon (eds.), *Comics and Videogames: From Hybrid Medialities to Transmedia Expansions* (pp. 1–14). London–New York: Routledge.
- Rolling, J.H. (2017). Art as Therapy. *Art Education, 70*(5), 4–5.
- Shapiro, F. (2012) *Getting Past Your Past: Take Control of Your Life with Self-Help Techniques from EMDR Therapy*. New York: Harmony/Rodale.
- Smethurst, T. (2015). Playing Dead in Videogames: Trauma in *Limbo*. *Journal of Popular Culture, 48*(5), 817–835.
- Van der Kolk, B. (2014). *The Body Keeps the Score*. Penguin.
- Van Gelderen, M.J., Nijdam, M.J., de Vries, F., Meijer, O.C., & Vermetten, E. (2020). Exposure-Related Cortisol Predicts Outcome of Psychotherapy in Veterans with Treatment Resistant Posttraumatic Stress Disorder. *Journal of Psychiatric Research, 130*, 387–393.
- Whaley, B. (2019). Virtual Earthquakes and Real-World Survival in Japan's Disaster Report Video Game. *Journal of Asian Studies, 78*(1), 95–114.
- Williams, L. (1991). Film Bodies: Gender, Genre, and Excess. *Film Quarterly, 44*(4), 2–13.

Ludography

- Die Gute Fabrik (2019). *Mutazione* [multi-platform]. Akupara Games.
- Thunder Lotus Games (2020). *Spiritfarer* [multi-platform]. Thunder Lotus Games.

Hailey J. Austin – is a research and development fellow for transnational creative industries at Abertay University in Dundee, Scotland. After completing her PhD in comics studies at the University of Dundee, she has pursued a career in researching comics, games, and transmedia. Her academic work has been published several times, including an article about intergenerational trauma in Art Spiegelman's *Maus* and a book chapter on transmedial iterations of *The Walking Dead*. Her chapter on female masculinity in superheroines features in *The Routledge Companion to Masculinity in American Literature and Culture*, edited by Lydia R. Cooper. She is also an accomplished comics creator and editor.

Lydia R. Cooper – is associate professor of contemporary American and Native American literature at Creighton University. She is the editor of *The Routledge Companion to Masculinity in American Literature and Culture* and author of *Cormac McCarthy: A Complexity Theory of Literature* (Manchester University Press, 2021), *Masculinities in Literature of the American West* (Palgrave, 2016), and *No More Heroes: Narrative Perspective and Morality in the Novels* (LSU Press, 2011). Her work on contemporary American and Native American writers has appeared in journals such as *GLQ*, *Contemporary Literature*, *Modern Fiction Studies*, *Studies in the Novel*, *Studies in American Indian Literature*, *Western American Literature*, and *Interdisciplinary Studies in Literature and the Environment*.