

AN OPEN FIELD:
INFORMAL AND ANTI-FORMAL APPROACHES TO VIDEOGAME ART HISTORY

ANDREW REMINGTON BAILEY

A DISSERTATION SUBMITTED
TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

GRADUATE PROGRAM IN ART HISTORY & VISUAL CULTURE
YORK UNIVERSITY TORONTO, ONTARIO

AUGUST 2021

© ANDREW REMINGTON BAILEY, 2021

Abstract:

The last two decades have seen the emergence and formalization of game studies as an academic discipline as well as a repeating cycle of debates over videogames' legitimacy as an artistic medium. Using a speculative conceptual framework assembled from art history, media studies, and game studies scholarship, this dissertation investigates the ways that formalist analysis and institutional formalization have acted to influence the way that videogames have been created, presented, and discussed as art objects. As videogame art exhibitions have become increasingly common over the last twenty years, so too have the debates over best practices for videogame curation, collection, archiving, and preservation. The central question of this dissertation is not how videogames have been defined as art, but rather how these kinds of definitions have specifically impacted the way that videogame artists and curators choose to orient their practices.

In order to unpack the ontologies and aesthetics of contemporary videogame art, it is necessary to examine particular instances of its production and distribution in a variety of commercial and institutional contexts. This dissertation focuses on a collection of game art, art games, and videogame art exhibitions that were all produced between 2010 and 2020. The project is organized into a series of case study chapters that include the work of Bennet Foddy and Cory Arcangel within the context of failure and "trash games"; the autobiographical work of Angela Washko and Nina Freeman through the lens of mixed realism; the work of David O'Reilly and Ian Cheng as examples of lively, self-playing videogame art; and finally, Marie Foulston's recent eclectic work as a videogame art curator. Each of these case studies is used as a counterexample to productively disorient previous definitions of videogame form and to argue for a more explicitly fluid and mutable reconfiguration of the art history of videogames.

Acknowledgements:

I want to extend my deepest thanks to my supervisor Dan Adler for his consistent kindness, support, and advice throughout this process. I also want to thank my committee members, Kurt Thumlert and Janine Marchessault whose critical feedback has been an invaluable resource for me while writing my dissertation.

Thanks to the Art History program and to Sarah Parsons, Dan Adler, and Anna Hudson, who, during their respective times as graduate program directors, all provided me with numerous opportunities to succeed and grow. I also especially want to thank the graduate program assistant Dawn Burns who has always been a wonderful help in all logistical things related to my dissertation and teaching work.

I have also learned a lot from my experiences with my team of co-editors at First Person Scholar, who have acted as a helpful network to bounce ideas around with regarding videogames, culture, and professional development. Additionally, I have also had similarly beneficial and pleasantly memorable experiences with the other members of the Canadian Game Studies Association at their annual conferences.

And finally, thanks to my dad, brother, and mom for always showing curiosity and pride in my academic career. To my cat Weege for always showing up to cuddle in my lap while I am writing. And most of all to my wonderful, loving partner Natalie who has never stopped believing in me and whose endless encouragement has helped me more than I could ever adequately express.

Table of Contents

Abstract	p. ii
Acknowledgements	p. iii
Table of Contents	p. iv
Introduction: Scope, Methods, and Chapter Outlines	p. 1
I. Buckets, Bins, and Bug Collections: A Brief History of Games Formalism	p. 10
II. Trash Games: Decentralizing Play within Videogame Art Exhibitions	p. 47
III. Informal Fantasy: Mixed Realism within Autobiographical Videogame Art	p. 76
IV. Living Worlds: Multistability within Self-Playing Videogame Art	p. 107
Conclusion: The Art History of Videogames' Present and Future	p. 142
Bibliography	p. 158

Introduction: Scope, Methods, and Chapter Outlines

Although videogames have been a steadily growing avenue for creative expression and cultural production for over half a century, it has only been within the last two decades that the field of game studies has formally emerged and begun to examine them as cultural objects. Through the initial years of its short history, game studies has often worked to define videogames as unique from other media by way of their interactivity and systems of play. In hindsight, this was practically motivated as many of the pioneering game scholars of the early 2000s felt the need to establish a separate space for discussion (and funding) distinct from the adjacent fields of literary, film, and new media studies. Due to its pioneering qualities, this initial stage of academic legitimation has substantially influenced much of the games studies scholarship that followed in its wake—especially within research concerning videogames as an artistic medium (Keogh, 2015, 2018; Parker, 2013, 2014, 2018).

Outside of the academy, the popular conceptions of and opinions on videogames have also changed significantly over the last twenty years. Unsurprisingly, these two veins of academic and popular discourse have had varying degrees of circuitous influence on each other. Nowhere has this conflux been so densely interwoven as the recurring “games-as-art debate” (Parker, 2013, 2014, 2018) that first arose in the mid-2000s. These arguments took place across a wide variety of academic, industrial, and pop-cultural forums and were often conducted in response to a series of polemical articles written by film critic Roger Ebert (2005, 2007, 2010), where he claimed that videogames should not be discussed or defined as high art. It was also around this time that many influential institutions of the western art world (for example, the MoMA, the Smithsonian, and the Barbican) were all putting on blockbuster exhibitions of what their curators perceived to be canonical videogame history.

Additionally, due to the increasing accessibility of game development tools, many visual artists were beginning to produce videogames specifically intended for presentation within a gallery space. In response, a group of art historians and game studies scholars (Baumgärtel 2004; Bittanti and Quaranta 2006; Morgana, 2011) attempted to define this shift as a new genre or art movement that they referred to as “game art.” Finally, in response to similar trends within the history of comics and cinema, a new generation of programmers, designers, and artists emerged in the 2000s who were producing unprecedentedly experimental work that has been since referred by critics and scholars alike as “art games” (Cannon, 2003; Holmes, 2003; Parker, 2014).

Together, all these efforts aiming to legitimate videogames as a viable object of cultural expression and academic study have resulted in a collection of scholarly and popular taxonomies. As the neologisms described above infer, these taxonomies typically involve a direct combination of often reductively distilled categories of “game” and “art.”¹ To concisely address all of these categories simultaneously while also working to explicitly differentiate this dissertation’s focus from other studies of analog games and play, I will be adhering to Sofia Romualdo’s (2015) synthesizing term “videogame art.” Romualdo defines videogame art with a multiplicity that will be useful in my efforts to critique the formality and formalism that I argue structure the art history of videogames’ roots. For Romualdo, videogame art is considered “a subset of Computer Art, and more commonly a subcategory of Media Art” but “can also be described as a part of a broader concept of Playable art, which also includes art games (usually indie) and those commercial videogames that can be considered to go beyond simple entertainment” (p. 156).² Notable to this dissertation’s hybridizing goals, Romualdo further qualifies videogame art by stating that it uses “technology, language, content and culture of videogames” to produce “works that challenge easy categorization” (p. 158).

While category construction can provide the language necessary for establishing a field as relatively new as game studies, recent critics and scholars (Walker 2015; Keogh 2014, 2018; Anable 2018) have argued that these previous efforts have had an underlying effect of promoting medium-essentialist perspectives. These limitations offer a unique opportunity to examine the relationship between videogames and art not as a rigid set of rules and categories but instead as a productively messy and necessarily fluid assemblage of processes, objects, and people. Therefore, this dissertation intends to address several related questions: How have videogames and art thus far been combined and subdivided within scholarly and popular discourse? How can these previous efforts be reconfigured in such a way as to offer up new insight into the relationship between videogames and art? How do videogames and art co-exist, not as static, opposing forms, but as messily interweaving reflections of contemporary

¹ Many of these taxonomies also function to formally distinguish the category of “game” from “non-game” which when combined with the axis of “art” and “non-art” can create both potentially interesting and problematic results. Schrank’s book *Avant-Garde Videogames: Playing with Technoculture* (2014) functions as a strong example of this formal approach to plotting the relationship between videogames, games, and art. The book’s chapters are all structured taxonomically around pairing together five categories of game art (radical, political, complicit, narrative and formal) and how they function in relation to the mainstream (commercial game design) or the avant-garde (game art and art games). Jesper Juul’s *Half-Real: Video Games Between Real Rules and Fictional Worlds* (2005) is another example of this taxonomical trend in which he uses a series of graphs, charts, and diagrams to divide and subdivide games from other media forms.

² Romualdo’s definition of videogame art, as well as her arguments on the classificatory problems that arise with other terms such as art games and game art, will be covered more extensively in Chapter One.

technoculture? How can visual art and game design be paired in such a way as to reconcile game studies' early efforts to separate itself from other academic fields? Lastly, what is at stake should the formal taxonomies constructed in the wake of the games-as-art debates be left critically unexamined for the following generation of creators, scholars, and audiences?

As many are now fond of proclaiming, the debate over whether videogames should be accredited to the status of art is no longer an interesting or productive question.³ Beyond the following literature review chapter, this dissertation will not dwell extensively upon the debate over videogames' artistic validity and cultural legitimation. Rather than rehashing these tired arguments, I will instead use them as a reflective departure point to examine how videogames function as a constantly evolving assemblage of material objects, artistic processes, cultural institutions, technocultural histories, and creative communities. As technology becomes ever more pervasive and accessible, there always will be a corresponding growth of people using it for unexpectedly critical and creative purposes. Within the world of videogames, this has had the effect of gradually eroding some of the previously drawn lines made between art and design, commodity and process, and form and content. With all of this in mind, this dissertation's focus will be to comparatively examine a selection of videogame artists who deliberately inhabit these erosion sites and consistently produce work that resists easy formal or disciplinary categorization. Through this examination, I intend to provide a model for examining the oscillating relationship between videogames and art that moves past previously established methods of medium-specific formalism and medium-exceptional legitimation. This dissertation aims to provide a deliberately messy and speculative mode of comparative art historical analysis that celebrates videogame art's often mutable ineffability.

Scope

As I have briefly outlined above, there are many different voices within the discourse on videogame art, all of whom have varying degrees of interest, disinterest, or even skepticism towards the "object-centric commodity-based world of Art with a capital A" (Pearce 2006, p. 70). As was the case in the late 90s and early 2000s when the field of game studies fought against the perceived "colonizing attempts" of videogames by the adjacent fields of cinema, literature,

³ For most scholars and critics, the games-as-art debate is long over, and it is generally accepted within both popular and academic videogame discourse that they are now and have always been a valid artform. However, when the question is inevitably resurfaced (often from a writer working outside of videogame culture) it is curiously still often responded to with a kind of hostile defensiveness from audiences, scholars, and practitioners alike. For more on this trend, see Parker (2014, pp. 97-98) and Reed (2019).

and new media studies (Aarseth, 2001), there have since been a collection of games researchers (Bogost, 2009b; Jenkins, 2005) who have argued that videogame art made for the gallery space are merely an external appropriation of, rather than a faithful participant, within videogame culture.⁴ Rather than attempting to adhere to the delimiting borders between gallery space and personal screen charted by these previous categorical debates, this dissertation will instead take on a deliberately hybridizing approach by placing a series of gallery installations and commercially distributed videogames in direct conversation with one another in a series of comparative case studies.

Responding to how the history of commercial game development is characterized by a lack of specific accreditation or listed authorship,⁵ I will limit my scope to works produced by individual practitioners rather than large artist collectives or multi-person studios. To this point, I should also explicitly note that although the practitioners that I have selected have, for the most part, had their work exhibited with themselves listed as the primary author, almost all the individual works that I will be focusing throughout my dissertation are the result of various degrees of collaboration. Whether this be through the work of a team of studio assistants that is typical of art historical contexts, or the common practice within game development to contractually hire individual animators, programmers, or composers, whenever possible I will list these collaborators and their specific contributions within my notes. By focusing on works that are released, exhibited, and discussed as the production of an individual videogame artist (even if their production involved collaboration) I will be able to more easily draw art historical parallels between each respective artists' personal style and ongoing body of work, which in turn will aid in connecting their practices more broadly out to the technocultural assemblages they are situated within.

Additionally, I will also be restricting my temporal scope to works made approximately between 2010 and 2020. The reason behind selecting this timeframe is that it will largely avoid the enthusiasm for medium specificity and artistic legitimization that heavily characterized early game studies scholarship and the games-as-art debate of the early and mid-2000s. Looking at works made after these discussions had resolved themselves will allow a wealth of opportunities

⁴ For more on the history of this effort to categorize videogame art as operating outside of real videogame culture and how this influenced the games-as-art debates of the early to mid-2000s see Parker (2014, pg. 20-24) and Schrank (2015, pg. 109).

⁵ This most predominant within commercial game development during the late 1970s but extends to varying degrees all the way into the 1990s and early 2000s. Often game companies would not want to list their designers' names within the credits in fear that they might be poached by another competing company. Alternatively, some companies also saw it as an issue of copyright and ownership. For more on this see Hakami, (2017), Moss (2018), and Stein (2015).

to critically connect my case studies to various newer scholarship that argues for the speculative potential of informal modes of analysis (Keogh, 2015, 2018; Anable, 2018).

In addition to these restrictions of time and scale, I will be further limiting my focus to works made by practitioners who primarily reside, work, and exhibit within North America, Europe, and Australia. I selected these regions for personally pragmatic and linguistic reasons as the artwork and scholarship that I am most familiar with and have the most discursive access to are from these regions. How these works and texts have become so widely accessible through various networks of publication, exhibition, and citation will also be examined as part of this dissertation's broader focus on how the art history of videogames has been constructed, formalized, and canonized over the last two decades.

Finally, the institutional analysis I outline above will be made more effective by my choice to only focus on artists with firmly established careers who have previously exhibited their work in multiple museums and gallery exhibitions. By doing this, I will be providing myself numerous opportunities to critically examine and compare the specific contexts and circumstances in which their respective work has been curated, exhibited, written about, and received by the audience across a finite period. Using this information, I will work to assemble a broad constellation of people, processes, and objects that, in their complexity, will resist the formalist and formalizing methods that played a dominant role within the last two decades of the art history of videogames.

Methodology

Within games research, there are already many well-established methodologies suited for a wide variety of needs. As Paul Martin (2018) outlines in his data-driven analysis of the field, these can be productively broken down into either player- or game-oriented in terms of their disciplinary focus. Martin explains that game-oriented research is typically focused on the “production (game design, AI, interactive computer graphics, animation, algorithm, visualization) and artifacts (education game, simulation, VR, VE, 3D, mobile device)” of videogame culture, and then goes on to connect this approach with a variety of qualitative methodologies found within various disciplines from the humanities and social sciences. Although my focus is firmly aligned with the qualitative methods of this first game-oriented approach, rather than the psychological, physiological, or sociological effects that are often quantitatively measured in player-oriented research, Martin also goes on to emphasize that “scholars interested in understanding games benefit from knowing not only the achievements of their disciplinary colleagues, but also the work done in other areas of the campus, and even outside the

university's walls." To erode the formalized structures that game studies has thus far used in its construction of the art history of videogames, I will take care to account for Martin's call for interdisciplinarity while undertaking my selected case studies.

To accomplish this, I will be utilizing a method of comparative communication research that Nick Couldry and Andreas Hepp (2012) define as a "transcultural perspective" toward examining patterns within and across a given set of media cultures. Here, they also explain a media culture as being "a thickening of the classificatory systems and discursive formations on which the production of meaning in everyday practices draws" and that, ideally, transcultural comparative research should be looking for and reflecting upon non-static and non-exclusive patterns and processes between each media culture's various practices and discourses (pp. 256-257). As I will be looking at the intersecting media cultures of videogames and contemporary art, this transcultural method is well suited for the comparative analysis I will be conducting throughout my dissertation's case studies.

Lastly, as I have already mentioned, much of the discourse on videogames and art over the last two decades has come from various sources that range from scholarly to popular, critical to enthusiast, and academic to industrial. As most of this dissertation's efforts will be rooted in the construction of hybridized assemblages of videogames, art, and technoculture, I cannot exclude any of these types of sources without risking the reanimation of the high-low cultural binaries that so intensely fueled the games-as-art debate. Felan Parker (2014) similarly argues for a full spectrum of analysis in his dissertation on videogame art: "The emergent art worlds for digital games are multifaceted and diverse, and reducing them to one common unit of analysis (games, reviews, museum exhibitions, individual designers, or whatever) without situating it in relation to other elements in the assemblage would grant only a partial view of its functioning and significance" (pp. 5-6). In practice, this means that I will be utilizing such informal, non-scholarly sources as blog posts, editorials, and YouTube videos alongside more traditional academia such as monographs, conference papers, and journal articles. Collectively, by applying interdisciplinary, transcultural, and non-reductive methods to a provisional sampling of comparative case studies, I hope to clearly demonstrate that videogames are not a medium with static, strictly defined properties but instead an open and steadily growing cultural landscape.

Chapter Outlines

Chapter One begins with a comprehensive literature review of the last two decade's worth of scholarship on the relationship between videogames and art. This review is organized

chronologically and categorically and begins by identifying how early game studies texts tend to favour formalism and medium specificity. Following this, the literature review will then move on to later art historical approaches that predominantly situate art games and game art in relation to canonical figures from various twentieth-century avant-garde art movements. Throughout this portion, I consistently draw attention to how these approaches have strongly focused on defining their objects of study through paradigms of interactivity and play rooted in traditional conceptions of the game form (sports, board and card games, etc.). Additionally, I show how a substantial amount of this art-focused literature takes on a defensively teleological approach and commonly argues that videogames supersede older media such as cinema and literature through their capacity for technological play and direct machinic interaction. How has all of this come to shape the current discourse around videogames and art? How does it create problems for those looking to examine videogames beyond frameworks of medium specificity? For those who instead wish to frame videogames as a set of moving targets that are constantly transforming and being transformed by the cultural and artistic landscapes they inhabit?

To address these questions, the final section of Chapter One highlights a newer generation of game studies scholars who critically respond to the medium exceptionalism and formalism that the field used to define itself in the early 2000s. Many of these latter scholars utilize various configurations of new materialism (Guins, 2014; Apperley and Jayemanne, 2012), affect (Anable, 2018), and assemblage (Parker, 2014; Kunzelman, 2014, 2018; Taylor, 2009) to place games in an oscillating network of art, technology, and culture. In this way, Chapter One will not only work as a review of the most recent literature on videogames and art but, in its latter half, will also function as a theoretical springboard which I will use to launch into the case studies that constitute the subsequent chapters.

Chapter Two is the first of this dissertation's case studies and comparatively examines the work of contemporary artist Cory Arcangel alongside that of game designer Bennett Foddy. This chapter focuses on how these two creators' work presents videogames simultaneously as an art form worthy of critical attention and a kind of commodified trash destined for dumpsites material and metaphorical dumpsites. To contextualize this comparison, I begin the chapter by briefly reviewing the work of a series of game studies scholars (Guins, 2014; Reed, 2018; Newman, 2012) who focus on museum and gallery exhibitions and use their work to outline the various material and ontological concerns that can arise when attempting to exhibit and preserve videogames institutionally. I then show how Arcangel and Foddy conceptually align themselves with themes of entropy, failure, and junk to productively work through the questions that arise when contemplating the curatorial tensions listed above. In addressing these

questions, I will account for how videogames have been studied within the fields of media archeology and museum studies to make the argument that they are in a constant state of technological and ontological flux that makes it unproductive to try to traditionally archive them.

Building on the previous chapter's examination of time and materiality, Chapter Three will begin by outlining how these concepts come into play when exploring the more intimately embodied space between a videogame and its player. Within this context, I compare the autobiographical videogame art of digital artist Angela Washko and independent game designer Nina Freeman. Both creators work to unpack their emotionally charged memories of fantastical role-playing games and represent them to their audiences in what I will argue is a productively disorienting manner. In analyzing how Washko and Freeman approach their self-reflective practices, I will also argue that videogame art exists across a broader possibility space than for which games formalism can ontologically account. To support these arguments, I will work to tie Washko and Freeman's practices to the theories of affect and embodiment that have become increasingly popular within game studies (Anable, 2018; Keogh 2014, 2015, 2018; Welsh, 2016) as well as some of the more speculative conceptions of media and aesthetics found within recent discussions of post-internet and postdigital art (Paul, 2015).

Chapter Four will further account for and synthesize the previous chapters' focus on time, interactivity, and materiality. This final chapter places game designer David O'Reilly alongside digital artist Ian Cheng to examine how they both conceptualize their chosen tools of simulation and automation. Both videogame practitioners use these processes within work largely predicated around ambitious digital world construction using the Unity game engine. How O'Reilly and Cheng have produced oeuvres of self-playing videogame art that can exist and operate automatically without the need of a human player raises some of the same questions discussed in previous chapters around playability and the game form. In analyzing how their work exists without the need of an audience or player, I argue that Cheng and O'Reilly's constructed worlds constitute a "posthuman ludic assemblage" (Fizek, 2018a, 2018b).

Additionally, by highlighting their shared use of the Unity engine and the highly comparable stylistic choices of simple, colourful, geometric 3D models, I also acknowledge that there is still room for formalist analysis within the study of videogames and art. Rather than the ludic formalism that has had varying degrees of popularity within game studies over the last two decades, I look toward other modes of visual and formal analyses from the field of art history. To reconfigure games formalism into a new method for looking at the specific production- and style-related choices that videogame artists choose to make rather than as a metric for how their work does or does not function as a game. In this way, Chapter Four will unite many of the

arguments I outline in the Literature Review and the two other case studies and, through this, will cement this dissertation's call for imaginatively informal or hybridized modes of analysis within the art history of videogames.

Finally, this dissertation's Conclusion will briefly survey two recent videogame art exhibitions that were both organized by independent curator Marie Foulston. The first of these will be the V&A Museum's 2018 show *Design/Play/Disrupt*, and the second will be the online exhibition associated with the *Now Play This 2020* videogame art festival. Within this final section, I will analyze how Foulston's curatorial methods work to deemphasize play and actively encourage other modes of engagement—all of which correspond to elements discussed in previous chapters. Using these two exhibitions as precedent, I will conclude the dissertation by reasserting my position that videogame art is best approached as a diverse, ambiguous, and ever-changing cultural landscape rather than as a formally defined medium.

This dissertation tells the story of how over the last two decades, videogames have been institutionally studied, defined, and legitimated as art predominantly by the field of game studies. However, the more recent developments I will be discussing in the following chapters clearly show that the story is unfinished and that the formalism and medium specificity of these previous discussions have begun to erode. The case studies within this dissertation are not intended to demonstrate the entirety of videogame art but instead represent significant examples of how the relationship between the worlds of videogames and contemporary art is prone to change and how this fluidity makes it resistant to static modes of categorization. It is impossible to say with certainty how the artists, artworks, and exhibitions highlighted in this dissertation will impact future videogame art research, curation, or production other than to acknowledge how they have all respectively worked to open the field, enabling it to form mutually influential relationships with a wider array of disciplines, media, and artforms.

Chapter One

Buckets, Bins, and Bug Collections: A Brief History of Games Formalism

As I outlined in the Introduction, the discourse around videogames and art has been fraught with various crises of legitimation (Parker, 2014) that have often been responded to with aggressive modes of medium-specific formalism and institutional and industrial formalization (Keogh, 2014, 2017, 2018). Most of these debates began to occur within the early 2000s when the field of game studies was first attempting to define its borders. Although the field has developed significantly since then, these initial debates have never seemed to completely die out, hauntingly arising again every few years when a journalist or critic stirs the anthill with a bold claim regarding videogames' artistic worth.⁶ In addition to the heated conversations within academia and popular media throughout the 2000s, there was also a significant shift in the way that videogames were being institutionally considered. Although there had already been a significant portion of videogame history brought into the specialized collections of science and technology museums, it was only during this transitional time that they began to cross institutional borders and were brought into the collections of art and design museums as well.

Raiford Guins (2014) outlines many of the tensions and difficulties involved with exhibiting and preserving videogames within an art museum, arguing that the material and cultural entropy inherent to most technology makes it hard to easily slot them into an archival collection the same way you would many other art objects such as sculpture or painting. In combination with the unique way that videogames need to be interacted with for audiences to perceive them as authentic, this archival tension makes videogames an especially tricky form of media to bring into the museum spaces (Newman, 2012; Reed, 2017, 2018, 2019).

Reflecting on the history of videogame exhibitions and collections, Guins refers to media archeologist Erkki Huhtamo (2005) and his claim that in the early 2000s videogame culture shifted from a previous “chronicle era,” where it had only been enthusiastically written about and recorded within hobbyist or popular spaces to a new “collection era” (Guins, 2014, p. 22). In Huhtamo’s new “collection era,” Guins explains how videogames transform from a hobbyist

⁶ Roger Ebert is one of the most notable examples of this, spending considerable time and effort throughout the early 2000s arguing over a series of reviews, editorials, interviews, and panels that videogames could never achieve artistic legitimation due to a variety of factors largely derived from traditional high modernism. Although he eventually backed down from this controversial stance, Ebert’s emphatic arguments caused many people to write counter arguments. Collectively these counter arguments worked to cement a general attitude of medium exceptionalism that many games critics and game studies scholars have since worked to deconstruct. For more information on the legacy of Ebert’s criticism of videogames and art see Parker (2014, 2018).

collectible into media artifacts that are institutionally acquired, catalogued, analyzed, and archived. Huhtamo defined this term during the formative period of game studies within the early 2000s, where it was attempting to academically assert itself against the comparable fields of new media, literary, film, and communication studies. Huhtamo's hierarchical dichotomy between enthusiast chronicle and institutional collection can be read as having intentions of cultural and disciplinary legitimation, which—although I acknowledge worked at the time to help summarize a moment of change—represents a long-standing trend for how videogames have since been critically perceived, valued, and defined.

A prominent example of this collection-based perspective toward the art history of videogames can be seen in how Ian Bogost (2011) utilizes Marshall McLuhan's (1964) theories of media ecology. Bogost argues that a media ecosystem acts as an arrangement where various media work to buttress or impact one another, and that an individual medium's relevance can be measured by the variety of things that it does. Although Bogost takes issue with McLuhan's famous claim regarding the relationship between the content of a media artifact and its overall message, he still settles on an argument of quantifiable medium-specificity that prioritizes "the general properties of a medium and the particular situations in which it is used" (p. 5). Building on McLuhan's ecological framework Bogost calls instead for a "media microecology" that works to intensely examine the specialized properties and microhabitats of videogames as an individual medium, stating that it does so by "digging deep into one dark, unexplored corner of a media ecosystem, like an ecologist digs deep into the natural one. Just as an entomologist might create *a collection that thoroughly characterizes the types, roles, and effects* [emphasis added] of insects on an environment, so a media microecologist might do the same for a medium" (p. 7). I should note that Bogost also explicitly states that the categories he creates for his videogame bug collection are not meant to be "a complete catalog" (p. 8), but instead a small and myriad sampling to show "the videogame as a medium with valid uses across the spectrum, from art to tools and everything in between" (p. 7). Although these statements give his arguments a productive element of provisionality, Bogost's focus on cataloging properties through media microecology still ties him to the formality and formalism that defines videogames' collection era.

Within the context of Bogost and Huhtamo's comparable arguments, I turn briefly to Wendy Hui Kyong Chun (2005) and her writing on the archive as a way of further critiquing the collection-based methodologies that prevail within the early game studies. Chun outlines the connection between media archeology and older rationalist systems of knowledge, arguing that any archeological mode of analysis inherently works to privilege regularities, hierarchies, and

rules, and thus accordingly, would resonate strongly with those who work with computers and programming language (p. 5). Ea C. Willumsen (2018) also argues that there exists a clear relationship between computer science and formalist game ontologies, stating that “This approach to games relates to the thinking of formalism as a level of abstraction, related to the need for a formal language that accounts for—and helps categorize—the specific elements of a system. This type of formalism, with its reliance on the construction of ontologies, is maybe best understood in relation to computer science, where an ontology is often defined as a formal naming and definition of entities and their relationships, which exist for a specific domain of discourse” (p. 140). Echoing Chun and Willumsen’s arguments that these kinds of archival, collection-based methods work to categorically skew their objects of study, games historian Laine Nooney (2013) also critiques what she calls the “materialist and archaeological turns” within game studies that “privilege non-progressive history, analysis of failed and dead media, and strong attention to technological materiality and medium specificity (rather than a representational or screen-based focus).” This collective prioritization of material or medium-specific patterns has structural connections with the rules and systems inherent to game design and helps explain why these collection-based methods are so prevalent within game studies where many of its leading scholars are also designers or practice-based researchers. However, how does all this impact how game studies has defined videogames as an artistic medium? And by extension, influenced the way that game studies scholars conceive of, conceptualize, and categorize the contemporary art world?

Emilie Reed (2019) argues that the answer to these questions has been for game studies to revert to older rationalist modes of knowledge and aesthetics rooted in Modernist art history. Within late Modernist formalism, “A painting is essentially 2D so it must be the MOST 2D to extend the life of the form of painting beyond the threat of obsolescence via other means of producing images and also the emergence of other uses for images. Territorialism around videogames, ‘art games,’ and the construction of the remit of game studies as a discipline also often resorts to similar ideas.” Matthew Seiji Burns (2018) makes similar arguments Reed, criticizing videogame culture’s rationalist conceptualizations of what exactly constitutes art. Here, Burns reviews the common practice within game studies and games criticism where a select few games are propped up and loftily declared worthy of the attribution of being art. He then criticizes this binary mentality by stating: “Critical activity like this is important for the medium, but it doesn’t really help us answer the question [of whether or not games are art]. In the end all we’ve done here is created two large plastic bins, one labelled Art, one Not Art, and we’re tossing our cartridges and compact discs into them.” Using Burns’ plastic bin metaphor

as a discursive springboard, the rest of this chapter will work to identify, interrogate, and ultimately challenge the artistic taxonomies that game studies has constructed over the last two decades. Ironically, this will mean that I am using some of the methods that this dissertation is aiming to critique; however, my intent is not to pin down a static definition of videogames as a medium, but instead to critically reflect on a relatively new academic field to productively “disorient” (Anable, 2018) what I argue are its formalist roots.⁷

As many other literature reviews of the field have done, I begin mine with a brief summary of the now infamous “ludology-narratology” debates that defined the early days of game studies. As this has long been an exhausting subject for many games scholars (Aarseth, 2019; Murray 2005), I will not belabor this other than to provide productive counterexamples and reflections to the well-cited debate. Following this first section, I will then briefly summarize the various combinations of art and game that have been formally defined within game studies over the last twenty years, working to identify each of their respective uses and limitations. Finally, I conclude this Literature Review by comparing my various criticisms of the formalization of videogame art history with recent informal and even explicitly anti-formalist games scholarship that have been published following what some have referred to as game studies’ “material turn” (Apperley and Jayemanne, 2012). Collectively, this will work to lay the groundwork for the following case study chapters, within which I will utilize similar modes of analysis in order to push for a productively messier conceptualization of the art history of videogames.

The Phantom Debate

As I mentioned above, no review of the literature on videogames and art can seem to fully escape the sticky tendrils of the ludology-narratology debates that took place within the early 2000s as game studies was beginning to define itself as a distinct academic field. Although some game studies scholars (Aarseth, 2019) will claim that this debate has proven to be irrelevant and should not be positioned as an origin point for the field,⁸ I argue that not only did it precipitate a more recent discussion on formalism within games criticism and games

⁷ Here I draw on Aubrey Anable’s (2018) notion of intentionally disorienting videogame history away from what she argues is its focus on linearly organized, rationalist media archeology and towards more deliberately hybridized, feminist and queer modes of analysis. All of this will be covered in much greater detail in Chapter 2 alongside the concept of “mixed realism” (Welsh, 2016) and the videogame art of Angela Washko and Nina Freeman.

⁸ Espen Aarseth (2019) argues this point in an article directed towards the “aspiring game-studies scholar” advising them to not mention “the war” as it has the undesired effect of “perpetuating the myth that there was a group of narrative theorists who had a quarrel with another group called “ludologists.” For another example of this argument against the validity or actuality of the ludology vs. narratology debate, see Michalis Kokonis (2015).

studies, but that this has had a tremendous effect on the way that the art history of videogames has been written over the last two decades. This debate's origins are often traced back to when—like Huhtamo's proclamation (2005) that videogames have ascended into a new, more institutionally relevant collection era—Eспен Aarseth made the self-legitimizing statement that games studies did not properly begin until the start of the new millennium when there was a rapid increase in the number of peer-reviewed journals working to critically analyze videogames. Many of the articles being published in these early papers sought to elevate videogames by making medium exceptionalist claims that they were formally distinct (and oftentimes superior) to other media due to their interactive qualities.⁹

Despite Aarseth's divisive claim that the turn of the millennium represents the origin point for game studies, many pioneering texts were published before this time that continue to have a notable influence on the art history of videogames. One such example of this is Janet Murray and her book *Hamlet on the Holodeck* (1998), which examines the unique properties of interactive digital narratives. What differentiates Murray from many other early game scholars is that rather than championing videogames as a wholly exceptional and distinct media form, she instead claims that interactive digital technology represents an evolution of many of the same narrative and representational toolsets found in film, literature, and theatre.

At this point, some heated confusion started growing within the then-burgeoning games academia as to whether it was better to analyze a videogame based on its formalized interactivity and play or its narrative and representational qualities. Gonzalo Frasca (1999) sought to remedy the situation by looking to the structural elements of literary studies' method of narratology in order to propose a similar method of formally analyzing videogame narratives. He also then worked to categorize all the other interactive and playful elements of videogames under a contrasting category that he referred to as "ludology." Unsurprisingly, Frasca's binary was subsequently used as a divisive wedge within several scholarly debates during the early and mid-2000s that were focused on defining videogame ontology and aesthetics.

One of the most well-cited examples of how intense these early debates were can be found with "The Gaming Situation" (2001), a paper by games scholar Markku Eskelinen that uses Frasca's work as a tool to dismiss the relevance of narrative when academically studying

⁹ Alexander Galloway's chapter on "gamic action" within his book *Gaming: Essays on Algorithmic Culture* (2006) provides a succinct example of this attempt to formally distinguish videogames from other media. In it he argues that "Video games are actions. Consider the formal differences between video games and other media: indeed, one *takes* a photograph, one *acts* in a film. But these actions transpire before or during the fabrication of the work, a work that ultimately assumes the form of a physical object (the print)" (p. 2).

videogames. Here, Eskelinen takes a distinctly ludological stance, arguing that any critical interpretation of a videogame's narrative themes is unnecessary and that their fundamental qualities are found instead within their rules, mechanics, and other similar gameplay systems. Using this line of rhetoric, Eskelinen heavily criticized Murray for what he saw as an over-prioritization of narrative, explicitly calling out a section in her book where she portrayed *Tetris* (Alexey Pajitnov, 1984) as a metaphor for post-Fordist labour within America.¹⁰ Eskelinen justifies his critique by stating that for games studies to gain any sort of independence from other fields, it must go through a crucial formalistic phase that works to completely separate itself from other disciplines, rather than framing it as an interactive extension of film or literary studies.¹¹

Although Frasca (2003) would later publish "Ludologists Love Stories, Too: Notes from a Debate that Never Took Place"—a follow-up paper attempting to mediate the structural dichotomy he had put into play—the apparently phantom debate would go on to have long-lasting reverberations within both popular and academic games discourse. Chris Franklin (2015) summarizes the residual fallout of Frasca's unintentionally polemic papers, stating that a potential vector for all the confusion was the popularity of personal blogging within the early 2000s, where a network of professors, critics, and designers would all reference each other in a highly subjective and often unedited fashion. What might have initially made sense "in an academic paper becomes something else entirely" (5:21) when copied into a blog article, social media post, or online forum conversation without its original context.

As is the case with many other academically originating concepts, when the ludology-narratology debate began to filter out into popular culture, it became necessarily skewed and simplified to fit the needs of games critics working for various magazines and websites. Even though the field of game studies has repeatedly proclaimed to have moved on from the ludology-narratology debate, its echoes can still be felt in the many editorials, reviews, and essays that have been published in the years since. As gaming criticism evolved from relatively

¹⁰ One of the most intense examples of Eskelinen's (2001) critiques of Murray within this essay is when he argues that: "Instead of studying the actual game Murray tries to interpret its supposed content, or better yet, project her favourite content on it; consequently we don't learn anything of the features that make Tetris a game. The explanation for this interpretative violence seems to be equally horrid: the determination to find or forge a story at any cost, as games can't be games because if they were, they apparently couldn't be studied at all."

¹¹ An early example of this kind of effort to separate game studies from film studies is when Espen Aarseth (2004) dismissed the role of representation in his analysis of the Tomb Raider series: "Likewise. the dimensions of Lara Croft's body. already analyzed 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 her body. but see through it and past it." For feminist critiques of this argument, see Anable (2018, Chapter 2, Section 4, Para 2), Phillips (2020, pg. 24).

simple product reviews into a developed form of critical creative writing, many critics looked to game studies for tools to grapple with the relationship between a videogame's mechanical systems and aesthetic content. It is in this way that although the ludology-narratology debate was one that apparently "never took place" (Frasca, 2003) it is still one that manages to frequently appear and reappear throughout many areas of videogame culture.

Ghosts of Formalism

One of the more recent instances of the seemingly undying influence of the ludology-narratology debates can be observed in the conversations between the separate but mutually influential worlds of game studies and games criticism that occurred from approximately 2010 to 2015. As Franklin (2015) notes, there was an observable shift within videogame design and criticism leading up to this time that favoured systems-driven, rather than cinematic or literary forms of interaction. In reaction to this trend, many emerging scholars and critics—influenced by the ludology-narratology debates' prominent place within early game studies scholarship—declared it to be an undesirably conservative version of formalist analysis that during its infancy was referred to as "ludocentrism" and later more commonly called "games formalism." Austin C. Howe (2015a) is credited with the creation of the initial neologism, defining it as a mode of videogame criticism and development "that privileges the importance of the game's interactions, systems, mechanics, and metrics over their fictional context, aesthetics, or more abstract qualities, without necessarily ignoring that these latter elements exist." Later Howe (2015b) draws on the history of film and art criticism to further define games formalism, explaining that the method is predicated around the notion that "you could determine the meaning of a work purely through it's 'form'" and that historical, cultural or biographical contexts are secondary or even irrelevant. Howe then works to position games formalism as being a popular method for popular, consumer-oriented games writing that at that point most often functioned as technical product review with a quantifiable score attached. Adding to this commodity-based, capitalistic framing of games formalism, Howe also argues that the field of game studies has done much to encourage games formalism through its academically rigorous focus on systems, medium, and form. Finally, Howe also works to connect the notion of formalist analysis to institutional formality in a critique of what he derisively describes as "the old guard of 'formalist' games studies," stating that "When, as a critic or analyst, you invest your time and capital in the definition of proper form, your analytical projects are always, necessarily, about the inclusion and exclusion of both people and ideas within a perceived community."

Although Howe made all these arguments from the unmediated space of his personal blog, as Franklin (2015) notes, during this time, it was within these kinds of non-peer-reviewed, informal spaces that much of the most influential games discourse was happening. Franklin's statements primarily reference the blogs of established game studies professors, but Mattie Brice (2015) also points out how many of the "academic bloggers" contributing to these online discussions were often graduate students, independent scholars, games critics, and game designers as well. Although Brice is not as immediately hostile to the field of game studies as Howe seems to be, she does acknowledge it as "a notoriously exclusionary institution" and asks for a critical reflection of the baggage that is being brought across from academia into games criticism and vice versa.

Eventually, these debates over games formalism and academic insularity reached such a saturation point that many "old guard" games studies scholars began to respond to their critics by way of blog articles, editorials on industry websites, or through more direct conversation via social media. A relatively high-profile example of this was when Frank Lantz—Director of the New York University Game Center and a self-described games formalist—wrote an article titled "More Thoughts on Formalism" (2015). Here, Lantz works to respond to his anti-formalist critics, acknowledging that "There is no simple definition for formalism, it's an ambiguous and, indeed, contentious term." Not opposed to the label, Lantz attempts to rescue the formalist analysis from the pejorative status it had accumulated, stating that he uses the word to refer to people who

tend to be interested in deep games, games that have surprising emergent properties, games that allow for player learning and mastery. They tend to be less focused on things that could be considered "content" - audio-visual components, narrative, theme and setting, etc. So, a formalist looks at League of Legends and sees a game that combines deep strategic choice, hidden information, complex resource-management, team-based coordination, and an enormously high ceiling for mechanical skill, not a game about wizards and robots and dragons.

Here, in his rhetorical privileging of "deep games" that allow for "mastery," Lantz clarifies that he believes a game's systemic formal qualities outweigh its representational, thematic, or narrative elements. Lantz then attempts to connect with his anti-formalist critics through what he sees as a shared criticality towards popular trends within commercial game design, stating:

So when I see smart young critics complaining about ‘ludo-essentialism’ or ‘ludocentrism’ or ‘formalism’ in a way that implies that being primarily interested in formal qualities of choice and action makes one an ally of the status quo or a defender of ruling videogame conventions I want to speak out and say: No, we feel as disconnected from most games as you do, if for opposite reasons. Everywhere *you* look you see points and goals and competition and puzzles and combat. Everywhere *we* look we see pretend worlds and childish make-believe, imaginary dragons, badly written dialogue and unskippable cutscenes in which angry mannequins gesture awkwardly at each other.

Although Lantz is trying to establish common ground between games formalism and the anti-formal academic bloggers, his article was still criticized as patronizing or dismissive (Harper 2015; Howe 2015b). Regardless of how this fanned the flames of the game formalism debate, one final element of Lantz’s (2015) arguments that is significant (and indicative of his personal history as a game designer and practice-based scholar) is when he states that “theory is always second to practice” and that “the games come first . . . Theories can’t tell you what games are good.” These concluding statements work in concert with the hierarchical relationship between formal academic research and informal games criticism identified above, except that here, a divide is also being constructed between theoretical game studies research and hands-on game design practice.

Another practitioner who worked to strengthen the position of games formalism is Raph Koster, a veteran designer within the game industry who helped develop some of the earliest massively multiplayer online role-playing games, and who has also written extensively on the value of fun within commercial game design (Koster, 2004). Like many of the other figures listed in this section Koster has published a substantial amount of critical writing on his personal blog. Furthermore, Koster is also a prominent speaker at both academic and industry games conferences, and it is in a collection of these speaking events that Koster made many significant contributions to the games formalism debate. One example of this was at the Critical Proximity conference where Koster presented a paper titled “A New Formalism” (2014), where he petitions for a more charitable attitude toward games formalism by drawing connections to the history of formalist criticism within experimental music and poetry. Addressing the younger critics and scholars summarized above, Koster identifies how it is typically the role of the young to “rail mightily against whatever the prevailing winds are” and “to be the rebel,” but that in this case, it is strange that formalism has come to be so conservatively framed because historically

it has been associated with radicality and the avant-garde.¹² In addition to Koster's synthesis of formalism with rebelliousness, he also works to frame it as a useful tool for historiographic efforts providing the example that "You cannot trace the development of jazz without following one particular note, the flatted fifth, in its winding journey from African scales to bent notes and thence to reclaiming the tritone or 'devil's interval' from its disdained position in the Western music orthodoxy. That journey is cultural, political, AND technical, and cannot be understood outside of the intersection of all those lenses." What is telling in this example is that although Koster explains his brief musical historiography as being an intersection between culture, politics, and theory, the elements he chooses to focus on are purely formal and make no mention of the specific people, events, or narratives that might be associated with his timeline of the flattened fifth.¹³

Middle Spaces and Bastard Forms

Although "old guard" figures as Lantz (2015) and Koster (2014) may have been trying to mediate the lingering echoes of the ludology-narratology debates through their appeals for the utility of formalist analysis, there was still the legacy of early game studies' reliance on institutional formality to establish itself that many scholars and critics felt a need to contend with. Ayse Gursoy (2013) tracks the process of how formalist critique and academic formality became enmeshed, explaining some of the potential reasons this resulted in such heated debates:

We see from the recent debates over formalism and games that defining terms is a political move that can exclude non-hegemonic voices from public discourse. Definitions set the limits of a community, scoping its concerns. Arguing over definitions can establish theoretical and interpretive camps, providing a productive frame for discourse and analysis. But definitions can also be used to exclude particular groups from participation, especially when these definitions are also classifications. Despite this

¹² The scholarly trend of connecting videogame art to avant-garde art history as a method of legitimation will be covered more extensively later within in this chapter.

¹³ In the conclusion to his talk, Koster (2014) acknowledges that another major element of the debate over formalism are its connections with institutional formality and academia. Here he states the ontological discussions over "what is a game" happen across and between multiple overlapping circles that "have very little to do with one another" pointing to the diversity between such contexts as peer-edited journal articles, personal blog posts, industry award panels, and enthusiast web forums. In an interesting parallel to Matthew Sejin Burns (2018) bin metaphor outlined earlier in this chapter, Koster (2014) finishes by stating that games will never fall into one singular "bucket or critical lens; but we can build bridges and connections between buckets using these [formal] analyses."

exclusionary potential, non-mainstream voices in games criticism have places of their own, often on blogs and Twitter, in which to speak and build community. (p. 12)

In her referencing of exclusion, Gursoy is talking about the tendency within videogame culture for marginalized people to be ignored and even criticized for attempting to add their voices to the discourse.¹⁴ Although this trend is still unfortunately quite prevalent—especially throughout popular games criticism—within the last few years, there has been slow progress in providing more room for the kinds of “non-hegemonic” and “non-mainstream” voices that Gursoy is talking about, many of whom fall into the “academic blogger” (Brice, 2015) category described above.

One avenue for this kind of non-exclusionary space has been an increasing number of middle-state publishing outlets focused on blending the informal subjectivity of popular games criticism with the formal rigor of game studies. Emma Vossen (2016) explains how middle-state publishing can help bridge the gap between these two seemingly disparate communities stating that “This is writing . . . that is somewhere between the poles of quick digitally published writing like blogging and academic writing. A lot of the . . . most influential culture-changing game studies work . . . is being done in the middle state realm.” Another key figure who has argued for a hybridized position between academic formality and informal expressivity is Brendan Keogh. In his call for a shift away from the “all-encompassing formal methods” of early game studies, Keogh (2014) argues that games formalists

fixated as they often are on understanding videogames first and foremost as games, reduce a heterogeneous cultural form and all its intricacies and tensions of style, form, and content to a singular type of system that must be made more efficient. In doing so, they tacitly suggest that there is a pure videogame form somewhere out there that we should be striving for, that the videogames of yesterday and today are but pale imitations, still mired in the visual and narrative trappings of ‘old’ media.

Expanding on this notion of games studies’ “purity complex,” Keogh argues that “what is unique about videogames is not best understood as a purity of form but a bastardisation of forms,” and that to ignore how their form and content are inextricably fused “*actively damages* videogame criticism and obscures the full story of what videogames and players are doing with each other.”

¹⁴ For more information on how the history of videogame culture has often excluded women, BIPOC, and LGBTQ+ people, see Anthropy (2012), Gray and Leonard (2018), Ruberg (2019), Saarkessian (2013-2017), Sarkessian and Cross (2015), and Vossen (2018).

To support his claims regarding how videogames' form and content are not able to be productively separated, Keogh looks to cultural critic Susan Sontag (1966), whose perspective he argues allows for form to function more holistically than just being a disconnected container for content, and that the label of formalism should only be reserved "for those works of art which mechanically perpetuate outmoded or depleted aesthetic formulas" (p. 25, quoted in Keogh, 2014).¹⁵ Keogh continues with his examination of the history of art criticism stating that a successful critic must ideally account for both their subject's internal, technical, and thematic elements, as well as "their contextualisation within broader culture."

Keogh's call for a hybridization of games criticism and game studies reflects a slow but steadily growing shift where an increasing number of close textual, cultural, or aesthetic readings of individual videogames are being written and published. Keogh (2014) addresses this change, stating.

For the next generation of cultural theorists, the uniqueness or significance of videogames is not something that will have to be argued, and narrow discussions of formal definitions will appear unconstructive and unnecessary to these critics who have a lifelong experience of engaging with a myriad of videogame forms. Instead, these theorists will be less concerned with discussing "Videogames" as a concept, and more in a discourse grounded in the appreciation and evaluation of individual videogame works on their own merits.

Despite the increasingly everyday status of videogames that Keogh describes, there is another strain of recurring debate that seeks not to frame videogames as banal, but instead as being exceptional and worthy of what some rhetorically position as the lofty status of "Art with a capital A" (Pearce 2006, pg. 70). Alongside the self-legitimizing efforts of game studies and games criticism, there were many others who used similar methodologies to argue for videogames' worth as art objects and cultural artifacts.¹⁶ Much of this work occurred during the early 2000s in the wake of the Columbine shootings within the United States when some of the most

¹⁵ Although games formalism will be engaged with and challenged throughout the rest of this dissertation, it is within my final case study in Chapter Four where I most strongly attempt to delineate formal analysis as it used within traditional art history from how it has come to be used within games formalism. Through these efforts I aim to reconfigure the former into a productive method for the analysis of game engines as tool within the creation of videogame art—one that focuses on digital production methods instead of essentialized definitions of rules and play.

¹⁶ For more information on the history of the artistic legitimization of videogames, see Parker (2013, 2014, and 2017).

widespread popular critical perspectives on videogames were focused on their apparent connections to violent or antisocial behaviour. To combat this moral panic and the equally popular categorization that videogames were commodity objects made only for children, many critics, scholars, and fans during this time worked ardently to proclaim the viability of videogames as a new artistic medium.

Reflecting on these efforts to legitimize videogames, Gursoy (2013) focuses on how the role of the critic relates to and influences the way that a work of art is perceived by its audience. Gursoy examines how the position of an art critic has historically been to justify their object of study as either being worthy or unworthy of audience attention, but that this assumes that the form or medium of the selected work is already taken seriously:

The critic's role is not to defend the possibility of art in a given medium, but to make a case for this particular piece of art. What, then, is the role of the critic when the medium itself is not taken seriously as art? And how do critics create . . . 'aesthetic argument[s]' and 'philosophical justification[s]' for an entire medium? (p. 46)

In the following sections, I work to address Gursoy's questions and review the various methods that scholars have taken when attempting to ground videogames within the often-nebulous worlds of modern and contemporary art. As I will outline in greater detail, one of the most common ways this has been done has been through medium-specific and art historical taxonomies. Often this involves authoring new labels to account for the apparently unique ways that videogames function as art; however, I argue that this urge to name and categorize has strong roots in modernist formalism and that this, in turn, has led to a reductively mechanical conceptualization of how "Art with a capital A" is defined within games scholarship (Pearce 2006, p. 70).

The Name of the Game

As I have been arguing, much of the work that has been done to culturally legitimate videogames as a viable form of art has heavily relied on classifying and categorizing them so that they can more easily fit within previously existing, accepted institutional structures. In her keynote presentation at the 2010 *Art History of Videogames* symposium, digital art curator Christiane Paul (2010) spoke to how this mirrored much of the work done by pioneering new media artists and scholars over the last 60 years. To illustrate her point, Paul constructs her own "taxonomies of Game Art" (5:40), which include original games, mods, hacks, patches,

installations, interventions, and machinima.¹⁷ Within each of these subsections, Paul works to relate examples of contemporary game art back to the Neo-Dada, Fluxus, and Internet Art movements, stating that although she does not want to “put games into boxes,” she also feels that “certain kinds of categories are always helpful in talking about aesthetics” (5:45-5:55). Although there is obvious practicality in creating categorical terms for discussing any subject, especially when attempting to establish a relatively new field of study, I argue that they can also become reductive or function prescriptively—especially in the context of new media and emerging technologies. Paul’s “taxonomies of Game Art” mark her as a relatively explicit example of the conjoined trends of medium specificity and institutional formality I am aiming to critique in this chapter; however, she is by no means the first scholar to use category construction as a method for discussing how videogames intersect with the history of art.

One of the earliest and most widely cited instances of this kind of category construction is Tiffany Holmes’ paper for the 2003 International Digital Arts & Culture Conference entitled “Arcade Classics Spawn Art? Current Trends in the Art Game Genre.” In the article, Holmes presents the term “art game” to help her discuss the then “emerging relationship between videogames and art” (p. 46). When defining the concept, Holmes explains that art games “contain at least two of the following: a defined way to win or experience success in a mental challenge, passage through a series of levels (that may or may not be hierarchical), or a central character or icon that represents the player” (p. 46). Although this framework does not seem immediately restrictive, Holmes goes on to explicitly divide art games from what she describes as “traditional games” stating that instead of offering challenges to hand-eye coordination “art games” tend [to] challenge one’s mental focus in that the player needs to maneuver in the game and simultaneously figure out its conceptual message” (p. 46). Holmes’ separation between art and tradition does manage to identify and distinguish the differences between popular, commercialized commodity productions and smaller, more intimately crafted artistic creations. Still, I would argue that her explicit division between the two resonates with early game studies’ predilection for binaries.

Like Holmes, new media scholar and curator Rebecca Cannon has also done a lot of pioneering work in defining art games’ relations to commercial videogames, however, Cannon seems more concerned with a formal definition of games that is rooted in the competitive structures of board games and sports than addressing the other modes of non-competitive

¹⁷ Machinima is a compounding of the words machine and cinema that is meant to describe any film or movie that has been constructed using footage appropriated from a pre-existing videogame. For more information on the artistic potential of machinima, see Ng (2013).

interactivity that videogames can afford. In a 2003 paper for the PlayThing conference on artistic applications of game modding, Cannon argues that “Art Games are always interactive—and that interactivity is based on the needs of competing...Although both [mods and art games] follow the lineage of Fine Art and computer games, Art Games explore the game *format* primarily as a new mode for structuring narrative, cultural critique. Challenges, levels and the central character are all employed as tools for exploring the game theme within the context of competition-based play” (quoted in Bittanti and Quaranta, 2006, p. 8). Later in another paper, Cannon (2007) would extend this argument stating that “Art games may be made in a variety of media, sometimes from scratch without the use of a prior existing game. They always comprise an entire, (to some degree) playable game. Art mods always modify or reuse an existing computer game, but they only rarely include reward systems, and if so, only when of thematic relevance. The issue of playability, integral to a successful game, remains important to art games. For art mods, playability is often of no consequence. Many art mods are not interactive; art games always are” (p. 41).

Holmes and Cannon’s pioneering work to formally define the art game would structure many broader conversations on the relationship between videogames and art.¹⁸ The most immediately apparent of these is the art games’ phonetic inversion: game art. A term that ambiguously refers to many practices that all in some way use videogames for artistic production—though not always in the form of a playable game. Within the last two decades of game studies scholarship, the term is most often associated with individual practitioners seeking to show their work within a gallery or exhibition space.

In the catalogue for his 2006 exhibition *Gamescapes*, co-curator Matteo Bittanti critically reflects on Holmes’ (2003) notion that art games are separate from commercial videogame production.¹⁹ Here Bittanti argues that there is more shared ground between the two than many games scholars might like to think and that “the relationship between commercial games and game art is not without problems” (p. 8). Shifting from art games to game art, Bittanti then somewhat confusingly states that “There is a difference between a game artist and a Game Artist. The former is a professional role which operates in the game industry” and who is

¹⁸ Holmes (2003) and Cannon’s (2007) shared method of using commercial videogame production as a counter-definition for the art game is like previous similar conversations within film and media studies where experimental animation is kept separate from that of the mainstream. For more information on this aspect of experimental animation, see Taberham (2019); and for an example of similar art game definition, see Ploug (2005).

¹⁹ Bittanti would go on to co-produce a website and blog of the same name that is still active today and one of the best resources for information and news on game art. See <http://gamescenes.org/> for more information.

“responsible for all of the aspects of game development that call for *visual art*” (p. 7). Bittanti then contrasts this non-capitalized, industrial version of “game art” with the more formalized, proper noun “Game Art,” explaining that it can be defined as “any art in which digital games played a significant role in the creation, production, and/or display of the artwork. The resulting artwork can exist as a game, painting, photograph, sound, animation, video, performance or gallery installation” (p. 9).²⁰ Significantly, Bittanti does not place any great importance on the medium specificity or formalism that were outlined in earlier sections of this chapter and instead allows for a vast multitude of analog and digital methods that can include passive, static, immersive, and participatory processes of interaction. However, despite this initial openness, Bittanti goes on to further subdivide art games and game art into a materially-based taxonomy, defining sub-categories such as “Art mods . . . machinima (screen-based narratives made using pre-existing, often modded, computer games), sonichima, generative art mods, performative interventions, and site specific installations and site-relevant mods”—all of which he states ambivalently “celebrates and condemns” itself in relation to the commercial game industry (p. 9).

In his introduction to *Artists Re:Thinking Games* (2010), Corrado Morgana echoes the way that Bittanti (2006) categorizes art games as being separate from game art, even going so far as to satirically label one of his section titles “Artgames, Game Art: Fight!” (p. 10). However, Morgana prefaces his definition of art games by acknowledging how many game designers (both commercial and artistic) have expressed frustration or lack of interest with the art vs. non-art binaries the term puts into effect. To this point, Morgana argues that “Artgames are rapidly detouring mainstream game expectations, although whether designers specifically use the term whilst producing transgressive and novel independent games is a moot point” (p. 10). As Morgana moves on to game art, he directly quotes Bittanti’s inclusion of non-interactive and analog processes within the breadth of the term’s definition, adding that “Game Art does exactly what it says on the tin: it is art that uses, abuses, and misuses the materials and language of games, whether real world, electronic/digital or both.” Although Morgana seems to be aiming to broaden the definitions of (and dichotomies between) art games and game art, like Bittanti he also concludes by qualifying their unignorable differences as well as the material and cultural gaps that exist between the game industry and the art world:

²⁰ In the concluding essay of the *Gamescenes* exhibition catalogue Bittanti’s co-editor and curator, Domenica Quaranta (2006) surprisingly acknowledges that Game Art is “the ugly term which most of the works in this book have ended up being defined as” (p. 302). This criticality towards the term speaks to the inherent difficulties that come along with trying to analyze videogames and art from purely definitional, classificatory, or taxonomic perspectives.

It is arguable that the intention of Game Art is to fit within and be distributed through the networks of a nominal notion of contemporary art and media art practice, mainly gallery based, rather than the networks a gamer may be nominally considered within.

Unhelpfully for categorization there are continual cross pollinations, and Artgame and Game Art co-exist happily in gallery contexts and other modes of presentation (p. 12).

To explain his reference to the “continual cross pollinations” between art games and game art, Morgana then points to examples where certain artists have shown their game art both within and outside of traditional gallery spaces, as well created both playable and non-playable versions of the same work.²¹

Morgana is not alone in his assessment of the perceived differences between art games and game art or how these terms can potentially create tension for those practitioners who have been (or perhaps more importantly, have not been) slotted into one of these categories. Game designer, activist, and scholar Paolo Pedercini has repeatedly criticized the terms for how they seem to overemphasize their status as “Art” and how this works to resurrect long-standing modernist debates over high and low culture. To this point, Pedercini also argues that “Tackling supposedly deep themes is in no way a prerequisite for reaching the status of ‘high art’ . . . It’s a very backward, pseudo-universalistic way of thinking about the function of art that somehow persists outside the art circles” (Noonan and Pedercini, 2011). Here, Pedercini criticizes how many purported art game designers claim their self-legitimizing status through what he sees as heavy-handed attempts to address “the meaning of life.” Similarly, Pedercini is also quite critical of game art, arguing that “It’s basically a branch of pop-art that manipulates images and icons taken from the mainstream game culture. While there are a handful of interesting works, it’s overall a faddish epiphenomenon of the declining post-modern art.” Collectively, these kinds of pessimistic sentiments represent a faction of games academia that functions primarily outside of the contemporary art world and that predicates itself upon calling for a more populist, accessible definition of art that is “more like games: popular, participatory, accessible and yet complex; able to engage people deeply and for more than a fleeting moment” (Pedercini, 2013).

Another prominent voice who is critical of how videogames have been proclaimed as art is media scholar Henry Jenkins. In his 2005 essay “Games, The New Lively Art,” Jenkins likens videogames to the cultural legitimization of film, stating that for him discussing

²¹ This is a method I will partially emulate through this dissertation’s case study chapters through my focus on videogame artists who have commercially distributed their work as well as showing playable and non-playable versions of it within gallery and museum shows. This is especially emphasized in Chapter Four when looking at the self-playing art games and game art of David O’Reilly.

the art of videogames conjures up comic images: tuxedo-clad and jewel-bedecked patrons admiring the latest *Streetfighter*, middle-aged academics pontificating on the impact of Cubism on *Tetris*, bleeps and zaps disrupting our silent contemplation at the Guggenheim. Such images tell us more about our contemporary notion of art – as arid and stuffy, as the property of an educated and economic elite, as cut off from everyday experience – than they tell us about games. (para. 6)

To add to this point, later in the preface for Nick Kelman's *Video Game Art* (2006), Jenkins would continue to criticize how videogames were being brought into museum and gallery spaces. Here, the way that Jenkins describes how videogames have been institutionally legitimized as art is reminiscent of how early game studies scholars claimed they had to defend their research from the "colonising attempts" (Aarseth, 2001) of other fields such as cinema and literature.²²

Of course, the fact that highbrow artists are starting to tap game-like interfaces speaks to the impact this medium has on our visual culture. But if games are going to be thought of as art, let it be because of what Shigeru Miyamoto (Super Mario Bros) does again and again and not because of what some pedigreed artist does once on a lark. Calling videogames art matters because it helps expand our notion of art and not because it allows curators to colonize new space. (quoted in Kelman, 2006, p. 10)

I do not point to Pedercini and Jenkins here to merely critique the hostile tone in which they allude to the contemporary art world, but to instead emphasize the highly divergent way those from the fields of fine art, game design, and game studies might approach the notion of how videogames and art are related. Furthermore, it is also my intention to explore how these variances in perspective and understanding have subsequently impacted the art history of videogames.

John Sharp is a game designer, educator, and art historian who has frequently attempted to mediate these kinds of tensely divergent perspectives on how videogames should be brought into and perceived by the art world. In his book, *Works of Game: On the Aesthetics*

²² For an example of a critical response to Aarseth's (1997) now infamous claim on the disciplinary colonization of videogames, see Rockwell and Sinclair (2016). In this study, they cheekily use citation analytics to frame game studies as an ongoing combative game and try to determine if indeed the field was able to resist the colonization attempts that Aarseth was speaking of.

of *Games and Art* (2015), Sharp utilizes John Hospers' (1946) concept of thick and thin aesthetics to define further how art games and game art function in respect to one another and are in turn perceived by their audiences. Sharp summarizes these concepts broadly by stating that "Thin aesthetics are those that focus solely on the formal values of the work, while thick aesthetics are those that take into account the work's place in more complex cultural contexts" (p. 78). Sharp's privileging of thick aesthetics' "complex cultural contexts" over the "formal values" of thin aesthetics is noteworthy here as it seemingly provides a toolset that could be used to examine videogame art from a more interdisciplinary and productively non-formalist perspective. However, Sharp quickly dispels this unifying potential by using Hosper's theory to reinforce what he sees as a binary set of inadequacies that exist between art games and game art, one that I argue combines that over-privileging of systems inherent to games formalism with the high-low culture dichotomies of modernist art criticism.

[Game art] would be perceived by many game players and game makers as aesthetically thin. They would likely see these works as dealing with only the surface qualities of videogames. For the contemporary art community, these . . . would be perceived to have the qualities of thick aesthetics, as they embody both a criticality and conceptual *rigor*. On the other hand, artgames . . . are aesthetically thick for some in the game community in that they are interactive, systemic representations of real-world phenomena and/or the human condition conveyed through play. But from the perspective of the contemporary art community (should they even consider these games as art at all), artgames are aesthetically thin because of their emphasis on craft and medium and their antiquated ideas of art's function as a window onto the soul. (p. 78)

Sharp extends this argument through the rest of his book by repeatedly claiming that game art and art games both partially fail through their inability to account for the diversity of their audiences. For example, in his chapter on game art, Sharp describes the practice by stating that it "outright denies" as well as neuters the "technological power" and "gameness" of videogames (pp. 32-35).²³ Additionally, in his chapter on artgames, Sharp argues that their creators have "an

²³ Although Sharp is specifically using these terms to explain the genre's unachieved potential, he also uses this same rhetoric of technological neutering and denial to provide the reader with a "cautionary tale," pointing to Philip Johnson's 1934 exhibition *Machine Art* at the Museum of Modern Art. Here he critiques Johnson for focusing too heavily on the thin aesthetic beauty of the machines and portraying them "not as functional objects but as still or moving images" (p. 110). I argue that Sharp's critique of *Machine Art* functions as another example of his preference for medium-specific functionality.

almost fetishized relationship to the crafts of game design, programming, mathematics, systems thinking, and interaction design” that is “akin to the formalism of modernist graphic design . . . with its emphasis on universal communication combined with a nineteenth-century idealization of artistic expression” (p. 54).

Following this critique of game art and art games, Sharp concludes by making the debatable claim that “the artgames movement has more or less ended, and game art is even more cul-de-sac inside the marginalized world of media art than it was before” (p. 113).²⁴ Sharp’s (2010) solution to both genres’ apparent thin aesthetic failure is to present a third option that addresses videogames in a “form-appropriate manner,” which he argues relies on “direct participation and not just observation” (35:23-35:34). Here, Sharp’s calls for a videogame aesthetic defined by its “innate characteristics” rather than to “force the aesthetics of the visual onto them” (29:37-29:40). This sentiment, despite his critique of art games’ apparent fetishization of craft, reveals an alignment to the same kind of a similar mode of play-focused formalism of figures like Raph Koster and Frank Lantz.²⁵ Sharp goes on to name his new “form-appropriate” set of aesthetics “artists’ games” and defines the concept by stating.

To make sense of artists’ games requires that we recognize that there is a difference between games as entertainment and games as medium. ‘Medium’ here refers to a creative substrate like oil paint or charcoal, not media like TV or film. And so, in the same way suspends pigment for application to a surface in order to make an image, games are the medium in which play is suspended. Moving past the remediated baggage of media expectations and toward the idea of a medium of potentiality that is activated through audience engagement is critical to a new way of thinking about artists’ games and their play. (p. 106)

²⁴ I argue against Sharp’s point here and would instead posit that the terms themselves have just become obsolete, especially when examined through the lens of the discourse throughout the late 2010s on post-digital art practice and the way it seeks to collapse the space between media art subgenres. For more information on videogames and postdigital art, see Anable (2019, Chapter 4), Apperley (2105), and Gansing (2017).

²⁵ For an explicit example of Sharp aligning himself with Lantz’s vein of games formalism see Sharp (2015, Chapter 5, Note 3) where he references a 2009 blog post by Lantz titled “Games Are Not Media.” In the article Lantz attempts to define videogames according to their relationship with sports and board games stating that “games are not brand new, they don’t go in computers, they aren’t content that gets consumed, and they aren’t messages.” Sharp uses his reference to this article to support his privileging of participation over observation within his definition of artist’s games.

There is productive potential in Sharp's call for a more synthetic approach to the relationship between videogames and fine art rather than strictly defining them through binary rulesets (art and non-art, art game and game art, form and content, etc.). However, I also argue that his notion of the artists' game relies too heavily on essentializing audience participation and direct mechanical interaction and that it does not fully account for the shifting hybridities of both videogames and art. Therefore, beyond the citational intention of this literature review, I will be referring to art games, game art, and artist's games all under Sofia Romualdo's (2015) synthesized term "videogame art" (see Introduction) to build on the synthetic intentions of Sharp's artists' games. Although relying on Romualdo's umbrella term may seem like it could potentially lead to confusion, I argue that this kind of disorientation (Anable, 2018) will be a valuable tool for this dissertation's goals of reworking the formal structures that undergird the art history of videogames.

Hacker History

Earlier in this chapter, I outlined how digital art curator Christiane Paul (2010) established her own "taxonomies of Game Art" because she felt that category construction is useful when discussing aesthetics. Although such structures may indeed make it easier for curators and scholars to converse, in the same keynote presentation referenced above, Paul also points out how taxonomies can also help museum and gallery audiences relate to work that may initially seem unfamiliar or alienating. Here, Paul draws attention to the notoriously short attention span of most museum and gallery patrons and how the average viewer typically will spend on average, a maximum of two minutes with a work of art. Paul explains how this short length of time often makes it quite difficult for curators to decide how to show time-based or interactive work that usually requires a longer duration to be adequately communicated. She then draws connections between the histories of video, new media, and game art, explaining how all three genres often need additional encouragement to get audience members or non-digitally focused curators and art administrators to engage with the work meaningfully. Returning to the notion of taxonomy, Paul breaks down videogame art into various formal subcategories to tackle these barriers of engagement and works to construct additional ones centered around historical art movements to help further situate the emerging practice. For Paul, this additional process of canonical categorization helps create entry points for those interested in art history but who may be unfamiliar with videogames.

Paul is by no means the only figure to employ the tactic of referencing well-known art movements and canonical artists as a means of institutionally legitimizing videogames as art.

Many game studies scholars have looked to modern and postmodern art history as a method for arguing the artistic worth of videogames. Commonly this will involve selecting a work of contemporary videogame art and comparing it with a more firmly established artist or art movement. These art historical comparison points will often be from an avant-garde movement from the late modernist or early postmodern period, where experimental games and play were already beginning to gain prominence. The goal of these kinds of pairings is to help audiences form new historical understandings of videogame art; however, I argue that establishing these connections also relies on equating analog and digital games in a way that defines videogames in a games formalist manner. Or to put it another way, these methods work to teleologically position videogame art as being an extension of how games have historically functioned (sports, card games, board games, children's games, party games, roleplay, etc.), rather than as the shifting, heterogeneous fusions of new media art history, technoculture, and capitalism that this dissertation is working to position them as.

Looking at the comparative art historical methodology I have just described from a similar angle, Emilie Reed (2019) argues that "It is generally academics and developers with aspirations of raising the profile of the form, not commercially or through some sort of social good use, but as an element of (high)culture, who draw on high modernist tropes, half a century too late. Insecurity turns to insularity as disciplinary border work identifies . . . the supposed core uniqueness videogames offer." Some common examples of this include drawing comparisons to the Surrealist exquisite corpse games or the overall playful attitude of the Fluxus movement.

²⁶ However, when looking at the scholarship on the topic over the last two decades, the figure most often used to legitimate videogames as a viable new form of art is Marcel Duchamp. Supporting this notion, John Sharp (2015) claims that Marcel Duchamp is the "patron saint of the games and art discussion" (p. 115). Although I am weary of Sharp's ecclesiastical phrasing, the way Duchamp seems to pop up in almost any text on the subject clearly shows how he has become a central figure for many game studies scholars interested in visual art.²⁷ For Sharp, this can be explained mainly due to the artist's interest in the game of chess and his now-famous quote "that while all artists are not chess players, all chess players are artists" (quoted in Sharp, 2015, p. 115).

²⁶ For more examples of authors attempting to legitimate videogame art through comparisons to historical avant-garde art movements see Schrank (2014), Sharp (2015), Pearce (2006), Flanagan (2009).

²⁷ For more on "game studies' obsession with Marcel Duchamp's love of chess" see (Sharp, Thomas, Juul, Long, Uricchio, and Consalvo, 2019).

An early example of this Duchampian trend within games studies can be found within Celia Pearce's 2006 essay "Games AS Art: The Aesthetics of Play." In this paper, Pearce focuses on Duchamp's famous penchant for institutional critique to pose the question of whether he was even an artist, "or was he in fact what today would be called a 'gamer' whose art was merely a hobby, or perhaps even a game itself?" (p. 68). Here Pearce examines many of Duchamp's chess-influenced works as well as his love of the board game itself to position the art world as a kind of game that the artist must play (and can thus win or lose). It is through this connection point, between her proposed ludic structure of the world of contemporary art and Duchamp's chess practice, that Pearce makes the argument that videogame art can be properly legitimated. Regarding both games and art, Pearce states that "The 'serious' game player, like Duchamp, is always striving to achieve a higher level of skill. This refutes the disdainful impression that play is a form of idleness, triviality or time wasting" (p. 68). Not only does this statement expose the defensiveness that was all too common within the discourse around videogames and art throughout the early 2000s, but it also relies on formalized definitions of both games and art that can be quantified through metrics of mastery, skill, or craft. Pearce adds to this more mechanically minded stance by breaking down the form of a game into several essential features such as obstacles, goals, resources, information, score, etc. Pearce also argues that even more experimental examples of videogame art still rely on an innate understanding of these formal qualities and are thus able to playfully subvert them through such methods as hacks and modding (p. 69). The ability for videogame art to play with what she argues is the essential game form provides Pearce with a way for her to position Duchamp as similarly playing with the structures of the art institution. In doing this with a figure so intensely canonized as Duchamp, Pearce is attempting to legitimize videogames as institutionally viable even as she uses them as a form of institutional critique.

Pearce's focus on institutional critique as a method for legitimizing videogames and arguing for their place within museums and galleries signposts another way that Duchamp has been used within the art history of videogames that does not rely so centrally on chess or games formalism. Many game studies scholars have also pointed just as prominently to Duchamp's famous urinal piece *Fountain* (1917) as a marker for the expansion of what can be defined as art. In his book *Avant-garde Videogames: Playing with Technoculture* (2016), Brian Schrank points to *Fountain* as an example of how technology can be used artistically to defy conventions and to question established ontologies. As a contemporary mirror to this aspect of Duchamp, Schrank points to an internet subculture known as "griefers" who often hack into massively multiplayer online (MMO) games such as *Second Life* and *World of Warcraft* to

disrupt other players' experiences. The specific example that Schrank seems to find value in is a process where a griefer creates a custom virtual object that is programmed to infinitely replicate itself within the online space of the MMO. This exponential replication goes on until the hosting server's memory is exceeded and is forced to shut down. Drawing an abject and scatological line to *Fountain*, Schrank points out how many such griefer objects are often designed as human genitalia or feces (pp. 16-21). Like how Pearce (2006) saw value in the way that Duchamp restructured the art world through play and games, Schrank argues for the value in griefing by stating that "Griefers break down games and rebuild new kinds of games with the pieces. They open up ulterior play patterns that restructure the very systems that make the games possible" (p. 18). Although this statement is partially true, these griefers are also participating in a form of play based on systems mastery that is undertaken at the cost of other players' enjoyment and even emotional well-being. Griefing is not just a term used for hacking into MMOs and filling them with self-replicating objects; it is also a term that is commonly used to refer to online harassment and cyberbullying within videogame social spaces. Schrank acknowledges this aspect of the term and even provides a quotation from a *Second Life* player who had been negatively impacted by griefing; however, he ultimately dismisses this player's claim that griefing is a destructive, non-artistic practice. He supports this argument by drawing further connections between griefing and art history by comparing the practice with the political intentions of avant-garde movements such as Dada and Futurism. "Griefers celebrate computer and network technologies to a comical, horrible fault, similar to the way in which the futurists celebrated machine and industrial technologies a century ago . . . Dada and the futurists did not destroy art, although that was how it appeared at the time. Retrospectively, they are credited with redefining art. Griefers likewise do not destroy games but instead show us how to fully play with the medium" (pp. 68-69). Schrank's example of griefers does share some connections with avant-garde art of the past, but it is also a practice that is potentially doing more harm than good. By prioritizing technological play for its own sake and celebrating griefing for its formal experimentation while dismissing its potentially destructive cultural or emotional impact, I argue that Schrank functions as a prime example of the way that games formalism works to influence the art history of videogames.

Although both Schrank (2016) and Pearce (2006) are celebrating ludic experimentation within both the worlds of fine art and videogames, both scholars base their arguments on the notion that there is some kind of essential game-form that exists and is thus able to be disrupted. Additionally, both authors—along with Sharp and his earlier saintly claims—work to romantically position Duchamp as a heroic figure for game studies without critically analyzing

his dominant place within the art historical canon or how this impacts his ability to act as a subversive figure within contemporary contexts. Instead, Schrank and Pearce emphasize Duchamp's radical potential by posing him as a kind of analog hacker of the art institution, playfully bending and breaking the rules of the art world through elaborately conceptualized games and pranks.²⁸ However, as the problematic ethics and humour of Schrank's griefer example imply, the figure of the hacker is also not one that should be invoked without critical reflection.

For one thing, the hacker is a figure that historically has been categorized as distinctly masculine, which has had a longstanding effect on both broader technoculture and, more specifically, the discussion and production of videogames. In her 2013 essay "A Pedestal, A Table, A Love Letter: Archaeologies of Gender in Videogame History" Laine Nooney tracks the conjoined histories of the hacker and the videogame stating that "It should be no revelation whatsoever to state that the history of videogames is a patrilineal chronicle, a forward-marching timeline punctuated by sacred litanies of "founding fathers," "hacker heroes," and "game gods." Nooney's satirical framing of these masculine hero figures has strong connections with the way that game studies has championed Marcel Duchamp, which in turn works to reveal how both art and videogame history are connected through their own respective self-mythologizing. Nooney reflects on this when stating that "our sense that videogame history is 'all about the boys' is the consequence of a certain mode of historical writing, preservation, memory, and temporally specific affective attachments, all of which produce the way we tell the history of videogames."

Picking up on this thread of how the masculine hacker figure has strongly influenced the direction and structure of videogame culture, Brendan Keogh (2018) argues that "the purity complex of videogames" is "historically entrenched in hacker paradigms of empowerment and control that cultivate a normative, dominant, technofetishist, and ultimately masculinist player identity that solidifies the values of certain modes of videogame experience" (Chapter 6, Section 1, para 11). Keogh's allusions to power and control here resonates strongly with how Schrank (2016) and Pearce (2006) position Duchamp as having the ability to "hack" the art institution, as well as his masterful chess reputation. Keogh speaks to this preference for a powerful, lone hacker figure with which to align and legitimize videogames by linking to it a kind of "liberal, rationalist subjectivity . . . that is ingrained through an ancestry of the hacker cultures of the previous decades" (Chapter 6, Section 4, par. 6). This hacker lineage of liberal rationalism—which Keogh also argues perceives itself as being objective—has worked to heavily inform what

²⁸ For more on the relation between Duchamp, pranks, and videogames, see Bogost (2011, pp. 9-17, 37-44).

videogames have come to be most valued “by videogame critics, enthusiasts, and scholars alike,” which more often than not have “been those that allow the player to express an individualistic sense of mastery over the computer system (or over other players)” (Chapter 6, Section 4, par. 6). Keogh then describes how the prototypical videogames that sprouted from this early, mastery-focused, hacker culture—many of which are now seen as pioneering, canonical, parts of videogame history—worked to heavily inform a critical discourse that embraced “these values as seemingly inherent to the videogame form” (Chapter 6, Section 4, par. 6).

This criticality towards the hacker that Nooney (2013) and Keogh (2018) share works in tandem with my arguments regarding the pervasive influence of formalism and medium specificity within video games' art history. In prioritizing the rules, systems, and mechanics within the definition and analysis of videogame art, values of mastery, control, and power thus become equally privileged. By working to legitimate videogame art through repeated associations with the figure of Duchamp as both hacker and chess master, I argue that figures like Pearce (2006), Schrank (2016), and Sharp (2010, 2015) have contributed toward the construction of a discursive rule-set for how subsequent game studies scholars have approached the art history of videogames.²⁹ Although there is legitimizing ground to be gained through these comparative tactics, I also argue that the games formalist version of videogame art history that they work to support has the additional after effect of overshadowing many other modes of analysis (visual, textual, narrative, cinematic, aesthetic, etc.) as well as the potential relationship that videogame art has with the histories of non-interactive and non-ludic forms of digital and new media art.³⁰

Institutionalization and Informality

If nothing else, the various attempts to assign ordered names and rule systems to videogame art supports Erkki Huhtamo's (2005) claim that videogames have entered a new,

²⁹ For another example of how Duchamp has been used to encourage formalist approaches to the art history of videogames, see Bogost (2009). In this article he uses Duchamp's reported description of chess as having all the beauty of art to define a trend within videogame art that he refers to as “Proceduralism.” According to Bogost, Proceduralist videogame art is often visually simple but contains what he sees as a mechanical or process-based beauty that is much akin to that of chess or Go.

³⁰ On the topic of videogame art's relation to new media art history, Domenico Quaranta (2013) summarizes how Duchamp has long functioned as a canonical figurehead for contemporary art and how this in turn relates to the way in which new media art has typically been more strongly associated with less critical, commercial or industrial forms of art. Recalling Lev Manovich's (1996) dichotomy of “Duchamp Land” and “Turing Land” as metaphors for these two opposing categories, Quaranta argues that in reality new media art historically functions more as a hybridizing force that operates between contemporary art and computer science (pp. 83-84).

collection era where they are slowly being aligned with institutional and formalized modes of discourse and analysis. Daphne Dragona (2010) makes a similar argument in an essay on the institutionalization of videogame art when she describes how videogames “now constitute a ‘category’ for media art festivals and are becoming an axis for centers’ and museums’ programs and activities,” (p. 26) and how “processes of archiving, documenting, exhibiting and collecting games” are now “neither surprising nor unusual” (p. 29). After establishing this state of increased normalization, Dragona then problematizes the process by pointing to how videogame art originated from the net art movement of the 90s and its “anti-conformist and anti-institutional” motivations (p. 29). Dragona also explains how the work of this time could be categorized as both “marginal” and “parasitic” in that “it was dependent on the commercial game platforms of the period whilst at the same time trying to subvert them” (p. 29).³¹ Furthermore, Dragona works to emphasize her arguments by reflectively pondering what might have been lost in the move from these earlier, playfully parasitic subcultures to the current, increasingly formalized and institutionally accepted one. Echoing Wendy Hui Kyong Chun’s (2005) comparison between archives and programming languages, Dragona states that games and institutions have a lot in common in that “They are both well-structured systems, forming hierarchies, based on rules and time and space constraints. In exhibitions, worlds are being created and stories are being told, forming environments separated from the everyday life, just like happens in the ‘magic circle’ the games form” (p. 29). In this way, the institutionalization of videogame art also functions as a process of formalization that favors “the imposition of rules” and works to sterilize many of the potentially chaotic, disordered or “parasitic” qualities of the practice (p.29).

Following in this same vein of institutional critique, Brendan Keogh (2019) has done considerable work to historically and sociologically analyze the “aggressive formalisation” of videogame culture as well as the “informal actors” that operate outside what he describes as the increasingly rigid and pervasive structure of its commercial economy (p. 16). To loosen this “formalizing stranglehold” (p. 26), Keogh calls for “a more robust, complex approach” (p. 30) that can account for how videogame culture is “continuously produced, challenged, and reshaped by the work of [informal actors such as] amateurs, hobbyists, artists, and students” (p. 30). For Keogh, this new approach comes through a strong emphasis on the productive potential of informality and uncertainty as starting points for scholarly research on videogames. This does not mean altogether abandoning formalized or formalist modes of analysis but to instead more

³¹ For another example of how videogame art has been framed as being in a subversively parasitic relationship with both the commercial videogame industry and the contemporary art institution, see Schleiner (1999).

holistically account for “the rich interconnections, intermediations, and symbiosis of both informal and formal zones” and “to ask what else is happening around a medium that is not captured by traditional forms of inquiry, but which is foundational to that medium all the same” (Keogh, 2017, p. 2). Here I argue that Keogh’s proposal for informal games research provides a productive method for analyzing videogame art that resists many of the essentializing or hierarchical effects of games formalism and what Huhtamo (2005) defines as the collection era.³²

Another significant example similar to Keogh’s call for informality is Ian Bogost’s keynote paper “Videogames are a Mess” for the 2009 Digital Games Research Association (DiGRA) conference.³³ Bogost begins by acknowledging how game studies has, at times, been overly concerned with medium-specific ontologies, stating that “For a while now, our community has understood that ‘mark’ as a curse or a blight—a scourge of formalism that drew, or perhaps still draws our attention away from more important matters of meaning, reception, and use.” Bogost is still concerned with the question of what videogames are, however instead of analysis that relies on the “formalism of structuralist approaches,” he instead shifts focus to one of metaphysics that he describes as “a loose-and-fast structuring of units-for-*whatever*, not just for the human actors implicated in events.” Here, just as Keogh argued for informality and uncertainty as useful methods for studying artistic videogame practices, Bogost argues that disorganization and “non-coherence” are important elements within any ontological or aesthetic discussion of them as well. In his keynote’s conclusion, Bogost argues for a deliberately messier version of defining videogames, stating that:

A mess is not a pile, which is neatly organized even if situated in an inconvenient place underfoot. A mess is not an elegant thing of a higher order . . . It is less an imbroglio of the sort one finds in a painting of Pollock or Picasso, and more the mess one finds in a sculpture of Keinholz [sic] . . . A mess is inelegant, a clutter, a shamle, a terror. We recoil at it, yet there it is, and we must deal with it. Videogames are a mess. A mess we don’t need to keep trying to clean up, if it were even possible to do so.

³² I will be frequently working to respond to Keogh’s call for informality throughout the next few chapters and will also be more specifically working to synthesize the informal and the formal in Chapter 4 through my analysis of Ian Cheng’s and David O’Reilly’s use of the Unity Engine as a consistent tool in the production of their videogame art.

³³ This keynote address was subsequently published in a slightly altered form as a post on Bogost’s (2009c) personal blog and it is this version that I am referencing and quoting within this section.

Like Keogh's informality and Dragona's parasitism, I find Bogost's messiness to be a useful tool for this dissertation's goal of productively expanding the art history of videogames beyond its formal roots. All three of these scholars effectively sidestep many of the sticky trappings of early game studies and its prevalent concerns with well-defined ontologies, medium specificity, and artistic and disciplinary legitimation. Here, I argue that by starting from a point of deliberate informality, messiness, and parasitism, one is less encumbered by the need to define binding rulesets and can instead speak from a looser, excitingly speculative, and perhaps even poetic perspective. In the following section, I will summarize a selection of scholars with similarly imaginative and heterogeneous perspectives to argue further for the messier modes of analysis I will be using throughout the rest of this dissertation.

Navigating Stasis

In an essay that works to theoretically frame history as a looping videogame, Hito Steyerl (2019) compares the art historical canon to the figures of the zombie and the shapeshifter. She makes this supernatural comparison as part of a broader argument that when history is placed on such a pedestal, we risk forming a discursive stasis that causes the past to repeatedly seep into both the present and the future. According to Steyerl, this corrupted temporal loop is quite common within art historical discourse, but especially so within museums where a canonical version of the past is reconstructed and continuously re-presented based on a set of seemingly unchanging archival, didactic, and exhibitionary rules.³⁴

Although Steyerl is explicitly talking about museums and their financial relationship with their patrons, I also argue that her notion of a "stagnant crisis" (p. 3) is one that can be productively used to examine the art history of videogames. Through game studies' early reliance on formalized self-legitimation and formalist analysis, I argue that the field has engineered a recursive stasis bubble around the topics of videogames and art. The question of whether videogames should be accepted as a valid artistic medium is one that continually re-emerges like the shadowy undead that Steyerl invokes in her portrayal of the art historical canon. Speaking to the capitalistic aspect of Steyerl's stagnant crisis, this is also a profitable question to leave unanswered that has allowed for many popular—yet often unfortunately

³⁴ Steyerl (2019) further elaborates her conceptualization of stasis stating that "Stasis describes a civil war that is unresolved and drags on. Conflict is not a means to force a resolution of a disputed situation, but a tool to sustain it. A stagnant crisis is the point. It needs to be indefinite because it is an abundant source of profit: instability is a gold mine without bottom" (p. 3). In this case, I argue that simplified presentations of videogames as art function as catalysts for both online debate (and by proxy, profit-inducing page traffic) and family-friendly exhibitions (and the subsequent increase in ticket sales that these can potentially incur).

reductive—texts and exhibitions to have been produced over the last two decades.³⁵

Additionally, as I have summarized earlier in this chapter, the question of whether videogames are art has also resulted in a relatively common scholarly and critical response to legitimate them through comparisons with now firmly canonical, institutionally accepted figures from art history. Although there is nothing inherently wrong with making these comparisons, when such methods are used at the exclusion of more contemporaneous or marginalized creators, as Steyerl warns, the past risks corrupting the present and thereby cutting off potential futures.

In an essay on how subversion functions (or perhaps ceases to function) in contemporary globalized digital contexts, Daphne Dragona (2017) similarly questions the overreliance on historical models of the avant-garde within processes of artistic legitimation. Here, she argues how models of radicality, and subversion rooted in modern and early postmodern art history are no longer directly applicable due to the speed with which such efforts “are subsumed by media corporations and state security agencies” (p. 184). Dragona adds to this by explaining how, in our current era, “interventions, disruptions, and exploits are not only the attributes of hacking, art, and media activism. On the contrary, as the existence of ‘back doors’ to platforms and operating systems, subversive strategies have been put to use in order to control, regulate, and predict user behaviour” (p. 164). Within the context of recent videogame art scholarship, I build on Dragona’s arguments and posit that the standard method of comparatively using modern and postmodern avant-garde art should be critically re-examined due to their long histories of institutional and capitalistic subsumption. However, despite the legitimizing utility of these avant-garde comparisons, because of the field’s relatively short history, they still constitute a substantial portion of how game studies’ has thus far written the art history of videogames.

As Christiane Paul (2010) argues, making such genealogical connections to well-known examples can be a useful way to introduce an unfamiliar form of art to a new audience; however, in drawing such lines—whether they be historical, formal, or otherwise—there will always be an after-effect in how said comparisons will impact future discussions. Wendy Hui Kyong Chun (2006) points out how those who work with, or study technology will often prefer archival, pattern-based methods that mirror the objects they work with and how this, in turn, impacts how these objects are studied in the future. If the videogame art history is approached

³⁵ Here, I am mainly referencing the debates that surrounded Roger Ebert during the 2000s that I briefly summarized in this dissertation’s introduction, but also the now famous *Art of Videogames* exhibition that was first shown at the Smithsonian and subsequently toured around the world. This exhibition will be discussed in more depth in Chapter 2 but for other examples of critical scholarly readings of the exhibition see Guins (2014) and Parker (2014, pp.178-182).

in such a way, through a lens strongly oriented toward establishing historically avant-garde patterns of hacking, play, and mastery, then the contemporary analysis of videogame art will also be influenced toward finding and prioritizing these values as well. This is compounded by other broader trends where the history of technology is often defined through a linear, teleological trajectory of invention and upgrades. In combination, I argue that this has produced an art historical framework that is comparable to how I imagine a game designer would construct a database—through heavily structured hierarchies, patterns, systems, and rules.

In an essay on pattern recognition, Steyerl (2019) argues that the act of studying technocultural history is akin to the work of an ancient astronomer working to map the shifting cosmos. However, within this context, rather than being composed of celestial entities, these technocultural constellations are formed from lively groups of people and media. Although there may seem to be a looping consistency to these entities, objects, and processes, Steyerl argues that progress is only possible when one accepts that the maps drawn from these constellations are only provisionally projected patterns rather than reality-constituting diagrams. However, Steyerl argues that making this distinction has always been notoriously difficult when navigating the orbiting worlds of art and technology. According to her, the data constellation that any given artist or art object projects often becomes co-extensive with their material reality. This relationship is both informed by and works to validate scholarly methods of pattern-recognition and category construction with the ultimate result being that the astronomical maps end up coming to replace reality. Steyerl responds to this technocultural taxonomizing by reminding us that it has a large degree of power and can “impact the real lives of real people, both reformatting and radicalizing social hierarchies by ranking, filtering, and classifying.” (p. 60). Returning to the context of videogame art, I argue that these acts of classification have led to a history that, while still nascent, is being written according to a set of already deeply ingrained patterns and rules. As Steyerl argues, this kind of “ranking, filtering, and classifying” does have a genuine impact, and in this case, it has worked to privilege the work of formally inclined artists and deemphasize or even exclude those without primarily ludic intentions.

How might we escape this discursive and artistic stasis? As a potential solution, Steyerl points to videogames themselves as a helpful model for escaping looped or otherwise enclosed structures. She points out how videogame players will often get stuck at difficult points within a given level and that the typical response to this will be to look up a strategy guide online and then move on. In this way, game design is often predicated upon allowing players to break free from stasis, not endlessly forcing them to reenact the past or remain stuck in a closed loop. Here, Steyerl acknowledges that to perform this escape from stasis, within the context of a

videogame, a certain level of skill and mastery is required; however, she also points out that looser methods of experimentation and play are necessary too. To this point, she states, “Gaming can evolve into playing. And here, the ambiguity of ‘play’ is helpful. On the one hand, play is about rules, which must be mastered if one is to proceed. On the other, play is also about the improvised creation of new, common rules . . . To play is to re-actualize the rules as one goes along. Or to create rules that demand new actualization every time. There is a continuum between games and play. Both need rules. On one end of the spectrum there is a looped form. On the other, an open one” (pp.7-8).

Considering Steyerl’s arguments, how might an ambiguously playful and consistently re-actualized analysis of videogame art look? Furthermore, what are some other playful methods that can productively disorient the art history of videogames? Methods that would rely less on static methods such as games formalism and institutionalized modes legitimation—processes I argue have been dominant within the field throughout the 2000s—and instead on messier, more provisional approaches that might allow greater space for speculation, poetics, and imaginaries?

Until this point, I have been primarily working to review the work of scholars who have relied on these more static modes of analysis. As culture shifted through the 2000s and 2010s, videogames were increasingly well-received within the archives and collections of libraries, art galleries, and museums. As I have already described, over the last two decades, this process also involved many timelines, categories, and definitions to be hastily constructed to allow for videogames to be more easily placed within the structures of these institutions. Throughout this chapter, I have argued that all of this has worked to discursively influence the art history of videogames such that their more ineffable qualities are often downplayed or even dismissed. This persistent preference for order is not only something that has come up in theoretical debates over videogame aesthetics and ontology but is also equally present in the more materially grounded conversations that happen as videogame art is brought into museums and galleries. A recurring concern that must be addressed within these contexts is how to balance material authenticity and interactivity properly. There is always the tension between allowing the audience to handle a work directly and keeping it well-preserved and safe. The most common solution to this problem (at least when attempting to show artifacts so old they either no longer work or have a high risk of being damaged) is to only have an emulated copy available for direct handling.³⁶

³⁶ The topic of videogame preservation and potential display methods for older hardware will be discussed in much greater length in Chapter Two.

Responding to these issues, Adam Chapman (2019) argues that videogame history, like any other history, cannot be perfectly contained through its objects no matter how well they have been preserved or recreated. As a potential solution, Chapman argues that curators and historians should focus on documenting the cultural processes of videogames, rather than so heavily prioritizing the preservation of mechanical interaction and play. Adding to this point, Chapman states that “To ignore this messiness would be to deny the very thing that gives games and play the value that first drew our scholarly attention. Thus, we must keep one critical eye turned ever inward, regulating our scholarly desire for classification and delineation in the playful face of multiplicity and disorder.” Only so much can be gained through classificatory methods when the objects of study are so inconsistent, hybridized, and prone to decay or reinvention. What is needed to balance out these classificatory methods is a more multiplicitous approach, one that allows for the close study of “the multiple lives and contexts of use of games beyond their often-canonized . . . versions” (Chapman, 2019).

One example of the kind of approach that Chapman is calling for comes through Raiford Guins’ (2014) new materialist approach to videogame history. In his work, Guins examines the multiple lives and afterlives of videogames as they move through popular culture, institutional archives, and even the landfill. Like Chapman, Guins considers the problems with attempting to strictly categorize any given videogame according to traditional processes of institutional archiving and collection. A set of research questions that Guins uses to critically examine how videogames are categorized and defined is: “What is *Space Invaders*? Is it the code? Is it the arcade cabinet? Was it the idea in the Namco engineer’s mind when he made it? Where is the actual game?” (Herz, 1997, p.75, quoted in Guins, 2014, p. 11). For Guins, it is all these answers at once and much more. When attempting to bring a videogame into a gallery or museum Guins states that “we quickly learn that ‘the game’ is never singular but a complex object” that functions as a “cultural accretion of technologies, materials, manufacturing, design and development, government standards for electronic devices, patent protection, distribution, marketing, sales, usage, users (of different identities), functionality, non-functionality, and contexts of experience for economic and social relations” (pp.7-8). In this way, Guins encourages those curators, archivists, and scholars working with videogames to think of them less as “something with fixed hermeneutic, intrinsic properties, confident ontological value and predetermined use over time” than as mutable objects with a shifting state of stability (p. 12). Like Chapman, Guins is primarily speaking to the way that commercial videogames are studied and eventually collected by museums; however, his arguments regarding the shifting identities of videogames are also applicable toward looking at how videogame art is contextualized

across various online and physical exhibition spaces as well. Furthermore, using Guin's framing, where videogames are positioned as mutable objects with multiple lives, the notion of working to distinguish between the various subcategories of videogame art (art games, game art, artist's games, etc.) becomes increasingly unnecessary.

Directly responding to Guin's focus on videogame preservation and ontology, Aubrey Anable (2018) argues that many of the art institutions that have begun to collect and exhibit videogames do so in a way that echoes the "formalist approaches in game studies that cite action and proceduralism as essential to the medium" (Conclusion, Section 1, para. 4). Focusing on the Museum of Modern Art's 2013-14 exhibition *Applied Design* (curated by Paola Antonelli), Anable explains how the institution has deliberately chosen to focus on the source code for its acquired videogames. Additionally, when exhibiting these ludic acquisitions, all traces of material culture such as the videogame console, desktop computer tower, or arcade cabinet are hidden from view with only a tiny flatscreen on display that has been neatly recessed into the museum's walls. Referring to quotes from Antonelli (2013), Anable also goes on to explain that this was done primarily for practical purposes of long-term preservation, but that in erasing these potentially unsightly, material elements the MoMA also ignores the complex mutability that exists as an ongoing process within all videogames (Conclusion, Section 1, para. 4).

Through Anable's critique of the MoMA's formalist videogame curation, we once again see the many ways that videogames do not fit comfortably into older, institutional modes of archiving and collection. When trying to present videogames as static, unchanging objects, there is the risk that such efforts will fail to account for how they are always undergoing processes of material and cultural flux. This is not to say that videogame collection or archiving should be abandoned, but that instead, they should be approached from a more dynamic starting point than games formalism.

Anable presents an exciting alternative to the MoMA's videogame curation through her theoretical reading of the archive and its "close relationship with decay and ruin" (Conclusion, Section 1, para. 6). According to Anable, videogame archives will always be "imperfect and incomplete repositories of objects and ideas" and that it is "impossible to create a perfect archival record of anything, let alone what a video game feels like, long after its technological moment" (Conclusion, Section 1, para. 6). Her solution to this is to instead approach videogame curation and preservation through what she calls an "affective archival practice . . . that is always necessarily incomplete" (Conclusion, Section 1, para. 7). For Anable, this affective archival practice is "phenomenologically imprecise" (Chapter 1, Section 2, para. 2) in such a

way as to help erode some of the long-lasting ontological structures that were constructed during game studies' formative years in the early 2000s. However, Anable does not abandon materiality and form altogether. Instead, she reads affect itself as a kind of formal quality that, when closely analyzed, productively blurs the relation between what is intrinsic and external to any given videogame. By "cybernetically folding" (Sedgwick and Frank, 1995) a videogame in on itself so that the source code is seen to be just as significant as its materiality, the images and narrative being represented on screen, as well as the subjectivity and body of the player (or spectator) apprehending it, one can begin to move beyond the stasis of what games formalism was and into a new space where systems, rules, and form are acknowledged but not privileged above all else. Anable (2018) acknowledges how this intentional imprecision and in-betweenness could be critiqued as disorienting but argues that this disorientation will allow games studies and videogame history to be more progressively reoriented towards feminist and queer theory—areas of scholarship and practice that have long been marginalized within videogame culture. Echoing Anable, I argue that by intentionally becoming disoriented towards the art history of videogames "we might reorient ourselves as critics and scholars towards some of the binary impasses in contemporary digital and posthumanist theories" as well as reconsider "how the line demarcating computation from representation is also a line that demarcates boundaries around what and who count as video games' proper subjects and objects, historically and in the present" (Chapter 1, Section 2, para 12).³⁷

While Guins (2014) and Anable (2018) address the art history of videogames through speculative approaches to the archive and the museum, they also do so through an often-intense focus on materiality, form, and ontology. Felan Parker's research on videogame culture as a form of social-artistic assemblage helps broaden this lens and extend the notions of mutability and dynamism out to the audiences and communities through which videogames flow and inhabit. Combining the work of Howard S. Becker (1982) with DeLandian (2006) assemblage theory, Parker defines the art world of videogames as adhering to "no objective structure . . . though similarities and patterns may be identified" (p. 44). These patterns are heavily susceptible to change in that they are influenced by "the wide range of different objects and practices called 'art' in different cultures and periods" (p. 44). In this way, the many smaller social assemblages that constitute the overall art world of videogames are "constantly changing and precarious, becoming more or less stable and autonomous as the relations between their components and with other assemblages shift and transform over time, and internal or external

³⁷ Posthumanism and contemporary digital art theory will both be looked at more extensively within Chapter Four in relation to the self-playing videogame art of David O'Reilly and Ian Cheng.

forces work to reinforce or destabilize [their] current structure” (p. 45). As an example of how this works within the traditional art world, Parker points out how abstract expressionist painting—something he reminds readers was initially considered quite radical by artists, critics, curators, and dealers within the 50s and 60s—means something very different now when approached by contemporary audiences who will most certainly encounter them as works within a widely accepted art historical canon. Although this should not be a radical or controversial statement, as I have shown throughout this Literature Review, the tenets of the bygone art worlds of the 50s and 60s have been frequently used as methods of legitimation within the recent art history of videogames.³⁸ Instead of attempting to bring videogames into galleries and museums by forcing them to adhere to the gamified rules of radically different, historical art worlds, I argue for newer, more speculative, and provisional methods that can better account for how videogame art functions within the present, according to its ever-shifting patterns and relations.

Conclusion

Reflecting on the trends outlined in this literature review, it is unsurprising that many videogame art researchers have looked to familiar methods such as formalism and art historical comparisons to help them justify their field and objects of study. However, as this chapter also shows, these methods have contributed to a discursive loop around the topic of videogame art. So much of the scholarship that has been done within game studies on videogame art has been inextricably linked to the goal of defending videogames as a viable medium according to well-established and often hierarchical conceptions of what precisely constitutes a work of art. Videogames may have required this form of championing to initially break into gallery and museum spaces, but this is no longer the case as a steadily increasing number of videogame art practitioners are freely working within these spaces in addition to the more commodified distribution networks of commercial gaming.

Responding to this looping stasis, John Sharp (2015) argues that the conversation around videogame art has ended or at least primarily been subsumed into a deeper “cul-de-sac

³⁸ Emilie Reed (2019) identifies how the problem of using a canonical history as a self-legitimizing tool is not just restricted to game studies’ comparisons to famous avant-garde artists. She identifies how repetition and recursion are also frequently used as tools by the commercial videogame industry to help construct a “proscribed history of games” that centralize power around the consumer’s perceived canon. Comparing this to the contemporary art market, Reed argues that “This situation, of endless repetition of some sort of vague nostalgia, or callbacks to things we think we should like and appreciate, of boom and bust while a few choice assets are selected and squirreled away to consolidate more inevitable power and capital at the tippy-top, is not unlike the corralled history of commercial videogames.”

inside the marginalized world of media art” (p. 115). Sharp qualifies his argument by stating that he does not see this as a “tragic turn” and that there are still many artists who are synthesizing “the concerns of games and those of art in ways unimaginable just ten years ago” (p. 115)). Although I agree that the last decade has seen a rapidly growing number of videogame artists, I also argue against Sharp’s declaration that the practice has been subsumed and the conversation has ended. Rather than framing its relationship with the world of media art as the catalyst for this looping state, I instead posit that the art history of videogames is still mired in now decades-old questions of legitimation that work to delimit the scope of newer discourse. I argue one of the central reasons behind this is that game studies is still relatively new and thus, the number of publications available on the topic of videogame art is heavily weighted towards the field’s early years when many scholars were primarily concerned with the question of whether videogames could be accepted as a viable topic for academic analysis. I argue that this has created a situation where subsequent scholars and debates have been disproportionately influenced by these kinds of prototypical texts due to a combination of citational politics and publishing trends. Through this looping process, the art history of videogames has undergone a slow scholarly calcification where the initial rules of games formalism have formed an ongoing framework for many exhibitions, books, and papers. However, as Steyerl advises, if one wishes to move forward and not get locked into stasis, these kinds of formalized rules must also be balanced with more informal processes of play and experimentation, both of which I work to utilize throughout the rest of this dissertation.

This literature review has worked to demonstrate that the discourse around videogame art often takes the form of a loop enclosed by those who feel that the medium needs to both be staunchly defended and rigidly defined. As I move forward into this dissertation’s case studies, I will return to more closely examine some of the texts I have reviewed here. In some cases, this will be to call back to examples of games formalism to provide a counterexample with which to frame my discussions, though just as often I will be referring to the scholars I referenced in the final sections of this literature who champion speculative methods for videogame art analysis that are rooted in multiplicity, heterogeneity, and hybridity. Together, both veins of scholarship will be used to productively animate the art history of videogames away from what I have argued are its heavily formal origins.

Chapter Two

Trash Games: Decentralizing Play within the Videogame Art Exhibition

At the end of the last chapter, I briefly outlined the MoMA's widely publicized acquisition and exhibition of a select group of commercial videogames. Due to the MoMA's strong cultural cachet and firmly established position within the global art world, this act represented a significant turning point for the "games-as-art debate" (Parker, 2014, 2018); however, it was by no means the first instance of a videogame entering into the permanent collection of a museum. In Tdecades prior, many science and technology museums had already been collecting and displaying the material components of videogame culture, creating various archives of arcade cabinets, early computers, and gaming consoles, as well as other printed ephemera such as packaging, instruction manuals, and magazine advertisements. Although these institutions differ from the MoMA in their decision to treat videogames as physical artifacts rather than immaterial code, both methodologies are united through their aim to preserve their collections for future generations.

In this chapter, I work to emphasize the many ways videogames are conceptually incompatible with many older methods of institutional archiving and collection due to the technoculturally entropic processes they are constantly undergoing. In addition to their ontological instability, videogames are also consistently degraded by material forces such as digital decay, bit rot, and destabilizing plastics.³⁹ Even though this degradation can be slowed through preservation efforts, as is the case with many other aging technological objects, they cannot be halted entirely, and there will inevitably come a time when they cease to function. This is the dilemma that many museums face when deciding to archive and exhibit videogames, as the display methods that would provide the most access and interactivity to these objects would also rapidly work to hasten their slow decline into complete inert obsolescence. Additionally, besides aiming for their collections and exhibitions to be fully functional, due to the longstanding connection that videogames share with youth culture, many institutions also feel the pressure to display their selected objects in a child-friendly way that allows for ongoing, durable, and unsupervised playability.⁴⁰

³⁹ For more on how videogame preservation and digital entropy are related, see Guins (2014) and Newman (2012).

⁴⁰ Beryl Graham (2008) notes this pressure when reflecting on *Serious Games*, an early exhibition of game art and art games he curated at Laing Art Gallery in 1996. Although she originally intended to frame the exhibition through a more mature critical lens, she states that she felt distinctly pushed by the gallery to make marketing and didactic choices that would appeal to younger audiences (pp. 197-198).

An example of this tension between curating playability and the archival urge for authenticity can be found in the Strong Museum of Play in Rochester, New York. Jon Paul Dyson—director of the Strong Museum’s International Centre for the History of Electronic Games—responds to this tension when describing the design of the institution’s exhibitions. Paul recounts that when the Strong first assembled their permanent videogame exhibition they had put out an authentic Atari VCS for guests to interact with, but that it only took a few days for them to “burn” through the aging console’s original controllers (quoted in Guins, 2014, p.41). When asked if any of the museum’s guests ever attempted to engage with any of the interactive installations in an “excited or aggressive manner,” Dyson responds that although the Strong’s status as a museum incurs a sense of decorum stronger than one might expect from a typical arcade, that as it is designed to be a fully interactive space “people do not have the same respect for artifacts that they would bring to an art museum” (quoted in Guins, 2014, p.43). Because of this high potential for guests to accidentally damage their artifacts, the Strong Museum now has many of its original game consoles unavailable to be directly handled by its patrons. Instead, museum attendees are now often only able to interact with hardware remotely through artificial reproductions of their controllers and peripherals. These copies are typically set up at a distance from the console, which is protectively housed in a clear, glass presentation container and only manually manipulated by museum staff.⁴¹

The issues that Dyson highlights—that interactive exhibition design inevitably leads to preservation problems—make the MoMA’s decision to only display the emulated code of their selected games seem a bit more practical. In limiting their exhibition choices this way, the MoMA does not have to worry about maintaining aging game consoles or replacing worn-out, original peripherals. Looking at this in relation to broader videogames culture, the dichotomy that exists between these two curatorial modes connects back to the debates over videogame ontology highlighted in the previous chapter. The Strong works to define their videogame collections as rarefied, material objects, while the MoMA defines their games purely as easily replicable software. Although there are significant differences between the two, both strongly prioritize the interactive playability of their videogame collections. From this perspective, the MoMA’s exclusive focus on code is closer to the medium specificity of games formalism, and the Strong enacts a kind of media archeology that prioritizes material preservation and authenticity. Despite their variances in curatorial intention, these two institutions’ shared

⁴¹ Adding to the earlier connection between videogames and children, Dyson also points out within the sections of the Strong’s exhibitions that contain arcade cabinets, one of their biggest concerns is scuff and scratch damage from people bumping into them with strollers (quoted in Guins, 2014, p.43).

prioritization of playability as a core element of their videogame exhibitions has the potential to obscure the histories that lay beyond the bounds of direct mechanical interaction.

Beryl Graham (2008, 2014) describes the function of museum collections and exhibitions of any new medium as being a kind of experimental space that heavily influences the future trajectories of that medium's collection, curation, archiving, and historicization. In this way, institutional exhibitions and collections of older videogames not only represent the medium's history but also actively contribute to writing its future discursive framework. If the most prevalent paradigm for videogame curation is that playability should be the primary mode of audience engagement, then this will lead to the crafting of a very specific history that excludes many of the other material and cultural processes that occur outside of any direct configurative experience with the videogame object. This exclusion can potentially mean the biographical details or artistic intentions of the creator, how a certain work might be perceived within popular culture, or other modes of non-play-based engagement such as spectatorship, listening, reading, and social interaction.

Emilie M. Reed (2018) further outlines these tensions, arguing that working to include spectatorship and other cinematic modes of engagement into videogame curation can help to productively "complicate the understanding of where a videogame as an art object begins and ends" (p. 104). Reed continues, stating that "While many recent exhibitions of games emphasize the interactivity of the form and offer a large number of interactive displays, to fully account for the ways in which videogames are experienced as art objects or aesthetic experiences, it is important to also consider how alternative modes of engagement, like spectatorship and collaboration, have shaped both the reception of videogames and the exhibition of art" (p. 105). By shifting the focus away from purely play-based modes of audience engagement, there is the potential to better integrate videogame art into wider digital art and culture contexts. Examples of these alternate modes of videogame engagement include live streaming, video reviews, Let's Plays, and speedrunning, all of which are long-standing core elements of popular videogame culture.⁴² Creating space for them within exhibition and collection design would help to represent the full diversity and mutability of videogame culture and allow for easier access and more meaningful interaction for those not already familiar with the medium's interfaces and hardware.

⁴² All these listed activities are mostly conducted by videogame fans on digital platforms such as Twitch and YouTube. These can either be done as a hobby or more intensely as a profession. For more on these kinds of alternate practices and how they contribute to broader videogame culture, see Stephanie Boluk and Patrick LeMieux's book *Metagaming: Playing, Competing, Spectating, Cheating, Trading, Making, and Breaking Videogames* (2017).

The tensions I outline above also exist beyond the specific scope of videogame exhibitions as a potential problem for displaying other art forms that rely on interactive technology. Claire Bishop is an art historian who is well known for her work on how participation functions within the experience of contemporary art. Bishop also gained some notoriety for her criticism of how digital and new media art have been produced and curated over the last couple of decades. Within this latter context, Bishop (2012a) argues that the longstanding trend within contemporary art institutions to dually favour singular authorship and physicality in the acquisition and display of their collections is largely incompatible with the “endlessly disposable, rapidly mutable ephemera of the virtual age” as well as the “dematerialized, deauthored, and unmarketable reality of collective culture.”⁴³ In a similar argument regarding the materialism of participatory and performance-based artwork, Bishop (2012b) works to interrogate how these often ephemeral pieces have been collected and exhibited as groupings of “formless-looking” and “anti-aesthetic” documents and objects. Significant to this dissertation’s focus, Bishop also points out that these anti-aesthetic ephemera should not be regarded as “objects of a new formalism,” but to instead view them in terms of their ability to help “contribute to and reinforce the social and artistic experience being generated” (p. 8).

Returning to the context of videogame exhibitions, Bishop’s arguments regarding physicality and participation can be used to productively argue for the value of looking beyond the moment of direct configurative play with a videogame object. As I outlined in the previous chapter, videogames exist as a highly mutable form of media that consistently resists more static modes of categorization and archiving. Through their slow digital decay, they are always in the process of shifting into obsolescence, a process which many institutions are actively attempting to combat. However, due to videogames’ inherently participatory and interactive nature, this process is also rapidly accelerated through direct or indirect handling by museum or gallery visitors. In this way, it makes sense to explore the alternative “formless” routes that Bishop outlines regarding the ephemerality of participatory artwork. Not to solely rely on a singular, games formalist method of play-based engagement that privileges those already familiar with the potentially alienating interfaces of videogame technology, but to expand outward to allow for other types of non-ludic participation and interaction.

Up until now, this chapter has been largely focused on examples of how commercially released videogames are collected and exhibited as historical, technocultural artifacts rather

⁴³ Bishop received substantial criticism for the paper in which she made these arguments. Many scholars and critics felt that Bishop was setting up too simple of a binary between digital and non-digital artwork. For examples of texts working to critique or respond to Bishop’s original arguments see Cornell and Droitcour (2013), Heartney (2013), Kataoka (2013), Teasdale (2013), and Quaranta (2013, p.8-10).

than how videogame art functions within the often white cube setting of contemporary art spaces. However, in both circumstances, the process of bringing a videogame art object into a gallery or museum space has a transformative effect. For commercial videogames, this process transports them from the lively wilds of popular culture into what Raiford Guins (2014) refers to as the “afterlife” of a collection or archive.⁴⁴ Then for more experimental works of videogame art, this process has a distinctly animating effect as videogame artists will often have made their work with the context of the white cube already in mind. Regardless of the differences between how videogames are collected and exhibited, the journey into an institutional space will bring these objects into contact with formalized systems of preservation and stasis—systems that tend to define videogames primarily per their capacities for play.

Reflecting on Reed’s (2018) arguments on alternative modes of engagement within videogame exhibitions and Bishop’s writing on the anti-aesthetic and formlessness qualities of participatory artwork, how might videogame artists produce work that responds to the tensions outlined above? How can videogame art be created and critically framed to self-reflectively operate as both a finite material object and an ongoing cultural process? To acknowledge their inevitable digital decay, but to also celebrate their mutability and capacity for multiple modes of engagement? As I have worked to emphasize, there are no perfect solutions within the art history of videogames. Games formalism often positions videogames as enclosed systems of play to be mechanistically defined. However, in reality, they are inextricably bound to many fluid and entropic processes that work against such definitional analysis. How can artists and designers move beyond these irresolvable tensions and productively position their creations as formless objects that openly embrace their potential for ambiguity and dissonance? To circumvent the notion that the experience of direct human-to-machine, playful interaction is the only way that videogames should be defined and valued?

The rest of this chapter will work to answer the questions posed above through a comparative study of Cory Arcangel’s art installation, *Various Self-Playing Bowling Games* (2011)⁴⁵ and Bennett Foddy’s commercially released platformer game, *Getting Over It with*

⁴⁴ Guins (2014) defines the afterlife of a videogame as “a curious state after commodification and consumption, after intended utility and designed functionality, and possibly even after obsolescence; where a standard a standard life span is met with extended or repurposed and recontextualized uses. It designates a formative situation affecting how we know, understand, and experience video games when their attributed values and meanings are neither limited to the actual play of a game nor mark an obvious terminus in life history” (p. 7).

⁴⁵ At the time of *Bowling Games* initial exhibition, Bennet Williamson was working as Arcangel’s fulltime studio assistant and thus would most likely have played a substantial role in the work’s production. Williamson had since moved on and at the time of this dissertation’s writing works within the Digital Art New Media graduate program at UC Santa Cruz.

Bennett Foddy (2017).⁴⁶ Although these two works were produced and presented in different contexts, they help reveal how videogames are thematically and materially tied to processes of obsolescence, decay, and failure.⁴⁷ Furthermore, they achieve this not only through the display of playful interaction, but also through a combination of other modes of creation and engagement that include deliberately disorganized, anti-aesthetic arrangements of physical and virtual objects.

To initially frame the messier qualities of Arcangel and Foddy's videogame art, I now turn to Brendan Keogh (2017) and his argument that "It's okay for games to be trash sometimes." Keogh's work on the small informally produced work that he affectionately refers to as "trash games" will be helpful here as it functions as a critical response to the dual processes of formality and formalism I argue have been dominant over the last two decades of videogame art history. Keogh's work will also be useful in that his focus on informal game development practices—those that fall outside of the standardized structures of the commercial industry such as those performed by artists, students, and hobbyist developers—helps to build a productively nebulous framework for how videogames exist within their own unique art world.⁴⁸ Additionally, Aubrey Anable's work on the "aesthetics of failure" (2018, Chapter 4) within videogames will also be relevant through her explicit repudiation of the configuration, control, and mastery that are often emphasized by games formalism. By focusing on examples where failure is not framed as a temporary roadblock on the way to success, but an integral and deliberately authored component meant to be critically reflected upon, Anable argues that the failure can be utilized to allow videogames to exist in a more hybridized state. One that disrupts binary modes of analysis that prioritize the separation of form from content, game from art, winning from losing, and computation from representation.

By starting from the point of informality and failure, the art history of videogames can be pivoted in such a way as to allow greater potential for partial and incomplete experiences to be seen as viable. For the curators of videogame art exhibitions to not feel pressured to rely on

⁴⁶ Within the end credits for *Getting Over It*, Foddy lists all the aspects of the game that he is responsible for such as "design, art, music, levels, 3D models, textures, marketing, writing, QA, and voice acting." Although this seems to confirm that he did not significantly collaborate with any other artists within the work's production, he also goes on to extensively list all the open-source assets he used within the game's production, and a number of individual friends and peers who he wanted to specifically thank for helping him playtest it before release.

⁴⁷ *Getting Over It* has also been shown in several permanent and temporary art exhibitions, a few of which will be summarized later in this chapter.

⁴⁸ Following the work of Howard S. Becker (1982), there has been much discourse over the last decade over how videogames exist within their own unique art world. For more information on how the art world of videogames exists in relation to those of cinema and fine art see Parker (2014). For how they exist in relation to those of contemporary and new media art see Quaranta (2011).

perfectly preserved configurative play, but to instead be able to conceptualize their work in a more formless and provisional way. Following Keogh's trashy informalism and Anable's aesthetics of failure, I work to speculatively position both Arcangel's *Bowling Games* and Foddy's *Getting Over It* as examples of how videogame art exhibitions might be productively reoriented as assemblages of failure. To conceptualize these two artists' work as slowly failing trash heaps meant to be sifted through—though not always necessarily played with.

Arcangel's and Foddy's work start from places of informality and digital decay—both in terms of their content and production methods—and through these qualities, each artist works to complicate the notions of how videogames have been historically valued and interacted with. Through its comparison of *Bowling Games* and *Getting Over It*, the rest of this chapter will address the tensions of authenticity, preservation, and playability that I have summarized above. Through this comparison, this chapter will work to reveal how it is “okay for games to be trash sometimes” (Keogh, 2017) and provide alternative options for interaction within videogame art exhibitions that allow for their displayed objects to be engaged with in ways that deliberately fail at being traditionally ludic. In the next section, I will focus on Arcangel's *Bowling Games* and how it uses failure to present a humorous response to the linear timelines that form the core of many previous high-profile videogame art exhibitions.

Various Self-Playing Bowling Games

Cory Arcangel is an American artist who has been commonly associated with several intertwining movements and categories, including game art, internet art, post-internet art, digital art, new media art, and conceptual art. Most of his work aims to playfully satirize various elements of popular technoculture, with many of his earliest pieces focusing specifically on the steady obsolescence of aging videogames.

As mentioned in the previous section, the piece of his that will be comparatively discussed within this chapter is *Various Self-Playing Bowling Games*. Co-commissioned by the Barbican Art Gallery in London and the Whitney Museum of American Art in New York for his respective solo exhibitions at each institution, this monumental installation piece consists of several full-wall video projections and a series of modded videogame consoles arranged atop a row of white tables. At the Barbican, there were fourteen screens and consoles exhibited, but at the Whitney, there were only six screens with ten consoles displayed. Despite this difference in scale, in both cases, the tables that were used to hold up the videogame consoles were relatively simple, suggesting the dorm-room aesthetic of IKEA home office furniture. Additionally, although the modded videogame consoles were arranged in a straight line across

these tables, there was little attempt to hide or neatly organize any of the potentially messy A/V wires and power cords that were connected to them. On this same note, attached to the front of each of the consoles was a modded videogame controller with an exposed microchip unceremoniously attached to the top. The chip Arcangel uses for each console's respective controller may be slightly different in size and shape, but they are united through a seemingly hastily scrawled signature written in white across its green surface. Collectively, all the decisions Arcangel has made regarding the material presentation of his modded videogame hardware lend his installation a significant degree of friendly informality. The messy consoles and cheap tables work together to give the piece a feeling of domesticity that functions against the grain of the institutional formality of the white cube it is housed within.

The consoles are also connected to a series of overhanging projectors which have been arranged to create a seamless line of full-wall video projections. Each of the projections' video feed corresponds to one of the videogame consoles and has been organized in a chronological manner so that the video output from the oldest consoles is on the left and the newest on the right. As the name of the piece implies, the videogames loaded into each of the consoles are a selection of bowling titles from throughout videogame history.⁴⁹ Due to the vast range of time between these when each of these bowling games were released there is also quite a significant difference in graphical fidelity and animation style from one side of the installation to the other. On the left side of the wall of projections, where the early Atari titles are shown, there are only very simple, two colour, pixel-based animations. Then further to the right, the projections transition into multi-colour pixelation, before eventually changing into three-dimensional polygonal animation. John Sharp (2015) describes this chronological arrangement of videogame aesthetics as one that is meant to communicate a gradual evolution of technology and culture, seeing the shift from pixels to polygons as one of linear progress that demonstrates how videogames have advanced over time (p. 47). Although it is true that how Arcangel has assembled *Bowling Games* reveals the way that videogame mechanics and graphics have become more complex in the half century since their invention, there are other elements of the work that I argue work against Sharp's notion that the work is primarily functioning as a timeline of technological progress. The first of these is that Arcangel specifically chose to compose the piece around bowling games. This niche genre has rarely, if ever, been associated with pushing

⁴⁹ The oldest of these is simply titled *Bowling* and was released in 1979 for the Atari VCS. Some of the other titles include *Brunswick World Tournament of Champions* (THQ, 1997) for the Super Nintendo, another game that was just called *Bowling* (Agtec Inc., 1999) for the Sony PlayStation, *Brunswick Circuit Pro Bowling* (THQ, 1998) for the Nintendo 64, and *Strike Force Bowling* (Enlight Software, 2004) for the Nintendo GameCube.

the medium forward in terms of graphical fidelity, systems design, animation quality, or any of the other elements typically indicative of videogames' technological advancement. The second component of Arcangel's piece that subverts the notion of simple, linear progress is how he has modded the game consoles to infinitely play his selected bowling games so that they are stuck in an automated loop of throwing constant gutter balls. This combination of an unpopular genre, messy hardware modifications, and looping failure work against the chronologies of commercial success, graphical advancement, and playable fun that have been constructed by many previous survey videogame art exhibitions.

Aubrey Anable (2018) argues that these aspects of Arcangel's piece combine to evoke what she refers to as the "aesthetics of failure" (Chapter 4, Section 5). In defining this quality, Anable refers to the specific feelings of shame brought on by personal failures such as losing a game or performing poorly at a given task and broader cultural conceptions of failure such as obsolescence and poverty. In the dejected faces of the failing bowlers of Arcangel's piece, Anable affectively reads the feelings of shame that one might feel when unsuccessfully navigating the forces of capitalism. Anable ties the cycles of hope and shame that orbit the experience of failure to the growing corporatization and capitalization of culture: "Success, it seems, is always on the verge of arrival and always possible despite the many barriers and signs to the contrary . . . We fail forward, we might tell ourselves" (Chapter 4, Section 2, para. 3). In our increasingly connected world, there are powerful societal prompts for the individual always to be productive and consuming. Failing to make efficient use of every hour in a day or being unable to participate within consumerist culture as one wishes to have both become common potential routes for feelings of shame and critical appraisals of self-worth. Anable sees Arcangel's use of videogames—especially the fact that they are sports games—as being relevant to the shameful feelings of failure one commonly observes within capitalism. To this point, Anable argues that in the decades since their invention, videogames have morphed into "controlled, small-scale versions of the state of endless competition under which capitalist societies live" and that specifically within sports games "we might gain a feeling that the winners deserve to win because the game is fair and highly regulated (and the losers have only themselves to blame)" (Chapter 4, Section 2, para. 5).

Building on Anable's deep focus on the affective feelings of shame one might experience while moving through the meritocracies of game, sports, and capitalism, how might this drive for success influence the way videogame history is being written? Or, to put it another way, how might the meritocratic elements present within older, more traditional competitive game forms factor into how videogames are defined by institutions via their processes of curation, exhibition,

and collection?⁵⁰ Returning to the contrasting examples of the Strong and the MoMA outlined in this chapter's introduction, this game-like aversion to failure can be seen within each institution's preservation efforts. From the perspective of these two institutions, for a videogame to be successfully collected and exhibited it should above all else remain with a readily playable state. If a videogame is no longer playable due to bit rot, digital decay, wear-and-tear, or any other similarly entropic force, this is seen as a failure of the institution to properly maintain their exhibition or collection. Furthermore, the malfunctioning videogame's lack of playful interaction is also seen as an ontological failure, one where the videogame is failing to perform as a game.⁵¹ If the videogame can no longer be played, does it still exist as a game? Or does it transform into an inert artifact? A kind of non-game? On this same note, if the institutional priority for videogame art exhibitions is playability, how might this potentially delimit a curator's scope in terms of including works that, for whatever reason, are not playable?

The MoMA's focus on code over material objects may circumvent the playability problem of videogame conservation, but this requires a large amount of legal maneuvering to acquire the rights to each videogame's code and can even become impossible when looking at older, less popular titles where the question of who holds the copyright has been lost over time. The current list of videogames within the MoMA's permanent collection is full of relatively well-known, commercially successful works with creators or publishers who would be easily accessible.⁵² This sliver of videogame history—one that is structured by code and copyright law—excludes a large amount of the medium's culture that may be obscure or otherwise legally inaccessible.⁵³ In effect, this pushes the art history of videogames toward a mixture of

⁵⁰ For more on the meritocratic elements of videogame culture and how they can become harmful or destructive, see Christopher Paul's *The Toxic Meritocracy of Video Games: Why Gaming Culture Is the Worst* (2018).

⁵¹ For more in-depth examples of various institutions' preservation efforts and how they have struggled against videogame obsolescence and digital decay, see Newman (2011, Chapter 4) and Guins (2014).

⁵² The full list of titles in the MoMA's videogame collection at the time of this dissertation's writing includes: *Another World* (Delphine Software, 1991), *Asteroids* (Atari, 1979), *Canabalt* (Adam Saltsman, 2009), *Dwarf Fortress* (Bay 12 Games, 2006), *EVE Online* (CCP Games, 2003), *Flow* (2006), *Katamari Damacy* (2004), *Minecraft* (Mojang Studios, 2011), *Myst* (Broderbund, 1993), *Pac-Man* (Atari, 1980), *Passage* (Jason Rohrer, 2008), *Pong* (Atari, 1972), *SimCity 2000* (Maxis, 1994), *The Sims* (Electronic Arts, 2000), *Snake* (Nokia, 1997), *Space Invaders* (Midway, 1978), *Street Fighter II* (Capcom, 1991), *Tempest* (1981), *Tetris* (Atari, 1984), *Vib-Ribbon* (Masaya Matsuura, 1984), and *Yars' Revenge* (Atari, 1982).

⁵³ Within videogame history there are numerous instances where the original company that held the copyright of a particular videogame goes out of business and the legal ownership goes into limbo with no easily available person to contact if a museum, library, or archive wishes to acquire it. For more on this see Newman (2011, pp. 7-8, 138-139).

commercial popularity and enforced playability, one where for exhibitions to be deemed successful, they need to be curated to include familiar, easily playable works.

While the MoMA's approach to video curation is focused on the code of a select few titles, the Strong, on the other hand, has a much more extensive archive of physical videogame objects and ephemera. Although this collection is vast and includes defunct hardware, archival documents, promotional material, strategy guides, and other similar material ephemera, the Strong's permanent, public-facing videogame exhibition is still primarily predicated around the direct experience of commercially popular, fully playable games. When examined together, the MoMA and Strong's shared curatorial focus on playability and familiarity work to reveal the way that—like Anable's (2018) focus on cycles of failure—videogame exhibitions function as microcosms of technocultural capitalism. For an exhibition to be deemed as successful, it must typically attract many visitors, turn a profit through ticket and merchandise sales, and be reviewed positively by its respective art world. This urge to curate in an efficient, game-like manner is exemplified by how the MoMA has organized the content and physical layout of its permanent videogame exhibition to prioritize traffic flow and discourage lengthy engagement with any singular work. Iconic arcade titles like *Pac-Man* (Atari, 1980) have been placed close to the exits of the exhibition, while slower strategic games like *EVE Online* (CCP Games, 2003) or *Dwarf Fortress* (Bay 12 Games, 2006) have been condensed into bite-sized playable demos and short video demonstrations that can be consumed quickly.⁵⁴

The choice to show longer or more complex titles in the form of a video to be watched rather than a videogame to be played—even though a relatively minor portion of the exhibit—did not go without criticism. In a review for *The New York Times*, Chris Suellentrop (2013) points to this lack of playability as a shared fault of both the MoMA's permanent videogame exhibition and the *Art of Video Games* touring exhibition that was first shown at the Smithsonian. Here Suellentrop writes that the show was “disappointing” because when you “remove interactivity, the ability of the player to communicate with the machine (and by extension the designer), . . . you no longer have a video game.” Sullentrop's criticism is a perfect example of the external pressure that curators and museums must contend with when deciding how they want to organize their videogame art exhibitions. The way that videogames are generally conceived of by many people falls into a deeply entrenched cultural category that has predominantly been

⁵⁴ “We don't want the same person to stay in front of a screen for an hour,” curator Paola Antonelli explains within an interview on the exhibition (quoted in Indvik, 2013). Although this makes sense in terms of improving traffic flow through the exhibition, even as apparently a lengthy amount of time as a whole hour is nowhere near enough to fully understand many of the more complex strategy, role-playing, and simulation games within the exhibition.

carved out by the entertainment industry. Many of the medium's most ardent fans would agree with Sullentrop's statement that an essential quality of a videogame is its playability and that this should similarly be a required element of any exhibition that attempts to present them as works of art.

Jesper Juul (2013) elaborates on this notion, arguing that in the half-decade since their invention, videogames have come to be artistically valued by their fans according to two central arguments. The first of these is that "Video games can do what established art forms can do," according to which "the fan claims that video games can produce the same types of experiences" as cinema, literature, theatre, or visual art (p. 23). Or, to put it another way, videogames should be qualified as art because they can achieve the same effects as other commonly accepted forms of art. Juul immediately discounts this strategy, however, arguing that "if we only argue that video games live up to the criteria set by [other art forms], why bother with games at all?" (p. 24). Juul then identifies the second most common argument regarding the artistic value of videogames which is that "Video games transcend established categories" (p. 24). Within this latter argument—which Juul describes himself as aligning with, albeit in a slightly "softer" manner—there is a desire to "appraise the *unique* qualities of video games" which can be achieved by purging "the influences from other art forms" and by "banishing straightforward narrative from game design" (p.24). For Juul, one of unique qualities of videogames—on top of their interactivity and playability—is their capacity for producing experiences of success and failure. In this way, Juul not only resembles Suellentrop (2013) through his arguments that videogames' artistic value lies in their ability to be played, won, and lost but also functions as an example of what Anable (2018) is referring to in her critique of videogame culture's tendencies toward competitive and hierarchical ways of thinking.

Reflecting on the pressure for playability that institutions face from game formalist critics and academics, as well as from videogame fans and the general public, what does it mean that Arcangel has chosen to present *Various Self-Playing Bowling Games* in a manner that is unplayable for gallery patrons? According to medium enthusiasts like Suellentrop, if there is no direct interaction between player and machine, there is no videogame. If Arcangel has modded his appropriated videogames to perform an infinite loop of pre-recorded actions, is there still a player present? If so, would it be Arcangel as an absent, phantom player? Or the videogame console itself, as a cyclical non-human enactor? Additionally, according to scholars like Juul, for a videogame to be deemed ontologically valid, there must be equal capacity for both success and failure; however, none of the bowlers in Arcangel's piece will ever achieve anything besides a gutter ball. Responding to these qualities of *Bowling Games*, Anable (2018) argues that the

work is a deliberate subversion of the “logic of repetition in video games where we repeat sequences and levels” in order to make progress. That by “removing the possibility of progress, Arcangel’s self-playing games repeat lines of code” until “the accumulation of repetition exposes something about the process itself” (Chapter 4, Section 6, para.6).

Although Arcangel’s construction of a set of seemingly infinite loops of failure fits within Anable’s arguments on capitalism, meritocracy, and shame, her notion that *Bowling Games* achieves its meaning principally through repetition does not work to emphasize the material entropy of the piece. Anable does acknowledge that obsolescence plays a crucial role in Arcangel’s practice, but mostly frames this as a thematic focus rather than a material process. From a media archaeological perspective, *Various Self-Playing Bowling Games* is not just using repetition to stay put or refuse ludic progress but is also using its cyclical rhythm as means of accelerated technological decay. By physically modding his selected consoles’ controllers, Arcangel has disrupted the would-be preservationist’s emphasis on material authenticity by reconfiguring them into something new and unfamiliar. These modifications not only work against the archivist’s urge to maintain these objects accurately, but in keeping the consoles active and looping for weeks or months at a time throughout an exhibition, they also work to slowly deteriorate the aging hardware as well. Like Dyson (quoted in Guins, 2014, p.41-43) described concerning the controllers on display at the Strong, Arcangel is subjecting his modified hardware to much more intensive use than they were originally constructed for and is thus “burning” through a set of increasingly irreplaceable objects.

With *Bowling Games*, Arcangel has playfully subverted many of the most popular expectations of a videogame art exhibition. In doing so, I argue that he has also worked to reorient the art history of videogames away from its heavy focus on archival formality and games formalist playability. *Bowling Games* exists as an unplayable presentation of videogame history, focused on a niche genre that was never commercially or critically popular, that functions in a state of accelerated decay and never-ending failure. Returning to Emilie Reed’s (2018) arguments, Arcangel’s focus on interaction through observation and spectatorship, rather than direct play, can be framed as deliberately blurring how we understand what videogame art is and how it functions as an art object. In this way, Arcangel entangles the lines between videogames and other art forms—lines that games formalist like Sullentrop and Juul work to maintain. Furthermore, through this work he also muddies the distinctions between fine art and historical artifact; authenticity and authorship; and lastly between player, observer, and machine.

Although *Bowling Games* achieves much in terms of critiquing how videogame art history has and continues to be written, the piece is much more strongly associated with the context of the contemporary art world rather than that of the commercial videogame production. Through this distinction, I argue that the work functions within the realm of what Keogh (2019) calls “informal game development practice,” a term he uses to refer to anything that falls outside of the aggressively formalized space of the videogame industry. In defining this concept, Keogh traces the informal history of videogames back to their origins in the 1960s, before they had become a stable industry. Keogh points out how many of the first videogame creators produced their works in hybridized spaces where collaborative experimentation between the art world and the sciences was being encouraged.⁵⁵ Keogh then tracks this history to the late 70s and 80s, when the commercial videogame industry was beginning to formalize itself against the efforts of a vast set of informal practices enabled by the increasing accessibility of the personal computer. “With the growing availability of the micro-computer, users were able (and often required) to write their own programs, leading to the formation of hobbyist groups that would create, share, duplicate, remix, and reshare a number of ‘homebrew’ games” (p. 21).⁵⁶ Keogh describes this avenue of informal practice as producing a “flood of cheap, low quality titles” that would eventually lead to an economic crash in the videogame industry (p. 21). This crash was then followed up by a period of even more intense formalization where companies like Nintendo and Sega aggressively monopolized production and distribution networks in such a way as to stifle many forms of informal development.⁵⁷ Although informal game development may have been discouraged by the industry during this time, it was never completely quashed. Within the last couple decades, hobbyist, artistic, and independent modes of game development have all seen an incredible bloom due to the steadily growing amount of inexpensive and easily-to-learn game development tools.

As a contemporary artist who hacks and modifies pre-existing games, I argue that *Arcangel* falls into Keogh’s category of informal creators who operate within the fringes of the formalized videogame industry. Furthermore, I would also put forth that *Bowling Games* has a

⁵⁵ For more on the informal relationships that early videogames and their creators had with the worlds of avant-garde art and computer engineering see Quaranta (2013, pp. 66-67). Wilson (2008) is also another good source, though is specifically focused on the connections that exist between the televisual artwork of Nam June Paik and Ralph Baer’s science fiction computer game *Spacewar!* (Steve Russel, 1962).

⁵⁶ For more on homebrew games and the relation between videogame history and hobbyist game development see Swalwell, Ndalianis, and Stuckey’s edited collection *Fans and Videogames: Histories, Fandom, Archives* (2017).

⁵⁷ For more on the videogame crash that occurred in the 80s and how Nintendo and Sega used it as an opportunity to monopolize the development of videogame consoles, see Harris (2014).

powerful resonance with a particular aspect of informal videogame development that Keogh (2017) identifies as “trash games.” According to Keogh, trash games are a type of videogame that are often quickly made for prototyping, artistic, hobbyist, or educational purposes and that are often distributed freely or for a meager price. Like the deluge of low-quality titles that caused the videogame market to crash in the 80s, trash games are often highly criticized and quickly dismissed by the vast majority of consumer videogame culture due to a perceived lack of polish. Returning to *Bowling Games*, this potentially derogatory term that Keogh is attempting to rescue through the route of informal game development practice gains new meaning. *Bowling Games* is a collection of informally-modded videogames sampled from many periods of history that have all been reprogrammed in such a way as to produce constant, looping, unplayable experiences of failure. Additionally, as has already been noted above, they are also all bowling videogames—an unpopular genre that has typically operated at the sidelines of the commercial industry. Finally, through its consistent slow digital decay and inclusion of soon-to-be failing or obsolete technologies, *Bowling Games* is also literally composed of videogame trash. As Keogh (2017) argues and Arcangel proves, it is indeed “okay for videogames to be trash sometimes.”

Broadening the perspective from Arcangel and *Bowling Games* back out more generally to videogame art exhibitions, how might this trashy informality be used in other contexts? Although Arcangel addresses many of the tensions around playability, familiarity, and authenticity that institutions and curators must contend with when collecting and displaying videogames, *Bowling Games* only acts as a partial solution. How might a videogame use difficult or seemingly impossible play to complicate notions around the parameters of games formalism? How might a videogame deliberately use failure to enable other modes of engagement besides direct human-to-machine play? Such as spectatorship, critical listening, or social communication? How can the history of trash games and informal game development practice (Keogh 2017) be leveraged to create a work that embraces what Anable (2018) refers to as the “aesthetics of failure”? To frame failure not as a problem that needs to be solved, but as a consistent process to be acknowledged and reflected upon? And then finally, how might this messy aesthetic be used to destabilize and reorient the way that videogames are brought into galleries and archives?

In the next section of this chapter, I will be working to answer these questions by analyzing Bennet Foddy’s notoriously difficult videogame *Getting Over It*. Like *Bowling Games*, Foddy’s work embraces a more informal, trashier version of videogame art history. However, unlike Arcangel’s piece, *Getting Over It* is a conventionally playable videogame that is distributed through the formalized networks of the commercial videogame industry. The

contrasting ways in which these two works of videogame art have been engaged with, exhibited, and written about will work to further reveal how the art history of videogames typically emphasizes playability as a core value. However, through the lens of informality and failure, these two works will also help prove that this does not always need to be the case.

Getting Over It with Bennett Foddy

Bennett Foddy is a relatively successful Australian independent game designer who also works as a professor at the NYU Game Centre. Foddy's games are all united through a shared focus on difficulty and failure as meaningful and often humorous reflection points. To achieve this combination of frustration and humour, Foddy's videogames are also all designed with deliberately awkward or alienating control interfaces. In effect, this means that having any sort of previous videogame literacy or expertise is often irrelevant when engaging with Foddy's work. For example, *QWOP* (Bennett Foddy, 2008), an early Flash game of his that went viral, was a relatively simple 2D track and field game where you controlled a runner by pressing certain buttons on a keyboard to move each of their joints and limbs individually. It may sound like a simple task, but often, resulted in the runner collapsing into an amusingly awkward arrangement of elbows and knees quite early on into their sprint.⁵⁸

In addition to his focus on creating frustrating videogames, another common aspect of Foddy's practice is that much of his work has been specifically made to be played and spectated within public spaces such as exhibitions, conventions, and festivals. This aspect of his videogames works well with their high level of difficulty in that the frequent failure of those attempting to play them is both amusing to watch and easy for spectators to parse quickly. This also typically creates a scenario where various members of an onlooking crowd will quickly switch roles between player and audience. Within the frameworks of participation, spectatorship, and collaboration outlined earlier in this chapter, Foddy's intentional blurring of videogame, player, and onlooker works to expand the way that the videogame art exhibition might be conceptualized. Furthermore, although Foddy's videogames do not completely reject playability in the same way that Arcangel does with *Bowling Games*, they both use an "aesthetic of failure" (Anable, 2018) to downplay the meritocracy and essentialism common within videogame culture. Foddy's videogames do not need to be won to be enjoyed, which also subverts the game formalist notion that an ideal videogame should function as a completely balanced system with equal chances of winning and losing.

⁵⁸ For more on how *QWOP* works to intentionally rebuke standardized forms of gaming literacy that rely on common keyboard and controller interfaces and control schemes, see Stark (2020).

The qualities of Foddy's practice listed above—that his videogames do not need to be mastered or even played for people to derive humorous pleasure from them—are perhaps most evident when looking at his self-titled game, *Getting Over It with Bennett Foddy*. Initially released in 2017 on Steam (the largest online digital distribution network for PC videogames), *Getting Over It* is a platforming game where players control a bald, seemingly nude man sitting in a large black cauldron and holding a sledgehammer. Foddy has named this character Diogenes after the ancient Greek philosopher who was responsible for the Cynic philosophy.⁵⁹ The game's goal is to try and get Diogenes up a nearby mountain of trash using only his hammer as a means of leverage. The arcing movement of Diogenes' hammer is directly tied to the movement of the player's mouse, who must then awkwardly try and hook the head of the tool onto the various edges and creases of the trash mountain to pull Diogenes up further and further. Sometimes this can be done in a slow, careful manner, but most of the time there are slightly more risky maneuvers required where the player must use centrifugal force to propel Diogenes rapidly up to the next area. What makes this especially tense is that there is no checkpointing or save system available to the player. This means that if they miscalculate a jump, they will most likely fall a substantial way back down the mountain (or, many cases all the way back down to the bottom). When this happens, Foddy's own recorded voice will chime in and speak directly to the player. These voice lines can include words of encouragement (though often these vaguely resemble teasing), philosophical musings, or famous quotations on the nature and experience of failure. Alternatively, when the player ascends to a new height for the first time, Foddy will also read snippets from a fragmented, poetically written essay that meanders through various topics such as the history of difficulty within videogames, the accumulation and entropy of digital culture, and his artistic intentions for *Getting Over It*. Additionally, Foddy has also programmed the videogame to play samples from a collection of blues and country songs from the 1920s and 30s that are all linked through their self-deprecating, melancholic lyrics. Typically, these musical samples are played after the player has fallen a considerable distance.

Although skilled players can finish the game within only a couple of minutes, most players will struggle for large amounts of time before ultimately abandoning Diogenes and the

⁵⁹ Diogenes was a highly controversial figure within ancient Greek history. Like Foddy's rendition of him within *Getting Over It*, Diogenes apparently often slept within a large ceramic pot and did other similarly inexplicable things that made life more difficult for him. Diogenes was also quite antagonistic towards many other philosophers of his time. Diogenes' own philosophy of Cynicism called for followers to abandon societal conventions to live in as simple and natural a way as possible. For more on how Diogenes and Cynicism relate to *Getting Over It*, see Beil (2019).

inexplicable mountain of trash Foddy has constructed for him. Although *Getting Over It* works hard to repel most people who attempt to play it, it still has become an enormous financial and critical success for Foddy. Much of this popularity can easily be linked to how *Getting Over It* was played by many popular Twitch streamers when it was first released. Like the videogames that Foddy designed to encourage social interaction for exhibitions and festival environments, *Getting Over It* is easy to parse visually, and prompts a potent mixture of humour and tension—qualities that lend themselves exceptionally well to Twitch’s experience of interactive spectatorship. People who streamed gameplay were provided with a wealth of instances to lean into theatrical performances of failure. Many of these Twitch and YouTube streamers would emphatically curse after moving their mouse the wrong way and falling back down the mountain. In this way, even though *Getting Over It* deliberately works to push players away, by watching streamers struggle with it, an enormous number of people have been able to pleasurablely engage with the work and see more of it than they ever would be able to on their own. Foddy (2018) even directly acknowledges this within the essay he reads to the player in *Getting Over It*, where at around the mountain’s approximate halfway point, he says: “Now I know, most likely you’re watching this on YouTube or Twitch while some dude with 10 million views does it for you. Like a baby bird fed chewed-up food. That’s culture too. But on the off chance you’re playing this, what I’m saying is: Trash is disposable, but maybe it doesn’t have to be approachable.”

This reference to trash is made in conjunction with a series of previous statements in Foddy’s (2018) essayistic narration where he argues that not only videogames, but digital culture as a whole exists as a growing pile of ephemeral and disposable junk.

For years now, people have been predicting that games would soon be made of prefabricated objects bought in a store and assembled into a world. For the most part, that hasn’t happened because the objects in the stores are trash. I don’t mean they look bad, or they’re badly made—although a lot of them are. I mean, they’re trash in the way that food becomes trash as soon as you put it in the sink. Things are made to be consumed in a certain context, and once the moment is gone, they transform into garbage. In the context of technology, those moments pass by in seconds. Over time we’ve poured more and more refuse into this vast digital landfill we call the internet. It now vastly outnumbers and outweighs the things that are fresh and untainted and unused. When everything around us is cultural trash, trash becomes the new medium, the lingua franca of the digital age. You can build culture out of trash, but only trash

culture: B-games, B-music, B-philosophy. Maybe this is what digital culture is. A monstrous mountain of trash, the ash-heap of creativity's fountain. A landfill with everything we ever thought of in it—grand, infinite, and unsorted.

In this way, Foddy is not only satirically describing the platform cultures of YouTube and Twitch as a growing world of trash, but also making some complicated arguments regarding the production and consumption of videogames. There is a humourously critical element to how he equates watching his videogame being played to the notion of a baby bird being fed; however, Foddy also acknowledges that such spectatorship is an equally viable form of digital culture. And although he firmly argues that digital culture exists as a growing mountain of discarded or reused trash, he also seems to find a creative utility in the notion of using trash as a cultural building block.

In Foddy's framing of videogames as existing as part of an encompassing and trashy digital culture, there are significant connections to Keogh's (2017) arguments on trash games and informal game development. In his essay, Foddy describes how it is becoming increasingly possible for a videogame to be entirely assembled from prefabricated objects and assets, which, although never explicitly explained within the game, was the production process that Foddy chose when creating *Getting Over It*.⁶⁰ The motley collection of objects that constitute his mountain of trash are all stock 3D models that Foddy found within the various digital asset stores of the design software he used to make his videogame. Furthermore, Foddy (2018) refers to this appropriative production method as one that can only produce "B-games," a term that—like Keogh's trash games—is commonly used within online consumer forums and reviews to criticize anything that appears to be hastily created from prefabricated or reused game assets. In an early section of *Getting Over It*, Foddy (2018) further defines the term, stating that "B-Games are rough assemblages of found objects. Designers slap them together very quickly and freely, and they're often too rough and unfriendly to gain much of a following. They're built more for the joy of building them than as polished products." Although Foddy is trying to make a case for B-games, in practice, many people who use the term typically are doing so to accuse a creator of sloppily remaking an already popular game to turn a quick profit. However, what is worse is that the term is just as often used to immediately and uncritically dismiss informally developed games made by students, artists, and hobbyist designers.

⁶⁰ Foddy has talked about his intentional and ideological use of prefabricated assets numerous times in interviews. One especially notable example of this is his video interview with videogame critic Tim Rogers (2018) where he explains that the Diogenes character was made from the stock human figure contained within the Adobe Suite's collection of default 3D assets.

Responding to the typical categorization of B-games as sloppy copies of other videogames, Foddy deliberately made *Getting Over It* as a remake of a previously existing title. However, in this case, the original was ironically another B-game rather than a profitable one from the commercial videogame industry. Within the introductory narration of *Getting Over It*, Foddy explains how the work was meant as a nod to one of his favourite B-games, *Sexy Hiking* (Jazzuo, 2002): “This game is a homage to a free game that came out in 2002, titled ‘Sexy Hiking.’ The author of the game was Jazzuo, a mysterious Czech designer who was known as the father of B-games” (Foddy, 2018). Like *Getting Over It*, *Sexy Hiking* puts the players in the position of trying to climb over a mountain using only a hammer, however, the two differ from one another substantially in terms of their visual style. Instead of being made from a homogeneously styled set of prefabricated polygonal assets as is the case with *Getting Over It*, *Sexy Hiking* is much more messily constructed from a combination of original and appropriated pixel art. Despite these visual differences, both games are designed in a deliberately frustrating and challenging way—though because of a combination of its age and unappealing pixel aesthetics, *Sexy Hiking* is the far less approachable of the two.

As a result of the increasing availability of free, easy-to-learn game development software, there has been an exponential growth in the volume of B-games such as *Sexy Hiking* and *Getting Over It* within the last two decades.⁶¹ Often, due to a perceived lack of polish or a critical interpretation of the creator’s motives, these B-games are described by consumers as artificial trash and not worthy of being defined as a proper videogame. In 2017, Steam announced that they would be removing a number of these apparently “fake games” from their online storefront and would be also changing their policies as to more strongly filter any new ones from appearing in the future. To help them revise their protocols and quality assurance for separating fake games from legitimate ones, Valve (the company that owns and operates Steam) consulted with several popular YouTubers.⁶² Critically reflecting on the consumptive loop that exists between retailers, social media personalities, and audiences, the urge to remove trash games from the cultural landscape can be viewed as a way of decisively cutting away informality. In this way, those who would most passionately argue for maintaining the line between what can be defined as a “true” and “false” videogame have positioned the consumer

⁶¹ One of the most notable of these easy-to-learn, free programs is the Unity game engine. While there are licensing fees implemented if a project exceeds a certain high threshold of profit, the engine is free to use for artists and students to make informal smaller projects that will most likely not sell to the same degree as a formally made videogame from a large studio. For more on the Unity engine and its relation to artistic and independent game development, see Keogh and Nicoll (2019).

⁶² For more information on Steam’s removal and policy toward “fake games,” see Frank (2017) and Keogh (2019, pp. 104-107)

as the kind of baby bird Foddy (2018) describes in his *Getting Over It* essay. According to this exclusionary model, videogames must be professionally polished and easily consumable. Anything else that might be too hard to control, too difficult to understand, or that fails to provide the consumer with wholly original and immediately enjoyable content can be dismissed as artificial trash.

Looking back to Keogh's historical contextualization of informal game development, this culling of apparently low-quality games has distinct parallels with the intense period of formalization that followed the industry crash in the 1980s. This has resulted in growing anxiety within the formal videogame industry that there are "too many games and too many developers" and that if left unchecked, the industry slide into financial unsustainability (Keogh and Nicoll, 2019, p. 107). Keogh and Nicoll (2019) argue that this sentiment is "symptomatic of a worldview that perceives videogames as economic objects that exist primarily for the purposes of satisfying consumer desires and generating revenue, as opposed to cultural objects that exist because people have the means— and the desire— to make them" (p. 107). By deliberating making a B-game from non-aesthetically pleasing, prefabricated assets and that is so frustrating to control that most people will never finish it—Foddy is pushing back against this kind of anxious, meritocratic worldview. In doing this, he is also embracing an "aesthetic of failure" (Anable 2018) to subversively use and reuse the readily available trash of digital culture. Foddy uses the bland aesthetic of the prefabricated stock asset in combination with a wildly awkward control interface to speak not only "to the technological constraints of nonprofessional game design software and smaller platforms but also to the ways failure in games can be a preferred aesthetic and an ideological tactic" (Anable, Chapter 4, Section 5, para.9).

By remaking an old, obscure, and unapologetically ugly B-game, Foddy is helping to reorient the way that videogames are defined and valued, shifting the perception of them as purely economic objects made to be easily and pleurably consumed. However, as he acknowledges within his essayistic narration, most people who engage with *Getting Over It* will do so by watching someone else play it, which will result in an ultimately much easier and more pleasurable experience than attempting to get Diogenes up the mountain of trash on their own. In both cases, whether it be spectatorship or direct play, these would most typically be experienced at home on a personal screen. While the most pervasive, these more private contexts are not the only ways to encounter and interact with *Getting Over It*. As mentioned in the introduction of this subsection, many of Foddy's previous works have been included within art exhibitions and festival and *Getting Over It* is no exception to this. Two notable examples of this include its 2018 addition to the *Screen Worlds* permanent exhibition at the Australian Centre

for the Moving Image (ACMI) and the *Game Masters* touring exhibition that was presented across a dozen institutions across the Oceania, Europe, and North America between 2012 and 2020.

In an article he wrote for the ACMI on his curatorial methodology for *Screen Worlds*, Jim Fishwick (2018) explains why and how he chose to include *Getting Over It* within the exhibition. One of the broad mandates behind the exhibition was to “create a social experience” that catered “to players and watchers of games alike” and to “meet the needs of audiences who may have varying degrees of game literacy.” Although *Getting Over It* is an explicitly challenging game, it is relatively easy to visually intuit its goals and the awkward mouse controls do not rely on any form of previously held videogame literacy. Through these qualities, Fishwick argues that there is less of a chance that gallery visitors will be afraid of not playing properly as it is a videogame that causes almost all players to uniformly fail. In this way, the experience of failure is the reason for *Getting Over It*’s inclusion in *Screen Worlds* rather than an instance where a gallery patron is doing something wrong or unintended.

Additionally, the potential for theatrical failure in combination with Foddy’s narration and blues music selections make the *Getting Over It* just as entertaining to watch within the gallery as it is to play. Fishwick (2018) argues that this allows for multiple ways of engaging with the work and for “an easy bridging experience from familiar to unfamiliar” for those that are spectating who might have a lower degree of videogame literacy. He also posits that this intermingling of play, spectatorship, and narration has additional conceptual utility because it allows for a kind of “Brechtian distancing” between Foddy and the people in the gallery.⁶³

Within an exhibition setting, Foddy’s commentary bonds the theme of failure to how visitors perceive and interpret *Getting Over It* and the other videogames that are on display around it. By speaking directly to the player, Foddy is also talking to the people who are actively spectating the gameplay and any other visitor who might not be actively watching but is still within earshot. And within such a distributed network of engagement, by making the argument that failure is perfectly alright and quite often unavoidable, Foddy downplays any potentially meritocratic readings of videogames as things to be perfectly mastered. Similarly, his musing on the trashy nature of digital culture and the value of B-games works to draw critical attention to the idea of videogame creation as a fluid and mutable art practice rather than just another facet of consumer capitalism. In addition to the content of Foddy’s narration, as a structural device, it also lends itself exceptionally well to a model of videogame curation for which many historians

⁶³ Brechtian notions of metacommunication and metatextuality within videogame art will be discussed at much greater length within Chapter Three.

and preservations have been increasingly arguing. One that emphasizes didactic material such as curatorial statements, developer commentary, and other material ephemera like sketches, notes, walkthroughs, clips, prototypes, or merchandise.⁶⁴ These kinds of non-ludic material allow for easier access and interpretations for those unfamiliar with, unwilling, or unable to play the videogames on display. Furthermore, they also allow for aging videogames to continue to be exhibited well past the preservation limits when they have reached a final state of obsolescence and become unplayable, inert artifacts.

Speaking to the unplayable stage that most videogames will inevitably reach, James Newman (2011) argues that narrated video walkthroughs created by players and developers should be something that institutions focus on collecting or even co-producing when bringing in new videogames into their collections. Newman contrasts this with efforts such as the MoMA's that seek to continually update and emulate their collected videogames' code so that it can be transferred onto increasingly newer computers and always be readily available to play.⁶⁵ In the case of *Getting Over It*, Foddy's narration functions as a kind of embedded developer commentary that allows it to function in much the same way as a guided walkthrough might, making his creative intentions explicit. This allows for *Getting Over It* to be understood both in the direct experience of gameplay, and indirectly through watching YouTube videos and Twitch streams of other people playing it. Foddy argues that watching someone else play his videogame may be a form of trash culture and similarly acknowledges how quickly new technology is consumed and turned into obsolete garbage. Within Foddy's trashy framing, exhibitions that remove videogames from the playable wilds of consumer pop culture and transport them in the formalized spaces of a gallery or museum also enact similar processes of consumption and transformation. Just as Foddy (2018) argues that "food becomes trash as soon as you put in the sink," videogames mutate into technocultural trash as they are decontextualized through museification. But as Foddy is also arguing, this should not necessarily be viewed as a negative thing as there is value to be found in digital culture's

⁶⁴ Fishwick (2018) discusses this more in his article for the ACMI and these topics will also be discussed at much greater length in the Conclusion chapter.

⁶⁵ Newman argues this point much further, pushing for non-playable forms of authenticity as he feels that playable authenticity is often an unwinnable battle: "In the absence of a perfect reproduction of hardware and software with which to play, we might perhaps argue that the documentary evidence of contemporary players of those original systems holds more value in interpretative and archival terms than the presentation of an approximation with which subsequent players might attempt to engage so as to fathom the complexities of its operation. If the game has to be played to be understood, we should ensure that we are actually playing the game and not a version of it. If this is not possible in the future, perhaps we should invest effort into capturing the performances and perspectives of those players that did – or can still – play it" (Newman 2011, pg. 122).

wastes. Or to once again return to Keogh's (2017) argument, it is alright for games to be trash sometimes. It is okay for games to exist as unplayable objects or to only be interacted with through spectatorship rather than played with directly. In other words, it is perfectly valid for videogames to fail at being games.

By creating and exhibiting such a trashy B-game, Foddy is making space for videogames to exist as incongruous art objects that are allowed to fail. *Getting Over It* is a videogame that fails to use unique, original assets, fails to create an experience that people are expected to finish or even play, and fails at adhering to popular contemporary videogame design trends. Within the contexts of collection and curation, this emphasis on failure—combined with Foddy's ludic musing on the entropic nature of digital culture—works to help steer videogame art history away from the preservation of playability toward a new perspective where other modes of interaction and interpretation are given equal value. There are no perfect, catch-all solutions to the problems surrounding the archiving and exhibition of videogames. With this fact in mind, rather than rejecting failure, it should instead be considered as a viable starting point for both the creation and curation of videogame art.

In the next and final section of this chapter, I work to conclusively reflect on the shared ways that both *Getting Over It* and *Various Self-Playing Bowling Games* use informality and aesthetics of failure to disorient and reconfigure the art history of videogames. By intentionally failing to make their work playable or deliberately designing them in such a way as to be unwinnable, Arcangel and Foddy are throwing a wrench into what it means for a videogame art exhibition to be perceived as successful. Through such efforts, they argue that it is okay for videogames to fail at being games—that videogames are not always going to be ever-lasting, fully functioning, and playable objects. That videogames do not always have to be challenged and overcome but are instead often ephemeral, decaying, unstable things that can be interacted within a vast number of ways beyond direct configuration, mastery, and control.

Conclusion

The MoMA and the Strong represent two currently standard institutional methods of collecting, archiving, and exhibiting videogames. The former essentializes videogames down to their everlasting, playable code, and the latter prioritizes the material authenticity and functionality of the physical videogame object. Despite these differences, both share a heavy emphasis on preserving and exhibiting their videogames as objects to be played with. This comes from curatorial and archival perspectives that have been informed mainly by the medium-specific, play-focused scholarship of games formalism. However, it is also informed by

the popular enthusiast opinion that a videogame exhibition is a failure if it is not playable. Within these intertwining contexts, recorded video or other non-playable modes of interaction and engagement (such as spectatorship, speaking, reading, or listening) are only seen as a viable next best option if playability is not possible.

Newman (2012) speaks to these trends, acknowledging how both object and software-based practices both tend to “orient themselves around making games available in playable forms” (p.153). However, he also works to complicate this notion stating that “play is more than a process of inputs and outputs into and from a system. It is a socially and culturally situated practice” (p.153). Here, Newman is arguing that videogames do not exist as objects decontextualized from material history and culture as they are so often positioned as within videogame art exhibitions and archives. “It is certainly possible to argue that encountering a game or in a gallery or archival context in the future is not only potentially jarring from a technological or historical perspective, but, in being stripped of its contextualizing network of talk, discussion, demonstration and webs of investigation, the game is isolated as a comparatively free-floating text or exhibit rather than part of a suite of complex, interconnected social and cultural practices” (pp. 153-154). Newman’s criticality towards the formality of the white cube and his call for a more networked approach to the curation of videogame art exhibitions aligns with Keogh’s arguments regarding the difference between formal and informal game development practices. Within Keogh’s comparative framework, the museum approach that orients itself entirely around the easy playability of well-known, commercial popular games functions as a kind of industrial model, one that works to obscure a large portion of the art history of videogames. This obfuscation includes work coming from the marginalized space of informal game development practice such as B-games, trash games, and fake games, but also excludes much of the participatory culture that surrounds videogames such Twitch streams, YouTube Let’s Plays, video walkthroughs, etc.

Making a similar point, Austin Walker (2019) argues that “no historical endeavour can be complete. With each inclusion and exclusion . . . the historian slides the academic apparatus toward a particular perspective. Like most choices, these are made not only according to the interest and biases of the scholar, but also the countless pressures and limits of the institutions, technologies, and resources with which they work.” Some of these pressures are evident in the criticism of figures like Suellentrop (2013) or Juul (2005), who see the playability of videogames as being essential to their status and viability as art. Similarly, this pressure is also exerted by fans who align videogames with easy consumer pleasure rather than other documentary, didactic, or interpretative modes of engagement. Responding to this aspect of videogame fan

culture, Walker (2019) also argues that expanding exhibition and collecting methods to include paratextual content such as “contemporary, phenomenological, and anthropological records of play, such as blogs, journal and diary entries, let’s plays, forum posts, reaction videos, text messages, homemade maps and guides” could push historians and curators to look beyond the videogame as an isolated, static object. Positioning this kind of material alongside the videogames themselves would help audiences to confront and potentially even dispute “the mythical and monolithic identity of the ‘gamer’.” Here, Walker (2019) is associating the figure of the “gamer” with “the regressive, hostile, and consumption-focused culture of digital play.” Looking back to Keogh (2017) and Foddy’s (2018) respective arguments around trash games, B-games, and fake games, it is this consumerist figure of the “gamer” who is the one working to formally police the boundaries of what should be allowed to be called a “real” videogame, and then alternately what should be dismissed and discarded as trash. Typically, the creators who make these kinds of informal, quickly created games are people who have been pushed to the margins, not only with the commercial game industry but also within the art history of videogames. In expanding videogame curation to include work that does not adhere strictly to play-centric models, the art history of videogames can be reoriented to allow for informal development practices and alternative modes of engagement to be seen as more viable.

Cory Arcangel and Bennet Foddy are two practitioners working within the space of informal game development who have helped to facilitate such a reorientation. Both works challenge the notion of what it means to interact with a videogame and allow space for modes of engagement beyond gameplay. In doing so, they both deliberately create contexts in which their videogames fail at being games and thus prompt their audiences to question popular notions of how exactly a videogame is defined and how it should be valued.

Arcangel does this by presenting his version of videogame history, focusing on the niche genre of lesser-known bowling games rather than more popular titles from the commercial canon. While there are important differences, these bowling videogames were all produced at the industry's margins for small audiences in a manner comparable to the trashy B-games that Keogh and Foddy work to celebrate. Due to the relatively small audiences of these bowling games none of them have been produced on a top-tier budget and have all been rendered using animations and character models that would have been perceived by the typical consumer as being average at best during the time of their original releases. The perceived junky quality of this low-budget aesthetic has only deepened over time as graphical standards for videogames have increased. This, in turn, aligns Arcangel’s selected historical bowling games within the same ad-hoc visual realm as many contemporary B-games. This

correspondence is also enhanced by Arcangel's modification of the bowling games to only throw gutter balls—an intentional and infinite loop of failure that shares many similarities with the bugs and glitches that might prompt the typical consumer to dismiss a videogame as being low quality or fake. By assembling this timeline of oddball bowling games, Arcangel is reorienting the art history of videogames away from the centrality of polished, commercial success towards the lower budget and informal creative spaces that exist at the margins of the industry.

This same focus on the outmoded corners of videogame history can also be observed in *Getting Over It* through Foddy's explicit appropriation of *Sexy Hiking*, an incredibly obscure, relatively old, and in many ways aesthetically repelling B-game. To add to this, Foddy also uses prefabricated game assets and deliberately awkward controls to further emphasize *Getting Over It*'s B-game lineage. By remaking and critically reflecting on a B-game, Foddy is positioning himself against the consumerist “gamer” notion that these kinds of informal and hastily made games should be qualified as “fake” and subsequently dismissed from videogame history.

By presenting broken and unfamiliar versions of videogame art history, both Arcangel and Foddy are working to push back against the pressures that many art institutions face when organizing videogame art exhibitions. As has been covered throughout this chapter, many museums and galleries feel the need to create fully interactive installations where the work on display should be easily playable. The inclusion of non-functional videogames, or recorded video of longer, more complex work, are both often seen as failures by medium enthusiasts to properly present their most essential qualities. However, this is a failure that Arcangel and Foddy are actively embracing. Both creators intentionally align their work with the concept of low quality, decaying trash games rather than the more pleasurable and polished commodity objects that many fans have come to expect. Both artists also toy with the notion of what it means to interact with a videogame and allow ample room for modes of engagement beyond direct configurative play.

Arcangel achieves this with *Bowling Games* by fully automating the work so that a prerecorded set of inputs are shown to the audience rather than allowing them to play with any of his selected videogames themselves. In this situation, play is still considered an important aspect of the work, but it exists in an inverted and unfamiliar way that is also enmeshed in a broader spatial assemblage of material objects, video projections, and the other people walking around the installation. This combination of material elements takes the focus away from what is happening when an individual plays a videogame and instead blows it up into a much more extensive, ambient, and distributed experience. This context utilizes spectatorship as well as social and physical awareness as modes of interaction rather than skillful play or ludic mastery.

Alternatively, Foddy experiments with the way that play is culturally conceptualized and valued within *Getting Over It* by making it so difficult that many people would prefer to vicariously engage with it through Twitch Streams or YouTube Let's Plays rather than attempt to play it themselves. By designing *Getting Over It* with a control scheme that deliberately fights against player mastery and causes them to lose vast amounts of progress repeatedly, Foddy creates a situation where the consumption of his work is equally unapproachable for most players. However, rather than framing this as a contest where only the most skilled players will reach the top, Foddy instead adds his own narration and curated music to help convince the player that failure is perfectly alright. That he would not be surprised if most players abandoned the game or simply watched a playthrough of it online instead of directly attempting to grapple with his trash mountain themselves. Like Arcangel's installation, this clear acknowledgment of spaces and modes of interaction that lie outside of the game works to deemphasize the notion that play should be an essential component within the aesthetic experience of videogames. Here, Foddy's essay, use of music, choice of prefabricated game assets, and the popularity that *Getting Over It* had surrounded its release on video streaming all collectively contribute much more to the videogame's overall value than any single gameplay experience.

In each of their separate ways, both Arcangel and Foddy work to present videogames as art objects within history. However, rather than framing them as formal objects that exist as distilled everlasting code or material things to be kept in preserved stasis, these creators have produced trash-filled, informal assemblages that acknowledge that digital play is not always possible or even desirable. Although *Bowling Games* and *Getting Over* have both been created for contexts separate from the Strong and the MoMA exhibitions, I have positioned them alongside in this chapter, they both function as creative answers to some of the archival tensions these art institutions face. As I have argued, videogames are unavoidably entropic and ephemeral objects that begin to decay the moment they are released into popular culture. However, rather than futilely struggling against these ongoing technocultural processes to try and ensure that all videogames remain forever playable, there might be some critical potential in creatively allowing them to die. Echoing this sentiment, Newman (2012) argues that "a potentially liberating position unfolds" (p.159) when "we allow for games to die in their playable state" (p.158). That perhaps coming to terms with the fact that "it will not be possible to play today's games in the future is not an admission of failure but a firm foundation upon which to plan" (Newman, 2012, p. 160). In this way, by embracing videogames' aesthetics of failure (Anable 2018), future artists and curators can produce work that not only decentralizes play as an essential element but that also questions how, and which videogames have become part of

the accepted canon. By intentionally avoiding this canonical version of videogame history and working to focus on its informal discarded junk, both Arcangel and Foddy have revealed a potential path through the borders that prioritizing playability places on the art history of videogames.

Chapter Three

Informal Fantasy: Mixed Realism within Autobiographical Videogame Art

In the last chapter, I reviewed how playful interaction has been formalized within the curation of videogame art exhibitions and then argued that deconstructing the videogame art object into a multitude of non-play methods of engagement could be a productive alternative. One of the primary reasons for this argument is that many works, creators, and cultural processes that operate within the space of “informal game development” (Keogh, 2017, 2019) are often dismissed or obscured when such games formalist, play-centric models are prioritized. This type of dismissal often relies on rhetoric that qualifies the ludic and systemic structures of a videogame as more valuable or “real” than their representational content. In this chapter, I will further explore how the notions of “real” and “fake” have been qualified within videogame art history. I will begin by reviewing a selection of frequently cited game studies scholars who I argue work to maintain aspects of the early debates over form and content that were prominent when the field was first establishing itself. Many of these scholars have described themselves as being explicitly formalist in their intentions and in their work aim to position rules and play of videogames as being more “real” than their visuals, themes, and narrative. In response to these binaries, this chapter will comparatively analyze two works of autobiographical videogame art that I argue explicitly blur their audiences’ material realities with the semi-fictional ones represented on their respective screens. Through this investigation into the more ontologically ambiguous qualities of autobiographical videogame art, this chapter will contribute to this dissertation’s broader goal of reorienting the art history of videogames away from games formalist mode of analysis and critique.

As an example of the kind of play-centric perspective I am aiming to examine critically, I turn to Frank Lantz (2015) and his argument that a videogame is a set of rules and systems wrapped up inside of “pretend worlds and childish make-believe.” Here, Lantz is working to qualify the programmatic, technical elements of a videogame as being more “real” than the representational, thematic, and narrative elements that have been used to contextualize them. Jesper Juul (2005) makes a highly similar reference to fantasy and make-believe in his games formalist research on videogame narrative:

Video games are two rather different things at the same time: video games are real in that they are made of real rules that players actually interact with; that winning or losing a game is a real event. However, when winning a game by slaying a dragon, the dragon

is not a real dragon, but a fictional one. To play a videogame is therefore to interact with real rules while imagining a fictional world and a videogame is a set of rules as well a fictional world (p. 1).

Juul goes on to also explain that videogames are, to varying degrees, both ontologically and narratively incoherent due to the practical necessity for designers to at least partially abstract the virtual worlds they are constructing. Within Juul's argument, a videogame's fictional world will never hold the same degree of realness as its rules and systems because its fiction will only have been defined with as much specificity as needed for the player to immerse themselves within it. Furthermore, according to Juul, due to the immersion-breaking qualities of the videogame's technological interface and hardware, this fictional reality will never be wholly immersive or coherent.

To help ground his argument, Juul connects his prioritization of videogame's "real rules" to cultural historian Johan Huizinga's (1970/1938) concept of the magic circle. According to Huizinga, the magic circle is the social space in which any given game takes place. One where the standard rules, traditions, and expectations of daily life can be safely subverted or challenged.

All play moves and has its being with a play-ground marked off beforehand either materially or ideally, deliberately or as a matter of course . . . The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are in form and function play-grounds, i.e. forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart (p.10, quoted in Schrank, 2014, p. 63).

Originally conceived of by Huizinga in the late Modernist period, the magic circle was more recently popularized within game studies by scholars Eric Zimmerman and Katie Salen (2003). In the following decades, the usefulness of the magic circle has been debated and critiqued. However, it still functions for many formally inclined game studies scholars as a helpful starting point. Juul (2005, 2008, 2013) acknowledges the concept is not a perfect one but still uses it to help dissect the relationship between a videogame's fiction and its rules, as well as, perhaps more interestingly, between games from non-games. For Juul (2005), within the magic circle,

“rules and fiction interact, compete, and complement each other,” but they “rarely match completely” (p.163).⁶⁶

Timothy J. Welsh (2016) acknowledges that this kind of differentiation of rules and systems from fiction and immersion was helpful in game studies’ formative years as it “laid the groundwork for a medium aware study of gaming and provided a critical vocabulary for a developing and increasingly influential form” (Chapter 3, Section 2, para. 4). However, Welsh provides the counterpoint that this particular method has had long-standing, hierarchical effects on the way videogames are studied. Drawing on Graham Harman’s (2011) concept of undermining—a discursive process where an object is claimed to be “unreal because they are derivative of something deeper” (p. 25, quoted in Welsh, Chapter 2, Section 4, para. 2) —Welsh argues that games formalism fails to acknowledge the way that fiction and representation exist materially within reality. Responding directly to Juul’s draconian example above, Welsh argues that “The dragon may not be a dragon, but it is a projection of a dragon, and projections of dragons are real” (Chapter 2, Section 4, para.1). The undermining of fiction by games formalists such as Juul and Lantz has worked to striate the analysis of videogames such that their code, rules, and hardware are positioned as being the elements that are real which “in turn discredits and ontologically devalues objects and phenomena not in that strata” (Bryant, 2010, quoted in Welsh, Chapter 2, Section 4, para. 2).

In recent years, other game studies scholars have similarly worked to break apart the boundaries formed by the prominence of formalism within the early days of the field. One example of this is how Brian Schrank (2015) applies the concept to the histories of analog play and games found within the various avant-garde movements of the mid-twentieth century. According to Schrank, groups such as the Situationists or the Fluxus movement attempted to reconfigure the borders of the magic circle in order to “blend life, art, and play” (p. 113). Here, Schrank also argues that these playful avant-garde practices “ask us to risk the stability of our world so that we might cocreate temporary as ad hoc utopias and moments of collective, festive anarchy” (p.113). Although Schrank focuses primarily on non-digital, art historical examples to contextualize his arguments on the utopian potential of the magic circle, he also works to investigate how the idea functions within contemporary videogames. Looking at massively

⁶⁶ Juul’s (2005) one main exception to this rule is within a videogame’s virtual space and level design. According to Juul in many cases the rules in which the level was designed, and that the player must adhere to when navigating the space also correspond to the fiction of the world being represented. “[S]pace in games is a special case. The level design of the game world can present a fictional world *and* determine what players can and cannot do at the same time. In this way, space in games can work as a combination of rules and fiction” (p. 163).

multiplayer online role-playing games (MMORPGs) and alternate reality games (ARGs), Schrank argues that much of their value comes from how they can mix virtual and material realities in order to provide uniquely immersive, social experiences for their players.

While Schrank works to expand the boundaries of the magic circle into the world of avant-garde art history, Aubrey Anable (2018) addresses the concept by examining the more intimate space of the screen of a personal digital device such as a mobile phone or home computer. Referencing the science-fiction television program of the same name, Anable argues that the digital screen functions as a “black mirror” that reflects many of the more obsessive qualities of technocultural capitalism. In relation to this chapter’s intentions of blurring videogame realities, Anable also argues that for the typical user, when a digital screen is left unpowered, there is often the suggestion that something deeper lies below its black, inky surface. She adds to this argument by explaining that the screen’s potential for visual interface and representation belies a hidden technological depth that lurks beneath. “What this perspective asks for is an engagement with what the glossy screen obscures, what our absorption in the image conceals from view—primarily the way code is perceived to function as the invisible substrate to the image. This is the bifurcation that separates representational and phenomenological modes of digital media analysis from computational modes that explore what the screens appear to distract us from” (Chapter 2, Section 1, para.3). Like Welsh, Anable sees this distinction of code from image as a discursive binary that qualifies the representational qualities of videogames as being less real than their programming or technological form. However, Anable also digs deeper than Welsh into the gendered implications of this deprioritization of image, stating that within the black mirror (i.e., games formalist) approach to videogame scholarship “the screen is the arresting and distracting feminine surface that obscures the deeper space of action and the masculine probing of code” (Chapter 2, Section 4, para.8). To challenge this notion, Anable calls for the screen to be instead looked at as a place where representation and computation become entangled and enmeshed and where distinctions between the real and the virtual become materially blurred. In this way, the screen moves beyond the inclusionary–exclusionary functionality of the magic circle and instead transforms into “a sensual surface that functions within a larger affective system, revealing more than it obscures” (Chapter 2, Section 7, para.2)

Although divergent in their specific approaches, both Schrank and Anable are working to erode the boundaries of the magic circle that aim to keep the experience of playing a videogame separate from the rest of reality. Schrank does this by blurring art, politics, and play into a kind of utopian fantasy space, and Anable positions the digital screen as a permeable and

porous portal that affectively mixes representation and computation. One method that can be used to unite these two efforts under one theoretical umbrella is that of Welsh's (2016) "mixed realism." Welsh defines the term as a mode of metacommunication that exists not only within videogames but most other types of narrative media (literature, cinema, visual art, etc.) as well. For Welsh, a mixed realist artwork will acknowledge and equally prioritize the interface required to access it, the work's broader material and cultural contexts, the fictional world being represented, and the subjectivity of its audience:

Players engage the virtualities of game fictions, not as vicarious visitors to alternate virtual realities but as media users, for whom many everyday practices involve "artificial" environments. From this perspective, the interactive fictional worlds of videogames extend or update the paradoxes raised by literary metafiction. When cracks in the narrative façade cannot be ignored, the material circumstances of its implementation show through the gaps. However, rather than rendering these fictional worlds as merely optional diversions, their insufficiencies reveal points of interface and intersection between virtual and material contexts. They are, in this sense, self-reflexive, meta-media moments that reflect on the role of media-generated virtualities in the "real" media ecology (Chapter 3, Section 6, para.7).

Looking beyond Welsh's focus on narrative and fiction, how might his notion of mixed realism be utilized to expand the art history of videogames, and push it beyond the ontological boundaries of the magic circle? As we have seen through the previous chapters, the legacy of game studies' early debates over ludology and narratology paved the way for similar tensions over games formalism. Both sets of discussions have had a significant influence on how museums and galleries have decided to collect, archive, and exhibit videogame art. This has resulted in a curatorial prioritization of play over other approaches of non-ludic audience engagement. How might an inherently blended mode of analysis such as Welsh's mixed realism help erode this institutional preference for play? In Huizinga's original definition of the magic circle, he does not position games as the only cultural process that might produce such a removed space but also includes the theatre, the cinema, and the museum as similarly establishing and enforcing their own forms of reality-sculpting rules. Through this expanded version of the term, the art exhibition can be framed as operating within its own unique kind of magic circle. In the more

specific case of a videogame art exhibition, this separation of reality from fantasy becomes even more compounded.⁶⁷

Throughout the rest of this chapter, I will work to explore the way that mixed realism can be used as a tool to shift videogame art history in more self-reflexive, metacommunicative, and metatextual directions. As Welsh's definition of the concept is heavily rooted in literary criticism, much of this exploration will work to interrogate the roles of the author and the audience. This focus on authorship also yields significant connections to another common methodology within the art history of videogames, that of cultural legitimation through auteur theories appropriated from film and cinema studies. Like the way avant-garde art movements are referenced (see Chapter One), this utilization of auteur theory is often performed as a way of drawing legitimizing comparisons to canonical film directors and visual artists. Through these kinds of comparisons, many videogame art historians have worked to position a select group of game designers as auteurs with distinct creative visions and consistent oeuvres. The most common figures to be framed this way are unsurprisingly the relatively famous directors of big-budget, commercial videogame studios; however, there are also similar applications of auteur theory to some of the lesser-known creators of informal game development as well.⁶⁸ Significant to this chapter's focus on mixed realist autobiographical videogame art, many of the creators operating within these latter informal spaces who have been most consistently championed as auteurs are those that tend to make work about their real-life personal experiences.⁶⁹

⁶⁷ Hito Steyerl (2017) remarks on the way in which the space of the museum corresponds with the reality-sculpting effects of the magic circle in her essay "Why Games, Or Can Art Workers Think?". In this paper, she satirically discusses how beauty can be mixed up with truth, pointing out how "art professionals have a strategy for preventing beauty being confused with reality. The solution is to lock up anything beautiful in a museum. In there, beauty may proclaim whatever it wants: best possible worlds, ideal humans, rational economic behavior, and so on. When you leave the museum it will stay behind, just like switching off a game" (p. 166). As a counterpoint to the delimiting qualities of this museal method, Steyerl appears to side with the deliberate ambiguity of mixed realism, stating that "Art and its effects leak out of institutions...I totally agree. You are correct. But I don't want to solve this contradiction; I want to intensify it" (p. 169).

⁶⁸ There are a small number of (notably mostly male) big-budget, videogame directors who are consistently listed in discussions around videogame auteurship. One example of this who has been celebrated in a way that exceeds many others has been Ken Levine. Levine is most notably the director of *Bioshock*, a series of science fiction shooter games that has figured quite prominently in the "games-as-art" debates of the 2000s. For more on the cultural significance of the *Bioshock* series see Parker and Aldred (2018), and Parker (2017). For more on Levine's perceived position as an auteur see Parker (2014, pp.115-121).

⁶⁹ Jason Rohrer is oft-cited example of this kind of autobiographical videogame artist whose most referenced works are all relatively simple, pixel-based narratives based on his own semi-fictionalized experiences and feelings surrounding his family. Anna Anthropy is another artist game maker who falls into this category whose game *Dys4ia* (2012)—an abstracted autobiographical account of her experiences with gender dysphoria and hormone replacement therapy—appears quite frequently within game studies texts working to explore the art history of videogames. Zoe Quinn also falls into a similar

I will examine two examples of this kind of informally developed autobiographical videogame art in the following sections. The first of these will be *Cibele* (2015) by Nina Freeman—a short, mechanically simple videogame that is widely available for purchase through online retailers.⁷⁰ Like *Getting Over It* (see Chapter Two), *Cibele* has been predominantly experienced by audiences within the private space of their personal computer, but it has also been included within several videogame art exhibitions. After analyzing *Cibele* using a mixed realist framework, I will focus on Angela Washko's transmedia art project *Heroines with Baggage* (2011-2013). This ambitious work of videogame art includes prints, videos, media installations, and a Tumblr website—all of which have been exhibited in several physical and virtual gallery spaces. Although *Heroines* and *Cibele* are quite different in their form and intended modes of distribution, I have chosen to comparatively focus on them because they both work to organically blend autobiography with the fictional content of the fantastical videogames that Washko and Freeman grew up alongside. Furthermore, I argue that by presenting their mixed realist memoirs of narratively charged gameplay for both gallery and online audiences, Freeman and Washko work to redraw the lines of magic circle to include much more than a strictly games formalist model could ever properly account for.

According to Anable (2018), “the [games formalist] line demarcating computation from representation is also a line that demarcates boundaries around what and who counts as videogames' proper subjects and objects, historically and in the present” (Chapter 1, Section 2, para.12). As I covered in Chapter Two concerning B-games and trash games, the process of demarcating the real from the fake has influenced videogame art history in such a way as that it heavily privileges playability, pleasure, and medium exceptionalism. By rigidly qualifying videogames' computation as being more real than their visual and fictional themes, there is a risk of obfuscating or even undermining the subjective experiences of their players and creators. In combination with Welsh's mixed reality of videogames, Laine Nooney's (2013) speculative method of “spelunking” through videogame history will be helpful in navigating this situation. For Nooney, spelunking is an imaginatively feminist method for exploring the darker corners of videogame history. To spelunk through videogame history allows for it to be navigated away

role in that her game *Depression Quest* (2013) repeatedly pops up in many artistic discussions of videogames. The game is like the hypertext fiction of the 90s and presents an immersive narrative on what it is like for someone to experience depression.

⁷⁰ Although to fit within my comparative framework I will be referring to Freeman as the primary author of *Cibele*, the game was actually released as the output of a now-defunct commercial indie studio that Freeman ran called Star Maid Games. *Cibele* was the only game that the studio released, with Freeman listed as the head designer and Emmett Butler, Decky Coss, Rebekka Dunlap, Samantha Corey, and Justin Briner listed as collaborators.

from a simple “chronology of consoles, games, and programmers” toward more shadowy, circuitous spaces full of what has been ignored, dismissed, or deemed unworthy of critical attention. This can include the fictional worlds that games formalism would position as less real than or subservient to mechanical design but can also apply to the lives of the marginalized creators and players who have often failed to be acknowledged within the canon of videogame history.⁷¹

In examining Freeman and Washko’s respective works through the frameworks I have summarized above, I argue that videogame art history can be restructured to more equivalently prioritize the material realities of representation alongside the experiential realities of fantasy. Looking back to the previous chapter, I argue that this blurring of the magic circle will also provide further rationale for the non-playable elements of videogames to be seen as viable components for exhibition and collection. In effect, this would also allow for an autobiographical retelling of a player’s experience with a specific videogame to be positioned as being just as valuable and real as the direct interactive experience that a gallery visitor might have with a playable videogame. To this point, both *Cibele* and *Heroines with Baggage* present their creators’ real-life histories within the fictional worlds of a series of highly fantastical videogames. Their art is not only about the memories of experiencing a videogame’s narrative but also about recounting the lived experience of sitting with, handling, and manually configuring the videogames as physical, technological objects as well. This chapter will highlight these two works’ various similarities and differences to support this dissertation’s central argument that messier, more speculative approaches to the art history of videogames are needed to expand the field into more productively multidisciplinary spaces. In the next section, I work to more thoroughly analyze *Cibele* and how it entangles the embodied experience of using a computer to play a videogame with Freeman’s past affective experiences with a specific massively multiplayer online role-playing game (MMORPG).

Nina Freeman

Nina Freeman is an American videogame designer who has worked both within the formal game industry as a level designer and an independent creator within the more nebulous

⁷¹ For many decades, videogame history has been focused on a teleological line of white, heterosexual, male engineers and game designers. As I have described already, often these figures are categorized according to paradigms of the hacker (see Literature Review) or the auteur (see earlier within this chapter). More recently this version of history has been challenged by what some critics and scholars have referred to as the “queer new wave” (Keogh 2013; Parker 2014, pp 173-176). For more examples of these newer, queer approaches to game studies see Ruberg (2019, 2020); Ruberg and Shaw (2017); Shaw (2015).

space of informal game development. Freeman's body of work tends to revolve around her own life experiences and often takes the form of short, emotionally poignant vignette-style videogames. An early example of this is *How Do You Do It?* (Freeman, 2014), which puts the players in the role of a young girl whose mother has just stepped out. The girl uses this as an opportunity to play with her dolls and pretend that they are having sex with one another. Freeman has described the inspiration for the videogame came from her own similar experiences playing with her dolls after seeing the sex scenes in the film *Titanic* (1997). Or, more recently, another example of this autobiographical preference is *We Met in May* (Freeman and Jefferies, 2019), a series of scenarios from Freeman's early courtship with a long-term romantic partner. All these short narrative snippets are based on actual events but have also been embellished for comedic effect. Some especially amusing examples of this include a beach date that ends in an explosion of Doritos and wine or Freeman's partner's first visit to her apartment, where she must dash around, embarrassingly trying to hide her posters and body pillows of romanticized anime characters.

Freeman's focus on short, vignette-style work not only functions as playful experimentation with many of the commercial norms of the game industry but also works incredibly well for the comparatively brisker pace of a museum or gallery. One such vignette work that, when exhibited, works to intensify the already mixed-realist qualities of the gallery's magic circle is Freeman's 2015 autobiographical videogame, *Cibele*.⁷² The game functions as a partially abstracted emulation of Freeman's desktop computer during a time when she was intensely playing an MMORPG with another user named Blake, whom with she eventually became romantically involved. Breaking the game down into its components, *Cibele* follows a three-act structure that can then further broken up into nine distinct subchapters. The first of each chapter's subchapters always places the player at the desktop screen of Freeman's computer, giving them open access to several of her programs, files, and social media accounts. All of this has been constructed by Freeman to resemble a typical computer interface though it has also been rendered in a highly illustrative style more reminiscent of zines and anime than any real-world operating system.

In addition to this heavily stylized version of Freeman's computer, as each chapter's first subchapter transitions into its second, *Cibele* switches its interface to simulate the MMORPG

⁷² *Cibele* has been shown in a solo exhibition of Freeman's work called *Nina Says So* (2016) at Charis Books which was co-curated by the Dear Games feminist game studies group and Georgia Tech's Information Design department. *Cibele* has also been more recently shown in the group exhibition *State of Play: Roleplay Reality* (2018) at FACT Liverpool which was co-curated by Lucy Sollitt and Lesley Taker. The latter of these two exhibitions will be discussed in greater depth later in this chapter.

she plays with Blake. Within the loosely fictionalized narrative of *Cibele*, Freeman calls this videogame “Valtameri,” though when talking about her design process Freeman has frequently stated that the factual events the work is based on occurred within the game *Final Fantasy XI* (Square Enix, 2002).⁷³ When the game switches from the desktop sections to those based within Valtameri, the player must perform more traditional videogame tasks like level exploration and battling monsters. Although these sections visually resemble a typical combat-based videogame, there is, in fact, no way to die or fail. All the player must do is find and destroy a certain number of small monsters before a larger, more elaborately designed boss monster eventually shows up that, when defeated, will conclude the subchapter. In addition to switching from a play mode more focused on reading and interface navigation to one of simulated traversal and combat, these Valtameri sections are also significant because it is where the player experiences the most direct social interaction between Freeman and Blake. When navigating Freeman’s desktop, the player will find emails and photos that Blake and Freeman have sent to one another. However, when playing within Valtameri, the two are speaking directly to each other on a voice call which the player must voyeuristically listen in on. Initially, these conversations could be interpreted as nervous yet slightly flirtatious, though as the player progresses further through *Cibele*’s three chapters, these conversations become more openly confident, romantic, and eventually even erotically charged.

Within each of *Cibele*’s three chapters’ final subchapters, the player’s perspective abruptly shifts one last time from the role-playing interface of Valtameri to cinematic footage filmed with a digital camera. These mostly dialogue-free video clips all focus on Freeman performing various actions in her room, though as the player progresses further toward the game’s conclusion, on the street outside her apartment building as well. Many of these shots show Freeman at her computer or using her camera or phone and are all framed mainly as a way of further communicating her shifting feelings toward Blake. As their budding romance progresses, the two eventually agree to meet in person. Although Freeman and Blake do have sex during this first meeting, within *Cibele*’s conclusion, it is heavily implied that the relationship crumbled quickly thereafter.

Considering the wide range of formats and interfaces employed within *Cibele*’s unique narrative structure, how might they all work to position the work within Welsh’s concept of mixed realism? And in turn, how does *Cibele*’s mixed realism function differently when it is played at

⁷³ This connection to the *Final Fantasy* series is significant as it will allow for additional and more in-depth comparisons to be drawn to Angela Washko’s *Heroines with Baggage* (which appropriates much of its imagery from the *Final Fantasy* series), but also because of the prominence of the series’ place within canonical videogame history and formal game development.

home on a personal computer in comparison to being played (or spectated) in the exhibition space of a museum or gallery? In both cases, there is an explicit connection between the body of the player operating the computer used to run *Cibele* and the work's autobiographical representation of Freeman, who the player is virtually embodying. In this way, the distance between audience and creator becomes narrowed through Freeman's open acknowledgment and clever appropriation of the desktop computer interface. To play *Cibele*, players must configure themselves bodily into the same positions and conduct the same movements that Freeman does on-screen during her courtship with Blake. Then as *Cibele* switches from simulated interface to digital video, this synchronicity is disrupted as the player becomes more aware of Freeman as a real person rather than just a virtual interface or fictional avatar. If the player is experiencing all of this within their own home, then the parallels between Freeman and them—both sitting at a desk or table, in a domestic space, using a computer to play videogames—are quite high and create a mixed realist feedback loop where the content of the game is not only based on real events but also works to reconfigure the player's sense of their own material and affective realities. Then alternatively, in an exhibition setting, the dissonance between the institutional environment and the domestic and virtual spaces represented within *Cibele* allows for a different kind of mixed reality. By allowing gallery audiences to engage with *Cibele* in a way that so directly simulates the experience of the everyday experience of using a personal computer in a domestic setting, Freeman also works to blur the magic circle that both videogames and exhibitions typically establish around themselves.

Focusing closer on this mixed realist relationship between Freeman and her audience, there is critical potential to be found in analyzing *Cibele* as a literary text in addition to examining it as a work of videogame art. Drawing on the history of affect theory and cybernetics, mainly by way of N. Katherine Hayles (1999, 2004, 2005), Brendan Keogh (2018) proposes a model for the textual analysis of videogames which he refers to as "embodied textuality." Like Welsh's (2016) mixed realism, embodied textuality accounts for the way videogames exist within material reality and works to blur many of the ontological lines that games formalist scholarship draws between form and content. To this end, Keogh argues that to account for the embodied textuality of videogames is to

is to be reflexive; it is to account not only for how the player instantiates videogame play but also for how the player is incorporated into, becomes part of, and is ultimately made by the system of videogame play they instantiate. This accounting ultimately points toward locating the videogame experience as a coming-together of the player and the

videogame not as preexisting, separate, distinct subjects or objects but as a cybernetic assemblage of human body and nonhuman body across actual and virtual worlds.
(Chapter 1, Section 1, para.7)

This mutually instantiating relationship between videogame and player works to disassemble the way that games formalism identifies rules as being more real than its fiction. By activating a piece of hardware and operating videogame software, the player enters a mixed reality where the images and narrative depicted on screen become just as affective and materially real as the physical technology and programming that support them. Through gameplay (or the spectatorship of gameplay), videogame audiences are put into contact with many different objects and processes that can include: their bodies in relation to the materiality of their devices; the environment around them (whether it be domestic, retail, institutional, or otherwise); the information networks that provide access to and feedback on the videogames they are engaging with; and to the visual and narrative representation being depicted on-screen. In the specific example of *Cibele*, all of this is multiplied by Freeman's combined use of a simulated computer interface and filmed reenactments, which, in turn, creates an additional relationship between her own represented body and those of her audience. When playing *Cibele*, the player not only becomes instantiated by and in turn instantiates the videogame, but they are also co-instantiated by Freeman through her combined use of autobiographical narrative and a hybrid mixed realist structure.

Similar to Keogh's arguments on the embodied textuality of videogames, Laura Fantone (2003) pulls from a mixture of Deleuze and Guattarian (1977, 1987) assemblage theory and Haraway's (1989) cyborg feminism to further "escape a reduction to either reality or representation" in the discussion of videogame ontology (p. 53). Focusing on the many ways that identifying with a digital avatar can lead to new experiences of gender and desire, Fantone argues that it is within videogames where the authentic and the prosthetic (as well as the imaginary and the real, the male and female, the body and mind, etc.) ontologically collapse to create a hybridized and "machinic" way of thought (pp. 52-57). Contrasting this with the heavily structured theories of figures like Jesper Juul or Frank Lantz, who seek to identify and delineate the elements of videogames that are real from those that are imaginary, Fantone posits the notion that the machinic subjectivity of videogames makes us "ontologically different by placing us in the troubling presence and absence of disembodied yet visible bodies" (p.54).

In the context of this chapter's arguments on mixed realism, applying Fantone's theories to *Cibele* yields productive results, especially considering how the work is centrally based

around Freeman's past experiences with her digital avatar within an online fantasy role-playing game. Through her time playing online with Blake, Freeman experienced new feelings of desire, arousal, and longing. These intense experiences were also then redistributed through Freeman's bodily operation of her computer, navigation of multiple digital interfaces, and embodied identification with her in-game character. Furthermore, this highly complex hybridity between body, machine, and mind all occurred in the past, which the audience must then re-enact through several layers of digital and artistic interfaces. For both the past version of Freeman and the current player, there is also the troubling bodily "presence and absence" that Fantone describes, one that works to challenge how physical and virtual realities are commonly distinguished from one another. In both cases, there is a simultaneous awareness of an absent human body and the virtual image being used to represent it. For the version of Freeman represented within *Cibele*, this can be observed in the photos that she and Blake send to each other or how she moves alongside his avatar while they are playing together online. For the player, this awareness of an absent or virtual body is intensified by Freeman's oscillating presence as the game's interface changes from her PC operating system to her digital videogame avatar and finally to voyeuristic videos of her within her home.

Jesper Juul (2005) argues that this kind of narrative and interfacial inconsistency produces effects of incompleteness, partiality, and incoherency within the videogame experience that must be accounted for. Responding to Juul's privileging of videogame coherency, I align myself with Welsh in arguing that rather than positioning the differences that exist between a videogame's aesthetics, mechanics, fiction, and interface as producing negatively "incoherent worlds, where the game contradicts itself or prevents the player from imagining a complete fictional world" (Juul, 2005, p.123), we can instead frame them as productive starting points for artistic experimentation and speculative theorization. To this point, Welsh (2016) asks, "But what if this issue is not that game worlds are incoherent, but with the expectation that they shouldn't be? What if the problem is with limitations in concept [sic] of fiction applied to them? After all, why would one expect twenty-first-century fiction to offer stable, coherent access?" (Chapter 3, Section 7, para. 2). Making a similar argument to Welsh's call for the creative potential of incoherency, Fantone posits that "the imaginary created in videogames does not require linearity or completeness, but rather acceptance of an uncertain, constructed, modifiable world, constantly narrated and betrayed, in which we are conscious of interfaces and intervals" (p. 57).

When reflecting upon Welsh, Keogh, and Fantone's respective championing of more ambiguous versions of videogame ontology, it becomes evident that *Cibele*'s fragmented

narrative is something to celebrated rather than accommodated for. Through the three modes of perspective Freeman has chosen, her game cycles through different interfaces that follow a steady three-part rhythm. Each chapter's distinct mode of autobiographical expression combines to allow for a sense of embodied reading that connects *Cibele*'s players to Freeman from across time and space. By designing *Cibele* so that it hops around from different periods of her life, emulating the play and configuration of her personal computer during a highly emotional experience, Freeman creates a version of reality that is always in the process of simultaneous collapse and connectivity. In this triangle of realities, Freeman's memories as a player are mediated through her present status as a creator, which she then, in turn, artistically re-presents to her audience. Additionally, these players then look back upon Freeman's experience through their own combination of interfaces, contexts, and subjectivities. It is here within this autobiographical circuit of gameplay, artistic expression, and personal experience that a mixed realist perspective becomes most useful. By blending fiction with truth and packaging it all as a work of videogame art that works to emulate the experience of using familiar real-world technologies, Freeman collapses the distinction between the authentic and fake, creating a third, mixed realist world where the fantasy of the magic circle bleeds out into both her and her audiences' lives.

Fantone (2003) argues that "Every time we use a computer, we live moments and powerful experiences that are not just imagined but are also actually lived in non-existent spaces" (p.64). Looking at *Cibele* as an example of mixed realist videogame art, how might this sentiment be built upon productively? If the experiences that players have within fictional narratives and fantastical worlds are really real, how might they also subsequently function within the art history of videogames? As either an archival account of past play or as mnemonic material for new artistic production? Autobiographical art is already a well-established genre that often uses metatextuality and metacommunication to break down the barrier between author and audience, but can this be further complicated through the introduction of experiential, representational, and material components pulled from the world of videogames? In the next section of this chapter, the connection between mixed realist videogames and autobiographical art will be further explored through a close examination of Angela Washko's *Heroines with Baggage*. Like Freeman, Washko explores her personal history with the Final Fantasy series through the lens of gender, romance, and sexuality. However, unlike Freeman, Washko goes about this through a variety of non-playable formats.

Angela Washko

Angela Washko is an American artist who, during the 2010s, established a notable reputation as a feminist digital artist that worked predominantly within the spheres of videogame, internet, and post-internet artwork. One of her most widely cited pieces is an early digital performance project called the *Council on Gender Sensitivity and Behavioral Awareness in World of Warcraft* (2012). This work consisted of Washko virtually performing within the MMORPG *World of Warcraft* (Blizzard, 2004), where she attempted to engage other players in feminist discussions on gender and sexuality. These performances would sometimes be recorded from Washko's personal computer to be later shown as video art, though were also often conducted within gallery spaces as projected gameplay in front of a live audience. Another more recent work of hers that has gained a lot of notoriety is *The Game: The Game* (2016). This fully playable dating simulator critically interrogates a collection of real-world pick-up artists.⁷⁴ When installed in galleries, *The Game* is typically playable on a small computer station embedded into a larger installation made up of intensely coloured lights, textual didactics, and floor to ceiling printed wallpaper.

Although these two works have done a considerable amount towards moving Washko's career forward, for this chapter's intention of comparatively analyzing autobiographical art and mixed realist videogames, I am going to be focusing on one of her much earlier, lesser-known works called *Heroines with Baggage*. This expansive, transmedia project consisted of a series of hand-printed cyanotype prints, full-colour digital prints, and video art that have each been combined into a series of unique installations across several separate exhibitions. Typically, these involve the construction of a dense grid of prints along a gallery wall and a stack of CRT televisions to display all of the video work simultaneously.

Despite the difference in format, both the print and video portions of this project are united through how they appropriate screenshots and recorded footage directly from a collection of older Japanese role-playing videogames (JRPGs) that Washko played extensively as a child and preteen. Significant to this chapter's intended comparison between Washko and Freeman, many of these JRPGs were early titles within the long-running Final Fantasy (Square-Enix, 1987-2019) series. For readers unfamiliar with Final Fantasy, it is a series characterized by fantastical storytelling, anime-style melodrama, and intensely colourful (though often trope-

⁷⁴ Dating simulators are a relatively common genre of videogame within both formal and informal game development. Typically, these games place the player as a character who is single and aiming to woo one of several potential romantic partners. This often involves giving them gifts or selecting the best dialogue options. Although not a universal quality, most dating simulators are mechanically simple but include a large amount of complex branching narrative paths. This similarity to a choose-your-own-adventure book has led many game formalists to disqualify dating simulators as proper games. For more on how dating simulators are often critically dismissed within the art history of videogames, see Reed (2020).

laden) characters. Although Freeman based *Cibele* on her experiences within one of the two MMORPG Final Fantasy games wherein you only control a single avatar, in most titles within the series, you instead control an entire group of adventurers. This more distributed format tasks the player with strategically switching between their characters during turn-based combat sections and watching interactions between them during lengthy dialogue sequences and animated cut-scenes. In combination, this strong attention to narrative content and character development has made the series quite popular across many demographics, but especially so with adolescent and teenage audiences. Final Fantasy's historically young audience is an important context as it helps explain why Washko chose to focus so heavily on this particular videogame series for her project. In her statements on the project, Washko states that all the videogames included within *Heroines with Baggage* are ones that she played and felt a solid attachment to when she was growing up. However, there is another reason why the Final Fantasy series is significant to videogame art history that is separate from Washko's autobiographical and mixed realist experiences with it. Due to its ongoing commercial success and long history of critical acclaim, the Final Fantasy series is widely perceived as a canonical and influential part of videogame culture. In this way, the Final Fantasy series is significant to both Washko and Freeman as an artistic tool for their respective autobiographical practices but is also notable as it functions as a handy case study within scholarly discussions on the many ways that videogames have been legitimated and perceived as art over the last three decades.⁷⁵

This historical element is perhaps most visually evident when looking at the differences in animation fidelity and style that exist between many of the clips and images included across Washko's project. Similar to the visual diversity of Arcangel's *Bowling Games* (See Chapter Three), in the videos and prints that the project is composed of, there is a wide variety of 2D pixel-based and 3D polygonal animation styles that are indicative of the time in which each of Washko's selected games were originally produced. To this point, the first video that Washko made as part of *Heroines with Baggage*—which has the subtitle *How Final Fantasy Shaped My Unrealistic Demands for Love and Tragedy* (2011)—is entirely constructed from clips appropriated from the pixel-based Super Nintendo game *Final Fantasy VI* (Square Enix, 1994). In the second video, *Her Longing Eyes* (2012), Washko exclusively uses more recent, pre-

⁷⁵ Most titles within the Final Fantasy series have highly creative and polished visuals and because of this the series appears frequently throughout game studies texts focused on artistry, aesthetics, narrative, world-building, etc. For examples of how it has been specifically used in arguments surrounding the artistic legitimacy of videogames see Clarke and Mitchell (2007, pp.205-230), Lacasa (2013, pp. 135-158), and Parker (2014, pp.84-86, and p.157).

rendered, 3D polygonal cut-scene footage appropriated from games released on the PlayStation 2.⁷⁶ The third video Washko created for the project *Don't Leave Me* (2012) pulls from a much wider temporal range of videogames, placing clips of pixelated Super Nintendo games alongside the early polygonal animation of the PlayStation. And finally, both the cyanotype and digital prints that Washko created as part of the project take images from all the periods referenced above.

What unites all these subsections of *Heroines with Baggage*, besides any kind of simple retro or childhood nostalgia, is the critically feminist eye that Washko has used in selecting her clips and images. When Washko was first reexamining this collection of videogames that she had loved as an adolescent, she states that she noticed some rather alarming trends in terms of gender representation. According to Washko (2012a), for her, the most obvious of these was the heavily imbalanced ratio of male to female playable characters. However, she also states that “The sheer lack of female representation in the game is less surprising (far fewer females reportedly played video games in 1994 than today) than the way they are represented.” Through *Heroines with Baggage*, Washko has chosen to focus on how these scant few female playable characters are positioned in terms of their gender and sexuality. For example, within *How Final Fantasy Shaped My Unrealistic Demands for Love and Tragedy* (2011), Washko works to reveal how many of the series’ main female characters’ primary motivations—regardless of the game’s often fantastically apocalyptic plotlines—are centred around garnering the romantic attention of another male character (Gat, 2011). “These characters are displayed looking directly at male characters with the most ridiculous glazed over eyes, or they are displayed this way in a context in which they are meant to be thinking about/missing a male character. Male characters are portrayed as heroic, safely holding female characters or looking over them” (Washko, 2012b). Furthermore, through the work’s lengthy title, Washko is also making an explicit claim that these female characters—who she positions as cherished figures from her childhood—had a distinctly negative impact on how her romantic expectations developed as she grew into an adult:

"Don't leave me!" is a phrase frequently cried out by female characters in the role-playing video games I played religiously throughout my childhood. Recently I've realized that my expectations for a romantic partner that will jump in front of a sword for me and be my over-bearing protector and savior are more than a bit unrealistic, and that these

⁷⁶ The term cut-scene refers to a pre-rendered cinematic video sequence that is typically animated with a much higher fidelity than the rest of the game and that plays in-between gameplay sections. Often these cut-scenes are highly narrative in nature and depict dramatic scenes that might not otherwise be representable purely through gameplay.

demands have been formed as a result of over a decade spent playing video games in which such storylines are heavily prevalent. Female characters in these games are frequently collapsing, dying, running scared, afraid of being alone, and always in trouble. Male characters who exhibit these traits within the same games either do not exist or are portrayed as effeminate and possibly homosexual. The existence of these not-so-subtle anti-feminist plots reinforce negative gender-based stereotypes that are harmful to developing children, the largest consumers of these games.

Although the Final Fantasy series is an extremely popular and influential part of the art history of videogames, as Washko is arguing above, it is also rife with many harmfully gendered tropes that should not go critically unchallenged.

Washko is not alone in making these kinds of claims. Her project is in dialogue with many feminist scholars within game studies who favour methods more strongly influenced by cultural studies than formalist analysis. However, I argue what makes *Heroines with Baggage* especially significant compared to this vein of feminist game studies is how Washko is not just approaching this material from the analytical perspective of the cultural historian or digital anthropologist, but from the emotionally charged, messier space of self-reflective, autobiographical art. The specific videogames that she chose are all ones that Washko has distinct firsthand memories with, which allows her to imbue her work with an emotional and experiential sense of authenticity. By looking to her adolescent experiences with these videogames from the lens of her adult life, Washko has been able to track how their fantastical narratives have taken root within and influenced her sense of reality. Referring to Keogh's (2018) notion of videogame embodied textuality, I argue that when Washko replays Final Fantasy she is materially instantiating their respective narrative worlds onto a digital screen. Then as a concurrent reflection of this process, the videogames also work to instantiate Washko's sense of identity and reality. It is in this way that the fantastical elements of the Final Fantasy series become real through a combination of technological and artistic play as well as through long-term emotional entanglement. Reinforcing this aspect of my reading of Washko's work, Welsh (2016) argues that "Because videogaming takes place in the real world, what happens in videogames takes place in the real world as well and cannot be isolated from outside-the-game occurrences, experiences, and values" (Chapter 4, Section 4, para. 13).

So, if both the fantastical narratives of videogames and lived emotional experiences of their players are as real as their hardware and computation, how might this mixed realist form of equivalence be used to reorient the art history of videogames ontologically? How can Washko's

Heroines with Baggage project act as a tool to this end? Through her intentional blending of cultural critique and autobiographical reflection, there lies a model for historical analysis that positions subjective entanglement and informality as core values, and as I have argued already these are highly productive points to start from in terms of eroding the artistic, institutional, and theoretical influence of games formalism.

Spelunking Through History

To further support my comparative arguments on Freeman and Washko, I now return to Laine Nooney (2013) and the way that she calls for scholars to go “spelunking” through time as a way of conducting feminist media history. As I briefly summarized earlier in this chapter, Nooney crafted her spelunking method as a counterpoint to what she argues is the increasingly popular approach of media archeology within game studies. She proposes this speleological technique in order to allow for a critical exploration of the way that gender and bodies populate the art history of videogames. Although Nooney acknowledges there is merit to be found within media archeology due its strong focus on materiality and obsolescence, she also argues that other supplementary methods are often required because media archeology too often privileges teleological and “non-progressive history,” as well as “medium specificity (rather than a representational or screen-based focus).” Nooney argues that within media archeological framework, even when scholars work to “uncover” the women who have been ignored or overlooked, their inclusion remains insufficiently additive. “Women thus emerge as participants in game history as outliers, canonized in a short array of individual names: Dona Bailey; Carol Shaw; Roberta Williams; Brenda Laurel; Jane Jenson. The historical analysis ‘widens’ to see them, yet cannot account for their historical marginality.” Or to put it another way, due to games studies’ formative focus on medium specificity and teleological timelines, “the field fails to critically inquire into the ways gender is an *infrastructure* that profoundly affects who has access to what kinds of historical possibilities at a specific moment in time and space” (Nooney, 2013). This failure to properly account for gender and the privileging of computation and hardware have combined to create a large blind spot for media archeological approaches—one that cannot perceive the *human specificity* of videogames. Nooney defines this specificity as

the way enactments of power fall upon certain types of bodies more than others. While many of the most provocative and innovative materialist media theories attempt to productively short circuit the subject-object division by displaying how media are active agents in the world, these efforts often wind up simply rearranging actor-network deck

chairs, envisioning histories and theories without corporeal or discursive bodies, histories or theories lost in their own love for the mechanism's indifference to the body.

It is because of this media archeological ignorance of human specificity that Nooney proposes her method of immersively delving for the subjects of videogame history rather than detachedly working to uncover its objects.

Media “archaeology” implies an excavation that brings objects into the light of knowledge, constructing a larger skeleton from the wreckage of bones scattered across the historical field. Spelunking, in contrast, is a phenomenologically imprecise encounter—I can only see so much at any one time. The shape I hollow out here relies on non-continuity and the inability to apprehend the historical field in its wholeness.

Looking back to Washko’s *Heroines with Baggage* project, Nooney’s speleological approach resonates quite strongly with the transmedial way that Washko has explored and represented her past experiences with the Final Fantasy series. Rather than trying to create an easily readable, teleological timeline of the videogames that she selected, Washko deliberately creates a “phenomenologically imprecise encounter” through her methods of appropriation, remix, and montage, as well as her equal prioritization of digital video and analog print processes. In looking back at her own life and the specific videogames she played in her adolescence, Washko is approaching a small slice of videogame history from her personal perspective as both player and artist. In utilizing such a subjective and intimate framework, Washko leaves no room for her experiences to be positioned as an outlying participant within the history she is presenting. Through the autobiographical nature of the project, *Heroines with Baggage* is inherently embedded with an intense degree of human specificity. This is not to say there are no archeological or excavative aspects to these works, as they are easily observable through Washko's consistent use of the grid within installations of the work and the archival format of the project’s Tumblr blog. However, I argue that they are being employed in such an ambiguous, non-didactic way so as to rely on the same kind of nonlinearity and partiality that Nooney uses to define her method of spelunking.

In focusing on the long-running Final Fantasy series and her firsthand experiences with them, and then by repackaging them into a collection of interweaving and entangled videos, print series, and installations, Washko is not seeking to apprehend the whole of videogame history or provide universal definitions of the medium. She is not seeking to separate

computation from representation, fantasy from reality, or form from content, but instead crawling through the darkness of her distant memories and attempting to navigate how these previously cherished videogames structure her current sense of self. In this autobiographical speleology, Washko uses phenomenological imprecision to give equal and indistinguishable ontological weight to her selected videogames' fictional worlds, her adolescent experiences within them, and her adult reinterpretation of both. All these interwoven realities are presented not only as pieces of actual rather than virtual history but also function as integral and critically significant elements of an inarguably real work of videogame art. With *Heroines with Baggage*, Washko shows audiences how fantasy becomes a reality and how there is no space outside of the magic circle, just increasingly interspersed and shifting outer rings.

Disorienting Realism

Looking at *Cibele* and *Heroines with Baggage* together, their shared qualities of mixed realism, embodied textuality, and speleological history work together to challenge the various games' formalist ontologies and materially focused media archaeologies prevalent within the art history of videogames. Through Freeman's self-reflexive simulation of her personal computer's interface, she not only spatiotemporally entangles her audience between several different realities, but through her autobiographical exploration, she also dives deep into the cavernous space of a past romance. This artistic expedition into the recesses of her memory imbues *Cibele* with an element of human specificity that is accentuated by the partial and fragmented narrative structure with which she has chosen to work. Similarly, Washko's transmedial use of a wide variety of digital and analog methods within her expansive *Heroines with Baggage* project functions to represent her own mnemonic explorations in a similarly imprecise manner. Through *Heroines*, Washko argues that although she was the one turning the videogames on, playing them, and activating their fictional worlds, that their fantastical narratives had an equally operative effect on her, instantiating perspectives and thought processes that would extend out far into her ongoing sense of reality.

Both *Heroines* and *Cibele* look at videogames from the perspective of young women playing the Final Fantasy series and simultaneously having reflective experiences with their own bodies, sexualities, and romantic aspirations. Within this mixed reality of embodied narrative and digital play, Washko and Freeman are using their memories of fantastical and canonically significant role-playing games to artistically present the way that their identities are enmeshed and entangled with videogame history. Within Nooney's speleological framework, Washko and

Freeman are each using their art to feel around this hybridized history's cavernous contours and help them to locate their own bodies and subjectivities within it.

Responding to Nooney's critique of media archeology, Aubrey Anable (2018) builds on her notion of spelunking through videogame history in a way that helps to elucidate further the mixed realist elements of Washko and Freeman's practices. To this point, Anable defines orientation as a common experience when engaging with videogames, where players look at the software's interface and rules to better adapt themselves to its systems. To contrast this orientation, Anable argues that the phenomenological imprecision of Nooney's spelunking is more closely linked to feelings of spatiotemporal disorientation rather than the rational linearity present within media archeology and games formalism. Within this framework, the experience of moving through the darkness of history and purposefully dwelling in the shadowy forgotten areas can be significantly confusing and hard to parse. However, Anable does not see this as a flaw and instead works to frame disorientation as an opportunity for theoretical and artistic experimentation. "I am making a case for feeling disoriented—getting a bit lost and being unsure about one's position and what it permits—as a strategy for bringing into relief what we can see and say from a particular location and also for reorienting game studies in ways that might permit other meanings, other games, and other histories to emerge" (Chapter 1, Section 2, par.12). Anable continues, stating that "feeling disoriented in relation to history" allows "for the productive confusion between present and past, self and other, and inside and outside" (Chapter 1, Section 2, par.12).

Within Anable's call for disorientation, I argue that there are significant resonances to be found within both *Cibele* and *Heroines with Baggage*. Through each works' fragmentary blending of autobiographical time and technological space, a disorienting experience is constructed for their audiences that produces an easily permeable barrier between artwork, videogame, and reality. In this way, the unidirectional quality of what Anable describes as the "black mirror" approach to videogame analysis also becomes productively disoriented, allowing for the player to become imbricated within both the computational *and* representational elements of videogames.

Postdigital Aesthetics

Until now, much of my discussion of *Cibele* and *Heroines with Baggage* has primarily focused on how they relate to the imagery and narrative of the Final Fantasy series from which they are pulling. This has mainly been intended as a way of emphasizing the embodied, temporal, and spatial parallels that are present between the artists and their audiences.

However, my close reading of these two works has yet to significantly address the unique ways that these they operate within the context of a videogame art exhibition. As I argued earlier in this chapter, an exhibition functions as a kind of magic circle by constructing a heavily mediated experience that exists both within and separate from the rest of the world. However, as I also argued within Chapter One, videogame exhibitions play a significant part in how the art history of videogames is written. With these two arguments in mind, how might my above analysis of *Cibele* and *Heroines with Baggage* be expanded to reveal the way that mixed realism can be further used to productively disorient formalized trends in the curation of videogame art exhibitions? How might the similarly mixed realities of videogames and the gallery space be combined to help dispel the binary ontologies that hierarchically differentiate fiction from reality, computation from representation, and narrative from form? Perhaps unsurprisingly, a potential answer to these questions comes not from game studies but instead from the more consistently speculative world of contemporary art theory.

In his proposal for a mixed realist analysis of videogames, Welsh (2016) states that "Mixed realism gives a name to . . . scenarios in which virtuality has everted and become integrated with our lived environments" (Introduction, Section 8, para.7). He continues, stating that "Rather than a particular aesthetic style or technical paradigm, [mixed realism] refers to the capacity for virtual environments and virtual objects to situate their users within social, material, and ethical contexts" (Introduction, Section 8, para.1). In this way, mixed realism is not only concerned with the blurred relationship between the narrative of a given media object and the reality it inhabits, but also a much wider range of aesthetic and social categories. This cross-examination of art and life and how they co-influence each other is a conversation that has been going on for many years within art history, but especially so since the modern and postmodern eras. Significant to my arguments on videogame art, these kinds of dualities became much more complex in the post-war period with the advent of the computer and the internet. Across these periods, what was considered virtual and real both became increasingly hard to differentiate from one another. Additionally, alongside these developments came a scholarly urge to separate art that was focused on experimenting with technology from art that was focused on playing with the rules and trends of artistic practice. The former became what we now refer to as new media art and the latter retained the broader, more hegemonizing title of contemporary art.

Lev Manovich (1996) describes this split by arguing that for much of the latter half of the twentieth century, the contemporary art world was divided into two smaller, distinct subcategories that he refers to as Duchamp Land (i.e., contemporary art) and Turing Land (i.e.,

new media art). Within Manovich's metaphor, art inhabiting the theoretical space of Duchamp Land displays the following qualities: "it is 'content-oriented', be that content beauty, 'metaphors for the human condition', rule breaking, etc.; it is 'complicated', in the sense that understanding the object involves using various cultural codes and adopting an irreverent, post-modern stance; it is ironic, self-referential and often adopts a destructive approach to the material it uses" (Quaranta, 2013, p.84). Then conversely, the art of Turing Land is "is technology oriented, or rather oriented at experimenting with the latest technologies available on the market; it is simple and mainly lacking in irony, and it takes the technology it uses very seriously—thus being closer to the computer industry than art" (Quaranta, 2013, p.84). Manovich (1996) argues that there has not historically been much in the way of significant cross-pollination between these two lands; however, Domenico Quaranta (2013, pp.84-85) refutes this claim and points out how the internet, post-internet, and postdigital art movements of the 90s and 2000s work to integrate digital and contemporary art practices substantially. Although it could be said that much of the earlier parts of the net art movement fall in line with the hacker mentality that Manovich ascribes to his Turing Land conception of new media art, I argue that the more recent post-internet and postdigital movements function in a manner that resonates significantly with Welsh's hybridized space of mixed realism.

Post-internet and postdigital art are two terms that gained a lot of traction within the 2010s and were initially used by scholars, critics, and artists to describe a trend where the worlds of contemporary art and digital art were beginning to materially and theoretically bleed into one another. As digital technology became more prevalent throughout all aspects of life (social media, smartphones, cheaper computers, video streaming platforms, etc.), more artists came to rely on it significantly for the production, distribution, and presentation of their work. Christiane Paul (2015) further defines post-internet and postdigital art by stating that they "attempt to describe a condition of artworks and 'objects' that are conceptually and physically shaped by the Internet and digital processes—taking their language for granted—yet manifest in the material form of objects such as paintings, sculptures, or photographs" (p. 203). Although there are certainly many works of post-internet and postdigital art that exist as code rather than a distinct, material object, the notion that the "digital" has reached such a saturation point that it has come to be taken for granted rather than defined as separate is a significant turning point in the histories of both new media and contemporary art.

By applying a postdigital framework to *Heroines with Baggage*, clear examples of the material instantiation of digital experience can be found within how the project's video and print components have been previously exhibited. For instance, when Washko presented the work in

her 2013 two-person exhibition *Uncanny Valleys: Andy Fedak + Angela Washko* (curated by Misha Rabinovich and held at Marymount California University's Arcade Gallery), she arranged a group of ten monitors into a salon-style grid that imbued the video element of her work with an aura of physicality and presence. Rather than sinking into the background, this towering assemblage of screens instead became an object that gallery viewers could navigate around and were forced to apprehend in a manner estranged from traditional gameplay or computer use.

Using grids in a similar manner for two 2012 exhibitions at the Contemporary Artists Center at Woodside and the Arts Center for the Capital Region, Washko created vast walls of rectangular digital prints. Each of these prints is produced in full colour and feature screenshots from the same videogames she worked with for the video portions of the *Heroines* project. Like the tower of screens Washko used to present her videos, this long wall of screenshots—often featuring relatively small text—forces the gallery viewer to move throughout the gallery and engage with the appropriated videogames' content in a way that divorces them from the original desktop computer or home television contexts in which they would regularly be experienced.

Lastly, the other print component of *Heroines with Baggage* is the monochromatic cyanotypes that Washko produced. Pulling from the same pool of appropriated screenshots as the digital prints just described, these analog prints are far messier objects that easily fit the analog–digital component of Paul's definition of postdigital artwork. When describing her reasons for using this relatively obscure printmaking method for her project, Washko states that “I was interested in taking these images out of a digital context and into a very traditional and physical photographic process. The cyanotype process allowed me to create brushy, rough surfaces and play with taking the digital into the physical in a labor intensive and historic procedure.” This intentional juxtaposition of traditional art history with contemporary popular culture combined with her equally deliberate blurring of the lines between analog and digital production methods works to position the project as a kind of temporal collage. Bishop, Gansing, and Parikka (2016) argue that the process of collage can not only “help move us beyond the rather antiquated obsession with the digital and the analog,” but that it can also “challenge common assumptions about the influence of media and technology on everyday life” and “invent cultural imaginaries for addressing and engaging technological transformations in ways that propel us to use and devise media technologies differently” (p.13). Through her postdigital explorations of her childhood videogame experiences, Washko has created a cultural imaginary that, when assembled within the physical space of a gallery, mixes fiction and history into a simultaneously postdigital and mixed realist experience for her audiences.

Returning to Nina Freeman, even though *Cibele* is predominantly experienced by audiences at home on a personal computer, there have been occasions where the game has been included within videogame art exhibitions where its specific material presentation resonates with the postdigital aesthetic I have just described. Like Washko, how *Cibele* has been installed within galleries works to blur the line between how the audience engages with the physicality of the work and the virtual narrative content being represented. Also, like Washko, through *Cibele* Freeman speaks to an everyday familiarity with technology, one that openly perceives how digital experiences can no longer relevantly be separated from corporeal ones. One example of an exhibition where *Cibele* was presented in this kind of postdigital manner was *States of Play: Roleplay Reality* curated by Lucy Sollitt and Lesley Taker and presented at FACT (Foundation for Art and Creative Technology) in Liverpool throughout the spring and summer of 2018. Although many of the other works of videogame art within *States of Play* were shown openly alongside each other in large projection-based installations, *Cibele* was instead shown in a relatively small, enclosed, dark nook. However, this was not meant as a slight to Freeman as the small space was intentionally constructed to emulate the more private home computer experience that *Cibele* works to simulate through its interface and gameplay. Additionally, akin to the way that Freeman's desktop and bedroom are decorated within *Cibele*'s video segments, there are various printouts of anime characters adorned around the walls of the nook. This method of presentation works to productively blur the line between the material instantiation and representational content of *Cibele*. Furthermore, it also delivers an embodied experience for Freeman's audience that productively entangles the mixed realist narrative of her game with the partially enclosed reality of the gallery space. Within the framework of the magic circle, this has the effect of creating a sense of reality much akin to a Russian nesting doll where the nook in which *Cibele* is being presented acts as a microcosm distinct from the larger exhibition space that itself offers a curated world that is separate from the everyday reality going on outside the gallery walls.

All of this is additionally complicated by the fact that in recreating a domestic desk space in their presentation of Freeman's work Sollitt and Taker curatorially force audiences to reflect on the many ways their movement and bodily positioning corresponds to three other significant spatial contexts: where they might have played the game if they were in their own home; the space within which the game's represented version of Freeman is operating her computer; and lastly, where and how Freeman was working when she was creating *Cibele*. Through this ontologically nested manner of exhibition, *Cibele*'s mixed-realist narrative and interface is underscored and used to communicate how digital technology no longer exists as a separate

space but is complexly and dynamically interwoven throughout reality. The game acts as a nexus point where players become aware of the many ways that art, life, and technology are all conjoined through everyday experiences such as playing online videogames, checking your email, using social media, and talking on the phone.

The material presentation of both *Heroines with Baggage* and *Cibele* in these art exhibitions works to highlight their postdigital and mixed realist qualities. Both works use various formats, visual styles, and modes of interaction to present a fragmented history of each creator's personal history with the long-running Final Fantasy videogame series. In mixing recorded gameplay with analog printmaking and combining a simulated computer desktop with scripted autobiographical video, Washko and Freeman each embrace the postdigital aesthetic and work to complicate the binary ontologies run through the art history of videogames.

Conclusion

Through their autobiographical videogame art, Washko and Freeman have each entangled their own memories and experiences with the fiction, aesthetics, and gameplay of Final Fantasy—a prolific series with its own extensive and complicated place within the art history of videogames. Due to these qualities, *Cibele* and *Heroines with Baggage* have an inherent and nostalgic connection to the past, which gives them a transitory relationship with the present. Discussing the notion of the present alongside that of postdigital art, Kristoffer Gansing (2016) argues that it will always be an elusive target due to “its retromanias, its postisms, and its accelerationisms . . . where past, present, and future are not structured by linear casualties, but rather foreclosed by cybernetic feedback loops and digital capitalism” (p. 41). He goes on to suggest that a productive response to this situation is “not by trying to outrun these systems, but by infusing the past with post-digital imaginaries that work to manifest tangible yet non-predictable presents (p. 42). Washko and Freeman both use videogames as postdigital tools to productively entangle videogame art history with their own lived experiences, effectively and affectively enmeshing their memories with the narrative and interfaces of a series of commercially popular fantasy role-playing games. Using these methods, Washko and Freeman also blur the lines between their internal emotional worlds, the virtual worlds they visit through gameplay, and the domestic and institutional spaces between which they travel. This crisscrossing of time, space, and material may at first seem confusing and messy, but as this chapter has worked to reveal, in such disorientation, there also lies the potential to reconsider and reflect on current modes of discourse and practice.

As I have shown, the postdigital imaginaries that Gansing is calling for are already beginning to come into play within the art history of videogames. Nooney's speleological approach to media archeology and, by proxy, Anable's subsequent use of the method to emphasize the productive potential of disorientation are two such cultural imaginaries. Both seek to fold the inside and outside of videogame history in on each other to challenge what has in the past been deemed lesser, illegitimate, or irrelevant. Both also use embodied metaphors to describe the process of crawling through the darkness of time to imbue it with qualities of human specificity and affect. And lastly, as both scholars argue, until recently, these qualities have been largely ignored.

Brendan Keogh's (2018) theorization of embodied textuality is another postdigital imaginary that helps to disorient the ways the art history of videogames has come to be formalized and structured. In arguing that the player works to instantiate the videogame, which in turn works to instantiate the player's perception of reality, Keogh helps to break down some of the popular, formative theories of early game studies that relied heavily on binary categories such as fiction and mechanics; computation and representation; or the digital and analog:

The videogame player exists in a doubled world, enacting and interpreting in a singular function—not a purification of player on one side and character on the other, subject on one side and object on the other, reality on one side and virtuality on the other, experienced on one side and interpreted on the other, but a play of bodies that dances across actual and virtual spaces. Videogames require an all-at-once notion of embodied textuality that accounts for physicality and signification, form and content, as irreducible and inseparable. (Chapter 1, Section 11, para.2)

When broadening the focus from videogames to digital art more generally, this “all-at-once” approach to exploring videogame textuality accounts for the hybridity of postdigital aesthetics and is thus productively applicable to Washko's and Freeman's work. In looking at *Heroines* and *Cibele* all-at-once, the many ways that videogames work to blur and reform reality become apparent. Additionally, through each artist's far-ranging media use, their projects communicate that this mixing of realities is a process that saturates the contemporary media ecology. The virtual and the digital are no longer concepts that can be productively distinguished from the real. Instead, “virtuality penetrates the tissue of our reality through numerous devices—mobile phones, PCs, home theaters, games, cash machines, and many others—which change how we perceive what is real” (Wajnowski, 2018, p.87). Through their respective works of videogame

art, Freeman and Washko reveal how their experiences with the Final Fantasy series came to change how they each perceive reality and their place within it.

In deliberately starting from a position firmly situated within a speculative, mixed realist, cultural imaginary rather than a strictly rational, structural, or formal one, there is potential to creatively disorient the art history of videogames. Through examining *Heroines* and *Baggage*, the necessity of imaginative theories is brought into focus. These kinds of all-at-once approaches are needed because of how easily videogame history has and continues to be stratified and formed into hierarchical canons and structures. As was discussed in the last chapter in the context of consumer reception, the binary method of differentiating the real from the fake has resulted in a highly dismissive online culture that actively works to exile whatever does not fit into expected forms. In more scholarly and artistic contexts, this real–fake dichotomy has a slightly more subtle but similarly damaging effect whereby a videogame’s representational qualities are seen as subservient to its overall computational form and structure. From the perspective of the artist or designer, this makes complete sense as videogames are incredibly complex technical objects that are prone to failure, and assembling them into a stable, functional piece of software is no small feat. However, this privileging of the “real” rules and code over the “childish make-believe” (Lantz, 2015) of narrative or thematic world-building only serves to obfuscate the multitude of ways that videogames can and already do affect their players.

By acknowledging that the worlds constructed within videogames can wield just as much sway over their players as anything else in their lives, this urge to categorize and qualify the real from the non-real loses much of its utility. Furthermore, by allowing equal space for these worlds within videogame art history, the notion of reaching to other, seemingly more distant worlds and realities becomes easier. From this perspective, a work of videogame art transforms from a simple computational object dressed in representational imagery to a complex nodal point within a network of intersecting worlds. This includes the human-specific world of its creator and what they chose to deliberately or subconsciously imbue their work with. There are the rules, politics, and histories of both the art world and videogame industry to contend with. There is the highly subjective experience of the player who simultaneously acts as an interpretative audience member and capitalistic consumer. And there is also the wider world of postdigital technoculture in which videogames operate alongside computers, phones, the internet, and other objects that are increasingly becoming integrated into all aspects of life.

Looking out from this intersection of worlds, the notions of the black mirror and the magic circle which both function to separate videogames from the rest of reality become antiquated.

As the worlds of digital and new media art have been discovering over the last few decades, it is more fruitful to start from a place that inherently accepts that interaction with technology is a core element of contemporary reality rather than a separate, virtual space that can be selectively engaged with.

By highlighting mixed realist videogame art like Freeman and Washko's, I argue that the art history of videogames can be steered away from strict ontologies and rigid category construction. Each of their works shows that the material, interactive experience of playing a videogame cannot be separated from the process of engaging with its narrative and visual aesthetics and that all of this together can plant long-lasting roots within a player's psyche. If videogame art history is reexamined from this kind of hybridized, all-at-once perspective, what stories, figures, or works would be revealed that were previously obscured by more formalist or media archeological methods of research and analysis? How might the subjective memories, experiences, and anecdotes with older videogames of previous generations be used to generate new art and scholarship that can critically disorient the formalized categories, definitions, and taxonomies that game studies has developed in its battle to legitimate videogames as a viable artform? Such an effort would also help to more nebulously define videogames through all the non-play and paratextual activities that happen within and around them, such as video streaming, forum discussion, Let's Plays, guide writing, conversation, and fan art. Although the speculative qualities of mixed realism and postdigital aesthetics may be disorienting in their broad scope and deliberately hazy structures, I argue that this disorientation can be utilized to rebalance the worlds of contemporary art theory and game studies. Instead of working to legitimize videogames as a valid artistic medium by defining what is real and what is fictional about them, or arguing why some videogames are real, and some videogames are fake, by starting from the disorienting space of mixed reality, these dichotomies themselves are revealed to be artificial.

Through the cultural imaginary of the postdigital, videogames and all other digital technologies are shown not to exist within or outside of the magic circle but that the magic circle has come to fluidly enmesh itself within everyday reality. Within the future of this increasingly mixed reality, there will be more and more works like *Heroines with Baggage* and *Cibele* that self-reflexively express their creators' previous experiences with digital technology, and more specifically, their formative memories with specific videogames or videogame-related media. As these memories will more than likely be partial and fragmented, this will have the effect of further disorienting the art history of videogames away from any intentions of rational, objective

linearity or archival completeness and towards something more celebratorily messy and all-at-once.

Chapter Four

Living Worlds: Multistability within Self-Playing Videogame Art

In the previous chapters of this dissertation, I have worked to critique the intertwined trends of games formalism and institutional formalization within the art history of videogames. In my first chapter, I worked to show how the exhibition, collection, and preservation of videogames often unnecessarily work to frame failure as an event to be avoided at all costs. In my second chapter, I examined how the effort to legitimize videogames through medium specificity had the added effect of undermining their aesthetic and representational elements, qualifying them as less real than their computational ones. Throughout these previous chapters, I repeatedly aligned myself with scholars who were also pushing back against the formative influence of games formalism and media archeology within the field of game studies. These authors use various methods of speculative analysis in order to critically disorient the archival, linear, and collection-based trajectories that the field has privileged over the last two decades. Collectively this trend has been referred to by some as its “material turn” (Apperley and Jayemanne, 2012) and can be further qualified by an embrace of theories such as cybernetics, phenomenology, embodiment, materialism, and assemblage.

Some of these approaches have already been loosely covered within previous chapters, but assemblage theory represents an especially useful tool in providing dynamic alternatives to the deterministic and teleological histories favoured by games formalism and media archeology. Whereas these two latter methodologies rely heavily on static forms of category construction and taxonomic analysis, assemblage theory allows for a more open, mutable conception of videogame form and aesthetics to emerge. Speaking to this point from the relatively broader context of digital media, Jussi Parikka (2010) argues that the binary elements of digital formalism do not adequately account for “the weird materialities of network culture” and that instead “software is increasingly more about relationality within its code world but also in its relations to the outsides in which it is embedded (from the abstract machines of capitalism to concrete assemblages such as games, browsers or, for example, mobile phone interfaces)” (p. 119).⁷⁷ Parikka further qualifies his definition by stating that “Assemblages of software act as

⁷⁷ The term “network culture” is typically attributed to Tiziana Terranova and her book *Network Culture: Politics for the Information Age* (2004) wherein she defines it as “an attempt to give a name to, and further our understanding of, a global culture as it unfolds across a multiplicity of communication channels but within a single informational milieu. To think of something like a ‘network culture’ at all, to dare to give one name to the heterogeneous assemblage that is contemporary global culture, is to try to think simultaneously the singular and the multiple, the common and the unique” (p.1).

agencements: agencies, vectors of transmission, always in the midst of becoming something else (or having the potentiality to do so)” (p. 121).

In this chapter, I aim to build on the notion that videogame assemblages are always in a state of fluid transformation through their interactions with other media ecologies and art worlds.⁷⁸ I argue that this consistent lively flux allows for the speculative analysis of videogame art as a kind nonhuman entity with its own subjectivities and agency.⁷⁹ This ongoing potential for change also productively disorients the static theories and methods that I have been arguing persist throughout videogame discourse, ones that are primarily concerned with constructing clear—though at times also reductive—definitions and terminology. In positioning videogames as living entities or evolving worlds rather than interactive, yet essentially lifeless art objects, there lies the potential for an update or reconfiguration of games formalism, one that can productively account for their more ambiguous and ineffable qualities.

To support this argument, I will be comparatively examining two multifaceted case studies: Ian Cheng’s *Emissaries* trilogy (2015-17)⁸⁰ and David OReilly’s interconnected videogame art (looking specifically at *Mountain* [2014], *Everything* [2017], and *Eye of the Dream* [2019]).⁸¹ My selected examples are united in that they are all vibrant, colourful, three-dimensional, self-playing simulations that work to fantastically represent complex systems of artificial life. They have also all been shown traditionally within physical galleries and more experimentally in virtual platforms such as Twitch and YouTube. They work especially well within and across each of these seemingly disparate presentation spaces not only due to their

⁷⁸ In my invocation of the term “art world” I am relying on the work of Felan Parker (2014) and his interpretation of Howard Becker’s (1982) original definition of the concept. Becker first defined an art world as the collective system of production, presentation, distribution, and consumption that allows for any art object to exist and be interpreted. According to Becker, there are many different art worlds that exist for each genre or category of art. Parker builds on this notion by reframing the art world as a kind of social assemblage that is always in a state of flux as it interacts and is reformed by the other assemblages it encounters. Parker specifically draws attention to the art worlds of contemporary art and videogames and how the latter frequently looks to the former as a method of self-legitimization.

⁷⁹ The nonhuman is a concept that appears commonly with new materialist and ecocritical scholarship and unsurprisingly refers to any organic or inorganic entity that is not a human. This focus on the nonhuman is meant to decenter anthropocentric methods and perspectives, and to instead reveal the long-ignored agency of objects, animals, landscapes, ecologies, etc. For a broad introduction to the concept see Richard Grusin’s edited anthology *The Nonhuman Turn* (2015).

⁸⁰ Each third of the *Emissaries* trilogy had a different team of collaborators working on it, however across all three there were people who consistently filled the same role: Veronica So was the producer, Samuel Eng was the technical director, the modeling and rigging was done by Joshua Planz, and Alexander Benaim act as a story consultant. For a full list of the credits for the trilogy, see Cheng’s website: <http://iancheng.com/emissaries>

⁸¹ Although OReilly has an extensive background as an animator, at the time of this trilogy’s inception he did not have as much in the way of game programming skills and thus hired Damien Quartz to code both *Mountain* and *Everything*. Additionally, OReilly hired Ben Lukas Boysen & Sebastian Plano as the composers for both *Everything* and *Eye of the Dream*.

capacity to play themselves (fitting in easily within many previously existing modes of video art exhibition) but also in the way that they have been constructed to emergently do so for a potentially infinite duration. To be more specific, this means that when exhibited, no two presentations of any of Cheng's or O'Reilly's works will ever be exactly the same as they make unique, procedurally generated choices for themselves that drastically impact the landscapes, objects, figures, and events that are depicted on their respective screens at any given time.⁸²

The ability for an art object to change or transform itself presents many challenges for processes of institutionalized archiving and preservation. This was summarized in the first chapter in the context of digital decay and technological obsolescence, but how might this issue transform when the process of change is one of deliberately intended, yet computationally co-authored growth rather than the undesired process of slow material entropy? Raiford Guins, writing on art object life cycles, looks to Phillip K Dick's 1953 short story "The Preserving Machine" as a metaphorical lens for exploring some of the questions that arise when the mutable qualities of videogames clash with the desire to define and archive them permanently. In the story, a scientist named Doc Labyrinth fears that more ephemeral forms of canonical high art such as classical music would become forever lost should an apocalyptic event occur and the world go "the way of Rome" (Dick, 1953, p. 149). To prepare for such a possibility, Doc Labyrinth invents a fantastical device that can convert musical information into living tissue, which he then uses to create various symphonically infused chimeras. Through this process of bio-artistic animation, Labyrinth hopes that his hybrid creatures will survive the widespread societal collapse he is so fearful of and that the genetically encoded music would be able to be safely extracted sometime afterward. What Labyrinth does not account for, however, is that his chimeric creations were unexpectedly imbued with the ability to rapidly mutate and evolve to better adapt to their new environment. This lively adaptation poses a problem for Labyrinth in that it also has the unintended effect of disrupting or otherwise ruining the canonical music he had originally hoped to preserve within them.

As has been previously argued (Bailey 2020, Benivolski, 2021), "The Preserving Machine" allegorically communicates that any attempt to perfectly preserve a work of art is doomed from the start because, as both a concept and a practice, art functions as an ongoing and inherently fluid cultural process that is not dissimilar from evolution or ecology. Also, what is especially useful for me when looking Dick's story is how it ironically could be interpreted that it

⁸² Procedural generation is a relatively common method within videogame design and animation where a semi-random algorithm is used to assemble a set of bespoke, modular assets together. Typically, this method is used to quickly create large virtual worlds that can then be further refined if necessary.

is the performative, ephemeral, and immaterial qualities of the music that Labyrinth is trying to preserve that allows for his hybrids' unexpected mutability. Returning to the context of videogames, these lively elements are also readily observable within them in because they are constructed through coded language as playable cultural objects. To apply this literary reference to a more concrete example, Guins addresses the initially simple-seeming question of how you would define an individual videogame—a question that any videogame archivist would have to attempt to answer in some way. Guins points out how many videogames exist simultaneously as a designer's idea, executable code, arcade cabinet, game cartridge or disc, emulated computer file, moving image on a screen, and a process of play between human and computer. In his attempt to account for this diverse and at times conflicting ontology, Guins refers to science philosopher Don Ihde's (199) concept of "multistability" which "demonstrates the need to think less in terms of the 'thing-in-itself,' something with fixed hermeneutic, intrinsic properties, confident ontological value, and predetermined uses" (Guins, 2014, p. 12) and to instead to think of videogames as "many things at once" that are "stable in multiple ways" (Verbeek, 2005, p. 118; quoted in Guins, 2014, p. 12). Guins (2014) goes on to further explain that as multistable objects, videogames "may occupy or perform various palimpsestic roles across their life history" (p. 13) that in turn give them "uncertain, shifting identities not in crisis but in change and complexity, enduring different circumstances and adaptations, and accumulating shifting situated meanings, significance, and values" (p. 14).

Using Guins' analysis of "The Preserving Machine" as a theoretical prompt, in the rest of this chapter, I will work to speculatively frame Cheng and O'Reilly's trilogies as lively, multistable, software assemblages that are much akin to Labyrinth's bio-artistic hybrids. Through the lens of multistability, I argue that there is a useful route around the more singularly static modes of analysis that coincide with games formalism and media archeology. Here I also look to Alenda Chang (2013) when she argues that "Digital game worlds straddle the observed richness of the entangled bank and the metaphorical ecology of media, tying together universes of matter and media in ways that merit our continued scrutiny and support" (p. 94). Through this examination of O'Reilly and Cheng's shared experimentation with the animated aesthetics of videogames alongside their mutual thematic focus on ecological and nonhuman narratives, I will work to create space for the analysis of videogame art as an experience that is inherently fluid and lively. As artistic and commercial game production are both coming to rely more heavily on easily modifiable tools and platforms, the art history of videogames must also match stride and approach its analysis, documentation, and criticism from an equally dynamic vantage point that can better account for such rapid and multistable evolutions.

David O'Reilly

David O'Reilly is an Irish animator, game designer, and contemporary artist who started his career mainly within the spaces of smaller experimental animation film festivals. In the years since, O'Reilly has shifted his focus from short, animated films to the production of critically acclaimed, multi-platform videogames and large-scale gallery installations. O'Reilly's work can typically be identified by his use of stylized, cartoonish characters, his at times darkly obtuse sense of humour, and his willingness to intentionally rebuke many of the technical standards and principles of the animation industry. In his early work throughout the late 2000s and early 2010s, this latter descriptor was observable through his choice to deliberately include graphical glitches or leave explicit evidence of the software tools he was using inside of his films. During this period, this particular style of experimental animation was also starting to become trendy by way of companies like The Cartoon Network and Adult Swim; however, when O'Reilly first made the shift from animation to game design, his experimental approach was initially dismissed by many players and critics as shallow irony.

In 2014, O'Reilly released his first videogame *Mountain* for Windows, Mac, iOS, and Android. The relatively simple game functioned as a minorly interactive simulation of a 3D, low-poly mountainous chunk of earth floating in space.⁸³ The player does not have many other ways to manipulate the game besides turning it off and on and manually rotating the mountain to observe it from different angles. In contrast to most commercial videogames, *Mountain* is really intended just to be left on in the background of a desktop workspace or periodically checked in from a mobile device rather than directly and consistently played with. As time passes, random objects with non-realistic scales will crash into the mountain, slowly covering it with colourful junk. As this is going on *Mountain* will textually display the floating landmass's pondering thoughts in an angular typeface along the top of the screen. These thoughts are all procedurally generated so that there is little to no repetition between them. Eventually, if left on for long enough (approximately 50 hours), the mountain will begin to be drawn into the fiery orbit of a giant star. At this point, the player can rapidly press buttons on their keyboard (or tap their touch screen if they are playing it on their phone) to shield the mountain from being destroyed or do nothing, and the game will finally end.

⁸³ Low poly is a term common within independent videogame design that is used to describe a three-dimensional model that has been constructed with a relatively small total number of polygons. This low polygon count typically gives the model a simple, non-realistic appearance and is a helpful tool for rapid prototyping or for producing content that is meant to reference the visual style of older videogame aesthetics such as those produced by the original Playstation or Nintendo 64.

The reputation O'Reilly has gained for self-reflexive humour within his earlier short films combined with *Mountain's* explicit lack of traditional gameplay led many critics at the time to dismissively interpret the game as a kind of joke or prank. One relatively high-profile example of this can be found within Ben Kuchera's (2014) review of *Mountain* for the enthusiast website *Polygon*. Here, Kuchera describes it as "a one dollar video game that seems to be laughing at people who strain to find meaning in abstract indie titles." Kuchera is also critical of other reviewers who attempt to conceptually interpret the game or imbue it with any kind of greater meaning: "I can't get over the fact that the whole thing feels like a put on, as if the whole thing is the act of a modern artist who placed a piece of ice on the floor of a gallery and charged admission to come watch it melt. Could we find meaning in the act of standing around, knowing that we paid money to watch ice melt? Sure. Does that give the work value, meaning or justify the cost?"

In response to this dismissive reading, I align myself with artist and game designer Michael McMaster (2014) when he takes issue with Kuchera's review and uses it as a prompt to argue that popular videogame culture often has a distrust for the opaque. Building on this argument, McMaster states that "In broad pop-cultural terms, games are expected ideally to be fun/digestible/gratifying, but if that's not possible then they should at least be meaningful (i.e., if I can't play it like a game, I should at least be able to read it like a book)." From here McMaster argues that the meaning of *Mountain* does not come from analyzing it in the same way one might do with a text, but that instead it is best understood "as an exercise in form — it's a small, contained work that depicts and explores a mountain as an object." Interestingly, McMaster's definition of *Mountain's* formalism is significantly different from how games formalism has been traditionally defined within both academic game studies and popular game criticism. Here it is the representational form of the mountain that is being emphasized rather than games formalist qualities such as interactivity and medium specificity. McMaster argues that within videogame discourse, form is too often considered within a teleological timeframe where technological innovation is equated with formal achievement. For McMaster "*Mountain* has no interest in competing on these terms. There's no attempt to offer the player varied systems to engage with the mountain beyond looking at it — one of *Mountain's* greatest strengths is how content it is as a small, purely formal experience."

Later, O'Reilly (2014) would publish a response to both Kuchera and McMaster's articles, severely dismissing opinions of the former and appraisingly confirming those of the latter: "One horrible aspect of 20th century culture is it that it has tricked a lot of people into believing there is always something to get in art — there is always some cleverly hidden answer behind every

vague or abstract expression... however, *Mountain*'s ideas are obvious on every level — some connect over time, but none are complex or logically demanding. Nature is a phenomenon I find beauty in without any guidance or explanation, and I wanted to translate that into a game.” Although within this response, O'Reilly seems obviously unhappy with how *Mountain* was critically received by popular videogame culture, his next major project would end up being another nature-focused videogame, one which would require far more time and resources to produce.⁸⁴

Released in 2017 on macOS, Windows, and PlayStation 4, *Everything* in many ways functions as an evolution of the environmental themes and systems of procedural generation and self-play found within *Mountain*. As part of the earlier game's production process, O'Reilly familiarized himself with the Unity game development engine (Parton, 2017) and, throughout this process, saw the potential for how he could use it to explore the relationship between animate and inanimate things in a more complex way (O'Reilly, 2016; Muncy, 2017).⁸⁵ This led O'Reilly to expand from the mechanical simplicity of *Mountain* with its solitary, floating geological entity to create a work that was able to let “you see the entire universe from the point of view of the thousands of things in it” (O'Reilly, 2016). As it was almost a direct continuation of the Unity-based production processes of *Mountain*, *Everything* uses a very similarly colourful, low-poly style to represent its simulated universe. When the game begins, the player takes control of a randomly assigned animal within a procedurally generated environment that would correspond to its approximate real-world habitat. As the player attempts to move their animal avatar around,

⁸⁴ In the same essay, O'Reilly (2014) further explains his feelings towards the dismissive reception of *Mountain* and how it relates to the discussion around fake games (see Chapter 2) and the games-as-art debate (see Literature Review): “The main criticism was that *Mountain* was “not a game”, and perhaps some kind of joke or prank. This wasn't an argument I had expected or prepared for at all. I don't really keep up with the gaming press — but the last thing I remember reading into was a widespread desire for games to be considered Art. The fact that I so directly went about making an art-game I thought was a good thing. Between Damien [the game's programmer] and I there was never a discussion that *Mountain* was not a game, much less a controversial game. It was an idea that required an interactive environment, it was created using a game engine and the pipeline was almost identical to any other independent game. It was developed for gaming systems through game distribution platforms and was released with a game publisher. Some pseudo-intellects may spin some clever sounding crap about the semantics of the word game, win conditions, fail states etc. — but I really, truly and sincerely don't give a shit. *Mountain* is a game, I get to call it that, and anyone who says otherwise can go and eat a sand sculpture of my balls. Incidentally — it's also not an anti-game, or so-called 'deep game'. I don't care for specialist categories of art — they're historically the creation of commentators wishing secondary credit for the emergence of something new.”

⁸⁵ A game engine is the term for a piece of software that is used to produce a videogame. Unity is one of the most popular engines available because unless a creator reaches a certain threshold of profit with their videogame the license to use the engine is free. For more on how the Unity engine relates to independent game development and videogame art see Keogh (2019); for how the term game engine can be speculatively linked to world-building and entropy see Chang (2020, Chapter 4, Section 3, para.3).

they will immediately realize that it will not move in any kind of expected, natural manner but will instead awkwardly flip forward in 90 degrees increments. This immediately allows for the animal to be read as a complex geometric digital object being rendered in three-dimensional space in addition to it functioning as a representation of a living thing. As the player moves around the environment, they will encounter text bubbles floating above other animals, plants, and inanimate objects that will prompt them to consider their relationship with their current avatar and how it, in turn, might feel in relation to other members of its species. Eventually, the player will find more of whichever animal they are controlling, at which point the player will no longer just be controlling a single creature but a slowly growing herd of them. After the player has moved around as a herd for long enough, they will eventually stumble upon an animal, plant, or object that will then instruct them on how to transfer control from the animal herd down into a different, smaller entity within their current environment. Here the perspective zooms dramatically down so that the player now controls an insect, feather, stone, blade of grass, or some other minuscule thing. As with the previous animal herd, they can collect many of these smaller objects into a larger moveable collection, or, if they so desire, they can also shift perspectives again and transfer into something even smaller (or larger).

This process of moving through environments and transferring player control between various nonhuman entities at vastly differing scales is what constitutes *Everything's* primary gameplay experience. Players can zoom down to microscopic and even subatomic perspectives or zoom out to a cosmic scale and take control of entire galaxies. As they continue to explore, they encounter thousands of unique objects within an infinite array of procedurally generated environments. Through this process, players will encounter many more of the floating text thought bubbles I described above. A small portion of these are quotes taken from the work of a variety of famous philosophers, while many others—like the first-person musings of *Mountain*—are procedurally generated text meant to prompt the player to consider the notion of nonhuman subjectivity.

To further underscore these existentially poignant textual prompts, the player will also occasionally stumble across a rainbow-hued, hexagonal symbol floating around the environments that they are moving through. When interacted with, these hexagons will begin to play a random audio clip sampled from pop-transcendentalist philosopher Alan Watts' lectures that, according to Ian Bogost (2017), argue for "a holistic conception of being, in which all entities in the cosmos are fundamentally interconnected, reliant, and compatible." Comparing *Everything* to *Mountain*, Bogost takes issue with Watts' inclusion and argues that his specific brand of holism makes the "unwelcome claim that everything in the universe is connected,

accessible, and familiar.” For Bogost, Watts—in combination with the way the player can turn any object or entity in the game into a playable avatar—produces a brand of anthropocentrism that he argues undermines that disinterested “separation O’Reilly so adeptly achieved in *Mountain*.” Attempting to analyze the work removed from Watts’ “insidiously seductive” monologues, Bogost argues that *Everything’s* “aesthetics of being isn’t a smooth flow of interconnectedness, as Alan Watts would have it” but that it instead

embraces an aesthetic of messiness rather than order. Things are in their place, to an extent: Descending into a continent unveils animals, fences, and farmhouses; rising into a solar system reveals planets and spacecraft. But the range and specificity of things in *Everything* spotlights the delightful and improbable diversity of existence. The universe contains bowling pins no less than quasars, articulated buses no less than cumulus clouds.

Although I agree with Bogost’s celebration of *Everything’s* aesthetics of messiness, I disagree that *Everything* primarily functions in an anthropocentric manner and that this, in turn, makes it less successful than *Mountain*. While it is true that the human player can easily take control of almost anything within *Everything’s* vast, procedurally generated universe, if left unattended, the game will also begin to automatically play itself, moving between environments, avatars, and scales of perspective all on its own. Just as the player would do, as *Everything* plays itself, it will also encounter text bubbles and Alan Watts audio clips. Eventually, the player can even unlock a setting called “Documentary Mode” that, when activated, will not only instantly switch *Everything* into this mode of automated self-play but will also display lengthy text snippets drawn from Wikipedia pages corresponding to whatever animal or object the game is currently inhabiting.

Calling back to my earlier allusions to “The Preserving Machine,” the way that *Everything* can play itself is reminiscent of the unpredictable vitality that Doc Labyrinth imparts to his bio-artistic creations. Like the evolving hybrids within Dick’s short story, when left to its own devices, *Everything* will move through its simulated universe in unexpected and unpredictable ways, transitioning between organic and inorganic ecologies as it sees fit. This lively self-play also calls back to Parikka’s (2010) description of a software assemblage in that it is “always in the midst of becoming something else” (p. 121). However, rather than fitting cleanly into the broad category of software assemblage, through *Everything’s* capacity for playful human-computer interaction, it also functions more specifically as a videogame assemblage as well. To better

account for the way that the videogame assemblage works to enmesh the human with the nonhuman and the organic with the inorganic, I turn to Cameron Kunzelman (2018) where he argues that to analyze a videogame as an assemblage one must “dispense with the idea that only the player is having an experience with the game. [The game] is having the experience of the player, and the ghosts of the player’s action run through the network of interrelated experiences that software, hardware, controller connectivity, and human tissue are all having on one another” (p. 245). Working to more fully explain the unique ways that a videogame assemblage might function, Kunzelman draws on DeLandian (2006, 2011) modes of assemblage theory to frame the human and non-human as co-constitutive, mutually influential, yet ultimately discrete bodies, each with their own distinct forms and agencies:

Once turned on and plugged into the various power supplies that exist ubiquitously in the same ecologies as computer games, [the videogame] could run until it loses one of the major components of that assemblage, like a power supply or a processor. The human body is a part of the assemblage . . . It augments what the game body can do, increasing its power, until the game is either completed in a narrative or percentage-based sense, in which the human leaves the picture and potentially dismantles the game body by uninstalling it from the hardware or by boxing up the hardware and putting it in a closet . . . The videogame body, while certainly designed and physically assembled by human and industrial robot actors, should still be understood as being a completely alien nonhuman agent in the world. We do not bring it to life. We come into contact with it, increasing its set of capabilities in the world, and then we abandon it, sometimes to the detriment of its ability to continue to exist after us. (p. 29-30)

Applying Kunzelman’s breakdown of the videogame assemblage to *Mountain* and *Everything* helps us better understand them as nonhuman agents with their own life cycles that are not entirely dependent on the actions or presence of a human player. However, when Kunzelman argues that “We do not bring it to life,” he seems to prioritize the role of the player over that of the artist or designer in terms of how the videogame assemblage becomes animated. Here, I once again turn to “The Preservation Machine” and argue that, like Labyrinth, OReilly did indeed bring *Mountain* and *Everything* to life and that, also like Labyrinth, after this initial moment of creation, these nonhuman entities become increasingly distinct and independent from him as their creator. By imbuing his work with the ability to self-play and produce procedurally generated thoughts, OReilly has created his own shapeshifting, nonhuman entities that can

interact with—but, significantly, are not reliant upon—the human-player component of the videogame assemblage they help constitute.

Building on this lively framing of *Mountain* and *Everything* as nonhuman entities, O'Reilly's overall practice itself displays a similar ability to adapt, evolve, and mutate. Each of these works not only functions individually as a videogame assemblage that enmeshes human artists, players, and audiences with nonhuman forms and entities, but *Mountain* and *Everything* also collectively constitutes a larger *artistic* assemblage given their shared sense of aesthetics and thematic resonances. The game design skills and virtual assets that O'Reilly first developed to produce *Mountain* were further refined and expanded upon throughout the creation of *Everything*, which in turn paved the way for a third work that O'Reilly released in 2019 called *Eye of the Dream* (*EOTD*). This immersive installation has been most often exhibited within planetarium-like spaces that contain a sizeable semi-spherical screen hung on the ceiling and cushioned seating arranged underneath. The video that is displayed shows complex, rotating mandalas that are composed of the same low-poly animals, plants, and objects found within *Everything*. When in motion, each of these digital objects can be seen slowly expanding and moving from the center of the screen to its outer edges before eventually disappearing. When shown in these globular screenings, *EOTD* has a 45-minute runtime during which the specific order of objects and lifeforms that appear is meant to represent a vast cosmological timeline that starts with the Big Bang and ends within our contemporary moment. Although the work may outwardly appear to be a prerecorded animation, like its predecessors, *EOTD* functions as a live, self-playing videogame that was made using the Unity engine and that relies on procedural generation to direct its hypnotic, circular movements. Another connection to O'Reilly's earlier work is that the ambient, instrumental music that plays while these infinitely growing rings expand is composed by Ben Lukas Boysen & Sebastian Plano, the same musicians responsible for producing *Everything*'s ethereal soundtrack. And finally, to fully cement *Eye of the Dream*'s familial relationship to *Everything*, on his website O'Reilly even has it listed as “An Everything Branch.”

While *Eye of the Dream* has been most numerous presented in the manner described above, it also was one of the core elements of a solo exhibition of O'Reilly's art that took place at the 0 Art Space in Shanghai in 2018. Organized by YveYANG, an emerging artist project space run out of New York City, this exhibition shares its name with the *EOTD* piece. Accompanying the exhibition is an artist statement by O'Reilly where he describes his interest in drawing connections between the looping rhythm of dance and how both living and nonliving things often appear to self-organize into patterns. What is especially significant about this exhibition in

relation to this chapter's focus on videogame assemblages is that it presented *Mountain*, *Everything*, and *EOTD* all within the same gallery space, each engaged in autonomous processes of looping self-play, and all united through a shared use of virtual assets and rotational, looping animations. In the dimly lit, converted industrial space of the 0 Art Space, these three works were arranged as flat projections of varying scales all within the same room (*Everything* and *EOTD* were displayed as full wall projections while *Mountain* was projected onto a piece of fabric that was hanging in the middle of the gallery). The colourful light from all these projections spread across the gallery's white walls and also reflected up from the polished concrete floor. As *Mountain*, *Everything*, and *EOTD* at any given moment are all typically working to at least partially represent the sky, this had the result of filling the gallery with a pleasant blue glow, further unifying the three works through a collective use of colour and light.

In this intimate gallery context, as well as within the wilder spaces of popular culture, *Mountain*, *Everything*, and *EOTD* are all functioning in dynamic relation to each other. Through the lens of Parikka's earlier definition of software assemblages, this creates a kind of "weird" relationality where each piece is partially ensnared by or enmeshed within the other two. Visually this is achieved through O'Reilly's use of the same looping, circular animations, low-poly style, and 3D models across all three works, but this triangular relationship is also more subtly present when examining their predilection for lively self-play and procedural generation. However, even though *Mountain*, *Everything*, and *EOTD* share a considerable amount of content and conceptual intention, they also remain three distinct works of videogame art. In this way, they exemplify Raiford Guins's earlier argument that videogames are inherently multistable, existing as many shifting things all at once. O'Reilly's trilogy of philosophical videogame art acts simultaneously as three lively videogame assemblages at the individual scale and concurrently as an ever-evolving artistic assemblage from a broader, more collective perspective.

Here, I argue that Alenda Chang's (2019) use of the ecological term "mesocosm" is a productive tool for further conceptualizing how *Mountain*, *Everything*, and *EOTD* function as shifting, interrelated, multistable assemblages of videogames and art. Chang draws the term from biological fieldwork and lab studies, explaining that it is meant as a shorthand for any kind of experimental, artificially enclosed ecosystem. Or, to describe it another way, mesocosms function kind of like large aquariums or terrariums with semi-permeable barriers that allow for their inhabitants to be studied in a pseudo-naturalistic setting. However, Chang also notes that often along the walls of these miniature ecosystems, there tends to occur something known as an "edge effect" where strange or unpredictable patterns and behaviors can be observed.

Chang explains that the term is used to typically “describe life at the boundary zones between distinct ecosystems (say, between forest and meadow) as well as the unwanted experimental artifacts created by the presence of margins” (Introduction, Section 3, para 3).⁸⁶ Although the concepts of mesocosms and edge effects originate in ecological science, Chang argues that they are productively applicable to videogames because they provide an “ideal way to characterize the subtle negotiations that take place between human and nonhuman actors and technological assemblages during play, while also taking into account diverse situational and interpretive contexts” (Chapter 1, Section 1, para 3).

Thematically, this ecological framing applies well to *Mountain*, *Everything*, and *EOTD* as they all simultaneously function as and work to represent miniature, semi-enclosed ecosystems. Each is simulating a seemingly infinite array of organic and inorganic entities that are all dynamically interacting with each other, their environments, and the human player and audience. What is more, when exhibited together, they also function as mesocosmic inhabitants of the artistic ecosystem that the gallery space transforms into—physically and ontologically distinct from one another but also undeniably connected as well. And even though O'Reilly's use of self-play and procedural generation at times seems to give his pieces an expansive aura of infinitude, there are various material and virtual boundaries to his work that create the kind of unpredictable behavior and experimental artifacts that Chang ascribes to edge effects. Due to the way that *Mountain*, *Everything*, and *EOTD* all focus on representing environmental themes, in combination with their visual and procedural relationality, I argue that the interconnected lines that divide the three works can be categorized as speculatively ecological. “Unlike the edges spoken of in new media theory (abstract lines that connect nodes on a network diagram) or game studies (the spatially and temporally demarcated “magic circle” in which play occurs), ecological edges are by definition untidy and can be places of increased contest and attrition as well as greater productivity” (Introduction, Section 3, para 3). The untidy qualities that Chang outlines here are not only tools to help me conceptualize the way that O'Reilly's three works are dynamically intertwined, but they also call back to Bogost's (2009, 2017) messy videogame aesthetics and the interconnectedness that they imply. By using their algorithmic self-play and environmentally influenced existentialism as conjoined prompts, it becomes relatively easy to

⁸⁶ Within most forms of digital art, the word artifact is also used to describe any type of unexpected and typically undesired visual defect. For example, you might get artifacts such as blurriness or pixelation when attempting to dramatically upscale a low-quality image. Although these artifacts are seen as mistakes to be avoided and corrected with commercial and industrial processes, they have become the basis for a genre of contemporary art called Glitch Art that intentionally seeks to use them as an experimental production method.

frame *Mountain*, *Everything*, and *EOTD* not only as multistable videogame assemblages but also more speculatively as a trio of related nonhuman entities.

In the following sections, I will continue to build on and expand on my speculative application of mesocosms and edge effects by using them to construct an ecologically messy connection between David O'Reilly and Ian Cheng's work. Like the simultaneously distinct and indistinct borders between *Mountain*, *Everything*, and *EOTD*, Ian Cheng has created his own trilogy of interconnected, self-playing videogame art that also utilizes the Unity engine to craft a seamless, low poly visual style between its three chapters. When examining Cheng's trilogy, there are qualities of nonhuman animism and ecological liveliness between its three aspects that can be productively compared to those I have just focused on when analyzing O'Reilly's work. These shared qualities allow me to similarly frame Cheng's work as a set of intertwined, multistable assemblages—ones that are full of, and exist as, shifting, nonhuman entities capable of endless, self-directed change.

Ian Cheng

Ian Cheng is an American visual artist who works predominantly with the Unity engine to produce a unique kind of self-playing videogame art which he consistently refers to as 'live simulations.' Like David O'Reilly's circuitous journey into the worlds of contemporary art and videogames, Cheng did not begin his career in either. After studying cognitive science and new media at UC Berkeley, Cheng started work as a graphics artist for Industrial Light & Magic, the film production studio most well-known for its connections to Lucasfilm's and the Star Wars Franchise. Eventually, Cheng departed his position there to pursue more independent and experimental work. During this time, he began trying to "make a video game that learns, stupidly, to play itself" (Cheng, 2015, p. 111). Since 2012, Cheng has achieved and further refined this initial goal, exhibiting his live simulation art in museums, galleries, and festivals across the world.

In practice, these live simulations take the form of three-dimensional animated worlds that are displayed on large screens or monitors. Like O'Reilly's simulated spaces, Cheng's worlds are typically constructed using some element of procedural generation and are also designed to be able to play themselves over an infinitely looping duration (though this is often disrupted by the program crashing and needing to be restarted by gallery staff). Visually Cheng's digital worlds "recall primordial landscapes" (Raskin, 2015, p. 119) and are typically inhabited by a myriad of colourful characters and objects that all move and interact with each other in a way that relies on unique combinations of procedurally generated animations.

Although this heavy reliance on procedural generation often results in odd or seemingly nonsensical movement and interaction between all the entities in Cheng's worlds, it also allows for a kind of simulated agency or liveliness to emerge. This emergent interaction is something Cheng (2011) describes as being central to his practice: "Emergence is a key principle, to how this all works: it's the idea that from simple properties and behavioral laws, unexpected complexity can emerge . . . The simulation in the end is a virtual space with a huge accumulation of mini-behaviors and laws that act and react to each other with no master design, just tendencies, all playing out in parallel with one another" (p. 111). Although designing for emergent interaction between player and AI has been a relatively common technique within commercial game design for many years, what separates Cheng's work from this well-known industry practice is that he experimentally extends the potential for emergence down into the form, physics, and animation of all the characters and objects that inhabit his worlds. What this results in are frequent explosive elongations or compressions of his 3D models, something that would typically be considered an undesired graphical glitch or physics bug in a commercial videogame. Here I align myself with Irina Raskin (2015) where she argues that these visual "distortions are surely not glitches or disturbances in the pictorial works of live simulations" but are instead explicit signifiers that reveal how "technology is involved in the becoming of the image" and thus work to erode the increasingly antiquated dividing line between computation and representation (p. 120).

The first of Cheng's live simulations were all well received within the contemporary art world, with critics (Giraud, Normand, and Soular, 2017; Kerr, 2016; Obrist, 2018) likening them to mesocosmic systems such as terrariums or tide pools. These lively analogies worked to explain how Cheng's art functioned to abstractly represent ecological systems and relationships. Although successful in their intention, these initial works' primary focus was emergent simulation for its own sake, and because of this, there was typically no meaningful narrative trajectory to any of them. However, Cheng's more recent *Emissaries* trilogy works as a stark counterexample to this early trend. In this series of narratively connected live simulations, Cheng (2018) makes a meaningful effort to entangle the infinite, procedural, and emergent elements of his earlier work with the seemingly opposing force of a plot or story:

If a simulation is dynamic, reactive, or without end, what could productively interrupt it? What could 'get in the way' of a simulation and challenge its open-ended orthodoxy? STORIES. What if a simulation could be pitted against a story? How would these two opposing forces shape each other? . . . Imagine a simulation that treats stories like an

influencing force among other forces like gravity, energy, time. Imagine a simulation sculpted by the deterministic force of a story, and likewise, a story assaulted by the open-ended dynamics of a simulation. Imagine a story that is finally allowed to break its classical determinism, and a simulation that acknowledges the influence of inner fiction on how we act upon the external world. (p. 21)

Given how Cheng's work has been critically likened to mesocosmic spaces, this introduction of story into simulation works to position the *Emissaries* trilogy alongside my references to "The Preserving Machine" and the chimeric art ecologies contained within it. Given the parallels between these two works, it should perhaps be no surprise that Cheng repeatedly references Philip K. Dick in his explanations for his methodological shift away from open-ended simulation to a more intentionally authored narrative. Cheng (2018) describes how Dick often "begins his science-fiction novels with one simple change from normality: 50% gravity, or a drug that shrinks you, or meeting your clone. From this interruption, drama naturally emerges as the mind imagines its consequences. A premise for Dick is as simple as routine interrupted" (p. 21).

Applying this literary framing to the *Emissaries* trilogy, the routine being interrupted is the one that works to distinguish simulation from story. In contrast to his earlier work that could perform endlessly as a non-linear simulation with no pre-determined interaction between any of its characters, objects, or environments, each third of the *Emissaries* trilogy follows a very loose, looping narrative. Additionally, rather than giving equal priority to all the simulated components, this ever-shifting, circuitous storyline is most drastically influenced by the emergent actions of a single AI-controlled character. This lone, narratively privileged entity looks and functions differently within each of *Emissaries*' thirds, but across all three, Cheng has consistently labeled this character as an "Emissary." Unlike the rest of the trilogy's various characters that function purely as "reactive agents, embodying the properties of open-ended simulation," each of the *Emissaries* has "narrative goals" and embodies "the force of a deterministic story" (Cheng 2018, p.23). In this manner, the Emissary characters each function as a stand-in for the human player within traditional game design, enacting their own desires upon the rules and systems of the virtual world while also remaining distinct from it in terms of agency and intention.

Although the emergent aspects of the *Emissaries* trilogy function to produce unique narrative variations every time it is exhibited, each of its thirds all follow their own respective core storylines. In the first chapter, *Emissary in the Squat of Gods (EITSOG)*, the Emissary character is a human girl named "Young Ancient" who is a kind of princess figure within a prehistoric community that inhabits a rocky area along the base of a dormant volcano that is just

beginning to awaken. Young Ancient appears as a thin young woman with a relatively large head and even larger eyes that collectively give her cartoonish, anime-styled appearance. She is wearing a red triangular garment that drapes around her like a large, loose, poncho or robe. The landscape that Young Ancient's tribe inhabits is a craggy slope littered with large grey boulders, sparse vegetation, and mysterious floating runic symbols that shift from grey to blue as day fades into night. As the looming volcano stirs to life, Shaman—the leader of the tribe and Young Ancient's father—encourages their people to celebrate the increasingly frequent tremors and falling ash as divine communications from the ancient gods they worship. Like Young Ancient, Shaman's is clothed in a billowing triangular garment, though his eyes are far larger than hers. Although, according to Cheng (2018), the Shaman's enormously oversized eyes are meant to be read as “a small sign of warmth” (p.81), I personally read them as closer to being monstrous and frightening.

Technically, in terms of how *EITSOG* functions as a programmed simulation, Shaman and the stirring volcano both act as systemic pressures that influence how the rest of the characters all interact with one another and their environment. However, regardless of how any of the simulations' initial micro-narratives emergently play out, eventually, Young Ancient is struck on the head by a falling piece of volcanic debris and afterward is no longer affected in the same way as the rest of her tribe by these two systems. In this way, Young Ancient transforms from being a purely reactive element of an open-ended simulation into an active agent who is attempting to guide the narrative structure of the entire system. Competing against her father, who wants their tribe to worship the waking volcano, Young Ancient realizes the impending danger and attempts to convince everyone to stop celebrating the growing cataclysm and evacuate the area.

How successful Young Ancient is in persuading her tribe to follow her away from the increasingly violent volcano changes each time the work is exhibited and depends on the emergent interactions between the simulation's environment, objects, and characters. Collectively referring to these separate elements as “agents,” Cheng (2018) states that he constructed the *Emissaries* trilogy so that “each agent could affect any other agent. Agents could come together into a crowd and produce crowd behavior. An individual agent could misbehave or break down and have a social effect on other agents, but not big enough to wreck the entire simulation” (p. 149). However, even though any single agent can tangentially affect the course of the simulation through their actions, it is only the Emissary character that “has recourse to narrative orientation, a ‘story mind’. This allows [the Emissary] to pursue longer term

scripted plans, for example the authored story, while still being subject to interruption” (Cheng, 2018, p. 167).

In the second part of the trilogy, *Emissary Forks at Perfection (EFAP)*, the simulation’s narrative takes place in the same geographical area as the previous chapter, but many millennia into the future, after the volcano has long since exhausted itself into a vast crater and humanity has gone extinct. Replacing the rocky volcanic slope of *EITSOG*, *EFAP*’s landscape now contains much more water and plant life. Additionally, as a nod to the simulation’s far-future timeline where humanity has died out, the lush crater is also littered with recognizable consumer detritus from the modern era, such as flowerpots, furniture, and electronics. Within this post-apocalyptic setting, a floating, vine-covered, vegetal god named “AI” uses the crater as an ecological laboratory to conduct experiments with the fossils of humanity. As the simulation begins, AI has recently resurrected a lone human being named “Celebrity” and assigned one of its other creations, “Shiba Emissary,” with caring for them. Celebrity is fantastically represented as a semi-transparent humanoid who is not wearing anything except for a pair of sunglasses and an assortment of gold jewelry. Through Celebrity’s partially visible flesh, their bones and some of their organs can be observed, giving them a kind of ghostly or undead appearance. Shiba Emissary, on the other hand, is more simply designed and looks like an only slightly abstracted, cartoonish rendition of the real-world Shiba Inu dog breed from which it draws its title. Additionally, as its name also clearly suggests, Shiba Emissary functions as *EFAP*’s main narrative agent with the programmed goal of shepherding Celebrity around the marshy crater. In addition to guiding Celebrity, AI has also tasked Shiba Emissary with studying the resurrected human and preventing it from becoming too stressed throughout their meandering journey around the extinguished volcano. However, Shiba Emissary must be careful throughout all of this as it is often tempted to revert to a more familiar pet-master dynamic that would interfere with its ability to detachedly study and care for Celebrity. If this occurs, or if Shiba Emissary somehow fails to prevent Celebrity from getting too stressed, AI will “fork” Shiba into two and the new duplicate Emissary will become Celebrity’s primary caretaker. Due to this ongoing forking process, the longer *EFAP* runs, and as each successive Shiba Emissary somehow fails in its assigned tasks, a growing swarm of canine companions can be observed shepherding Celebrity around the strange plant god’s crater laboratory.

EFAP technically measures the Shiba Emissaries’ degree of success in managing its own pet-master feelings as well as the stress level of Celebrity through a framework of needs-based artificial intelligence that Cheng directly appropriated from the videogame industry. This AI system is based around the programmed needs and desires of a given group of simulated

entities and is what Will Wright's popular, long-running series *The Sims* is also built upon (Cheng, 2018, p. 165-167). Typically, within any one of *The Sims* games, the player controls the actions of a small group of simulated people and must minister to (or ignore) their stress levels, appetites, and desires according to Maslow's (1943) "hierarchy of needs."⁸⁷ "If a Sim was not given a toilet, starved, or was messy and did not clean up, the environment and the mood of a Sim dropped, sometimes to suicidal levels. If Sims made money (called Simoleons), had relationships, and were given perks to which they responded (better houses and furniture, or more sex—called woohoo), their moods would lighten" (Rak, 2015, p. 164-165). This needs-based model is not only present within *EFAP* but is also how the rest of the *Emissaries* trilogy has been built as well. Using this combination of artificial intelligence and simulation, Cheng creates a structure that encourages emergent and novel, needs-based interactions between all the various denizens of his three narrative worlds. This is most easily observed when looking at the main Emissary characters as they are ones with the most complex and long-term goals, but it more broadly structures the cumulative behaviour of all the other denizens of Cheng's simulations as well.

In the final chapter of the trilogy, *Emissary Sunsets the Self (ESTS)*, this needs-based system is once again used to manage the behaviour of a small tribal society, however this time with an added posthuman narrative context. AI and Shiba Emissary's experimental efforts at resurrecting humanity in *EFAP* were apparently successful and now, many millennia later, have resulted in the emergence of a new artificial substrain of humanity called "Oomens." These posthuman people appear as grey, bald humanoids, with a small portion of them wearing large orange robes and small, dark grey headbands; however, they are much more commonly depicted in the nude with clustered, growth-like objects adorning their limbs. These growths are a kind of fungus-like plant called Wormleaf that the Oomens devoutly cultivate and can also be seen scattered all around the simulation's otherwise barren, grey ground. The Wormleaf does not really resemble any familiar, real-world vegetation or fungus and instead looks more like a set of modular, interlocking mechanical or computational parts. As the simulation begins, AI, having become bored over the many years of its immortal existence, decides to send a portion of itself to the Oomens to provoke them deliberately. This newly born subsection of the plant-

⁸⁷ Maslow's hierarchy of needs is now a relatively common psychological concept that was first proposed by Abraham Maslow in his 1943 paper "A Theory of Human Motivation." The theory proposes that all human needs exist within a hierarchy that can be visualized as a pyramid with the following top-down order: Self-actualization, esteem, belongingness and love, and physiological needs. The bottom of the pyramid (food, water, warmth, rest) represents the most essential of human needs and that once met can allow someone the worry about the next layer above.

god is called “AI Puddle,” and instead of resembling the vine-covered, plant-like body of its progenitor, it manifests as a large flat orange slime mold that slowly creeps around the landscape. To agitate the Oomens, AI Puddle antagonistically mutates their prized Wormleaf into a sentient and mobile state. Following its animation, the Wormleaf must then slowly grapple with its own awareness and the fact the change averse Oomens now see it as an abomination and may attempt to destroy it. Given this dramatic tension, one might assume that the recently mutated Wormleaf might be the active Emissary agent within *ESTS*; however, it is actually AI Puddle, which is surprising considering there are not many direct interactions between it and the numerous Oomens. However, like Shiba Emissary within the previous chapter, AI Puddle must contend with the tasks it has been assigned by AI Puddle and its own personal needs and desires. This balancing of obligations and self-interest is made even more complicated by the fact that both impacted by the growing existential crisis of the Wormleaf as well as the rising anger of the Oomens. And like the growing swarm of canines in *EFAP*, the longer that *ESTS* runs, the larger the infestation of mutated Wormleaf will grow, and the more agitated the Oomen civilization will become.

Lively Rhythms and Artifacts

As my analysis above makes clear, each of the three chapters of Cheng’s *Emissaries* trilogy has been designed with the intention of producing self-sustaining, emergent narratives. These simulational stories are all laden with many of the kinds of fantastical tropes that one might commonly associate with a typical videogame, especially those that might fall into the science fiction or god-game categories.⁸⁸ Additionally, many of the aesthetic choices that Cheng made in constructing *Emissaries* not only work to align it with O’Reilly’s similarly self-playing trilogy of videogame art but also with many popular trends within independent commercial game design. Choices such as the use of the freely available, professional-grade Unity engine; procedural-generated as opposed to bespoke world-building; and a relatively simple, low-poly visual style are all methods that many small studios and individual designers are using increasingly frequently as they allow for accessible, cheap, and fast modes of videogame production. Through these many connections to commercial videogame culture, both Cheng and O’Reilly’s trilogies call back to the networked aspects of the assemblage scholarship I emphasized at the beginning of this chapter. Within this materialist framework, these two

⁸⁸ God games are a subgenre of simulation games where the player has almost total control over a civilization and/or world. What differentiates them from the broader simulation genre is that within god games the player is typically tasked with the care and guidance of a specific population of simulated life forms rather than other common models such as theme parks, cities, or nations.

collections of cosmically ecological videogame art are revealed as lively assemblages that are always functioning within intersecting positions of change and relationality. Here the automated and lively qualities of Cheng and O'Reilly's trilogies work help them adapt to the social assemblages formed by their respective audiences and presentation contexts. Over time, each of their three subsections also reinforces a familial interpretation of their stylistic and technical relationships as well.

These notions of evolution, adaptation, and lineage are all made narratively and thematically explicit within the *Emissaries* trilogy by way of the consistently changing status of the human species. Within each of its thirds, *Emissaries* positions humanity on the brink of extinction, existing within close proximity of a volcano that also goes through its own respective life stages (the waking volcano of *EISTOG*, the subsequently exhausted crater of *EFAP*, and finally, the eroded flatland in *ESTS*). In this way, the volcano in all its forms becomes the kind of mesocosm that Alenda Chang (2016) alludes to in her ecological analysis of videogames. It is a messy, delimited, and consistently changing ecosystem where its inhabitants are deliberately and artificially put into unpredictable tension with one another. Although they are designed to a large degree with infinitude and automation in mind, each third of the *Emissaries* trilogy necessarily functions as a delimited simulation with boundaries, directions, and systems that undergird them. The messy, three-way tension between representing a boundless environment, authoring a semi-coherent narrative, and constructing a functioning piece of software works to produce the kind of unpredictable behaviour and artifacts Alenda Chang ascribes to edge effects as well.

Visually, these kinds of artifacts are most easily observable in the often glitchy movements of *Emissaries*' inhabitants, where their limbs and movements correspond in a non-naturalistic way according to their programmed desires and emergent interactions with other aspects of the simulation. For Ian Cheng's simulated entities to act independently within his miniature ecosystems, they must be able to bodily stretch and adapt to its seemingly infinite possibility space. Looking at O'Reilly's trilogy, there is also an immediately comparable aspect of glitchy movement present in how many of the terrestrial entities move in *Everything*. Although they do not stretch and contort in the way that Cheng's *Emissaries* inhabitants do, many of the land-based animals and objects within O'Reilly's piece move in a comically unexpected 90 degree forward rotational somersault. Additionally, throughout *Mountain*, *Everything*, and *EOTD*, there is also a recurring focus on circular, looping movement that is far more geometrically perfect than anything that is typically observable within nature. In each artists' work, this glitchy or systemic movement can be easily explained as a production-related necessity due to the

intense amount of time and resources that would be required to produce the naturalistic animations needed for all the characters and moving objects within each of their simulations. Although the movement might initially just seem like an amusing byproduct of each artist's experimental approach to animation, they are also useful tools that allow for each lively works' inhabitants to freely traverse their simulated worlds without having to closely adhere to the expected boundaries or physics of their environments. In this way, both O'Reilly's and Cheng's simulations function as paradoxically endless mesocosms, where they are programmed for emergent infinitude but must also necessarily contain rules and structures for this to function. In order to move through their contained, yet also simultaneously boundless, procedurally generated worlds, O'Reilly's and Cheng's various digital entities adopt a glitchy, computerized way of being. This is the edge effect of each simulation's status as mesocosm. As the primordial humans, posthuman Oomans, sentient mountains, and all the other odd inhabitants of each artists' digital ecologies grapple with their ongoing environments and existence, they must also adapt in emergent, unexpected, and unpredictable ways.

Focusing on these qualities of glitchy rhythm and emergent infinitude but looking more broadly out from the specifics of these case studies to wider videogame design and culture, there are many ways to examine how Cheng and O'Reilly's respective trilogies relate to previous game studies scholarship on how time functions within the videogame assemblage. For example, Brendan Keogh (2018) argues that "to play a videogame is to play with different timelines as authentic and inauthentic through death, memory and failure" and that to properly understand these overlapping timelines one must consider a videogame as "a complex assemblage of cyclical and linear rhythms, where failure and repetition become crucial components of progression" (Chapter 5, Section 1, para. 9). These elements of cyclical timelines and repetition are both equally applicable to Cheng and O'Reilly's trilogies as they have both been designed to play themselves for an infinite duration, and because of this, they go through a series of intersecting visual and temporal loops. In *Mountain*, the titular mountain will spin over and over until it eventually meets its fiery end, only to be restarted and once again continue its slow existential cycle. In *Everything*, if left to its own devices, the game will play itself and endlessly wander throughout its simulated universe, stumbling upon a seemingly infinite collection of text, quotes, and clips. And although, when shown at festivals, *EOTD* has a finite runtime, it is cosmologically working to represent the entirety of time itself. Additionally, when displayed in a gallery, due to its procedural rather than a recorded form, it can also be adjusted to dynamically loop in on itself rather than start and finish in a predetermined way. Then with Cheng, the presence of looping timelines and temporal rhythms can be observed

throughout his *Emissaries* trilogy as each of his chapters repeatedly play through their apocalyptic narratives. Every time a section of the trilogy is shown, the central Emissary character will have varying degrees of success in achieving their goals, only for these to be reset when the work is taken down at the end of the exhibition.

With a similar focus on stop-starts cycles and digital rhythms, Aubrey Anable (2018) argues that the experiences one has with any videogame or software assemblage “is not only about the easy flow of seamless touch navigation and information at our fingertips but also about constant procedural and ergonomic shifts between windows, programs, devices, interfaces, and lexicons. Thus, the everyday experience of digital media is as much an experience of pauses, breaks, ruptures, and glitches as it is an experience of flow” (Chapter 3, Section 4, para. 11). I have already situated the non-naturalistic animations of O'Reilly and Cheng's respective trilogies as being environmentally ecological using Chang's concepts mesocosms and edge effects. Still, through Anable's approach to assemblage theory, we also can perceive their unpredictable looping motions in a media ecological kind of way as well. Here, the distinctly digital rhythms of each trio of simulations helps to imbue them with a lively nonhuman animism and reveals how common these same rhythms of automation, simulation, procedurality, and emergent design are throughout our more general daily experiences with digital technologies as well.

Together, Keogh's (2018) and Anable's (2018) approaches to the temporality of videogame assemblages work in sync with Cheng and O'Reilly's videogame art in that each of their self-playing trilogies can be defined through their potentially infinite duration. This technical focus on temporality is further underscored by their shared thematic emphasis on cosmic, evolutionary, and geological timelines. However, unlike the kind of traditional commercial videogames that Keogh and Anable are referring to in their temporal exploration of the videogame assemblage, Cheng and O'Reilly's trilogies are not reliant on the input actions of a human player to grow and change. Unlike how Cameron Kunzelman (2018) argues that the videogame assemblage can be defined as a series of overlapping timelines of player input where their ghostly afterimages form an integral part of the videogame assemblage (p. 245), Cheng and O'Reilly's trilogies can produce such enmeshed timelines without the need of human interaction. In their simulations, there are no past spectres of an absent player running through the work, nor will their progressions or failures be the direct result of any interceding human agent (besides Cheng and O'Reilly as creators, and exhibition staff initializing or rebooting the work). Instead, there are only the nonhuman agents emergently moving throughout each of the

trilogies' virtual ecologies, influenced by and in turn affecting the other entities and objects within.

The looping yet unpredictable temporality of Cheng and O'Reilly's trilogies supports many of the arguments I made at the beginning of this chapter concerning the weird materialism and transformative vitality of videogame art. Moreover, their practices collectively function as an example of how videogame art is quickly developing the ability to grow autonomously and change over time. In response to this capacity for mutation, I argue that the art history of videogames needs to rethink games formalism and cultivate new modes of formal analysis that can keep up with this kind of ambiguous evolutionary flux. Reflecting on the form and function of Cheng's and O'Reilly's trilogies, there is no debate that both simultaneously operate as shifting assemblages of videogame and contemporary art, as well as human and nonhuman. Calling back to Guins' terminology, this is more than enough for them to achieve his qualification of multistability, existing as many potentially contradictory things at once.

In the next section of this chapter, I will compare Cheng and O'Reilly's work to other examples of playerless and self-playing games and describe how they produce similar forms of multistability.⁸⁹ Through these comparisons, I argue for the growing significance of videogame art and design practices that work to emphasize nonhuman agency within the videogame assemblage. This argument will then be expanded to reflect on how human agency has been anthropocentrically prioritized by games formalist scholars and speculate on productive alternatives.

Self-Playing Games

Looking at more familiar conceptions of videogame form, the prospect of an AI-controlled system of self-play may seem initially antithetical given how often videogames have been often defined by their ability to facilitate direct, mechanical interaction between a human player and computer. However, as I already alluded to briefly through Cheng's invocation of *The Sims*, the use of complex AI to prompt autonomous, emergent action between computer-controlled, non-playable characters (NPCs) has become quite prevalent within both commercial videogame design as well lesser-known fan modding practices as well. One example of the

⁸⁹ Taking a distinctly anthropocentric and formalist approach, Jonathan H. Klein (1988) argues that "the most essential feature of a game is the participation of one or more human players" and that without this quality they fall into the category of "playerless games," which he then states are more commonly known as simulations (p.527). As will become increasingly clear throughout the rest of this paper, I argue against this definition and posit that a game can still exist as a game even without the participation of any human players.

latter is *Sim Settlements* (kinggath, 2017), a relatively popular mod for the post-apocalyptic, open-world RPG *Fallout 4* (Bethesda, 2015). Within the original, unmodded version of the game, for the player to build and grow their wasteland settlement, they must actively engage with its NPC citizens. These interactions can consist of assigning them various duties or working to manage the decor and function of their homes and businesses. However, in her examination of *Sim Settlements*, Sonia Fizek (2018a, 2018b) describes how all the NPCs instead “build their own housing, plant their own crops, even work in shops they themselves construct. The human player is welcome to the city-building algorithmic spectacle as a bystander . . . rather than an active performer.” It is this way that “the game world acquires a life-like dimension” that Fizek (2018a) describes as being pleasurable for the player to observe (p. 214). Although this modded version of *Fallout 4* is still a typical videogame meant to be interacted with and explored by a human player, the “life-like dimension” that Fizek ascribes to it is productively applicable to both Cheng and OReilly’s less traditional trilogies of self-playing videogame art.

Using language that compliments the pleasurable liveliness that Fizek describes, Alexander Galloway (2006) argues that one of the defining qualities of all videogames is their adherence to the “machinic phylum and the vitality of pure matter” (p. 8). Here Galloway argues that while most videogames rely on player action to become fully animate—that if you were to remove external human input there would still be a set machinic actions being performed, a process he poetically describes as “a gently stirring rhythm of life” (p. 8). To help illustrate this point, Galloway looks at examples with high degrees of background simulation where if the player leaves them alone—not explicitly pausing them but just not actively interacting with them—they will settle in a state of partially looping, equalized self-play that he calls an “ambience act” (p. 10).

In relation to Cheng and OReilly’s self-playing videogame art, this ambience act is an exceptionally productive concept as Galloway works to further define it as both a “perpetual happening” (referencing the performance art of the Fluxus movement) and a “living tableau,” arguing that it “follows the logic of traditionally expressive or representational forms of art such as painting or film. The world of the game exists as a purely aesthetic object in the ambience act. It can be looked at; it is detached from the world, a self-contained expression” (Galloway, 2006, p. 10-11). However, like Fizek’s *Sim Settlements* case study, the ambience act is defined by the absence of the human player within a videogame that needs one to make forward progression. “Things continue to change when caught in the ambience act, but nothing changes that is of any importance. No stopwatch runs down. No scores are lost. If the passage of time means anything at all, then the game is not in an ambient state” (Galloway, 2006, p. 10).

Galloway argues that due to this perceived lack of change or progression, “there is always a kind of ‘charged expectation’ in the ambience act. It is about possibility, a subtle solicitation for the operator to return” (Galloway, 2006, p. 11). Due to technological advancements in game design that have allowed for complex simulation to be more easily implemented, Galloway’s ambience act has become quite an easy state to observe within a multitude of contemporary videogames. However, even though OReilly and Cheng utilize these same kinds of game design tools, both artists’ work also functions slightly apart from the ambience act due to how it is defined by its yearning relationship with the missing human player. Instead, within each of their works, there is a perpetually present and lively nonhuman player in the guise of the Emissary characters and OReilly’s perpetually musing organisms and things.

Another well-known example that perhaps is more closely comparable to Cheng and OReilly’s work—one that presents itself as a self-contained and living game world made solely for observation rather than ongoing human interaction—is John Conway’s *Game of Life* (1970). Created as a mathematical, software experiment aimed at simulating cellular reproduction, Conway’s *Life* takes the form of a two-dimensional, pixel-based program that once configured and initialized by a human player will work to represent the emergently chaotic life cycles of an expanding group of artificial organisms. Once the player has started the game, there is nothing they can do other than watch how their initial configuration inputs play out through exponential patterns of growth and decay. Typically, this process starts with an explosive expansion of life that will almost always eventually slow into a state of looping stasis. When Conway originally released *Life*, Martin Gardener (1970) reflected on these processes stating that “because of *Life*’s analogies with the rise, fall and alterations of a society of living organisms, it belongs to a growing class of what are called ‘simulation games’ (games that resemble real life processes)” (p. 120).

Despite these early ludic interpretations, Jesper Juul (2011) takes a distinctly games formalist approach toward it, stating that *Life* “is not a game, but the emergent property of simple rules” (p. 78). Relying on the polemic methods of the ludology–narratology debates of early game studies (see Introduction and Chapter One) in his exclusion of open-ended simulations, Juul argues that “Storytelling has fixed outcome[sic], the player does not exert effort in order to influence the outcome, and the player is not personally attached to the outcome. Watching Conway’s game of life or watching a fireplace is to experience a system with rules and outcomes, but there are no values assigned to the outcomes, the player is not attached to the outcome, and no player effort is required” (p. 43). Despite his games formalist approach, Juul’s tethering of story and simulation proves unexpectedly useful when examining the self-playing

narratives within Cheng and O'Reilly's respective trilogies. Here, Juul's portrayal of Conway's *Life* as a fireplace also puts it into productive conversation not only with Galloway's description of the ambient act as a kind of lively aesthetic object but also Alenda Chang's (2019) ecological framing of videogames as partially enclosed, animated systems. Despite the potential utility of these connections, Juul's formal division between simulation and game represents an aspect of games formalist analysis that this dissertation is working to critique, one that tends to heavily prioritize the actions and experiences of play within the human player over all else. Although the anthropocentrism of Juul's arguments works against many of my previous arguments, it does act as an opportunity to consider instead more speculative methods aimed at uniformly blending the agency of the human and nonhuman. To search for examples such as Cheng and O'Reilly's that allow for the nonhuman elements of the videogame assemblage to simulate the goals of the human player in their inevitable absence. Perhaps through this approach to self-play and simulation, this new kind of videogame assemblage might function in a state of emergent ambivalence to the existence of the human player rather than one of stable ambience defined by their absence.

Together the examples and scholarship surveyed above work to provide a broader context for how Cheng and O'Reilly's work exists concerning the history of simulation and self-playing videogames. Additionally, as Sonia Fizek (2018b) argues, through Cheng and O'Reilly's respective presentations of lively, autonomous virtual worlds they also "subvert the contemporary understanding of games as solely interactive media" and "reformulate the usually centric role of the player" (p. 211). Contrasting more traditional conceptions of game form, Fizek also argues that self-playing videogames break down "subject-object, organic-inorganic and player-game dichotomies" and thus work to rearrange the human and computer within the videogame assemblage into a new kind of "post-human ludic assemblage" (p. 213). Building on Fizek's reconfiguration of the videogame assemblage, I argue that through this posthuman framing, a new perspective on videogame aesthetics can be gleaned, one where the previously distinct roles of the human player and nonhuman computer can be enmeshed and exchanged within a new lively, shifting, multistable network. Fizek's posthuman framing can be productively applied to the autonomous simulations and self-playing games I have reviewed in this chapter but can also be used in connection to videogames and videogame art more broadly. Although, as Juul has worked to emphasize, the categories of simulation and game may initially seem to operate in opposition to each other in terms of player agency, at their core, they both facilitate experiences of interaction between human and nonhuman entities. To elaborate on this argument further, I find that Vivian Sobchack's (1992) phenomenological reading of the film

experience is helpful.⁹⁰ Here she argues that as we watch films, we are “engaged in a living dialogue with a world that sufficiently exceeds our grasp of it as we necessarily intend toward it, a world in which we are finitely situated as embodied beings and yet always informed by a decisive motility” (p. 11, quoted in Hakimi, 2017, p. 216).

By combining Sobchack’s lively, yet unknowable worldliness with Fizek’s posthuman rearrangement of the videogame assemblage, I am now a few steps closer in my goal of presenting Cheng and O’Reilly’s trilogies as multistable entities able to function and grow potentially beyond the understanding of their human audiences. To this point, Alenda Chang (2013) argues that through their consistent ability to exceed our discursive grasp, videogames achieve a kind of procedural or mathematical version of the sublime. This “sense of knowing just enough to know how much you do not know” works to imbue videogames with “a sense of infinitude or the imperceptible” that works to reveal the “ingenuity and the limitations of human design” (p. 85). Although embracing the potentially sublime qualities of videogames supports this chapter’s framework of allegorically relating them to the unpredictably animated art objects that Doc Labyrinth created in “The Preserving Machine,” I do not want my analysis to slide too far from material practicality into the realm of science fiction. Looking again to broader examples outside the realm of videogame art, there is precedent for the metaphorical understanding of technology as a living entity without, as Seth Giddings (2007) argues, “slipping into naive anthropomorphism or frenzied futurology” (p. 8).

One example of this can be found in Aspen Aarseth’s (1997) work on the literary qualities of computer games where he makes the argument that once a system reaches a certain level of complexity through its unpredictable and emergent outputs, it will also seem to gain the outward appearance of autonomy, sentience, and agency. Using the example of the global financial market, Aarseth argues that it produces this effect because it

cannot be controlled, shut down, or restructured by a single organization or even a country. Its machine-human borders are also unclear, since the interface could hide a human trader, a machine, or a cyborg, a combination of both. Such a system, even if it consisted purely of autonomous agents, is not a model or a representation of something

⁹⁰ Within many games formalist discussions of videogame medium specificity, film is used as a comparative example for how mechanical interactivity and player agency make videogames unique. In these discussions, film is portrayed as being passive and noninteractive with the audience having no ability to control or guide its outcome. The notion of interactivity with the experience of art is obviously much more complex than this and is not something unique to videogames. By making room for the interactivity of the film experience I also am making room for the interactivity of self-playing games where the human has little to no opportunity to intervene or guide their outcome.

else; it is itself, a cybernetic entity that communicates with all and answers to none. (p. 28, quoted in Giddings, 2007, p.7).

Daniel Dennett (1971) makes a similar observation on how the overall complexity of a system can lead to interpreting it as having sentience or agency. However, rather than looking at the massively scaled information networks that Aarseth does to prove this point, Dennett instead zooms in on the much more contained example of a computerized chess game. Even though the chessboard is easily observed as finite and its graphical representation may not as quickly suggest the kind of mathematical sublime that Chang (2013) spoke of, as most people who are familiar with the game know, the possibility space of chess becomes exponentially more complex with each passing turn. With this in mind, Dennett describes the system of artificial intelligence within a digital version of the game by stating that it is “so complex, and yet so organized, that we find it convenient, explanatory, pragmatically necessary for prediction, to treat it as if it had beliefs and desires and was rational” (pp. 91-92, quoted in Giddings, 2007, p.7).

Whether it be a seemingly simple digital version of chess or immensely complex simulation, most videogames will have some mixture of emergence, automation, and artificial intelligence. The degree to which this true will depend on a combination of the creators’ intentions, budget, and skill, but I argue that as game development technology continues to evolve and become readily accessible, we will see more exciting examples such as Cheng and O’Reilly as a growing number of visual artists without formal industry experience or programming training can experiment within this space. In response to this evolution, I argue that the “post-human aesthetic of videogames” that Sonia Fizek (2018b, p.213) describes will become correspondingly necessary as it will be able to account for their shifting, unknowable, and increasingly multistable identities. As I have argued throughout this chapter, videogames function as lively, autonomous worlds that can be experienced in a multitude of ways that surpass anthropocentric notions of purely human interaction and play. As creators become increasingly excited by the prospect of experimenting with AI, simulation tools, and emergent system design, new and unexpected modes of experience will develop that help to further frame videogames as living, nonhuman entities. However, the posthuman aesthetic that Fizek calls for only really accounts for what is happening within the experiential space between the videogame and its player (or audience) rather than the broader social and material assemblages of production, presentation, and consumption that they both move through during their respective lives.

In the next and penultimate section, O'Reilly and Cheng's work will be re-assessed to metaphorically frame the various cultural systems they inhabit (such as the entertainment industry and the contemporary art world) as ongoing, infinite games that are always engaged in processes of change, play, and reactualization. Here, the distinction between a traditionally defined finite game that can be won and lost by human players, and these other metaphorically infinite games will then be used to conclusively return to Guins' notion of videogame multistability and synthesize it with the various modes of assemblage theory that have been surveyed across this chapter.

Infinite Games

In addition to providing the opportunity to critically assess the potential of Fizek's post-human aesthetics, the activity of spectating a self-playing videogame—whether it be through the absence of a human player within the ambience act, or through the illusionistic agency that is observed when looking at AI-controlled, complex simulations—can also be productively connected to the more common experience of simply watching another person play. I have already spoken at length about the way videogame spectatorship can function as an exhibitionary method within museums and galleries (see Chapter One), but watching other people play has also been a core element of videogame culture since the popularization of video streaming platforms such as YouTube and Twitch. In response to this intersection, I argue that the experience of watching another person play a videogame online on one of these platforms has many unexpected connections to the posthuman experience involved in observing Cheng or O'Reilly's work. Both are configurations of human and nonhuman action within the videogame assemblage, and both prompt the feelings of pleasure that Fizek (2018a) argues is felt when watching any instance of lively, autonomous ludic spectacle (p. 214). Considering these connections between self-play and spectacle, it is not surprising that both Cheng and O'Reilly have periodically chosen to experimentally exhibit their work online in the form of live Twitch and YouTube streams.

Besides the relatively uncommon presence of people streaming their playthroughs of *Mountain* or *Everything* on these platforms, O'Reilly's work has also appeared within these spaces through a recent reconfiguration of *Eye of the Dream* that he made specifically in response to the COVID-19 global pandemic. On his own YouTube and Twitch channels, during the spring and summer of 2020, O'Reilly streamed *EOTD* three times. During each of these streams, *EOTD* was accompanied by a different selection of recorded messages from people who had called into a private voicemail O'Reilly had set up. These voicemails all were from

people who had called in to describe the feelings of hope, fear, and isolation they had personally experienced throughout the early days of quarantine. Instead of showing the same cosmic arrangement of objects and animals from his previous planetarium screenings of the work, the rotating patterns within these latter showings related directly to what was being narrated in the recordings. This typically resulted in many relatively banal household objects (or even houses themselves) being shown on-screen. Turning to Cheng, his most significant foray into the realm of videogame streaming platforms was during the spring and summer of 2017 when he paired with MoMA PS1 to have each chapter of his *Emissaries* trilogy streamed for a couple of months at a time. Due to the ongoing and emergent nature of his live simulations, these streams would go uninterrupted 24 hours a day except for the occasional time when the computer running the program crashed and needed to be restarted.

Due to a variety of factors such as their length, subject matter, and absence of human players, these online versions of O'Reilly and Cheng's work differ substantially from what many users would typically expect from a videogame streaming platform such as Twitch. Typically, it is far more common to watch individual streamers playing and commenting upon a recently released, commercially popular videogame for a few hours at a time. Some of the most frequently streamed games on these platforms are competitive online multiplayer games where individual matches can be won or lost within an easily consumable time range of fifteen to forty minutes. On this round-per-round scale, these types of videogames align perfectly with the games formalist model that Juul uses to contrast the open-ended simulation of Conway's *Game of Life*. However, by examining how many of these same competitive games have been adjusted, patched, and updated over the many years of their existence, they also easily fit into what religious scholar James Carse (1986) calls an "infinite game."

"A finite game is a game you play to win. It has clear rules and defined ending" (Cheng, 2018, p. 8). This is contrasted by the infinite game which is "a game you play to keep playing, the rules change to keep the game going" (Cheng, 2018, p. 8). Cheng explains how Carse influenced the conception and planning of his *Emissaries* trilogy as it provided a theoretical framework for many of the life processes he was working on simulating. Through Carse's framework, specific events such as a date, a class, or an election all can be framed as finite games due to their clear and definite temporal limits and the variety of ways they can be assessed as being a success or failure. Alternately, ongoing processes or structures such as families, institutions, religions, nations, or subcultures can all be conceived as infinite games with no preordained ending or final goal, just an effort to keep the game alive and moving into the future. To sustain the game in perpetuity and "to treat it with the status of being alive"

(Cheng, 2018, p. 8). Through these goals of endless renewal and vitality, the infinite game can be further theorized as a kind of artificial world that, if kept alive for long enough, can be imbued with a variety of meanings and can also be refined and expressed into a multitude of material forms.

For example, within the infinite game of a religion, these material expressions could take the form of statuary, scrolls, reliquaries, shrines, temples, etc. Within the contexts of religion, history, and nationhood, Cheng (2018) argues that these infinite games were kept alive by processes of “power, prestige, and tribal identification” (p. 9) for so long that they eventually gained enough strength to survive without the active maintenance of their original creators. Similarly, in more recent capitalistic contexts, “engines of commerce have powered fantasy Worlds, manufactured through an expansion of media—the fiction becomes the movie, becomes the video game, becomes the toys, spinoffs, theme park, becomes the working mega-economy of the franchise” (Cheng, 2018, p. 9).

Turning back to Twitch and YouTube via Cheng’s reading of Carse’s framework, these streaming platforms can be theorized as lively technocultural assemblages that are both inhabited and constituted by a menagerie of finite and infinite games. On the round-per-round scale, the competitive multiplayer videogames that are most often streamed on these platforms easily fit into the mold of the finite game given the rules and time limits of any given match. However, if any of these same examples are examined more broadly regarding their adherence to the increasingly commercially dominant “living game” or “games as a service” model, they can also just as easily be slotted into the category of infinite games as well. As time passes, these living games are expanded upon by their developers through patches, updates, downloadable content, purchasable cosmetic customizations, seasonal events, or battle passes. All these processes are not only meant to keep the living game appealing for its current players but also to cast a wide and consistently shifting net of lures to attract new players as well. Looking from the videogames streamed on these platforms to the people who are streaming them, there also is a productive opportunity to apply Carse’s theories of finite and infinite games. Each of their individual streams or uploaded videos could be assessed through a finite metric of success and failure based on the total number of views. Furthermore, their channel as a whole or identity as a content-creator can also be seen as a more expansive infinite game—one they are trying to keep alive for as long as possible. In both cases, the consumers of these infinite games want them to be continually adapted and refreshed with new content in a manner that recalls the pleasurable spectacle and fascination that Sonia Fizek (2018a, 2018b) observed in players observing the autonomous liveliness of self-playing games. Just like the infinite

games of culture and commerce, there is a comfort for audiences of these streaming platforms and the players of these games in knowing that the worlds they have chosen to inhabit can sustain themselves—that they are worth getting to know and exerting the effort to play and watch.

Conclusion

Through their respective choices, Cheng and O'Reilly's trilogies function as many kinds of assemblages all at once. By exhibiting their work on YouTube and Twitch, they explore how these platforms exist in an ecological relationship with the videogames and content-creators who inhabit them. These forays into the realms of videogame streaming help to emphasize the ways that Cheng's and O'Reilly's work already function as posthuman ludic assemblages. Outside of the world of these streaming platforms and within the infinite game that is the contemporary art world, Cheng and O'Reilly's trilogies function in a surprisingly similar manner. Here, instead of shedding light on the relationship between human streamers, their audiences, and the nonhuman platforms and videogames they are engaged with, Cheng and O'Reilly's use of lively self-play works to complicate the way that people, art objects, and gallery spaces function in relation to each other. In both settings, those who are interacting with either artist's work must confront the prospect of an autonomous and potentially infinite work of videogame art that is undergoing a consistent process of transformation and change. Each aspect of Cheng's and O'Reilly's trilogies has been crafted as a self-sustaining world that, once initiated, is able to subsist and operate without the need for their ongoing guidance or intervention. Whether it be the streaming networks of YouTube and Twitch, or within the white cube of the gallery or museum, their work displays a sense of emergent, unpredictable liveliness through what is represented on their respective screens. Additionally, Cheng's and O'Reilly's work has material motility that can be observed in how they move through the often-disparate worlds of videogames and contemporary art, gaining new audiences and meaning along the way.

Here, at this animated intersection of worlds and assemblages, returning to Raiford Guins (2014) and his work on the lives and afterlives of videogames once again becomes productive. "Things or objects . . . take on numerous lives as they undergo recontextualization across their careers and biographies. Their histories . . . are a composite of phases and situations—shifts in context—that determine a thing's value, function, and possible meanings" (p. 9). For Cheng's and O'Reilly's work, the artistic aspect of the life cycle that Guins describes takes place across a wide and complicated assemblage of galleries, studios, collections, screens, platforms, hard drives, interviews, articles, books, and websites. For the typical

videogame, this kind of object life cycle occurs across a similar assortment of vectors that are also complicated by other factors such as commodity capitalism, platform economics, and planned obsolescence. However, regardless of the differences between the life cycle of a fine art object and a videogame, Cheng and O'Reilly are united in that their work lives within the infinite game that is contemporary technoculture. As they emergently move through this infinite game, all the while unpredictably evolving, acquiring, and shedding new interpretative meanings, each artists' work distinctly calls back the Phillip K. Dick story I have repeatedly been referencing through this chapter. Each in their respective ways, Cheng's and O'Reilly's trilogies resemble the bio-artistic hybrids that Doctor Labyrinth brought to life. They both achieve this parallel through the way they play and replay themselves, constructing new and emergent narratives every time they are exhibited. However, unlike the archival stasis that Labyrinth wished for his chimeric creations, Cheng's and O'Reilly's lively and infinite worlds are always in the process of becoming something else.

As game design tools such as simulation and artificial intelligence become more accessible, and as the commercial paradigm of the industry becomes increasingly nebulous and mutable where continual new content, patches, and updates are the new norm, the art history of videogames needs to react with equally lively modes of criticism and analysis. Cheng and O'Reilly's work both function as examples of these kinds of shifts and help reveal how videogame art history needs to be molded in such a way as to better account for lively and amorphous objects of study. Using the speculative approaches of posthuman and nonhuman animism I have taken towards Cheng's and O'Reilly's work, videogame art can be understood to exist as many evolving things all at once. Through this framing, there lies the potential to examine the enmeshed worlds and assemblages that videogame art can move between and inhabit. Cheng and O'Reilly work as especially productive examples of this kind of framing through their production and presentation choices. By using the Unity engine and streaming their work on Twitch and YouTube, both artists are deliberately choosing for their work to take residence and travel throughout the world of videogames.

Conversely, in crafting their work as a kind of technological tide pool or fine art fireplace to be set up in a gallery, both artists also just as deliberately allow for their work to inhabit and traverse the assemblage that is the contemporary art world. Through these paradoxically separate yet conjoined explorations through the spaces of videogames and art, Cheng and O'Reilly reveal how both spaces exist as infinite games seeking only to perpetuate themselves. In this way, Cheng and O'Reilly have not only provided a template for a new kind of simulated, ludo-aesthetic experimentation—one where game design is given free space to roam and grow

beyond the yoke of direct human interaction—but has also worked to synthesize the cultures of contemporary art and videogames and animate them into a vastly larger, multistable and lively assemblage.

Conclusion: The Art History of Videogames' Present and Future

How has the art history of videogames exceeded the need for the taxonomic formalism that dominates much of the burgeoning field's early scholarship? Throughout this dissertation, I have argued for the value of intentionally dissonant modes of analysis and criticism that celebrate videogames' dynamism and diversity rather than funnel them through the mechanistic lens of games formalism. As I have accounted for throughout the scholarly references made in this dissertation's three case study chapters, I am not alone in this deliberately tangled approach. However, much of this newer, more speculative, and informal strain of games scholarship is principally focused on legitimizing commercially developed videogames as a valid form of art. Although this is necessary to expand videogame art history, it also leaves a categorical gap between the work produced by those who identify as designers and those who identify as visual artists. This dissertation has worked to collapse this interstitial space by pairing together examples of both art and design and reframing them as a single unit per how—to borrow Darshana Jayemanne's (2017) terminology—they "perform" a multitude of speculative theories.

"Performance in games is not a concatenation of basic units, but a complex multidimensional weave" (Chapter 1, Section 2, para. 1). Here, Jayemanne approaches the concept of performance not as a purely theatrical (player-centric) or technological (games formalist) action but as a comparative method for dealing with the multiplicity and "characteristic heterogeneity" (Chapter 1, Section 3, para. 1) of videogames. Jayemanne provides many examples of the sheer variety of ways that videogames perform, citing seemingly disparate processes as game mechanics, the social interactions of players and spectators in online and offline spaces, development production cycles, and the technical efficiency of equipment and hardware. To grapple with this "performative multiplicity" (Chapter 1, Section 1, para. 4), Jayemanne looks to the distant annals of baroque art history and argues that when analyzing videogames, it is the fluidity of the scholar's framing devices that become paramount. "If game performances are conceived as the 'putting-together' of various elements, the notion of the framing device enables this conceptualization to be agnostic" (Chapter 1, Section 4, para. 3). Jayemanne adds to this, arguing that because of their inherent heterogeneity, there is no singular, all-encompassing frame that can effectively "separates representational from nonrepresentational space" and that because of this, it is therefore "more appropriate to speak of multiple *framing devices*" (Chapter 1, Section 4, para. 2). Building on the work of scholars such as Jayemanne, this dissertation has contributed toward moving beyond the often-

exclusionary methods of the games formalism and constructing a more multiplicitous, multidimensional space that can account for what I have argued is videogame art's ineffable liveliness.

In Chapter Two, I utilized a materialist framing device that allowed for informality, failure, and trash to be positioned as valuable themes and processes within the production and analysis of videogame art. I argued that the looping failure of Cory Arcangel's installation art and Bennett Foddy's cheeky appropriation of trash games collectively communicate how videogames perform and subsequently decay across history. In Chapter Three, I worked with a more ontologically rooted framing device aimed at productively blurring the lines between what is considered real and unreal when analyzing videogame art. I then used this frame to analyze Angela Washko's and Nina Freeman's autobiographical videogame art to show how their work mixes virtual and material realities. Finally, in Chapter Four, I used a mix of posthuman and nonhuman scholarship to put together a lively frame to compare the work of Ian Cheng and David O'Reilly. Through this framing, Cheng's and O'Reilly's self-playing work perform as and within ecologies both environmental and technocultural. Their ambivalent relationship with their audiences helps to expose how increasingly common game design tools such as simulation and AI are working to complicate the way the art history of videogames is being written.

Although there is a high degree of variation between these three framing devices—and following Jayemanne, a heterogeneity that I also argue is necessary—there are some significant commonalities that work to connect them through the broader contexts of digital and visual art. Besides their focus on fluidity and dynamism, another aspect that links these three frames is how they are grounded within artistic production and archiving, exhibition, and curatorial discourses. Throughout this dissertation, I have reviewed several contemporary exhibitions of videogame art that have been organized blockbuster and independent scales, with intent ranging from commercial to non-profit. However, time does not halt while writing a dissertation, and there have been many new videogame art exhibitions and festivals that have been put together while I have been researching my case studies that have made them increasingly historical.

Throughout the rest of this final chapter, I will briefly apply the three framing devices I have constructed within my previous case studies to a museum exhibition and an art festival that both took place within the last two years of this dissertation's writing (2019-2021). This final set of examples will demonstrate the utility of this dissertation's deliberately disorienting web of lenses and will also clearly show how videogame art history is moving away from the formalism and formalization that is present within early art-focused game studies scholarship. The

exhibition portion of this final case study will be *Videogames: Design/Play/Disrupt (D/P/D)*, held in 2019 at the Victoria and Albert Museum (V&A) in London, England, and co-curated by Marie Foulston and Kristian Volsing. From initial observations, this blockbuster exhibition may seem to share many of the formalist, archival, and populist sensibilities that I critiqued when looking at the MoMA, the Strong, and the Smithsonian. However, I argue that upon closer inspection, multiple contrasting framing devices are being simultaneously employed within *D/P/D* that productively address the problems of the exhibitions I have listed above. Following this analysis of *D/P/D*, I will then compare it with Foulston's following major curatorial project, the 2020 edition of *Now Play This* (subsequently referred to as *NPT2020*), an annual festival that works to showcase experimental videogame art and design. Originally intended to be an in-person event held over a week in London, England, due to the COVID-19 global pandemic that unexpectedly erupted that year, Foulston needed to rethink her curatorial strategy dramatically.⁹¹ Here I will focus on how Foulston converted *NPT2020* from a physical, in-person art festival into a series of entirely online events and argue that this process was made easier by the malleability and lively fluidity I have argued is inherent to videogame art.

Design/Play/Disrupt

Shown between 2018 and 2019 at the V&A, *D/P/D* performs in stark contrast to the many other large-scale museum exhibitions of videogame art I have reviewed throughout this dissertation. Its chaotic variety of curatorial and exhibition methods differ dramatically from the formalist stoicism of MoMA's *Applied Design* exhibit. *D/P/D* was organized thematically, which allowed for a higher degree of nuance than the linear chronologies of commercial success on display within the Smithsonian's *The Art of Video Games* show. Furthermore, its inclusion of fan-created media and esports event coverage shone a light on some of the more ephemeral online social spaces that the Strong's ongoing focus on material preservation might miss. In the catalogue for the show, co-curators Marie Foulston and Kristian Volsing (2018) acknowledge some of the same tensions this dissertation has addressed regarding the exhibition and archiving of videogames. To this point, they open the catalogue with a curatorial statement that

⁹¹ I should note that *Now Play This* was not the only videogame art festival that was forced to similarly adapt to the COVID-19 pandemic and move their events online. Berlin's A MAZE Festival and Toronto's Vector Festival are both long-running digital art festivals with a vested interest in videogames that either produced virtual museums for their programming and/or conducted their events through Zoom or live-streaming video. Although both are applicable to many of my dissertation's arguments and could have served as potential case studies, I opted to focus on the work of Marie Foulston for this final example as her ongoing videogame art curation more easily fit within my dissertation's comparative focus on individual practitioners.

works to untangle some of these issues, stating how they looked to the ways that architecture and performance art had been historically exhibited for potential solutions. Foulston and Volsing argue that these two fields are especially applicable toward their efforts to "define a new curatorial language for videogames" because they both "require curators to look beyond the finished form" (p. 10). In this case, looking beyond the finished form meant finding ways to exhibit videogames that were not merely bringing playable versions into the gallery space for audiences to interact with. Foulston and Volsing felt that this model for videogame art exhibitions had been both overplayed and presented many problems to do with digital literacy. "Where we'd experienced games exhibitions before, often it was about putting as many playable games in a space as possible. But that doesn't tell you anything—to pick up a game that's meant to be played for forty hours and play it halfway through, with no understanding of what the controls mean, and no understanding of the game generally" (Volsing, quoted in DiBella, 2020). As an alternative, they crafted a variety of unique models of display that would visually contextualize the "games in the period they come from and then the nature of those particular games and why we chose them" (Volsing, quoted in DiBella, 2020).

In their execution of the curatorial mandate described above, Volsing and Foulston assembled *D/P/D* into four partitioned sections that dramatically differed from one another regarding their visual display methods, didactic intention, and modes of audience engagement. The first of these separated exhibition galleries is titled "New Designers." It consisted of a dimly lit dark grey room that was further subdivided into smaller sections by way of a series of hanging semi-translucent fabric dividers. In her review of the exhibition Kelli Wood (2019) describes the content of the "New Designers" section to be an "eclectic group" of eight "trailblazing" games "that push the boundaries of narrative, aesthetics, and technology" and that "are recognizably present in the nascent canon of video game studies." Interestingly, the selection of games within this first section draws from a variety of small-scale independent works *and* larger prestige blockbuster titles. This choice is refreshing as it allows for the "New Designers" section to be curatorially framed using metrics beyond formal definition, technological development, or consumer popularity—all of which played significant roles in many previous survey exhibitions of videogame art. For each of these eight games, Volsing and Foulston consistently chose to focus on the creative process, spotlighting production material such as developer's journals, concept art, video clips documenting various aspects of the animation and level design process, and even wholly external media and artwork that served as creative inspiration for the games' designers. All this production material was then also paired with selected video clips of

gameplay so that gallery visitors could quickly get a useful snapshot of both the original artistic intentions of the creators and the resulting structure and aesthetics of the final product.

Reflecting on how none of the eight displays within the “New Designers” section follow any kind of universalizing schema or framework, Emilie M. Reed (2018) argues that this first portion of *D/P/D* “does most of the work the exhibition is trying to do to differentiate itself from the display style and official history increasingly canonized by many other videogame exhibitions.” I agree with Reed’s assessment here and add that this first area also functions as an excellent example of what can be accomplished by using multiple varied framing devices when performing videogame art history. Rather than taking a consistent approach when selecting the supporting material to pair the eight games with or standardizing how their gameplay videos are presented, each subsections’ form and content have been curated uniquely to their respective games.

One example of this is how the display dedicated to the notoriously difficult, gothic-horror action game *Bloodborne* (From Software, 2014) pairs pre-production concept art and 3D models with an assortment of recorded gameplay clips. These videos are not just of the game itself but also include footage of a player’s hands operating their controller during a particularly tough boss battle and audio of the player narrating their experiences. Collectively, the dark aesthetics, realistic animation style, and action gameplay of *Bloodborne* all also pair nicely with *The Last of Us* (Naughty Dog, 2011; referred hereafter as *TLOU*)—another of the eight featured games and one that is deeply rooted in much of the discourse on the artistic legitimization of big-budget, prestige videogames. The display for *TLOU* featured a collection of notebooks that the game’s designers had filled throughout the production process and a collection of concept art, pre-production character animation, and level design documentation.

Both *Bloodborne* and *TLOU* are commercial videogames made on some of the highest budgets historically seen within the industry. Because of this, they perform in significant contrast to the much smaller scaled, independently produced titles within the gallery. One example of this latter category is *Consume Me* (2020), an autobiographical phone game by Jenny Jiao Hsia meant to satirically reflect on her relationship with food and her past eating disorders. Unlike the polished bombast of some of the other prestige titles included in the gallery, *Consume Me* has a very hand-drawn, illustrative visual style and was still a work-in-progress when *D/P/D* was being shown at the V&A. Additionally, given the distance in scale and budget between *Consume Me* and titles like the *Bloodborne* and *TLOU*, it is unsurprising that the content of its display is much more intimate and provides a personal frame with which to consider the game and its creator. Examples of this include a group of toys that Hsia used as inspiration, storyboards used to play

out the game's narrative, and a screen-captured video of Hsia working on the game within the Unity engine.⁹²

The motley collection of inspirational media found within the *Consume Me* display also pairs well with the section dedicated to *Kentucky Route Zero* (Cardboard Computer, 2013-2020; referred to as *KRZ*), a multipart experimental narrative-adventure game that was slowly released in chunks throughout the 2010s. *KRZ* is well-known to be heavily indebted to the literary genre of magical realism and the Surrealist art movement, and both of these avenues of inspiration are made explicit in the game's gallery display. Like the other videogames within the gallery, the display consists of a lot of sketches, journals, and production art; however, *KRZ* stands out significantly in that it has also been paired with René Magritte's surrealist painting *Le Blanc Seing* (1965) and a copy of William Crowther's prototypical videogame *Colossal Cave Adventure* (1976).⁹³ Both works are explicitly referenced throughout *KRZ*, and this curatorial weaving together of art history and new media works to communicate the degree to which the medium is embedded and enmeshed within others. Echoing aspects of Reed's (2018) position outlined above, I argue that it is primarily within these last two examples that Foulston and Volsing's curatorial methods work to most productively differentiate themselves from many previous large-scale videogame art exhibitions. The tension between the larger-budget, commercially driven games like *Bloodborne* and *TLOU* and smaller, more personal games like *Consume Me* and *KRZ* allows for their unique qualities to be further underscored. Additionally, I also argue that the contrast between the extreme intimacy of *Consume Me* with its close attention to Jiao Hsia's ongoing personal artistic process, and the more referential historicity of *KRZ* with its direct pairing of canonical art and design, also works to enrich the exhibition dramatically.

Collectively, through each of these games' different curatorial framing devices, the "New Designers" section of *Design/Display/Disrupt* successfully communicates that videogame art does not manifest as a static, singular, finished form but instead performs across a wide array of inspirational material and references, pre- and post-production media, critical and consumer

⁹² Reflecting on the exhibition afterward in an interview, Foulston describes that in the context of her curatorial goals, Hsia stuck out as an ideal artist to work with: "She had archived—I say archived like she was running a museum, but she had taken care of her objects, the design materials she worked with. She was so open about the materials she had and sent us these rigorous documents [...] She did a lot of paper prototyping and made these little lift-flap visualizations of how she wanted aspects of the game to look. She'd send us documents that had detailed breakdowns of what those objects were and where they'd come from. If there was ever a dream game designer or someone to work with from the exhibition, it was definitely Jenny" (Foulston, quoted in DiBella, 2020).

⁹³ For more information on *Kentucky Route Zero* and its relation to *Colossal Cave Adventure*, see Anable (2019), Caldwell Gervais (2020).

responses, and gameplay processes and operations. Briefly looking back to the case studies covered throughout this dissertation, it is easy to find connections between this curatorial focus on inspiration and production and Nina Freeman and Angela Washko's practices where artistic process and autobiography are intimately highlighted. Washko's deliberately fragmented approach (prints, photographs, video installations, Tumblr blog, etc.) to the creation and display of *Heroines with Baggage* strongly resembles the distributed displays of "New Designers" with both showing a combination of paper and video media that collectively document pertinent aspects of videogame history. Furthermore, Nina Freeman's (who is featured in another section of *D/P/D*) approach to designing *Cibele* in many ways mirrors the way Foulston and Valsing assembled the intimate display for *Consume Me*. Across these examples, I argue that what is most significant is that equal ground is being given to real, fictional, and virtual material. Intimate details such as Jiao Hsia's toys are positioned to be just as crucial as a famous Surrealist painting, and both are placed alongside the sleekly polished production ephemera of current industry titans. Furthermore, all this inspirational and production media is innately enmeshed within the fictional stories that each videogame tells, creating an effect where narrative construction is made material for the gallery viewers. However, although at its strongest within "New Designers," this multiplicitous effect is not limited to the first section of the exhibition and can be observed to a less intense degree across its other three as well.

The second section within *D/P/D*, titled "Disruptors," was more fully enclosed than the others and had a cautionary sign outside of it warning that there would be violent and sexual context content within. Rather than titillation or spectacle, this gallery's risqué subject matter was intended to serve a more critically intended purpose. "Disruptors" aims to reveal how rampant sexism, racism, ableism, and exploitative labour practices are within the history of the commercial videogame industry, as well as to highlight a small collection of artists and independent designers who are working to disrupt these same processes. Like the "New Designers" gallery, "Disruptors" contains several distinct curatorial framing devices. However, rather than being organized around individual videogames, each of these framing devices has been structured around an intentionally disruptive research question. Materially each of these questions has been manifested by way of a series of hanging lightboxes that divide the otherwise dimly lit room, each featuring text prompts such as "Why are videogames so white?" or "Videogames are a girl thing." Within each of these thematic subsections, a collection of examples was presented within a vitrine filled with digital screens, static visual material, and didactic textual information. Many of these vitrines had then been filled with deliberately

conflicting pairs of videogames, typically a blockbuster title that is problematic in some way with a socially just experimental one that responds directly to the same kind of problem.⁹⁴

By simultaneously acknowledging videogames' capacity for both social justice and injustice, the "Disruptors" section works to communicate a similar sense of multiplicitous tension that "New Designers" was able to achieve through its starkly contrasting collections of personal and professional production media. Also, by organizing this section into various potentially conflicting textual prompts and research questions, Foulston and Valsing work to highlight the importance of the framing device when curating an exhibition of videogame art. Rather than presenting the content of "Disruptors" teleologically to appeal to a preconceived, sales-driven canon, each of the vitrines is filled with content that has been selected to communicate ideological conflict. In this way, I argue Foulston and Valsing are more concerned with holistically presenting how videogames both succeed *and fail* as art, rather than bullishly arguing for their innate legitimacy. Here, I also would add that although the kind of failure being put on display is socio-political rather than the trashy failure I championed when looking at Cory Arcangel and Bennett Foddy in Chapter Two, they all collectively work to create space for the discussion of how videogames fail without resorting to dismissive or hierarchical analysis. Failure becomes a way for videogames to be woven together and for relations to be established, ones that go beyond their formal qualities of rules and play and encompass representation, theme, narrative, materiality, creativity, process, and so much more.

Complementing the arguments I made in Chapters Two and Three on spectatorship and mixed realism, the third section of *D/P/D* is focused on the world of esports, online multiplayer gaming, and videogame fan cultures. In her review of the exhibition, Wood (2020) describes the gallery's layout as being "dominated by a curved-screen theater, which mimicked the magnitude of the communities that create, play, and comment on games." Wood adds to this description, arguing that the monumentally sized screen works to simulate the experience of being in a

⁹⁴ In her review of the exhibition, Wood (2020) highlights one of these pairings where "Ramsey Nasser's 2014 re-creation of Pong (Atari, 1972) in qalb, an Arabic programming language" is presented alongside "quotes addressing violence against Arabs in popular AAA combat games like Battlefield 3 [Electronic Arts, 2011]." Additionally, Reed (2019) argues that the framing devices focused on violence were surprisingly some of the better ones within the "Disruptors" section of the show, stating that "the industry and even sections of academia remain fixated on battling what feels like the satanic panic of the 1990s, insisting that videogame representations of violence have nothing to do with real violence, even as support from the military and arms manufacturers continues to have a major presence in game development, so it was surprising and refreshing to hear an interviewee say that videogames are usually structurally built around guns, even if they're not shooters, because it's the paradigm the technology has been created in."

stadium watching an esports competition or potentially even the immersive qualities of watching a YouTube or Twitch stream at home from a personal computer. Displayed on this giant theatre screen is a chaotic blend of esports documentation and fan-created content that collectively highlight the games' players rather than just the games themselves. Explaining why she thought that this focus on the player was important, Foulston states that she is curatorially interested in

pursuing the idea of video games not as objects, but as performance. And performance means that, yes, you have this history and the material object, but you also have the person playing it. Any video game has the ability for infinite variations of itself. It only exists in the moment it is played. That implies the creator is not defined as simply the people who designed it. A video game is also the creation of the people playing it, and playing it is an act of creation itself (quoted in DiBella, 2020).

Through this variety of player, creator, and spectator-focused framing devices, I argue that the "Players_Online" section effectively works to highlight how videogames are increasingly becoming systems of spectatorship that work to blend aspects of the cinematic and the social. This aspect of "Players_Online" also calls back to many my arguments regarding videogame spectatorship from Chapter One when analyzing how Arcangel and Foddy's work functions in relation to their audiences. Additionally, by using videos drawn from video-streaming platforms such as YouTube and Twitch, the "Players_Online" section is also working to communicate many of the same lively qualities I argued for in Chapter Four when looking at the self-playing work of David O'Reilly and Ian Cheng. Here I would further posit that the online player spaces of esports and fandom are prone to the same kind of rapid, self-governed change, adaptation, and evolution I argued was inherent to both artists' autonomous virtual worlds.

Finally, the fourth and last section of the exhibition, "Players_Offline," not only acts as a counterpoint to the focus on virtual fandom from the previous section but also includes far more playable games than any other section of *D/P/D*. Materially, this section was intended to reference the growing "New Arcade" trend of the 2000s and 2010s where curated social events would be organized to highlight a selection of new or currently-in-progress experimental games.⁹⁵ This referential aesthetic was achieved by assembling a group of custom-painted arcade cabinets that each had an at-the-time, relatively recent, independent game installed on it. In her review of the show, Reed points out that for each of the videogames included in

⁹⁵ For more information on the New Arcade movement see Parker (2014, pp. 185-188).

"Players_Offline," there were also "Posters for the events where these games were exhibited," and how these help to represent how New Arcade parties and videogame art galleries are increasingly becoming "important spaces for videogame developers to connect, support and share work at the margins of the videogame industry."

Although Reed is correct and that over the last couple of decades, the kinds of videogame focused events, galleries, and social spaces that have been popping up with growing frequency collectively work to represent a productive shift along the edges of videogame culture, the in-person qualities of all these examples have also been put under more recent pressure due to the impact of the COVID-19 pandemic. In the next section, I will compare the curatorial methods I have been focusing on here with Foulston's subsequent major project, curating *NPT2020*, an experimental videogame art festival. Like the *D/P/D* exhibition, when putting together *NPT2020*, Foulston chose to utilize various framing devices that all in some way speak to this dissertation's theoretical focus on fluidity and heterogeneity. When moving the festival online, Foulston had to navigate the best way to exhibit and present videogame art in a way where it was not always directly playable, and that also had to be adaptable to quick changes depending on unexpected technical or pandemic-related difficulties. In responding to these pressures, I will argue that Foulston curated *NPT2020* in such a way that it was many conflicting things all-at-once, a quality I also argue is a growing necessity for how the art history of videogames is and continues to be written.

Now Play This

Now Play This is an experimental videogame art festival first held at Somerset House in London, England, during the fall of 2015 and has recurred annually ever since. Although the festival's website describes its first iteration as a kind of "prototype festival," much of its core structure was replicated in its subsequent years. Every year Now Play This has been organized as a combination of exhibitions, workshops, talks, panels, and special events that have been collectively funded through the support of Games London, Arts Council England, and Somerset House (in its more recent years, it has also been funded by the British Council). Although it is not an exact parallel, the way that each of these festivals has been curated pulls strongly from the New Arcade movement described in the previous section. Many of the previous years' core exhibitions contained custom-decorated arcade cabinets and a curated selection of independent and experimental games that had just been finished or were still in progress. Additionally, these exhibitions and festival events were also all organized to promote lively and playful social interaction between the festival's attendees.

Even though the content and focus of the festival is consistently international, Now Play This has always been held within the walls of the Somerset. However, the building's relatively small physical space and the festival's previous reliance on in-person social events were both factors that severely disrupted the festival due to the COVID-19 pandemic. Like many other exhibitions, festivals, and in-person events scheduled for that year, Now Play This had to grapple with how to best adapt to the new pandemic restrictions. Here, I argue that due to a combination of factors I will elaborate on more below, the transition was relatively straightforward for *NPT2020*. This easy adaptation was primarily due to the digital nature of videogames, which allows them to be presented easily within online exhibition spaces. The installation files or video documentation of the selected videogames were uploaded to the *NPT2020* website along with artist statements, and collectively it all functioned as a viable substitute for what would have been the festival's physical exhibition. Although the experience of seeing the games in situ within a gallery space and being able to observe other gallery attendees playing the games on display was lost, this was a decent next best option given the completely unprecedented impact of the pandemic. However, as I described above, the exhibition was only one portion of the festival. This solution would not have accounted for all the other panels, workshops, and events that would also have been typically scheduled. The easiest solution for many other arts organizations was to convert these kinds of events into relatively simple, though highly accessible, video chat meetings and YouTube or Twitch streams. Just like the uploaded version of the exhibition I just described, these were all easily workable solutions to the problem of social distancing and quarantining. It is at this crossroads, however, where I argue that Foulston was able to draw on the same malleable heterogeneity this dissertation has focused on to not only produce a unique solution to the pandemic restrictions but also to curate an iteration of Now Play This that was more experimental and globally accessible than any of those in the years prior.

As with her co-curation of *D/P/D*, the success of *NPT2020* was primarily due to the creative specificity with which Foulston chose her framing devices. Rather than relying on the relatively neutral and simple method of video calls to facilitate the panels, workshops, and artist talks that she had planned for the festival, Foulston instead chose to embrace the ludic context of the festival and organized it so that these events took place directly within a selection of online multiplayer videogames. In most cases, there would be a combination of presenters, attendees from the general public, and festival staff all taking part in these online events. Furthermore, one of the festival staff was usually acting as a kind of "camera" and was

streaming footage from their in-game perspective to the Now Play This Twitch channel for those who could not directly join the event.

It is beyond this chapter's scope to effectively summarize all the events organized as part of *NPT2020*. However, there is one that significantly reflects many of the theoretical arguments I have made throughout this dissertation. Originally intended to be featured as a physical installation within the exhibition portion of the festival, a work of videogame art called *DUSTNET* (2019) by Canadian artists Milan and Neilson Koerner-Safrata was instead transformed into an online event space. More specifically, the work was featured as part of an event called "Play *DUSTNET* with the Devs" (PDWTD), where festival attendees were invited to join a server in which the Koerner-Safrata brothers were playing and speaking with Foulston about their project. During this discussion, festival attendees were free to roam the game's environment and listen to the artists and curator engage in a speculative discussion of obsolescence, digital decay, and videogame history.

To further describe *DUSTNET*, it was originally released in 2019 as both a commercially purchasable video on digital platforms and a work of mixed reality installation art. In terms of the inspiration and impetus behind the project, it can be most simply described as a subversive appropriation of the game *Counter-Strike* (Valve 1999; referred to hereafter as *CS*). For those readers who might be unfamiliar with *CS*, it is an online multiplayer shooter game with a distinctly militaristic theme. It has also consistently remained one of the most popular games in terms of player numbers and esports spectatorship since it was first released as a fan-made mod over two decades ago. *DUSTNET* refers to *CS* by appropriating the exact level design of "de_dust2"—one of the game's original fan-created and still most popular maps. However, rather than use the Middle Eastern desert visuals that the original has been skinned with, the Koerner-Safrata brothers instead choose to recreate "de_dust2" in black-and-white wireframe, reminiscent of the cybernetic landscapes of the film *Tron* (1982).

When players join the *DUSTNET* server, they can interact within this reimagined version of "de_dust2" in various ways depending on the peripheral they are using to access the work. Players who play on a computer will appear as normally scaled wireframe humanoids, but those who can join using a VR headset will appear as much larger god-like figures who are floating above the level. There is also an AR component that is available when the work is installed in galleries where visitors can use their phone to interact with a physical model of the level. What is especially interesting about these three modes of interaction is that they are each given different access to a set of creative modeling and level design tools to edit the game's level dynamically as others are playing. During the span of the PDWTD event, this resulted in a lively

and chaotic assortment of three-dimensional shapes to be added to the level, which in turn directed a substantial portion of Foulston and the Koerner-Safrata brothers' conversation.

Over the approximate hour that they were speaking with one another, the Koerner-Safrata brothers explained to Foulston how *DUSTNET* was made as a kind of speculative future version of "de_dust2" where it exists as the last remaining copy of the map. Rather than functioning simply as a reference to digitally focused science fiction, they also explain how the wireframe aesthetic is meant to symbolize how the map is in a state of slow decay and that it will sometime soon inevitably cease to exist. To add to this reading of the work, the players' ability to dynamically edit the level functions in parallel to the way that the real "de_dust2" map exists solely because of fan creativity. What initially began as a user-created mod has since been reworked, recreated, and edited innumerable times, with each new instance further entrenching the level within the videogame historical canon. In this way, *DUSTNET* works to highlight many of the problems involved with chronicling the art history of videogames. CS and "de_dust2" have both existed for a little over two decades, which coincidentally corresponds to the approximate time frame during which the field of game studies has been attempted to establish itself formally. However, rather than remaining fixed entities within history, both the game and the map have shifted and transformed dramatically in a way that resists many attempts of fixed definition. Additionally, by imaginatively reframing them as dying digital artifacts such as they have in *DUSTNET*, the Koerner-Safrata brothers also highlight how these processes of change can be degenerative ones as well. This last point is also further emphasized because *DUSTNET* as a work of art only exists if the Koerner-Safrata brothers keep their server on. After this point, all the unique alterations that the players have made to the server layout will forever be erased.

In addition to providing an example of Foulston's unique approach to videogame curation, this in-depth examination of the ephemerality and dynamism of videogames also works in concert with Jayemanne's conceptualization of performance and how it relates to the framing device. In an interview with Samuel DiBella (2020) for *ROMChip: A Journal of Game Histories*, Foulston explains how the notion of performance factors into the way she is trying to develop her curatorial language: "Thinking of games as performance sounds daunting, perhaps, but it also frees you up. There is no perfect way to collect a video game. No object can ever embody that. There are many ways of thinking of materials differently. There's no one way to get through how to exhibit or collect a game. In all truth, you can't capture it. You can't exhibit it. It only exists in the moment it's played, and you can't control how it's played." By framing *DUSTNET* not only as an interactive art object but also as a temporary performance or fleeting

event, Foulston works to emphasize the sentiments expressed in the quote above and to also connect her own curatorial framing devices to the content and intention of the work. And just as how the Koerner-Safrata brothers framed their creation as an afterlife version of the real “de_dust2” map, by deciding to exhibit *DUSTNET* as an online event that was streamed over Twitch (a service with few tools available for long-term video archiving), Foulston works to frame her curatorial approach of *NPT2020* as a kind of ephemeral performance too.

Looking at Foulston’s curatorial approach to *DUSTNET* and the variety of other experimental event-planning methods found across the rest of the festival, it becomes clear how productive it is to experiment with a multitude of innovative framing devices when curating videogame art. Rather than worrying about how any of the events formally function as games with rules and win-loss states, Foulston instead embraced the multidimensional qualities of videogames and all of the unique blends of participation and spectatorship that come along with them. In doing this, she took the potential failure that the pandemic might have elicited for *NPT2020* and transformed it into a mixed realist collection of exciting and ultimately ephemeral events. Within this new blended version of the festival, people from across the globe could fully participate virtually in all the workshops, panels, and artist talks she had planned from the material reality of their own homes. Moreover, although I am focusing here on the diversity of framing devices apparent throughout the festival, I also acknowledge that all the events were unified through the delivery method of Twitch and live video streaming. Though there is room to argue that the consistency of this mode of presentation works against the heterogeneity I have been championing, through the intense potential for global audience participation that Twitch encourages and allows for, I would provide the counterpoint that it also imbues the festival with new vectors for lively emergent behaviour. Together, all these qualities work as an ideal example of how to apply many of the arguments I have made throughout this dissertation on how to productively expand the art history of videogames. Although the *NPT2020* festival was dramatically disoriented from its original form due to unforeseen circumstances, Foulston was still able to rework it into a complex and exciting new form.

In an interview on her experiences with curating *NPT2020*, Foulston reflects on the critical potential that an entirely online framework allows for and how it helped to refine further the curatorial language that she had been building earlier with the *D/P/D* exhibition. “The biggest takeaway for me has been being pushed to confront, at a fundamental level, questions about what on earth an exhibition actually is. I don’t think we should be rushing to move things virtually just for the sake of it. We should consider, with the same curatorial rigour that you would a physical event, what the audience is, what your community is, and what you’re actively trying

[to] make happen” (Hine, 2020). Here, I agree with Foulston's sentiment that an exhibition should not be made virtual just for the sake of it. However, there is something to be said for how well Foulston's various online curatorial methods and framing devices worked within the context of videogame art.

Additionally, looking back to *D/P/D*, we can see the same curatorial rigour that Foulston displayed with *NPT2020*, except manifested materially through physical didactics and display instead of virtually planned events and exhibitions. Although the content of *D/P/D* was all necessarily more fixed than the live talks and workshops of *NPT2020*, they all still work to communicate the unique qualities of the individual games that were selected. Rather than flattening them all into the singular, neatly ordered, medium-specific category of "videogames," both *NPT2020* and *D/P/D* work to present their content as a lively and dissonant jumble, or as Jayemanne (2017) so eloquently describes, "a complex multidimensional weave" (Chapter 1, Section 2, para. 1).

This dissertation began with the claim that much of the published discussions of videogames and art over the last twenty years are rooted in formalist analysis and prioritization of medium specificity to justify that videogames are unique enough to warrant their own distinct academic departments and funding. I also argued that another standard method for those attempting to legitimize videogames as art was to look at examples of how canonical avant-garde artists used play, rules, and systemic structures as tools within their practice. Both were viable strategies for introducing a growing new medium to audiences and institutions that might not have been otherwise familiar with them. However, as I revealed throughout Chapter One, collectively, these two methodologies have also worked to skew the art history of videogames toward ultimately exclusionary definitions and timelines. In aiming to legitimize the entirety of videogames as art, a lot of the nuance of both categories had to be simplified.

Throughout this dissertation, I have worked to dismantle the overly generalized way that the categories of videogames and art have been related and to provide instead specific examples of how close reading, comparative analysis, and individualized framing devices can all be used to build up from the rudimentary structures that early game studies laid out. The art history of videogames already exists and has done so for longer than any of the debates of legitimacy and form that occupied the 2000s. Although I argue that they are quickly becoming antiquated, these early, formative discussions were not without merit. Through these efforts to define and legitimize videogame as art, the ground has been effectively cleared for new curators, artists, and scholars to take more experimental or alternative approaches. Although it is just a small sampling, many of the practitioners and researchers I have reviewed across this

dissertation indicate this sea change within the world of videogame art. From this closer perspective, a more playfully fragmented version of the art history of videogames is visible, one that can utilize and champion the medium's often dissonant heterogeneity rather than position it as a fault that must be accounted for through extensive division and definition.

Although the quarantine that COVID-19 imposed on the world worked to frame this with an almost chiaroscuro degree of contrast, as this dissertation has revealed, videogame culture has always been highly adaptable and prone to lively self-reconfigurations. Due to social and capital necessity, videogame production and consumption have transformed dramatically during the last year of this dissertation's writing. This transformation is not only occurring within the niche space of videogame art exhibitions and festivals that have made the transition into online curation but across within popular commercial videogame culture as well. More and more people—creators, scholars, and consumers alike—are realizing that videogames can be what you want them to be and that efforts to essentialize, formalize, and statically define them are unproductive at best and a form of exclusionary gatekeeping at worst.

This dissertation provides a variety of tools to frame and analyze videogame art as the messy shapeshifter that it is. Videogame art is often trashy and informal, both undeniably and simultaneously real and unreal, emergently lively, and through all of this it achieves a state of existence that is multistable and multidimensional. Like all other forms of art, videogame art is many things all at once, which makes it preternaturally resistant to attempts of all-encompassing definition. Rather than remaining mired in this chaotic, unsolvable predicament, those looking to contribute toward the art history of videogames should instead look more closely to the parallel histories of contemporary curation and criticism and the level of individualized specificity that each can contribute. Marie Foulston's efforts are just one example of this, where she curated videogames not as an entire medium that needed to be definitionally represented but as a relatively small selection of thematically poignant examples, displays, and events. Moving forward, I urge other researchers and practitioners to follow suit and closely examine the ways that individual videogames, artists, and designers specifically relate to one another rather than how they fit within or fall outside formal definitions of their chosen media.

Bibliography

Aarseth, E. (1997). *Cybertext: Perspectives on ergodic literature*. Johns Hopkins University Press.

Aarseth, E. (2001). Computer game studies, year one. *Game Studies*. 1(1).
<http://gamestudies.org/0101/editorial.html>

Aarseth, E. (2019). Game studies: how to play—ten play-tips for the aspiring game-studies scholar. *Game Studies*, 19(2). <http://gamestudies.org/1902/articles/howtoplay>

Aarseth, E. (2004). Genre Trouble: Narrativism and the Art of Simulation. In N.Wardrip-Fruin and P. Harrigan (Eds.) *First Person: New Media as Story, Performance, and Game*, The MIT Press, 45-55.

Alexandra, H. (17 October 2015). Redefining games formalism: Towards materials, context, and arrangement. *TransGamer Thoughts*.
<https://transgamerthoughts.com/post/131366072387/redefining-games-formalism-towards-materials>

Antonelli, P. (28 May 2013). Why I brought Pac-Man to MoMA [TED talk/YouTube video]. Presented at TED Salon New York City. <https://www.youtube.com/watch?v=YzGjO5aHShQ>

Apperley, T.H., & Jayemane, D. (2012). Game studies' material turn. *Westminster Papers in Communication and Culture*, 9(1). 5–25.

Arcangel, Cory, Michael Bank Christoffersen, Holger Reenberg, Alan Licht, and Jonah Peretti. (2014). *Cory Arcangel: All the small things*. Koenig Books.

Arcangel, Cory, and Heike Munder. (2005). *Cory Arcangel: Beige*. Raphael Gyax (Ed.). JRP Editions.

Anable, A (2018). *Playing with feelings: video Games and affect*. University of Minnesota Press.

Anthropy, A. (2012). Rise of the videogame zinesters: How freaks, normals, amateurs, artists, dreamers, drop-outs, queers, housewives, and people like you are taking back an art form. New York: Seven Stories Press.

Apperley, T.H. and Jayemanne, D. 2012. Game studies' material turn. *Westminster papers in communication and culture*. 9(1), pp. 5-25. <http://doi.org/10.16997/wpcc.145>

Bailey, A. (2020). Living narrative worlds: Assemblage and multistability within Ian Cheng's emissaries trilogy." In D.E. Sansal and D. Denizel (Eds.) *Multidisciplinary Perspectives on Narrative Aesthetics in Video Games*. IGI Global.

Baumgartel, T. (2004). On a number of aspects of artistic computer games. *MediaArtNet*. http://www.medienkunstnetz.de/themes/generative-tools/computer_games/scroll/

Becker, H. S. (1982). Art worlds. University of California Press.

Beil, B. (2020). The utopia of Getting Over It. In B. Beil, G. S. Freyermuth, H. C. Schmidt (Eds.) *Playing Utopia: Futures in Digital Games*, Columbia University Press, 315-326.

Benivolski, X. (February, 2021) You can't trust music. *E-flux*. Journal #115. <https://www.e-flux.com/journal/115/374619/you-can-t-trust-music/>

Bishop, C. (2012a). Artificial hells: Participatory art and the politics of spectatorship. Verso Books.

Bishop, Claire. (September 2012b). Digital divide: Contemporary art and new media. *Artforum*, 51(1)
<https://www.artforum.com/print/201207/digital-divide-contemporary-art-and-new-media-31944>

Bishop, Gansing, K., and Parikka, J. (2016). Across and beyond: Post-digital practices, concepts, and institutions. In Bishop, Gansing, K., and Parikka, J. (Eds.) *across and beyond—A*

transmediale reader on post-digital practices, concepts, and institutions. Transmediale and Winchester School of Art, University of Southampton, 11-22.

Bittanti, M, and Quaranta, D. (2006). *Gamescenes: Art in the age of videogames*. Johan & Levi Editore,.

Bogost, I. (July 7, 2014). You are mountain. *The Atlantic*.
<https://www.theatlantic.com/entertainment/archive/2014/07/you-are-mountain/374543/>

Bogost, I. (March 23, 2017). The video game that claims everything is connected. *The Atlantic*.
<https://www.theatlantic.com/technology/archive/2017/03/a-video-game-about-everything/520518>

Bogost, I. (2011). *How to Do Things With Videogames*. University of Minnesota Press.

Bogost, I. (January 21, 2009). Persuasive games: The proceduralist style” *Gamasutra*,
https://www.gamasutra.com/view/feature/132302/persuasive_games_the_.php?page=2

Bogost, I. (September, 2009). Videogames are a mess [Keynote paper presentation]. The 2009 DiGRA International Conference: Breaking New Ground: Innovation in Games, Play, Practice and Theory, DiGRA 2009, London, UK. http://bogost.com/writing/videogames_are_a_mess/

Boluk, S., and LeMieux, P. (2017). *Metagaming: Playing, competing, spectating, cheating, trading, making, and breaking videogames*. University of Minnesota Press.

Brice, M. (January 27, 2014). The DIY of games criticism. Author’s personal blog.
<http://www.mattiebrice.com/the-diy-of-games-criticism/>

Bryant, L. (February 24, 2010). Flat ontology. *Larval Subjects*.
<http://larvalsubjects.wordpress.com/2010/02/24/flat-ontology-2/>.

Burns, M. (April 18, 2018) A (slightly) different way to think about games and art. *Gamasutra*.
https://www.gamasutra.com/view/news/316623/A_slightly_different_way_to_Think_about_games_and_art.php

Cannon, R. (2003, October). Introduction to game modification. Paper presented at Plaything; The Language of Gameplay conference, Sydney, Australia.

Cannon, R. (2007). Meltdown. In A. Clarke and G. Mitchell (Eds.), *Videogames and art*. Intellect Books, pp 38-53.

Carse, J. (1986). *Finite and Infinite Games*. New York City, NY: The Free Press.

Cates, J. (2011). Running and gunning in the gallery: Art mods, art institutions, and the artists who destroy them." In D. Getsy (Ed.) *From Diversion to Subversion: Games, Play, and Twentieth-Century Art*. Pennsylvania State University Press.

Chang, A. (2013). Playing nature: The virtual ecology of game environments. [Unpublished PhD dissertation] University of California Berkely.

Chang, A. (2019). Playing with nature: Ecology in video games. University of Minnesota Press.

Chapman, A. (2019). The histories of/in games. *ROMChip: A Journal of Game Histories*, 1(1). <https://romchip.org/index.php/romchip-journal/article/view/70>

Cheng I., & Evers, E. (2015). In conversation with Ian Cheng. In E. Evers, G. Jansen, & I. Raskin (Eds.), *Ian Cheng: live simulations*, Kunsthalle Dusseldorf & Spector Books, 101-116

Cheng, I. (2018). *Ian Cheng: Emissaries guide to worlding*. London, England: Fondazione Sandretto Re Rebaudengo, Koenig Books & Serpentine Galleries.

Chun, W.H.K. (2005). Introduction: Did Somebody Say New Media?. In W.H.K. Chun and T. Keenan (Eds.), *New media, old media: a history and theory reader*, Routledge, 1-10

Clarke, A., and Mitchell, G. (Eds.). (2007). *Videogames and Art*. Intellect Books.

Cornell, L., and Droitcour, B. (2013). Technical Difficulties. *Artforum*. 51(5).
<https://www.artforum.com/print/201301/technical-difficulties-38517>

Couldry, N., & Hepp, A. (2012). Comparing Media Cultures. In F. Esser & T. Hanitzsch (Ed.), *The handbook of comparative communication research* (pp. 249-261). Routledge.

DeLanda, M. (2006). *A new philosophy of society: Assemblage theory and social complexity*. Bloomsbury.

DeLanda, M. (2011). *Philosophy and simulation: The. Bloomsbury emergence of synthetic reason*. Bloomsbury.

Deleuze, G. and Guattari, F. (1977). *Anti-Oedipus*. Viking Penguin.

Deleuze, G., and Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia*. University of Minnesota Press.

Dennett, D.C. (1971). Intentional systems. In *The Journal of Philosophy*, 68(4), 87-106.

Dragona, D. (2010). From parasitism to institutionalism: Risks and tactics for game-based art. In Catlow, R., Garrett, M, and Morgana, C. (Eds), *Artists Re:Thinking Games*. Foundation for Art and Creative Technology, 26-32.

Dragona, D. (2016). What is left to subvert? Artistic methodologies for a post-digital world. In Bishop, Gansing, K., and Parikka, J. (Eds.) *across and beyond—A transmediale reader on post-digital practices, concepts, and institutions*. Transmediale and Winchester School of Art, University of Southampton, 184-201.

DiBella, S. (2020). Play at the V&A: A conversation with Marie Foulston and Kristian Volsing on the *Videogames: Design/Play/Disrupt* exhibition. *ROMChip: A Journal of Game Histories*, 2(2).
<https://romchip.org/index.php/romchip-journal/article/view/120>

Dick, P. K. (2004). The preservation machine. In *Paycheck and other classic stories by Philip K. Dick* (pp. 149–156). Citadel Press.

Ebert, R. (October 20, 2005). Doom movie review & film summary. *RogerEbert.com*.
<http://www.rogerebert.com/reviews/doom-2005>;

Ebert, R. (July 21, 2007). Games vs. art: Ebert vs. Barker. *RogerEbert.com*.
<http://www.rogerebert.com/rogers-journal/games-vs-art-ebert-vs-barker>;

Ebert, R. (April 16, 2010). "Video games can never be art. *RogerEbert.com*.
<http://www.rogerebert.com/rogers-journal/video-games-can-never-be-art>.

Eskelinen, M (2001). The Gaming Situation. *Game Studies*. 1(1).
<http://www.gamestudies.org/0101/eskelinen/>

Fantone, L. (2003). Final fantasies: Virtual women's bodies. *Feminist Theory*, 4(1), 51-70.

Ferranto, M. (2015) No paraphernalia, no nostalgia: Decoding MoMA's new video game galleries. *The Journal of the Design Studies Forum*, 7(2), 203-223.

Fishwick, J. (June 21, 2018). Updating the ACMI Games Lab with a new selection of videogames. *ACMI Labs*. <https://labs.acmi.net.au/updating-the-acmi-games-lab-with-a-new-selection-of-videogames-72a0ecf74133>

Fizek, S. (2018a). Automated state of play: rethinking anthropocentric rules of the game. *Digital Culture and Society*, 4(1), 201-216.

Fizek, S. (2018b). Automation of play: theorizing self-playing games and post-human ludic agents. *Journal of Virtual Gaming and Worlds*, 10 (3), 203–218.

Foulston, M., and Volsing, K. (2018). Introduction. In M. Foulston and K. Volsing (Eds.) *Videogames: Design/Play/Disrupt*. V&A Publishing.

Frank, A. (September 26, 2017). Valve removes nearly 200 cheap, 'fake' games from Steam (update)" *Polygon*,

<https://www.polygon.com/2017/9/26/16368178/steam-shovelware-removed-asset-flipping>

Franklin, C. [Errant Signal]. (2015, January 30). The Debate that Never Took Place [Video]. Youtube. <https://youtu.be/xBN3R0m31bA>

Frasca, G. (1999). Ludology meets narratology. similitude and differences between (video)games and narrative. Originally published in Finnish in *Parnasso* 1999: 3, pp. 365–71. <http://www.ludology.org/articles/ludology.htm>

Frasca, G. (2003) Ludologists love stories, too: Notes from a debate that never took place. In: M. Copier and J. Raessens (Eds), *Level Up: Digital Games Research Conference Proceedings*. Utrecht: DiGRA and University of Utrecht. <http://www.digra.org/dl/db/05163.01125>

Galloway, A. (2006). *Gaming: Essays on Algorithmic Culture*. University of Minnesota Press.

Gansing, K. (2016). 1995: The year the future began, or multimedia as the vanishing point of the net. In Bishop, Gansing, K., and Parikka, J. (Eds.) *across and beyond—A transmediale reader on post-digital practices, concepts, and institutions*. Transmediale and Winchester School of Art, University of Southampton, 184-201.

Gardner, M. (1970). Mathematical games - the fantastic combinations of John Conway's new solitaire game 'Life'. *Scientific American* (223): 29-43.

Gat, O. (October 5, 2011). In need of a heroine: Angela Washko's 'Heroines with Baggage (How Final Fantasy Shaped My Unrealistic Demands for Love and Tragedy). *Rhizome*, <http://rhizome.org/editorial/2011/oct/05/need-heroine-angela-washkos-heroines-baggage-how-f/>

Giddings, S. (2007). Playing with nonhumans: Digital games as technocultural form. In S. De Castell and J. Jenson (Eds.), *Worlds in Play: International Perspectives on Digital Games Research*, Peter Lang, 115–128.

Giraud, F., Normand, V., and Soular, I. (2017). Simulated subjects: glass bead in conversation with Ian Cheng and Hito Steyerl. *Glass Bead*.

<https://www.glass-bead.org/article/simulated-subjects/?lang=enview>

Gursoy, A. (2013). Game worlds : a study of video game criticism. Thesis (S.M.), Massachusetts Institute of Technology, Dept. of Comparative Media Studies.

Graham, B. (2008). Serious games. In Paul, C. (2008) *New Media in the White Cube and Beyond*, University of California Press. 191-206.

Graham, B. (2014). Modes of collection. In Graham, B.(Ed.). *New Collecting: Exhibiting and Audiences after New Media Art*. Routledge, 29-47.

Gray, K, and Leonard, D.J. (2018). *Woke Gaming: Digital Challenges to Oppression and Social Injustice*. University of Washington Press.

Gray, K., Vorhees, G., and Vossen, E. (2018). *Feminism in Play*. Palgrave MacMillan.

Grusin, R. (Ed.). (2015). The nonhuman turn. University of Minnesota Press.

Guins, R. (2014). Game after: A cultural study of video game afterlife. MIT Press.

Haraway, D. (1989). The Biopolitics of postmodern bodies: Determination of self immune System Discourse', *Differences* 1(1): 3-43.

Harper, T. (January 31, 2015). A slight ramble on an unfortunate topic. *Digital Devil Saga* (author's personal Tumblr blog), Retrieved from <https://web.archive.org/web/20150203222447/http://laevantine.tumblr.com/post/109571333702/a-slight-ramble-on-an-unfortunate-topic>

Hakimi, J. (2017) Designing auteurs: Video games, authorship, and MoMA. *Écrans—Politique des auteurs / Auteur theory. Lectures contemporaines*, 2 (6). 207-225.

Harman, G. (2011). On the undermining of objects: Grant, Bruno, and radical philosophy. In ed. Levi R. Bryant, Nick Srnicek, and Graham Harman (Eds.), *The Speculative Turn: Continental Materialism and Realism*, re.press, 21-40.

Hayles, N. K. (1999). *How we became posthuman: Virtual bodies in cybernetics, literature, and informatics*. University of Chicago Press.

Hayles, N. K. (2004). Print is flat, code is deep: The importance of media-specific analysis. *Poetics Today* 25 (1): 67–90.

Hayles, N. K. (2005). *My Mother Was a Computer: Digital Subjects and Literary Texts*. University of Chicago Press.

Heartney, E. (January 2013). The incredible shrinking art critic. *The Brooklyn Rail*.
<https://brooklynrail.org/2012/12/artseen/the-incredible-shrinking-art-critic>

Heinich, N., and Shapiro, R. (2012) When Is Artification? *Contemporary Aesthetics*, 4.
<http://www.contempaesthetics.org/newvolume/pages/article.php?articleID=639>.

Hine, Ana. (May 13, 2020). Pivoting to the virtual with Marie Foulston. *North East of North*.
<https://northeastofnorth.com/pivoting-to-the-virtual/>

Holmes, T. (2003). Arcade classics spawn art? Current trends in the art game genre. Presented at the Digital Arts Conference (DAC), Melbourne, Australia. Retrieved from
<http://hypertext.rmit.edu.au/dac/papers/Holmes.pdf>

Hospers, J. (1946). *Meaning and truth in the arts*. Archon Books.

Howe, A.C. (2015, January 5). Ludocentrism. *Haptic Feedback*.
<http://hapticfeedbackgames.blogspot.com/2015/01/ludocentrism.html>

Howe, A.C. (2015b). On the ghost of gormalism: A few brief and subjective thoughts on form, formalism, and those considered "formalists," or, dispatches from this godless endeavor. *Haptic Feedback*. http://hapticfeedbackgames.blogspot.com/2015/01/on-ghost-of-formalism_62.html

Huhtamo, E. (1995). Seeking deeper contact: Interactive art as metacommentary. *Convergence: The International Journal of Research into New Media Technologies*, 1, 81-104.

Huhtamo, E. (2005). Slots of fun, slots of trouble: An archeology of arcade gaming," in J. Raessens and J. Goldstein, (Eds.), *Handbook of Computer Game Studies*, MIT Press, 3-22.

Huhtamo, E. (2007). Twin-touch-test-redux: Media archaeological approach to art, interactivity, and tactility. In O. Grau (Ed.) *MediaArtHistories*, MIT Press, 71-102.

Huizinga, J. (1970/1938). *Homo ludens: A study of the play-element in culture*. Beacon Press.

Idhe, D. (1990). *Technology and lifeworld: from garden to earth*. Indiana University Press.

Indvik, L. (February 27, 2013). MoMA Exhibit to Feature 'Pac-Man' and 13 Other Video Game Classics. *Mashable*. <https://mashable.com/2013/02/27/moma-video-games-exhibit/>

Jayemanne, D. (2017). *Performativity in art, literature, and videogames*. Palgrave Macmillan.

Jenkins, H. (2005). Games, the new lively art.
<http://web.mit.edu/cms/People/henry3/GamesNewLively.html>.

Juul, J. (2005). *Half-real: video games between real rules and fictional worlds*. MIT Press.

Juul, J. (2013). *The art of failure: An essay on the pain of playing video games*. The MIT Press.

Juul, J. (2008). The magic circle and the puzzle piece. In S. Günzel, M. Liebe, and D. Mersch (Eds.), *Conference Proceedings of the Philosophy of Computer Games 2008 Potsdam* University Press, 56-67. <http://pub.ub.uni-potsdam.de/volltexte/2008/2455/>

Kataoka, D. (January 12, 2013). How art can bridge the digital 'divide'. *Wired*.
<https://www.wired.com/2013/01/on-the-art-of-digital/?pid=86>

Kelman, N., and Jenkins, H. (2006). Video Game Art. Assouline.

Keogh, B. (2014). Across worlds and bodies: criticism in the age of video games. *Journal of Game Criticism*, 1(1). <http://gamescriticism.org/articles/keogh-1-1/>

Keogh, B. (2015). Hackers, gamers and cyborgs. *Overland*, 218.
<https://overland.org.au/previous-issues/issue-218/feature-brendan-keogh/>

Keogh, B. (2018). A play of bodies: how we perceive videogames. The MIT Press. [Kindle Android version]. Retrieved from amazon.com.

Keogh, B. (July 11, 2017a). Who else makes videogames? Considering informal development practices. Author's personal blog,
<https://brkeogh.com/2017/07/11/who-else-makes-videogames-considering-informal-development-practices/>

Keogh, B. (2017b). Who else makes videogames? Considering informal development practices. *DiGRA 2017* conference paper,
http://digra2017.com/static/Extended%20Abstracts/146_DIGRA2017_EA_Keogh_Informal_Development.pdf

Keogh, B. (2019). From aggressively formalised to intensely in/formalised: accounting for a wider range of videogame development practices. *Creative Industries Journal*, 12:1, 14-33

Keogh, B. (May 24, 2013). Just Making Things and Being Alive about It: The Queer Games Scene. *Polygon*. <http://www.polygon.com/features/2013/5/24/4341042/the-queer-games-scene>.

Keogh, B., and Nicoll, B. (2019). The unity game engine and the circuits of cultural software. Palgrave Pivot.

Kerr, D. (2016, August 26). Artificial ecology: Ian Cheng on the strange art of simulating life, and the conceptual merits of pokémon go. *Artspace*.

https://www.artspace.com/magazine/interviews_features/art-bytes/ian-cheng-interview-54128

Kokonis, M. (2014). Intermediality between games and fiction: The “ludology vs. narratology” debate in computer game studies: A response to Gonzalo Frasca.” *Film and Media Studies*, 9(1), 171-188.

Koster, R. (2004) *A Theory of Fun for Game Design*. Paraglyph Press.

Koster, R. (March 16, 2014). A New Formalism. Critical Proximity Conference: Moving Forward Together, Moscone Center South, San Francisco.

Kim, C. (2012). The Art of (Dis)Playing Video Games: Theory Meets Praxis. MA thesis, OCAD University.

Klein, J.H. (1988). The level of interpretation of games. *Journal of the Operational Research Society*, 39:6, 527-535, DOI: 10.1057/jors.1988.92

Kollar, P. (June 12, 2014). 'Her' game creator releasing a mountain simulator. *Polygon*.

<https://www.polygon.com/2014/6/12/5804478/mountain-simulator-david-oreilly>

Kuchera, B. (July 03, 2014). Mountain could be a \$1 joke, and I think I'm the butt. *Polygon*.

<https://www.polygon.com/2014/7/3/5868087/mountain-indie-game-joke-satire-self-loathing>

Kunzelman, C. (2014). The nonhuman lives of videogames [Unpublished master's thesis]. Georgia State University. https://scholarworks.gsu.edu/communication_theses/110

Kunzelman, C. (2018). Decaying *Bioshock 2*: Videogames, assemblages, rot. In F.Parker and J.Aldred (Eds.), *Beyond the Sea: Navigating Bioshock*. McGill-Queen's University Press.

Lacasa, P. (2013). Learning in Real and Virtual Worlds: Commercial Video Games as Educational Tools. Palgrave Macmillan, New York.

Lantz, F. (August 30 2009). Games are not media. *Game Design Advance*.

<https://gamedesignadvance.com/?p=1567>

Lantz, F. (2015, January 20). More Thoughts on Formalism. *Gamasutra*.

https://www.gamasutra.com/blogs/FrankLantz/20150120/234524/More_Thoughts_on_Formalism.php

Manovich, L. (1996). The Death of Computer Art. Originally published at

www.manovich.net/TEXT/death.html . Retrieved from <https://rhizome.org/community/41703/>

Manovich, L. (2002). The Language of New Media. MIT Press.

Maslow, A.H. (1943). A theory of human motivation. *Psychological Review*. 50 (4): 370–96.

Martin, P. (2018). The intellectual structure of game research. *Game Studies*. 18(1).

http://gamestudies.org/1801/articles/paul_martin

McLuhan, M. (1964). *Understanding media: The extension of man*. McGraw-Hill.

McMaster, M. [@michaeljmcmaster] (July 9, 2014). On formalism (re: Mountain; videogames; watching ice melt). Medium. <https://medium.com/@michaeljmcmaster/on-formalism-a1b4e95bb435>

Morgana, C. (2010). Introduction. In Catlow, R., Garrett, M, and Morgana, C. (Eds), *Artists Re:Thinking Games*. Foundation for Art and Creative Technology, 7-14.

Moss, R. (November 6, 2018). How bad crediting hurts the game industry and muddles history. *Gamasutra*,

https://www.gamasutra.com/view/news/329003/How_bad_crediting_hurts_the_game_industry_and_muddles_history.php

Muncy, J. (March 29, 2017). Everything, a must-play game like nothing you've seen before. *WIRED*. <https://www.wired.com/2017/03/everything-game-review/>

Murray, J. (1998). *Hamlet on the holodeck: the future of narrative in cyberspace*. The MIT Press.

Murray, J. (2005). The Last Word on Ludology v Narratology in Game Studies. *DiGRA 2005* conference paper. Retrieved from <https://inventingthemedium.com/2013/06/28/the-last-word-on-ludology-v-narratology-2005/>

Newman, J. (2012). *Best before: Videogames, supersession and obsolescence*. Routledge.

Ng, J. (Ed). (2013). *Understanding machinima: Essays on filmmaking in virtual worlds*. Bloomsbury Publishing.

Noonan, L., and Pedercini, P. (June 14, 2011)., "An artist interview with Paolo Pedercini / Molleindustria." *Emerging Language Practice Journal*, University of Buffalo. Retrieved from <http://www.molleindustria.org/node/320/>

Nooney, L. (2013). A pedestal, a table, a love letter: Archaeologies of gender in videogame history. *Game Studies*. 13(2). <http://gamestudies.org/1302/articles/nooney>

Obrist, H.U. (2018). Interview. In Cheng, I. (2018), *Ian Cheng: Emissaries Guide to Worlding* (pp.284-292). Fondazione Sandretto Re Rebaudengo, Koenig Books & Serpentine Galleries.

OReilly, D. (December 31, 2014). [@davidoreilly]. Some Thoughts on Mountain. Medium. <https://web.archive.org/web/20190722011930/https://medium.com/@davidoreilly/some-thoughts-on-mountain-a2a4b79dac53>

OReilly, D. (March 18, 2016). Everything is Coming to PS4. Playstation Blog. <https://blog.playstation.com/2016/03/08/everything-is-coming-to-ps4/>

Parikka, J. (2010). Ethologies of Software Art: What Can a Digital Body of Code Do? In S. Zepke and S. O'Sullivan (Eds.), *Deleuze and Contemporary Art* (pp 116-132). Edinburgh University Press.

Parker, F. (2013). An art world for artgames. Loading... The Journal of the Canadian Game Studies Association. Vol 7(11): 41-60

Parker, F. (2014). Playing games with art: The cultural and aesthetic legitimization of digital games. (Unpublished PhD dissertation). York University, Toronto, ON.

Parker, F. (2018). Roger Ebert and the Games-as-Art Debate. *Cinema Journal* 57(3), 77-100

Parker, F., and Aldred, J (Eds.). (2018). *Beyond the sea: Navigating Bioshock*. McGill-Queen's University Press.

Paul, C. (February 6, 2010). Image games [Keynote presentation/Youtube video]. The Art History of Games conference, Georgia Tech, Atlanta, USA. Retrieved from <https://www.youtube.com/watch?v=VbBSiYfTmRY>

Paul, C. (2020). Digital Art Now: Histories of (Im)Materialities. *International Journal for Digital Art History*, (5), 2.2–2.11.

Paul, C, and Arcangel, C. (May 2011). Pro Tools Exhibition Pamphlet. The Whitney Museum, May 2011. Retrieved from. http://whitney.org/file_columns/0002/5626/arcangel_brochure.pdf.

Pearce, C.B. (2006). Games AS art: The Aesthetics of Play. *Visible Language*. 40(1) pp. 66-89.

Pederchini, P. (March 08, 2013). Art cred and videogame advocacy. *Molleindustria*. <https://www.molleindustria.org/blog/art-cred-and-videogame-advocacy/>

Phillips, A. (2020). Negg(at)ing the Game Studies Subject An Affective History of the Field. *Feminist Media Histories*. 6 (1): 12–36.

Ploug, K. (2005). Art games as genre: An introduction. *Dichtung Digital: A Journal of art and culture in digital media*. <http://www.dichtung-digital.org/2005/2/Ploug/index.htm>

Quaranta, D. (2013). *Beyond New Media Art*. Link Editions.

Rak, J. (2015). Life writing versus automedia: The sims 3 game as a life lab. *Biography*, 38(2), pp. 155-180,

Raskin, I. (2015). Virtual vitality. In E. Evers, G. Jansen, & I. Raskin (Eds.), *Ian Cheng: live simulations* (pp 117-124). Kunsthalle Dusseldorf & Spector Books.

Rockwell, G., and Sinclair, S. (2016). "Name Games: Analyzing Game Studies (Third Interlude)." In Rockwell, G., and Sinclair, S. (2016), *Hermeneutica: Computer-Assisted Interpretation in the Humanities*, MIT Press, 2016, pp.137-148. <http://hermeneuti.ca/name-games>.

Reed, E. (2017) Towards a History of Videogame Exhibitions. *Transactions of the Digital Games Research Association 2017*, http://digra2017.com/static/Extended%20Abstracts/50_DIGRA2017_EA_Reed_Videogame_Exhibitions-FIX.pdf

Reed, Em. (2018). Exhibition strategies for videogames in art institutions: Blank Arcade 2016. *Transactions of the Digital Games Research Association November 2018*, 4(2), 103-135

Reed, E. (2019). Review: Videogames: Design/Play/Disrupt (V&A, 2018). Author's personal blog. <https://emreed.net/vavideogames.html>

Reed, E. (2019, January 02). Three Modernisms! Author's personal blog. https://emreed.net/Three_Modernisms.html

Rockwell, and Sinclair. (2016). Name Games: Analyzing Game Studies. In *Hermeneutica: Computer-Assisted Interpretation in the Humanities*, pp 137-148

Rogers, T. [Kotaku]. (8 Dec 2017). Bennett Foddy Plays Getting Over It With Bennett Foddy. [YouTube Video] <https://www.youtube.com/watch?v=DYjbCJXxWLg>

Romualdo, S. (2015). "Videogame Art and the Legitimation of Videogames by the Art World" In A. Clifford, M. Carvalhais & M. Verdicchio (Eds.), *Proceedings of the Third Conference on Computation, Communication, Aesthetics and X* (pp 151-165). <http://2015.xcoax.org/xcoax2015.pdf>

Ruberg, B. (2020). *The queer games avant-garde, how LGBTQ game makers are reimagining the medium of video games*. Duke University Press.

Ruberg, B. (2019). *Video games have always been queer*. NYU Press.

Ruberg, B, and Shaw, A. (2017). *Queer Game Studies*. University of Minnesota Press.

Saarkessian, A. and Cross, K. (2015). Your humanity is in another castle: terror dreams and the harassment of women. In D. Goldberg and L. Larsson (Eds), *The State of Play: Creators and Critics on Video Game Culture* (pp. 103-126), Seven Stories Press.

Saarkessian, A. [Feminst Frequency]. (2013-2017). Tropes vs Women in Videogames [YouTube video series/playlist]. YouTube. Retrieved April 30, 2021, from https://www.youtube.com/playlist?list=PLn4ob_5_ttEaA_vc8F3fjzE62esf9yP61

Salen, K., and Zimmerman, E. (2003). Rules of play: Game design fundamentals. *The MIT Press*.

Schelineer, A.M. (1999). Parasitic interventions: Game patches and hacker art. OpenSorcery.Net. <http://opensorcery.net/patchnew.html>

Sedgwick, E.K., and Frank, A. (1995). Shame in the cybernetic fold: Reading Silvan Tomkins. In E. K. Sedgwick and A. Frank (Eds.) *Shame and Its Sisters: A Silvan Tomkins Reader*, Duke University Press, 1–28.

Sharp, J. The art history of games [Recorded conference presentation]. The Art History of Games conference, Georgia Tech, Atlanta, USA. Retrieved from <https://youtu.be/p4m3VI1DexA>

Sharp, J. (2015). *Works of game: On the aesthetics of games and art*. The MIT Press.

Sharp, J., Thomas, D., Juul, J., Long, G., Uricchio, W., Consalvo, M. 9 Duchamp + chess: What can we learn about fun and taste from game studies' obsession with Marcel Duchamp's love of chess?," in *Fun, Taste, & Games: An Aesthetics of the Idle, Unproductive, and Otherwise Playful*, MIT Press, 2019, 121-127.

Schrank, B. *Avant-garde videogames: Playing with technoculture*. The MIT Press, 2014.

Shaw, A. (2015). Circles, charmed and magic: Queering game studies. *QED: A Journal in GLBTQ Worldmaking*, 2(2), 64-97.

Sobchek, V. (1992). *The address of the eye: a phenomenology of film experience*. Princeton, N.J: Princeton University Press, 1992.

Sontag, S. (1966) *Against interpretation*. Farrar, Straus and Giroux.

Stark, D. (2020). Unsettling embodied literacy in QWOP the walking simulator. *Journal of Gaming & Virtual Worlds*, 12(1), 49-67

Stein, Julian. (2015). Authorship and Moral Rights in Video Games. *Press Start* 2(2). <https://press-start.gla.ac.uk/index.php/press-start/article/view/26>

Steyerl, H. (2019). *Duty free art: Art in the age of planetary civil war*. Verso Books.

Suellentrop, C. (March 3, 2013). A Museum's Games Are Not on Pedestals. *The New York Times*. <https://www.nytimes.com/2013/03/04/arts/video-games/a-museums-games-are-not-on-pedestals.html>

Taberham, P. (2019). It is alive if you are defining experimental animation. In Harris, Taberham, and Paul (Eds.) *Experimental Animation: From Analogue to Digital*, Taylor & Francis Group, 17-37.

Teasdale, P. (March 20, 2013). Net gains: Claire Bishop versus the internet. *Frieze*. Retrieved from <https://www.frieze.com/article/net-gains>

Terranova, T. (2004). *Network Culture: Politics for the Information Age*. Pluto Press.

Verbeek, P. (2005). *What things do: Philosophical reflections on technology, agency, and design*. Pennsylvania State University Press.

Vossen, E. (2016, April 6). Publish or Perish? Or Publish with Purpose? *First Person Scholar*. <http://www.firstpersonscholar.com/publish-or-perish/>

Vossen, E. (2018). "On the Cultural Inaccessibility of Gaming: Invading, Creating, and Reclaiming the Cultural Clubhouse." PhD Dissertation, York University.

Wojnowski, K.(2018). Simulational realism—Playing as trying to remember. *Art History & Criticism*, 14(1), 86-98.

Walker, A. (January 28, 2015). The long game: *Subterfuge*, formalism and interactivity." *Paste*. <https://www.pastemagazine.com/articles/2015/01/the-long-game-subterfuge-formalism-and-interactivi.html>

Walker, A. 2019. The history of games could be a history of what play felt like. *ROMChip: Journal of Game Histories*. 1(1). Retrieved from <https://romchip.org/index.php/romchip-journal/article/view/78>

Washko, A. (2012a). Heroines with baggage: How Final-Fantasy shaped my unrealistic demands for love and tragedy. Artist's personal website. <https://angelawashko.com/artwork/3180124-Heroines-with-Baggage-How-Final-Fantasy-Shaped-My-Unrealistic-Demands-for-Love-and-Tragedy.html>

Washko, A. (2012b). Her longing eyes. Artist's personal website.
<https://angelawashko.com/artwork/2773717-Her-Longing-Eyes.html>

Washko, A. (2012c). Don't leave me. Artist's personal website.
<https://angelawashko.com/artwork/2514258-Don-t-Leave-Me.html>

Welsh, T.J. (2016). Mixed realism: videogames and the violence of fiction. University of Minnesota Press.

Willumsen, E. (2018). The Form of Game Formalism. *Media and Communication*, 6(2), 137-144.
 doi:<http://dx.doi.org/10.17645/mac.v6i2.1321>

Wolinsky, D. (April 20, 2018). David O'Reilly interview. *Don't Die*.
<https://nodontdie.com/david-oreilly>

Wood, K. (July 08, 2019). Videogames: Design/Play/Disrupt [Exhibiton review]. *CAA Reviews*.
<http://www.caareviews.org/reviews/3506#.YNATcmhKiHs>