

Arcades, Let's Plays, and Avant-Gardes:
perspectives for analysing and developing
videogame exhibitions for arts audiences



A thesis submitted for the degree of Doctor of Philosophy
(PhD)

by

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July, 2019

Declaration

Candidate's declarations:

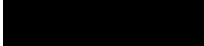
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Acknowledgements

Thanks to my supervisory team, Dr William Huber, Dr Robin Sloan and Clare Brennan, for their advice and feedback. Thanks to my co-curators who were vital elements in the curatorial case studies, Lindsay Grace, Craig Fairweather and Andrew Dyce. And thanks to my family and friends for their support, which goes double for any family member or friend who kindly listened to me ramble on this topic to work out my own thoughts during the past three-plus years.

Abstract

While debate over videogames' cultural status can still become contentious, the contemporary exhibition form is a route into art history, and exhibitions of videogames and their display choices have already drawn videogames into the discursive construction of the history of art. Over the past 30 years, a variety of art institutions have organized exhibitions presenting videogames as important elements of broader art and design culture, therefore reflecting on past exhibitions of videogames and examining curatorial decisions is a vital part of identifying their place in the history of art.

This dissertation consists of research and practical work in games curation within this context. First, I provide a history of major videogame exhibitions, and analyse them using perspectives from the history of art, museology, and game studies. I highlight three qualities of videogames, their multipart nature, their durational nature, and their need to be activated or performed at some point, which can be addressed in various ways by the paradigms of art institutional display. I carry these qualities over to an autoethnographic reflection on how these challenges manifested in my own curatorial practice with three case studies. By reviewing the process of exhibition development, visitor observation and perspectives on tensions between spectatorship and interaction, I present a model for evaluating the effectiveness of present curatorial processes in addressing the varied ways gallery visitors experience videogames as an art object or aesthetic experience. The dissertation contributes a historical perspective on videogame exhibitions, and methods for developing and evaluating them by bringing together multiple perspectives from art history, game studies, and new media art, and producing new, practice-based insights.

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1 Introduction

Exhibitions in art institutions which include videogames have been consistently framed in terms of technological innovation and novelty. Over the course of my research, it was extremely common to find exhibitions including videogames, or discussions of videogames as an art form, prefaced with a citation of a recent statistic or notable example relating to the broad popularity and financial scale of the videogames industry. This tendency sets up the argument that videogames are now impossible to ignore as an industry or cultural phenomenon, and positions resulting exhibitions as filling a neglected gap. This argumentation style has led to a long history of exhibitions foregrounding their newness, or an assertion of being the “first,” which stretches from the 1980s to the Victoria and Albert Museum’s website describing their own exhibition in 2018 as “the first to fully consider the complexity of videogames as one of the most important design fields of our time, investigating ground-breaking contemporary design work, creative and rebellious player communities and the political conversations that define this movement” (V&A 2018).

This research originated in my desire to look at the problem of displaying videogames in arts contexts in a different way. There is now no lack of recognition of videogames across a variety of exhibitionary forms, from festivals, to smaller galleries, to major travelling exhibitions organized by internationally-recognized institutions. The last category is the most visible and influential, utilizing a reach of multiple institutions and many thousands of visitors, and has led to the popular success of several exhibitions organized in this way over the past decade. At this point, the neglected area to address becomes reflection on videogame exhibitions, and how such exhibitions have developed and changed over time. This dissertation aims to look back at existing videogame exhibitions, to identify how approaches to display and narratives presented have changed over time, and use this information to supplement practical work, curating exhibitions and experimental installations of videogames.

As I began my research, it soon became apparent that I would have to limit my scope somehow, since both the variety and number of exhibitions of games has become too large for a single dissertation to address. I only touch briefly on mainstream corporate expos, as well as indie festivals and local “Do-It-Yourself” or DIY spaces that have emerged within videogame culture as ways to exhibit videogames. While all these formats can take influences from art exhibitions of the past in different ways, influencing aesthetic values and narratives of videogame creation locally, they rarely interact with the larger art world. Building on my background in art history and museums, I narrowed my focus to primarily explore exhibitions that work in or with art institutions, or specifically invoke another form of connection to the art world. Due to my own language skills and the resources I had access to conducting this research in the United Kingdom, I also primarily focus on exhibitions originating in and often touring between anglophone countries.

This focus on “significant institutions” also highlights the importance of reflecting on videogame exhibitions beyond compiling their history. In practice, art world exhibitions, especially ones that have an international impact or tour extensively, not only reflect the history of art, but create it. The term “institution” is typically used to refer to a complex social formation that not only has authority in a culture, but can reproduce itself as a holder of that authority over time (Miller 2014). In the case of the art world, this means art institutions are not only the impressive buildings and collection policies which give the artworks within prestige and meaning in an art historical context, but the processes through which exhibition, collection and preservation draw new works of art into these narratives and values, continuing their production and dissemination through exhibition. The exhibition is the most public-facing form through which the art world both expresses and reproduces its power, therefore exhibitions play a major role in setting the narratives and key objects that shape art history.

This thesis offers a method for reflecting on and evaluating exhibition strategies for videogames that is concerned with the way they are being incorporated into broader institutional and art historical narratives and collections. Through research that incorporates new media art, exhibition histories, and game studies

perspectives, I attempt to situate historically the phenomenon of videogame exhibitions, connecting it to the larger history of art exhibition styles, and the variety of movements and objects which have been incorporated into art historical narratives. Rather than seeing videogames as uniformly novel or challenging in an art exhibition context, I instead identify aspects of the complex, multipart object of the videogame that are altered within the gallery space or alter the typical relationship a visitor has with an exhibition. Finally, these challenges become central considerations in a series of practice-based exhibition and installation projects in which I aim to develop new curatorial approaches to displaying and contextualizing videogames within art exhibitions.

The first chapter is comprised of a brief introduction to the context and primary goal of the research, as well as an overview of the thesis structure.

Following this chapter, I begin the second chapter with an historical account of past videogame exhibitions. This history, while necessarily brief and incomplete due to the factors discussed above, presents exhibitions that have occurred over several decades, and in a wide variety of art institutions, from large museums, to galleries, to temporary or touring events. It gives an idea of the variety within exhibitions of videogames, as well as general trends and strategies that have emerged over time. Spanning early experiments by new media and performance artists, and an unusual fundraiser in the Corcoran Gallery in the early 1980s, to major exhibitions and acquisitions at institutions like The Smithsonian American Art Museum and the Museum of Modern Art (MoMA) alongside a variety of newly art-oriented independent gallery shows and festivals taking place just before this research was undertaken, the exhibition chronology covers over 35 years of videogames appearing in art institutional contexts. My writing of this history is influenced by the work of Mary Anne Staniszewski, whose in-depth study of MoMA exhibitions drew from archival materials and photographs (Staniszewski 2001). This type of historical study is especially valuable in the context of recent new media exhibitions, which are primarily documented in disparate forms, like websites, reviews, catalogues, and official as well as visitor photos. This chapter pulls together these sources, where they were available, for several significant exhibitions that

mark important changes and developments in how art institutions exhibit videogames.

The third chapter presents a different history, which is equally foundational to understanding the social function of videogames being presented in art exhibitions: the history of the social role of art institutions. This chapter begins with an introduction to the history of the art institutional form, originating in the private *Wunderkammer* collections that eventually made up the basis of many public state museums, and from there proliferated into other forms such as the white cube art gallery, the media centre, and the design museum. In this chapter I draw from the perspective of museum studies theorists like Tony Bennett, who trace the history of museums alongside the behavioural norms they instilled in visitors, as well as the ideology expressed by their styles of display (Bennett 1995). This history leads to a particular idea of the museum object which best fits with both the exhibition environment of the institution and the visitor behaviour the institution wants to encourage. In parallel to this, I also discuss the history of avant-garde art forms, consisting of ephemeral, performative, technological, score-based, and participatory works. These works demonstrate that many of the problems videogames present art institutions with are not unique to the medium, and have also been incorporated into institutional narratives and exhibition and collecting practices in the past. This chapter aims to bridge an important gap in how videogames are framed by institutions. The presumption of novelty and difficulty associated with displaying videogames leads to videogames usually being presented only temporarily and separately from the rest of the artworks in a museum or gallery. This can lead to serious conservation issues, as well as a failure to truly place videogames in the history of art, despite presenting them in an art context. By making connections to the ways videogames are similar to other forms of art that museums have successfully collected and incorporated into narratives of art, I aim to offer potential solutions to address these issues.

The fourth chapter isolates three important elements of how videogames are played and understood socially that make them difficult for existing exhibition paradigms to depict. Videogames are multipart, both digitally and materially,

often requiring a complicated mesh of technology, data storage, software, controllers, and screens to run. They also exist cross-medially as franchises and series, and a single videogame can be played in a seemingly-infinite number of ways. All these elements problematize the idea of a singular art object. Additionally, videogames are durational, taking seconds, minutes or hours to play, and can be occupied by a primary interactor for varying periods of time. This problematizes the static art object, which a viewer can see in its totality at once, around which most gallery formats were designed. Finally, videogames are also performed. While they do not need to be interacted with directly to be understood, they do need to be activated by play at some point, and variations in this play can change the cultural meaning of the videogame over its lifespan. Each of these issues become primary concerns in my curatorial work, and I illustrate how different approaches to mitigating these issues in a gallery space can lead to significantly different display styles, even for the same videogame, using the example of *Pac-Man*.

The three issues highlighted in the fourth chapter become important frames through which I explore the case studies that follow in chapters five, six and seven. These case studies draw from the methods demonstrated by new media curators like Beryl Graham and Christiane Paul reflecting on their own curatorial practice as a part of their research output (Paul 2008, Graham 1997, 2013). As in the case of the historical studies, I provide several different sources of information to convey the temporary act of exhibition, including floor schematics, photos, and reviews of visitor comments and feedback. Most importantly, I use the technique of “thick description” to record my curatorial selection, installation and observation process, going beyond simply reporting what was done for each exhibition to describe the intended meaning of these actions in context.

Chapter five presents a description of, and reflection on, my work co-curating *The Blank Arcade* exhibition with Lindsay Grace. This iteration of the annual showcase that accompanies the Digital Games Research Association conference (DiGRA) was held in the Hannah Maclure Centre at the University of Abertay in Dundee, and therefore took on a more selective, art gallery display

style. The Hannah Maclure Centre (HMC) was a New Media-oriented art space at the University of Abertay which generally conformed to contemporary “white cube” gallery aesthetics (O’Doherty 1999). From an international submissions pool, eight game-based works were accepted. These works were not exclusively digital videogames, but also included interactive sculpture, electronic table top games, and other experimental formats. The exhibition involved determining the technical setups for each object that would work best in the space, then preparing appropriate wall texts and a catalogue to accompany the exhibition. To assist my reflection on the exhibition, I also prepared a survey for visitors to fill out if they chose. The survey results revealed that the smaller-than-usual selection of games was still an overwhelming number of works to “get to know” for many visitors, and that visitors tended to both play and observe others playing to gain understanding of the works on display.

I drew this feedback into deciding what curatorial project I would take on next. In chapter six, I describe and reflect on working with the Edinburgh-based curatorial group *We Throw Switches* on the fifth iteration of their *Games Are For Everyone* nights. These repeated events take place in unique venues around the city for one night but develop a community and curatorial mission through their regular iterations, presenting one increasingly common approach to a “play party,” a type of temporary social event and exhibition which has emerged in independent, experimental and art game scenes (Love 2018). The short duration of these events allowed for more experimentation in installation styles, as well as observation of how visitors were interacting with the installation for the duration of the event, which is reflected on in lieu of survey data. For the first of the events in which I worked with *We Throw Switches*, I selected a first-person horror narrative game by the American developer Kitty Horrorshow to make a custom, room-sized installation for. Combining room decor, lighting effects, and supplementary texts and images, I created an environment that supported multiple viewers, participants and perspectives on a single-player, narratively-driven videogame. My exhibition approaches were focused on addressing issues of duration and performance that alter how videogames are received, understood and played in a public context.

Chapter seven presents a case study of my second project with We Throw Switches at their sixth *Games Are For Everyone* night. In this case, I collaborated directly with videogame artist FUCKGAMEDEV on an installation of his work, and attempted to further incorporate process and communities of videogame creation by including a zine library. In a similar context to the previous installation, my focus this time was on incorporating the multiple elements of process and reception of games, as well as continuing to be aware of issues of duration and performance. In the Zine Library, Nathalie Lawhead's "interactive zine" videogame *Everything is Going to Be OK*, a work where each "page" consists of interactive animations about Lawhead's experience with burnout and harassment in the videogames industry, is supplemented by a collection of zines which span topics of game development, favourite places and experiences playing videogames, and visual work influenced by the aesthetic qualities of videogames. FUCKGAMEDEV's installation provided four thematically related videogames to play (described by the developer as "interactive paintings") accompanied by paintings and performance executed by the developer over the evening. These elements, integrating material traces with digital games in the same spaces and making elements of the game development process visible, propose alternative ways of dealing with multiplicity, performance and duration as they relate to exhibited videogames.

The eighth and final chapter reflects on the outcomes of my curatorial practice. In addition, I propose types of exhibitions I was not able to explore in my practice-based studies, and possibilities presented by my theoretical and historical research which I did not have time to fully explore. I also identify ways that these elements could be incorporated into further research or future projects.

Overall, this thesis is a culmination of research and practice addressing the history of videogame exhibitions. Exhibitions, especially blockbuster temporary exhibitions and ones which tour internationally, are no longer a new phenomenon but part of a history that builds and reinforces histories of videogames as an art form. As the parallels between many of the exhibitions

discussed demonstrate, these display styles and display narratives can already become quite entrenched, and over the history of videogame exhibitions, ideas of canons and normative histories has emerged. My thesis demonstrates that it is no longer sufficient (both in terms of analysis and future collecting and preservation practices) to consider videogame exhibitions new, isolated or uncommon. My research and historical analysis of past videogame exhibitions demonstrates the role they play in establishing systems of value and narratives that affect the reception and cultural status of videogames, while the practice-based elements expressed through the case studies test alternative approaches to these display strategies and narratives that offer alternatives to the challenges and limitations of existing exhibition styles. By connecting these two threads I hope that my work encourages not only a more in-depth engagement with why and how videogames are selected and displayed by art institutions, but also offers guidelines for alternative and experimental exhibitions in the future.

2 A Brief History of Videogames in Exhibition

2.1 Videogame Exhibitions and the Construction of Art (and Videogame) History

For over 25 years, exhibitions of videogames have been temporarily on display at major institutions, recently the V&A in London, Smithsonian American Art Museum, The Museum of Modern Art in New York, and many others. Major touring exhibitions, such as *The Art of Video Games* and *Game Masters* travelled between countries and across continents. Some institutions have also opened specifically for the display or collection of videogames for their historical value and merit as art or design objects, while others have begun to incorporate videogames into a broader collection of art and design objects. The idea that videogames are worth the attention and collection efforts of art institutions is becoming more an established matter of fact, which is good news for the preservation of videogames, but as videogames are being accepted, what kind of history is being asserted by these collections and exhibitions?

While debate over videogames' cultural status can still become contentious, they have a history of being prominently featured in exhibitions held at art and design institutions since the 1980s. Theorist Bruce Altshuler describes the contemporary exhibition form as a route into art history, and therefore, these exhibitions and their curatorial and display choices have already drawn videogames into the discursive construction of the history of art (Altshuler 2008). At the same time, Mary Anne Staniszewski has described the history and study of exhibitions as "culturally repressed" despite their role in influencing how meaning is created in the reception of art (Graham and Cook 2010, 11). Exhibitions are vital in developing and conveying the narrative of the history art and the contemporary art world for visitors, but the processes that go into exhibitions are often made invisible by a lack of discussion outside of the small group of specialists involved in the creation of an exhibition.

As videogames enter arts institutions via exhibitions and acquisitions, it is important to not see the "games as art" debate winding down to its conclusion, but instead investigate how and why videogames are entering the art world.

This chapter consists of a historical overview of significant exhibitions that have shaped and defined public consideration of videogames as a cultural form with a history of innovation and experimentation. Historians have noted the role of the museum and its various modes of exhibition in constructing the canon, reception and theorization of art history, so examining exhibitions through curatorial choices is vital. Investigating the strategies enacted by a spectrum of arts institutions, from small galleries to internationally renowned museum collections, reveals arguments about the place of videogames in a larger arts and cultural context, and how museums display with the “unstable object” of the videogame (Newman 2012). This chapter will provide a historical background of this phenomenon, which will provide a basis for later reflecting on how exhibition and collection strategies can be used to incorporate a comprehensive and engaging history of videogames into the history of art presented at arts institutions.

2.2 Prehistory: Art Games and Art-cades

While many art and design institutions have recently put on shows about videogames, and even added games to their collections, the connection between videogames and art galleries goes back further than many would guess. A newspaper article from 1983 is one of the earliest instances of a major institution engaging with the videogames of the day, but in this case for a fundraising event. The Corcoran Gallery in Washington, DC held its “ARTcade” event in February 1983, featuring titles like *Pole Position* and *Joust*. Descriptions of the event, as well as quotes from attendees and organizers, reveal ambivalent and conflicting attitudes about the meaning of these arcade games in an arts context.

While a review in an enthusiast gaming magazine at the time frames the event as an “exhibit,” a first-hand account reported in the *Washington Post* frames it as a one-night-only fundraising event for the Corcoran School of Art’s scholarship fund (Trebbe 1983, Blakeman 1984). Art Buchwald, a local political commentator and columnist describes the event as “better than a boring dinner,” going on to say “I have a feeling that if they covered up the coin slots

on the machines, people would call it art.” On the other hand, Michael Botwinick, the director of the Corcoran Gallery at the time states in no uncertain terms, "This building is full of art. The machines are here to raise money," separating the arcade cabinets from the work in the institutional collection on the basis that they are commercial machines, requiring money to play, and their presence in the building is only temporary.

The article also reveals several early themes surrounding discussions of videogames within the art world. The novelty of “folks in formal dress” playing the games within the “marble halls” of the gallery is commented on, and videogames themselves are framed as both popular (“look at the people coming in the door!”) and yet a “gimmick” within the museum space. The ambassadors, political analysts and council members that the author of the article interviews generally describe themselves as unfamiliar and unskilled with videogames, especially in comparison to children. Interestingly, the event seems to have capitalized on this unfamiliarity, and as a part of the program had separate areas where local “celebs” would play games competitively for the crowd. The event also seemed to provoke the common concerns about the effect of video arcades on children. One Washington DC council member stated: “people have been asking me about taxing video games and about the law for closing video arcades during certain times for school kids,” but goes on to say, “I grew up playing pinball and I turned out okay” (Trebbe 1983).

ARTcade was not considered an exhibition by the Corcoran Gallery, and information about its planning is filed in the miscellaneous financial office archives of the institution, yet it still expressed arguments about the relationship of videogames to the art world, albeit mostly negative (Kovacs 1985). At this time, videogames were framed as culturally relevant to the public, but mostly to children. They were considered different from the art in the rest of the gallery for several reasons, because they are commercial, because they are technological, and because they are only there for a temporary event. The ARTcade and its resulting coverage argues that videogames can be useful, enjoyable, and not inherently harmful (especially to the development of children), but their

presence in an art institution alone does not put them on the same level as art in the collection.

Institutions have consistently been observed to lag behind in displaying, collecting and preserving contemporary technological forms, as arcade cabinets were in the 1980s, but artists have often been on the cutting edge of how to use new technologies (Paul 2009, 2). At the same time the Corcoran was resisting framing the games it brought in for fundraising events as art, artists were creating videogame-based works specifically for display in art world contexts. Early examples of this include Lynn Hershman Leeson's *Lorna* (1983-1984), a multimedia installation that mimicked the appearance of a living room with a television and remote control. The central element of the work is a laserdisc game that visitors to the installation could control with a remote. The laserdisc game plays sections of Full Motion Video (FMV) based on what area of the screen is selected, similar to a modern DVD menu.

By navigating this non-linear and non-hierarchical series of scenes, the player will reveal narrative details about Lorna, an agoraphobic woman, and eventually find a possible conclusion of her story, including committing suicide, moving out of her apartment, or shooting her TV (Tromble et al. 2005, 77). Hershman Leeson describes the project as "a natural progression of time-based sculptural strategies" and places the elements of nonlinear narrative and user choice in the same artistic lineage of John Cage and Marcel Duchamp who incorporated "chance operations" and randomness into their work. Being "the world's first interactive video art disc game" as one scene declares, *Lorna* was intended to utilize the "marriage of image, text, sound and computers," new technologies allowed to challenge "the dominant presumption... that making art is active and viewing it is passive." (78)

Mike Builds a Shelter (also 1983) by artist Michael Smith, was exhibited as a part of a large-scale installation entitled *GOVERNMENT APPROVED HOME FALLOUT SHELTER AND SNACK BAR*, which took the form of a hypothetical fallout shelter satirizing Cold War Americana and paranoia. The game was programmed for the Commodore 64, a common 1980s model of personal computer that had a lively hobbyist game developer scene, but installed into a

standing cabinet with a joystick and coin slot to mimic the appearance of an arcade cabinet. It extended the themes of the installation, featuring only a static, domestic background where the player character must painstakingly move up and down the steps to place a stack of cinder blocks in the basement for their fallout shelter. The gameplay was repetitive, boring, the character's movements were "excruciatingly slow," and eventually the player would realize there was no way to "win" (Kaplan 2015).

Zachary Kaplan notes that this work was both in line with several tendencies in videogames and art of the time, and also importantly diverged from them. While anti-nuclear sentiment and political satire through pop culture were common themes for many artists of the time to work with, doing this through an original videogame was new. Additionally, while the Cold War was a common backdrop for videogames (usually for tactical or action-based titles), the colourful domestic interior was an unexpected setting, and the marriage of experimental gameplay with political themes and popular gaming aesthetics made it exceptional even among other "arty and weird games" produced by amateur programmers at the time (Kaplan 2015).¹

It is interesting to note that these developments, primarily centred in the United States, all happened while an infamous and highly-mythologized event shook the existing videogame industry. A valuation of the videogame industry in the billions during 1982 led to rapid production schedules and high-volume orders from retailers, but actual demand for the videogames produced did not reach these projected highs, and many videogames were drastically reduced in price or returned to the publisher. Many companies went out of business and the shape of the industry dramatically changed when Nintendo's NES moved in as the next popular console in 1985. While common claims that a single game or company "killed" the industry or caused the crash are overblown, it represented a fallout of cultural hype around videogames that included "cover stories in

¹ See Polansky, 2016 for an example of another early "art game." *Deus Ex Machina* (1984) was not made for an exhibition context but was instead released through mail-order cassette tapes which was standard for small ZX Spectrum developers in the UK at the time. While it is not strictly an artist's approach to a videogame, since the developer, Mel Croucher, had previously released mainly "light-hearted and cheeky" commercial titles through the company Automata, Polansky identifies it as "an early attempt to deliberately treat a video game like a work of art."

Time... popular icons like Pac-Man” on lunchboxes and television and “paperback strategy guides and populist histories of games” filling bookstores (Guins 2014, 221). The iconic burial of unsold Atari cartridges in the Alamogordo landfill represented, to historian Raiford Guins, “an unmarked grave for Atari and perhaps the entire U.S. game industry of that era” which “stores a cultural and economic moment in the history of video games” (221). While Atari as a company would live on in different forms, and home consoles would regain their popularity and profitability again, this crash represented a break in the cultural hype and novelty around games. Afterwards, things were no longer quite the same, which is precisely what allowed videogames to become historical. Now that videogames could lose their position on the cutting edge, they were possible to reflect on as a part of the past.

2.3 Entering the Collection: *Hot Circuits: A Video Arcade*

In 1989 the Museum of the Moving Image (MoMI) presented *Hot Circuits: A Video Arcade*, the first major exhibition of games by a collecting institution. Curated by Rochelle Slovin, the exhibition represented several important changes for the institution. The proposal to acquire and display videogames was met with a “mixed” response, and uncertainty over how videogames fit into the institution’s curatorial remit. Slovin states that the Museum of the Moving Image was founded in 1981 for the role of documenting “the art, history, technique, and technology of motion pictures and television” (Slovin 2009). The museum both screened and collected important work to this end. The eventual decision to acquire and display a selection of 14 arcade games (*Asteroids*, *Galaxian*, *Space Invaders*, *Super Breakout*, *Missile Command*, *Berzerk*, *Defender*, *Donkey Kong*, *Frogger*, *Centipede*, *Ms. Pac-Man*, *Battlezone*, *Gauntlet*, and *Tron*) meant the Museum of the Moving Image would be calling for “ a reconsideration of the very notion of the moving image” (Ibid.).

To present the justification for an exhibition of videogames in an institution devoted to the Moving Image, which at that time meant film and video, Slovin cited examples both from the history of the moving image as well as art history more broadly. She notes that the chunky pixel art of these early arcade games,

while “less by design and more by necessity,” are a limitation that stokes creativity, leading to a unique digital aesthetic she relates to the spare aesthetics of Modernism and Post-Expressionist painting. Parallels drawn between arcade games and the history of cinema primarily focus on the shared public, coin operated presentation. In hindsight, Slovin also notes that cinema and videogames have had a similar trajectory of cultural adoption, from inauspicious beginnings to explosive growth, major studios, and blockbuster productions (2009).

Slovin quickly realized that in 1989 there was little documentation or archival work being done around videogames, and therefore it was difficult to determine which videogames would be important to include in an exhibition of this type. The MoMI consulted a pinball historian and marketing executive for assistance developing the list of games to acquire. This is the first instance, among a variety in the future, where collaboration with the gaming industry on some level was vital to the realization of an exhibition. The museum was able to find 47 of the titles on the list of gaming “milestones” produced by this collaboration, and Slovin emphasizes the difficulty of this search which often lead to dead ends in the search for even now-iconic games like *Pong*. She writes: “anything produced more than a few years before 1989 was regarded by the dealers as “ancient,” and was thus likely out of commission and out of repair,” and because the MoMI was seeking acceptable museum pieces, which would consist of the games in their original cabinets with minimal damage (Slovin 2009). At this point, the practice of painting over old cabinet art and replacing the circuit boards or other parts of the machine were destabilizing the idea of a videogame as a discrete, stable object that could be acquired and preserved.

The focus on acquiring original and good-condition arcade cabinets was meant to address what Slovin had already identified as the “unfortunate ‘content focus’ of most games criticism,” as well as the study of videogames by academics and psychologists of the time, which ignore the “rich cultural value of the games’ context—cabinets, arcades, and the like.” (Slovin 2009) To preserve the atmosphere of the gaming arcades where the videogames on display would have been primarily experienced, places where people were just as likely to

watch and socialize as play the available games, *Hot Circuits* preserved several contextual elements. The cabinets were presented in full, and visitors were given five tokens when they entered the arcade to mirror the stakes of the commercial arcade game (but they could purchase more).



Figure 1: Installation shot of “Hot Circuits: A Video Arcade” at The Museum of the Moving Image (1989) Moving Image Source

Simultaneously however, *Hot Circuits* also made important changes to the display style used for arcade cabinets, which created important differences from a typical videogame arcade. The exhibition designer placed the cabinets spaced apart, and at a 45-degree angle from the wall, instead of lined up against the wall and close to each other, as most videogame arcades were arranged. This strategy presented the game cabinets almost sculpturally, foregrounding contemplation of their visual and aesthetic qualities, and created “an effect of both distance and intimacy.” Combined with the informational text panels between the arcade cabinets, balanced the arcade context of the games with the viewing postures and behaviours associated with museum display (Slovin 2009). Additionally, images of the exhibition show that two of the cabinets, an original *Pong* cabinet and *Computer Space*, were placed on

podiums raising them slightly above floor level and behind a rope barrier, indicating that they were not playable as videogames. These cabinets were on display as interesting and important examples despite their non-interactivity, because of their unique form, historical importance, and comparative rarity to the arcade cabinets that were interactive (Figure 1). Discussing the effect of the exhibition, historian Raiford Guins comments specifically on the angling of the cabinets' effect, saying: "we are surprised, taken aback by this strange position that is unlike previous encounters" (Guins 2014, 165). This "surprise" of an unexpected display strategy was important to maintain, rather than just straightforwardly recreating a video arcade in the gallery space, because, while the immediacy of that approach would be arguably more "authentic" in certain ways, it would not allow for the reflection on the historical significance and artistry of the videogame cabinets as artefacts.

There were several risks to the goals of the exhibition if the games were received in the same way as they were in the arcade, and these made themselves apparent when the exhibition travelled to other locations, which included science centres and smaller venues. In these contexts, the careful orientation of the arcade cabinets and the prominent display of text panels that reinforced the intent of MoMI's goals, presenting videogame cabinets as artful and culturally important objects, was lost. Subsequent exhibitions crowded the cabinets closer together or made the wall panels less visible. Slovin describes the problems that arose when the display became too arcade-like saying: "When the balance of "museum" and "arcade" was disturbed, and the sense of "museum" lost, visitors clearly felt greater freedom to behave with the games as they would in an arcade: sticking gum on the underside of the cabinets or causing damage to decals" (Slovin 2009). Visitors jostling or vandalizing the cabinets and sticking gum under the control panels became concerning when considering long-term preservation goals.

Overall, however, the exhibition was considered a massive success for the institution, and a validation of their expansion into collecting and displaying videogames as part of the moving image category. The exhibition saw a surprising number of older people, who may have seen an exhibition of arcade

games as the first time they were “socially sanctioned to enter a video game space,” and, while receptive, tended to stick to the arcade games with more familiar interfaces, like driving simulators. The younger visitors had a different, albeit also surprising response. *Hot Circuits* was an exhibition that gave young people a sense of history passing. Even games that were just a few years old, received as novelties at the Corcoran ARTcade, seemed “ancient” and “old-fashioned.” The first wave of pre-crash videogames that made up most of the exhibition were “both new and old: “new,” by strict measures of human history, yet, in terms of digital media, stunningly antiquated” (Slovin 2009). This dynamic colours both the reception of videogames and technological works more broadly in museums from this point on and shaped the approach of MoMI going forward. Since *Hot Circuits*, the Museum of the Moving Image has continued to regularly acquire more videogames, and present exhibitions of them, including some of the cabinets from *Hot Circuits* in their permanent exhibition *Behind the Screen*. The successful expansion of the category of “moving image” work to videogames has also led to their acquisition and display of other new formats, like the animated GIF.

2.4 Videogames as a Tool for Serious Artists

Hot Circuits was a vital step in the MoMI deciding to expand its remit to collecting and displaying videogames under the definition of “moving image,” and yet this did not trigger similar institutions to follow its example immediately. During the 1990s and early 2000s, other institutions would offer an exhibitionary counterpoint by exploring the manifestations of games and software in a contemporary high art context. In these cases, artists were creating videogames, or using videogames as a tool or site for intervention that would make up the artwork. Beryl Graham’s 1996 exhibition at the Laing Art Gallery, *Serious Games: Art, Interaction, Technology*, is an important investigation into this topic, and as an early example reveals many challenges and preconceptions inherent to presenting games in a contemporary art space.

The exhibition was held at the Laing Art Gallery in 1996 and toured to the Barbican Gallery in 1997. Graham states that the venue context, both being

“publicly funded city-centre galleries with a wide general-interest audience” had an important influence on the works she chose for the exhibition (Paul 2008, 193). Both texts prepared for the exhibition catalogue display a keen awareness of the general public perception of video games as “fun,” encouraged by the novelty and hype cycles around new technologies. Graham states in the introduction that she hopes the combination of “both no-tech and high-tech artworks, might mark a step in interactive art by starting to get serious about our games.” She lists common stereotypes of interactive technology only enabling “brain-boilingly violent video games, fantasy role-play chat-lines, 'virtual community' discussion groups where escapists may romp whilst actual communities crumble outside the bedroom door” (Graham 1996).

The author of the other essay, Regina Cornwell, takes an even more critical view of “fun.” She writes that interactive work which took cues from computer games “even more than the rest of contemporary art... seemed a more obvious, even blatant gamerster and funster, and often with fewer pretensions, whose very high-tech paraphernalia, could bewilder, overwhelm, and even alter the institutions it sought to woo and infiltrate” (Cornwell 1996). Within the essay, Cornwell goes on to criticize the other installations of interactive work relying on donations from Telecom corporations, and the digital form’s connection to both the military and business.

Even though a primary draw of the exhibition was the use of interactive technology in many of the works, Graham is always careful to describe it as “not a show about new technology, a show about interaction” (Graham 1996). This is demonstrated by some of the works being mixed media installations or not having technological components at all. The works, which involved computers or other forms of new technology for the time, like VR, consisted of *Indigestion* by Diller and Scofido, *Osmose* by Char Davies, *NetEscape* by Ann Whitehurst, *Resonance of 4* by Toshio Iwai (Figure 2), *Passage Sets* by Bill Seaman, *Rehearsal of Memory* by Harwood and *Hallucination* by Jim Campbell. *Zeromorphosis: Swans and Pigeons* by Ritsuko Taho was the sole piece to not include any technological component in itself, but did feature video screens in the area to provide more information about the project (Figure 3).



Figure 2: Installation view of Toshio Iwai's *Resonance of 4* (left) at "Serious Games" (1996) Craig Easton

Figure 3: Ritsuko Taho's *Zeromorphosis* (right) at "Serious Games" (1996) Craig Easton

This combination usefully contextualized new media and videogame-based works in the tradition of previous playful, interactive, and rule-based forms of art production, such as Fluxus, conceptual, and performance art. Cornwell also draws parallels to Minimalist sculpture, which experimented with industrial materials, de-emphasized the unique "hand of the artist" in the work's visual content, and circulated work via plans which could be refabricated by buyers (Cornwell 1996). Despite this, Graham still noted some institutional prejudices in how the show was handled. While able to avoid stereotypical "computer lettering" or "fractal" graphic design, Graham felt the battle was lost trying to avoid a "fun for kids" marketing angle because of the presence of the word "games." Including "games" in the title seemed to also attract some visitors who evaluated on the terms avid videogame fans are used to, production value, responsiveness and "fun" (Paul 2008, 198- 201).

Drawing a strong line between "fun videogames" and "serious art" aimed to not only create a more typical art gallery experience for the general public that attended *Serious Games*, but to also raise the level of critical reflection on interactive and technological works, more fully incorporating them into art history and art world discourses. Most of the games included in *Serious Games* had little connection to mainstream commercial games or their style of production. While Toshio Iwai had also worked with Maxis on *Sim Tunes*, for example, his installation of *Resonance of 4*, another expression of the core concept Maxis adapted to commercial software, took the form of a multiplayer

physical installation in *Serious Games*. In general, the exhibition was more interested in tracing tendencies of gaming and interaction concepts in art without necessarily connecting it to mainstream videogames. This set a precedent for interactive software and game-like works being incorporated into the history of art by citing existing qualities of arts movements they were comparable to, but did not include commercial game production in the way that *Hot Circuits* did, nor did it lead to any changes in acquisition strategy for existing institutions.

Resonance of 4 was displayed as a floor projection, which raises some of the other difficulties in presenting *Serious Games*. Both venues for the show were not specifically designed to accommodate interactive and audio-visual new media works, and each work had its own technological and spatial requirements, unlike the comparatively uniform arcade cabinets in *Hot Circuits*. Problems with how light, sound and heat collected and travelled in these spaces became a major obstacle in the installation process (Paul 2008, 193). The installation style also intended to avoid the dark, loud and overstimulating atmosphere Graham was aware dominated media festivals and tech trade shows. Instead, she wanted the general aesthetic of the show to be more “art gallery” than lounge or tech lab. The lean selection of eight artworks, as well as the linear way they were set up gave the exhibition an “episodic” feel, which Graham argues also avoided many works demanding deep attention or long span of participation causing tiredness or exhaustion in some visitors (Ibid., 195).

Again, large text panels helped to inform the visitors that they were meant to experience the technology in the exhibition as art, but also to inform them of “how to work it.” (Paul 2008, 197). The panels consisted of a more typical description presenting the artwork, which mirrored the style of description that would be used in a museum label to add context to a painting or sculpture, but also a paragraph of more straightforward instructions on how to operate the technology in the piece. Graham notes the importance of the curator, educational staff, gallery staff, and installers to be trained in how the piece works, as well as the curator and gallery staff being present throughout the

entire exhibition to adapt to unexpected behaviours from visitors and how the pieces evolve in the space (Ibid., 203).

The exhibition metrics gathered from visitor surveys and gallery headcounts showed attendance was around the same as other contemporary art shows at the Laing Gallery, but less than shows of more historical works, showing that technologically complex or interactive work itself is not necessarily off-putting. Further, the gender demographics of visitors were similar to other shows at the same venue, around 55% female, which challenged the assumption that videogames or technological works were more interesting to males. The only place the visitor demographics differed from the average of other shows at the Laing Gallery was in age range, with many more visitors under 20 years old than usual (Paul 2008, 198). In the surveys and guestbooks, the works that received the most positive comments were works like *Resonance of 4*, which could occupy a group of participants and facilitate interaction with the audience.

While the long-term effects of *Serious Games* did not result in any of the eight selected works being acquired or conserved by either institution, it set an example of how to effectively display technological works in art galleries where people with varying degrees of knowledge and willingness to participate will share space. Graham acknowledges this in the introductory text for the exhibition, saying “gallery spaces tend to need works which have wider presence than a single screen; works which make some sense in the duration of a gallery visit; works which change pace and textural feel; works which might appeal to different characters, from the extrovert to the lurker” (Graham 1996). The influence of *Serious Games* led to the Barbican developing their audience for New Media exhibitions, eventually hosting *Game On*, a major exhibition of primarily commercial games, in 2002 (Paul 2008, 204).

Many other exhibitions followed, which both *Serious Games* as an influence and narrowed its approach, focusing on artists using game making and modding tools to create works that were primarily situated within New Media or net.art circles. In 2000, Antoinette LaFarge and Robert Nideffer curated *SHIFT-CTRL: Computers, Games, and Art* for The Beall Center for Art and Technology at the University of California Irvine. This exhibition is described as “an examination of

games, gaming, and related new technologies as interpreted by a diverse group of artists” on its archived website, and presented the work of many net- and new media artists who had a history of working with videogames and game mods. Artists included figures like Jodi, Natalie Bookchin and others associated primarily with new media or net art as contemporaneous art movements, but the exhibition also featured videogames which were primarily commercial products, *The Sims* and *Ultima Online* (Nideffer 2000a).

The exhibition was grouped around three core themes, “Role Playing Games and Shared Social Spaces,” “Evolvable/Emergent Systems,” and “World Hacks—Rewriting Existing Worlds.” These three themes focused on the games as sites for both fan and artistic production, rather than the status of videogames, by themselves, as art. Robert Nideffer, one of the two co-curators, describes the theme selection as “tapping into some of the main motivations for artists and audience engaged in new media production and consumption,” emphasizing the exhibition’s focus on the behaviours videogames allowed over the videogames as specific objects (Nideffer 2000b).

Further elaborating on process, in his introduction to the exhibition, Nideffer carefully explores the confluences on a social, economic and academic level that made it so appealing for a new arts centre to open with an exhibition about videogames. He cites recent statistics from the years 1997 and 1998 revealing that most children regularly play videogames as entertainment and videogame sales had reached billions of dollars, but also cites their prominent connection to education, the government and the military. Nideffer also describes the devaluation of arts in education across the United States, and how “interdisciplinarity” and “collaboration” becoming buzzwords for academics and artists often led to partnerships with the tech industry. It is worth quoting him at length to demonstrate how he sees these forces as interlocking in the motivation to organize a show about videogames:

“The Beall Center is the fallout of this strange confluence of interests and initiatives: the mandated growth of the [University of California], the desire to miscegenate disciplinary practices, the surprising success at courting corporate partners, the state-mandated need to give back to the local

economy and community in more tangible ways, and the shuffle to embrace a newly emerging digital culture that promises to facilitate technology transfer by building bridges to industry and providing functional skill sets to students being pushed out of the ivory tower and into the streets of a global consumer culture.” (Nideffer 2000b)

In the end, an exhibition framing the various ways artists were using the tools and paradigms offered to them by videogames was chosen as the inaugural exhibition for The Beall Center because it “fit the bill,” demonstrating the topic was “art driven, interdisciplinary, technology focused, connected to industry, and capable of capturing community interest.” However, beyond these practical considerations, both curators make further justifications for presenting videogame-based works in an arts centre through connection to both the historical importance of games more generally, and their presence in art history. Reflecting on the playful nature of works by artists associated with Dada and Fluxus like Marcel Duchamp, John Cage and Hannah Höch, Nideffer laments that their work remained localized to a self-contained art world audience, a state he sees videogames as able to evade (Nideffer 2000b). Co-curator Antoinette LaFarge instead focuses on connecting videogames to the broader history of games and interactive or systems-based toys, citing literary word play, table top wargames, and even automata (LaFarge 2000).



Figure 4: Installation view of “SHIFT-CTRL” at the Beall Center for Art and Technology (2000) Laurel Hungerford

Contrasted with *Serious Games*, *SHIFT-CTRL* demonstrates some important differences, despite also being a show primarily about artists' approaches to using technology. The exhibition design consisted of two separate areas, visible in the foreground and background of Figure 4. One section consisted of a series of large-scale projections on the walls of a set of "alcoves" which provided not only boundaries for each work, but also an area to watch and some sound insulation. The second area used a "lounge format" which both referenced the net cafés of the time, a place where individuals who did not have a computer or internet connection at home could pay to connect to the internet, and the informal context people tend to encounter computer games in general. This encouraged a relaxed and lingering relationship with the works on display, allowing different behaviours than the contemporary art gallery, or an arcade-like setup tends to normalize. A combination of features that encouraged spectatorship as well as intimacy and a longer engagement with watching or playing the works on display makes *SHIFT-CTRL*'s exhibition style especially interesting (LaFarge 2015).

Additionally, between *Hot Circuits* in 1989 and *Game On* in 2002, this was a rare and significant case of a commercial game being shown in art institutions without artist mods or performances attached to it. *Ultima*, published by Origin, and *The Sims*, published by Maxis, both subsidiaries of Electronic Arts by 2000, are included in the list of artworks alongside the other artists' approaches. Instead of being credited to a single figure, (for example, Will Wright is often seen as the "mind behind" Maxis and credited with determining the themes and gameplay of most Maxis games) or a collective, as all the other artworks are, the by-line is given to the publishing company, another instance, though not one the curators directly comment on, of the awkward meshing of the art world's tendencies and industrial support (*SHIFT-CTRL* 2000). Despite this, these games were also framed as productive tools, either for making new game content in the case of *The Sims* or online communities in the case of *Ultima*.

The Beall Center, like many arts centres, does not have a permanent collection, and the fact that so many of the works involved in the show were commercial games or relied on modding or performing within them makes them difficult to

acquire in general, but information on the exhibition is again well-preserved through an archival website. Reflecting on the selections in the show, Nideffer states: “One of the great strengths of the collection is that it resists easy definition and co-optation by established arts institutions and cultural gatekeepers. At the moment, there exists no substantial set of curatorial, art historical, critical or economic practices that function to legitimate what is shown in *Shift-Ctrl*” (Nideffer 2000b). This is true. Artworks involving videogames had become significantly more complicated, involving modding and performance, and were no longer the self-contained units that made up the arcade machines in MoMI’s collection.

While early videogame history blurred the line between professional and amateur or artistic creator, commercial games and homebrew culture had become distinct categories with the shift in the game market and production models taking place throughout the 1990s. Many games for early home consoles like the Atari 2600 were taken from concept to completed code by a single person, and the re-recordable media that carried videogames on personal computers led to a culture of editing and sharing. Videogame companies began to adopt hierarchical business structures to manage larger and more complex game projects and began to see both low quality games and software copying, now termed “piracy,” as contributing elements to the crash and a loss of profits in general (Kirkpatrick, in Swalwell et al 2017, 31). Modding and making homebrew games became a distinct subculture to mainstream commercial games in the 1990s, because major companies like Nintendo had set standards of quality assurance and proprietary technology to control what videogames could be released for their consoles, which other hardware manufacturers copied (Vanderhoef in *ibid.*, 120). Videogames became less like a stable object, and more like a combination of hardware, software, plugins, video cards and upgrades that all had to work together, making it harder and harder for institutions who were oriented around the collection and display of objects to understand them.

Homebrew culture and mods were acknowledged and used by many artists in the late 1990s and early 2000s, but with a few exceptions of videogames that

provided their own modding software, like *DOOM*, this was not yet a mainstream practice for gamers or artists. The exhibition from 2003, *games: Computer games by artists*, curated by Tilman Baumgärtel, Hans D. Christ and Iris Dressler, was in part inspired by a curiosity about the potential offered by games adding more options for modification, and contextualized this in artistic practice by relating modification to “appropriations” and “detournements” (Paul 2008, 234). While noting the disproportionate marginalization of games as a cultural form, still only pieces presented as “artists approaches” that sufficiently transform the premise of the games used were selected for the show, creating a separation between homebrew and modding communities and the art world. (235) Further, the curators argue that most new media works reject a product-oriented understanding of art, explicitly excluding commercial videogames (241).

Commercial and art games were not necessarily easy to show side by side, nor did curators see these juxtapositions as necessarily relevant. The videogame industry, however, began to take notice of the commercial and cultural benefits acceptance in art and design institutions could lend to the form. In addition to the public goodwill via patronage Nideffer (2000) discusses while considering technology corporations supporting and collaborating with New Media artists and new arts centres, exhibitions could serve as cultural validation for the videogames themselves. This became especially true in a context where this validation could address both media concerns about violent games and gaming addiction, and fans and cultural critics debating the significance of labelling videogames as “art.”

The most famous of these comments was made by Roger Ebert in 2005, who stated: “as long as there is a great movie unseen or a great book unread, I will continue to be unable to find the time to play video games,” but online back and forth on the topic between cultural columnists and gaming blogs can be seen as early as 2000 (Parker 2018, 81). Felan Parker goes on to say that “negative public attention to games contributed to a general false sense of oppression... producing a kind of crisis of legitimacy” which concerned both gamers and

game developers, but the evidence of legitimacy or arguments for it they put forth rarely squared with the existing art world discourses (Parker 2018, 89).

This tension is demonstrated by the dissonant display of *America's Army*, a game frequently criticized as a dangerously propagandistic "recruitment tool" to promote the military, in the exhibition *Bang the Machine: Computer Gaming Art and Artifacts* (2004) at Yerba Buena Center for the Arts. An entry in the popular first-person team shooter genre, *America's Army* was developed by the US Armed Forces as a point for both the education and entertainment of their chief recruiting demographic, young men. A booklet produced to accompany the display of the game at *Bang the Machine* focuses primarily on the significant technological resources and research that went into creating as "realistic" a simulation as possible (MOVES and US Army, 2004). The display within the exhibition presented simulated textures from the game to showcase their realism alongside multiple arcade-style displays of the game (similar to how mainstream commercial games are demonstrated at trade shows like E3), and a making-of video (Chapman 2004).

The presentation focused on graphical fidelity and technological and monetary investment as the primary qualities of the game and did not consider the complex ethical and political issues of a military body presenting a recreational videogame as a "realistic" or "educational" depiction of the armed forces, which critical performance art interventions into military shooters like *dead-in-iraq* (Joseph Delappe, 2006) foreground. Instead of meaningfully engaging with the consequences of basing a first-person shooter game on real individuals and real-world conflicts that were ongoing at the time of exhibition, the display at Yerba Buena Center simply removed the ability to shoot the player character's gun, and limited the game to training sections (Chapman 2004).

Bang the Machine also featured several artists' games that expressed critical perspectives on military intervention and in-game violence, such as Janek Simon's *Carpet Invaders*, a mod of *Space Invaders* realized as a floor projection that replaces the graphics with motifs from Afghan rugs and images of modern weapons. The show also included C-LEVEL's *Waco Resurrection*, depicted in Figure 5, which encased multiple players in a multimedia David Koresh "skin,"

and allowed them to play through the Waco siege of 1993, marking changes in cultural attitudes towards religion and the militia movement. Reviewing the show, Adam Chapman describes Janek Simon's work as addressing "the idea of the current two-front Mid-East conflict in a more poetic manner," but these critical perspectives were not explicitly incorporated into how *America's Army* was presented within the exhibition (Chapman 2004). Instead, any critique of the militarism or violence other videogames in the exhibition engaged in directly had to be implied through other curatorial choices, rather than the texts accompanying the display or which elements of the videogame were featured.



Figure 5: Installation view of *Waco Resurrection* by C-LEVEL at "Bang the Machine" (2004) in the Yerba Buena Center for the Arts, Henry Lowood

During a personal interview, Henry Lowood, the curator, noted that the representatives of *America's Army* who he had to negotiate the display with primarily focused on the graphical and technological advancements of the game above any other themes (Lowood 2017). Because of artists' games frequent use as appropriations and detournements of mainstream gaming culture, as noted above, exhibitions of artists' games usually had a strong political theme, whereas commercial games on exhibition tend to be framed as exemplary for

their technological or creative qualities, with little examination of their political positions. This incongruity was also easy to pick up on as a visitor, as Chapman notes in his review:

“I heard that the makers of the game found it validating for AA (*America’s Army*) to be featured in an art show. However, given the context in which the project was shown, it's hard not to think of AA's inclusion as an exposure of the dark underbelly of the game industry and the insidious possibilities and realities of the technologies employed in game design and development.... AA is presented without the overt hand of the curator (i.e., there is no curatorial statement describing the reasons for the inclusion of the project), and so it could, conceivably, be read as a recognition of the massive amounts of money and work dedicated to the game. However, given the context in which AA is featured, this viewer found it impossible to see the project in a non-critical light. Indeed, several gallery patrons expressed shock at the presence and existence of the project. As I watched the video on the making of the game and then played the game itself, I felt both disturbed and disgusted.” (Chapman 2004)

Chapman’s visceral response to this incongruous display is worth quoting at length because it demonstrates both the rhetorical power of the mostly invisible practice of curation, as well as the unease and difficulty that can result from negotiating the display of artists’ works and mainstream videogames in the same exhibition. Especially in a situation where curators must work with commercial or other hegemonic interests such as the military for access or funding for the exhibition or work to be displayed, straightforward critique or even the presentation of the work under themes different than those dictated by the owner of the work may not be as feasible as it is in object-based curatorial practices, where the presentation of the objects are controlled by the institution via ownership.

The practice of Institutional Critique, consisting of interventions like Fred Wilson’s *Mining the Museum* (1992) relied on institutions handing over their control over the objects in their collection to an artist or independent curator.

With its common themes of military violence, and reliance on commercial hype cycles, among many other issues, videogames also seem to need their own form of institutional critique in how they are presented to the public, but so long as groups with commercial investments in the public perception of the games in question serve as gatekeepers to their display, is such a thing always possible? While the other works Lowood selected were able to provide a critical context for *America's Army* in *Bang the Machine*, this situation illustrates some challenges unique to curators working with videogames.

Finally, alternate contexts for exhibitions became increasingly important in the 1990s and early 2000s. Festivals like Ars Electronica in the late 1980s and ISEA in the 1990s arose specifically to provide a place to exhibit and discuss the effect of new media on art to mitigate the lack of institutional knowledge or support of these practices. Even science-oriented festivals and conferences like SIGGRAPH and AAAI often had exhibitions to present more artistic and creative takes on the possibilities of computing technology which new media artists participated in to refine their practice. These temporary displays allowed artists to gain expertise in how their work behaved for a variety of audiences and contexts, and quickly adapt or prototype their work as well. However, the reliance on industry or scientific research partners represented another element of the ongoing dance to balance the reliance of new media, including videogames, on the tech sector with artistic autonomy and political critique (Graham and Cook 2010).

The online distribution of videogames and mods and the culture developed around it has led to the internet being used as an exhibition space for these works. *Cracking the Maze: Game Plug-ins and Patches as Hacker Art*, curated by Anne-Marie Schleiner in 1999, was one of the first examples of a curated selection of games and mods presented online, and *Game Show*, held at the Massachusetts Museum of Contemporary Art in 2001, also had an online component. *Cracking the Maze* presented artist's approach to patches and mods, and included work by gamers and hackers not from an art world context

(Clarke and Mitchell 2013, 81). The webpage provides links to Schleiner's curatorial statement, accompanying essays, and the included patches.²

In an interview on the 10 year anniversary of the exhibition, Schleiner in hindsight calls the exhibition "a conscious political decision to privilege the Internet as a medium over what I saw as more limited elitist art world venues," and that at the time it was "strategic to blur [the] differences" between work created by artists for an arts context, and artists who are "innocent" to the traditions they are working in. Schleiner concluded more people would have access to the exhibition online than in a gallery space, even if they did not have the existing games or computing power required to run the patch-based works, and had to experience them through the documentation and embedded GIF files on the page (Jansson 2009).

Erkki Huhtamo's essay accompanying the exhibition speaks to many of the artistic traditions Schleiner's comment implies. In the lineage of game patches and mods, Huhtamo also places forms of tactical media like photomontages, Situationist actions, public art, appropriation art, hacktivism and video art. The commonality of these forms is that they represent a moment of "access to new tools... by outsiders...with the aim of subverting the existing relationship between subjects and media" (Huhtamo 1999). However, warning against attributing the same motivations to the variety of people involved in modding and patching, Huhtamo states "the game patch phenomenon might be easily interpreted as a highly heterogeneous body of reactions against the growing uniformity and calculation that have come to dominate the industrial game culture in recent years."

Huhtamo's essay emphasizes the industry developments of the 1990s resulting in videogames being absorbed by big business and venture capital, moving the industry away from the "hackers and technical whiz-kids" who built it. But he also throws cold water on the idea that interaction makes games inherently more liberating or empowering than the other forms he references. Presenting two paths for the growth of both amateur and artist modding and patching,

² Still available at <http://switch.sjsu.edu/archive/CrackingtheMaze/index.html>

Huhtamo asks “Will it develop into a kind of media guerrilla activity, operating on the terrain between the legal and the illegal, or will it become a “civilized”, law-abiding genre, perhaps sponsored by major game companies, and contributing to future game development?” (Huhtamo 1999).

Unlike the implicit framing *Bang the Machine* was limited to for expressing concerns about developments in the “industrial game culture,” *Cracking the Maze* makes it a central concern. Schleiner is also aware of the looming possibility of co-optation, as novel and marginal modding seems at the time. She notes “the increasing popularity of these once unsanctioned game hacks has led some gaming companies, like the producers of *Quake* and *Marathon*, to capitalize on the trend and subsume this once renegade practice into their marketing strategy, bundling patch-making software with their official games” (Schleiner 1999). While modding offered a helpful tool for artists that does not require them to start from scratch with videogame technology, and served as a pathway into game development careers, she foresaw that the potential of these tools also had the potential to lose their “parasitic” and “infiltrating” edge. This is a tension that has extended in modding practices but also forms of unconventional play like speedrunning or griefing, and independent game development.

Online exhibitions and selections continue through the present, with curation being incorporated into platforms like itch.io and Steam, plus blogs and twitter accounts like @hmtwvcicbid (“How Many Tiny Weird Videogames Can I Curate Before I Die”) collecting games that represent a certain approach or set of aesthetic qualities. Similarly, festivals have also emerged to serve the needs of an increasing variety of approaches to independent and artistic game development. While these approaches did not emerge from the same new media art contexts these early examples serve as models for the advantages and challenges of different curatorial contexts, as well as the potential benefits and drawbacks to complex partnerships with scientific and industrial stakeholders.

2.5 Travelling Blockbuster Exhibitions and the Emergence of “Videogames as Art”

Apart from *Hot Circuits*, the main difference between videogames that appeared in galleries prior to *Game On* (2002) was that the games in *Game On* were typically created with broad commercial distribution in mind, while videogame works associated with earlier exhibitions were intended for gallery display or free distribution online. Co-curated by Lucien King of Rockstar Games, and Barbican curator Conrad Bodman, *Game On* was a major internationally traveling exhibition that originated at the Barbican Gallery in London and attempted to present a broad history of the form, presenting over 150 games at many of the locations and covering topics from the 1960s to the present. This exhibition was unprecedented in its scale as well as its longevity, as both its original form and an updated version, *Game On 2.0*, are still touring internationally. *Game On* represented a significant departure from both the approach of *Hot Circuits*, and the various examples of artists' videogame displays.

Other exhibitions representing “artists' takes” on videogames in the spirit of appropriation or critical response continued, as the previous example of *Bang the Machine* (2004) shows. However, as *Game On* toured across countries and continents, it presented the idea that videogames do not necessarily need the intervention of existing artistic approaches to fit into the narrative being produced by art and design museums on a larger scale than ever before. This idea was especially attractive relative to discussions among gamers about the status of games as art. These discussions were provoked by online back-and-forth between cultural critics like Roger Ebert, who expressed a negative view of videogames' artistic potential, and game developers, journalists and bloggers who attempted to challenge these statements. Many of these arguments drew on the emergence of a specific formation of independent game development at the time which presented short, retro-styled games dealing with personal themes as uniquely authored or artistic, such as Jason Rohrer's *Passage* (2007) (Parker 2018, 96). These dynamics would shape eventual collecting and exhibitions strategies adopted by major institutions like MoMA, the V&A and the Smithsonian American Art Museum.

Game On's exhibition largely creates a linear historical narrative, starting with experiments made for mainframe computers like *Spacewar!*, progressing through playable arcade games, and then through the history of home gaming consoles. The initial selection, which was organized prior to "indie" gaining notoriety as a type of games production, still occasionally included smaller games and homebrew projects in some iterations, credited to a single author or small team. However, in general the selections are dominated by mainstream commercial games, and credit is frequently given to the production companies responsible for them. The advertising for the exhibition makes this especially clear, by highlighting the presence of characters from the legacy IP of major publishers and emphasizing the number of games available (Figure 6). Despite the overwhelming abundance of selections, more than any visitor could possibly experience in a single visit, *Game On* still presents a narrow history of games that focuses on commercially successful console titles.

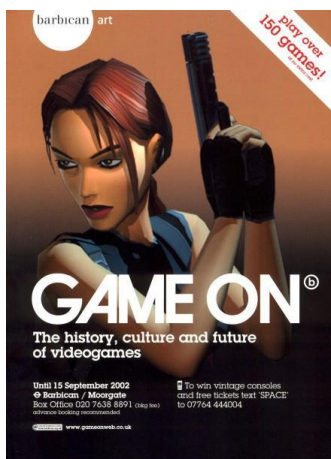


Figure 6: A flyer advertising “Game On” (2002) Barbican Art Gallery (left)

Figure 7: An installation view of playable games at “Game On” (right) Barbican Art Gallery

Discussing the impact of the exhibition, Helen Stuckey states that it built on the Barbican’s previous experience with interactive and technology-heavy exhibitions like *Serious Games*, but *Game On* also demonstrated an intention to redefine the primary audience for the Barbican’s programming through more populist forms and topics, as it had with *The Art of Star Wars* in 2000 (Stuckey 2010, 43). While the *Star Wars* exhibition was able to present a variety of artefacts and artworks that had gone into the production of the films, acquiring

these objects for videogames proved to be a challenge for *Game On*. Design documents, original concept art, and the illustrations created for guides and game boxes represent important historical material for the history of videogames, as well as evidence of the artistic work put into them, but they frequently go missing, even from major companies. Atari, for example, sold off hundreds of filing cabinets containing this material during its liquidation following the industry crash, which were luckily found by amateur collectors. (Guins 2014, 167). This situation, however, meant that only a small selection of such material was able to be included in *Game On*.

Game On also set the first major precedent for commercial games beyond the arcade era being presented in an arts institution, without any type of framing as an artistic intervention or creative tool as in the case of mods, hacks, or in-game performances by artists. The catalogue presents some essays that reference these activities, but they are largely absent from the central narrative of the exhibition, which focuses on a linear history of commercial games. While some artists' commissions that reflected on videogame culture were included in the initial display at the Barbican, they do not appear in most of the subsequent tour stops for the exhibition, especially those held in science centres or other institutions, primarily because these works did not "resonate with" the "gamers" who made up the majority of attendees (Stuckey 2011, 41).

The installation style is firmly focused on appealing to what gamers would already be familiar with and offering an impressive number of games to play. Seen from above, as in Figure 7, the installation of multiple kiosks and lowered lights drawing the visitor's attention to glowing screens matches the atmosphere in the exhibition halls of industry events and trade shows like E3. Visitors were encouraged to pre-book a period of time for their visit to ensure people were circulating through the exhibition, a different approach to managing the durational nature of videogames than the limited tokens in *Hot Circuits*. While the arcade cabinets in *Hot Circuits* were playable but could also be appreciated as artefacts, in *Game On*, while a long history of games is presented, their playability is their foremost characteristic.

However, some significant drawbacks to this approach arose. The choice to simply remove less conventional works that did not “resonate” with the primary audience missed an opportunity to present these two approaches as historically co-existing. Prioritizing appealing to visitors already familiar with commercial history of videogames, meant that the exhibition also prioritized the skills and experience of the “gamer” and did not offer much context or assistance to visitors who may have been inexperienced with the visual language and control schemes of mainstream videogames. One review of the exhibition sees the plethora of games on offer with little context or information on offer for non-gamers as a sign that “hard choices were avoided,” and that while visitors “can play the games or stare at the consoles... there is no attempt to demystify the technology, or to make serious claims for the creativity of the designers” (Blincoe 2002, 42). While these drawbacks may seem like a significant disadvantage, *Game On* and its updated sequel exhibition remain one of the Barbican Gallery’s most popular touring shows, and it is presently booked through November 2019 (Barbican International Enterprises 2018).

The commercial and critical success of several games made in the independent model, created by single authors or a small team of developers, as well as an ongoing conversation about the stylistic influence successful producers from large game studios, like Shigeru Miyamoto of Nintendo brought on a renewed interest in games both as authored object and stylistic work of art. As *Game On* continued touring, this interest grew and was shaped by the historical progression narrative it presented, and its focus on popular console games. As one element of a multipart exhibition which combined art games, game artefacts, and playable popular games, *Gameworld* (2007) at the Centro de Arte y Creación Industrial LABoral in Spain presented a first “cluster” of ten games in a “Games Canon” before opening up into the other areas of the exhibition. This canon project was initiated by Henry Lowood, but incorporated a panel of academics, designers and journalists (LABoral 2007). While the selection of only ten games could not be fully representative, it was not intended to be. Lowood meant for the selections to spark a discussion on the urgency of the cultural legitimation (and resulting preservation) of videogames (Chaplin 2007). Still, these historical and canonical representations of videogame history

increasingly established videogames as objects that could be interpreted and presented as works of art.



Figure 8: Installation view of “Game Masters” (2012) at the Australian Center for the Moving Image (left) Mark Serrels

Figure 9: Installation view of “The Art of Videogames” (2012) at the Smithsonian American Art Museum (right) Smithsonian American Art Museum

How this view persisted is reflected in two major exhibitions from 2012, *Game Masters* and *The Art of Video Games*. Originating at the Australian Centre for the Moving Image and Smithsonian American Art Museum respectively, both exhibitions made arguments through their selections that certain games bear the print of some sort of stylistic or expressive authorship, whether it be from an independent developer, producer, or large studio. The focus on authorship by significant industry figures or well-known companies helps to establish videogames as a form belonging in art institutions, because of the art world’s similar focus on tracing styles, relationships of influence, and artists’ careers.

Game Masters builds on *Game On*’s approach to creating a timeline of primarily commercial games that are organized under chronological categories and credited to specific directors, designers or development teams. These games are split into three categories that are presented sequentially, “Arcade Heroes,” “Game Changers,” and “Indies.” Alongside a few saved design documents and pieces of concept art presented similarly to *Game On*, *Game Masters* also features video screens presenting interviews with the credited creators, placing the idea of authorship and creativity in videogames at the fore. In the initial selection of arcade games, revealing the singular designers or small teams that were often behind these early games serves as a new angle on that era of gaming history, but in further sections this approach becomes problematic. Of

the games featured in *Game Masters*, male creators were overwhelmingly the majority receiving primary credit, with companies or studios credited in the case of most others, author unknown for two of the videogames, and only a single female developer credited by name (Paulina Bozek of *Singstar*). While many of the companies credited, and even games credited to men may have women in prominent roles in their production, only noting a high-level management role like producer or director, the actual contributions of which vary greatly from one project to the next, excludes most women who could potentially be acknowledged. This demonstrates the drawbacks in creating a canon or history of videogames that relies upon traditional ideas of what constitutes authorship, as it only takes into account certain figures and certain types of contributions, a phenomenon that has been noted in other art forms like film.

Game Masters also constructs an artificial divide between mainstream commercial history, which makes up the bulk of the exhibition, and games existing outside of this production structure, now put under the category of “indie.” A selection of indie games was presented after the “Arcade Heroes” and “Game Changers” sections, and the approximate chronological structure of the exhibition therefore presents game creation outside of the mainstream as absent from previous eras, primarily beginning in the 21st century. Only two creators from this area, Eric Chahi and Masaya Matsuura have featured projects from the 1990s, and nothing is featured from before this time. This construction of history excludes many early precursors of “indie” games, such as the artist games, mods and hacks acknowledged in other exhibitions, and neglects to acknowledge how much of early games history of production differed from the current large studios now considered the norm. Overall, this relationship created by the display style establishes independent games as a specific period in the history of games, rather than presenting the independent, the amateur and the avant-garde as always existing alongside commercial videogame practices.

The exhibition style of *Game Masters* is also clearly influenced by *Game On* more than any of the previous exhibition approaches, again presenting most of the games at plenty of kiosks that allow visitors to circulate through the space to

find a free controller (Figure 8). In his initially positive review, Brendan Keogh describes the arcade portion of the exhibition as “tight” and “loud.”

Reconsidering the exhibition in the absence of the initial exciting bustle, however, he notes “there is nothing I could tell you about *System Shock* that I could not have told you before I played it. I had played it, yes, but I had no idea of why this game was so seminal or significant.” While the exhibition offered the opportunity to play a broad selection of games from various points in videogames’ development, Keogh found the arcade games most memorable, but with videogames that required longer term engagement to understand, visitors often would “run around and jump for a few minutes, and walk away thinking they have played around with “just another platformer” (Keogh 2012).

Keogh’s observations highlight a problem that arises particularly with certain histories of commercial videogames. Videogames are durational in nature, and therefore must unfold over time to be understood. Generally, as mainstream videogames became more technologically complex, their ability to present more complex systems and narratives meant that less and less of the game could be understood proportionately through short periods of play. In this case, alternative presentations and contextualizing material beyond a simple interactive kiosk may be necessary for a display that can convey an understanding of the videogames on display within the practical limits of a gallery visit.

While *Game Masters* presented an exhibition narrative which emphasized creative authorship, *The Art of Video Games* at the Smithsonian American Art Museum did not reference similar arguments to frame the games it displayed as art. Instead, this argument is made primarily through context, the fact that the exhibition is in an art museum, and framing materials, such as creator interviews, and extrinsic materials like original concept sketches, which emphasize the creative process of game development. The initial list of 240 possible games, assembled by guest curator Chris Melissinos and an advisory group were put to public vote through the Smithsonian American Art Museum’s website. A reflection on the exhibition by museum staff reveals that 119,000 people from 175 different countries cast votes, leading to the final selection of

80 games that would be featured. They also note that in addition to the votes, over 7000 comments were made on the website, demonstrating that gamers were thinking about the question of games as art, many of whom would not normally engage with an art museum (Goodlander and Mansfield 2013, 39). A press release by Irrational Games, responding to the news that one of their videogames, *Bioshock*, had been selected for inclusion in the exhibition similarly emphasizes that the selection was made by their fans, and describes the inclusion as an “honor,” while including a plug for *Bioshock Infinite*, the most recent entry in the series (Irrational Games, 2011).

The selected 80 games were presented in the first of the two major exhibition areas. This first area presented the voted-on games non-interactively, displaying them in the form of video clips and backlit screenshots at a kiosk, which also included a Pyrex case with the home console the selection of games on the screen were from (Figure 9). These kiosks separated games into four categories, meant to portray the main activities within a game, “action,” “target,” “adventure,” and “tactics.” The examples of home consoles structuring this area of the exhibition were organized by a system of approximate eras, such as Start!, 8-Bit, Bit Wars, Transition, and Next Generation. This non-interactive section offered an excess of video clips as games, ironically establishing loose typologies more than encouraging the appreciation of any singular game as an art object. Every station featured three games per genre per console, two of which were selected by the advisory board, and one from the public vote, rather than any single curatorial angle.

Beyond this area, five games, one from each of the “eras” set out by the initial area, were presented in interactive displays. In chronological order these games were *Pac Man* (1980), *Super Mario Bros.* (1985), *The Secret of Monkey Island* (1990), *Myst* (1993), and *Flower* (2009). These games were projected at a large scale into nooks, and featured pillars with simplified control interfaces like joysticks, buttons, or roller ball mice placed centrally in front of the projections. While this solved the problem of only offering five playable games within a popular exhibition because it allowed for other players to more easily watch and

engage in social play, the display style also stripped any context of the original hardware and control schemes from the games (Figure 10).

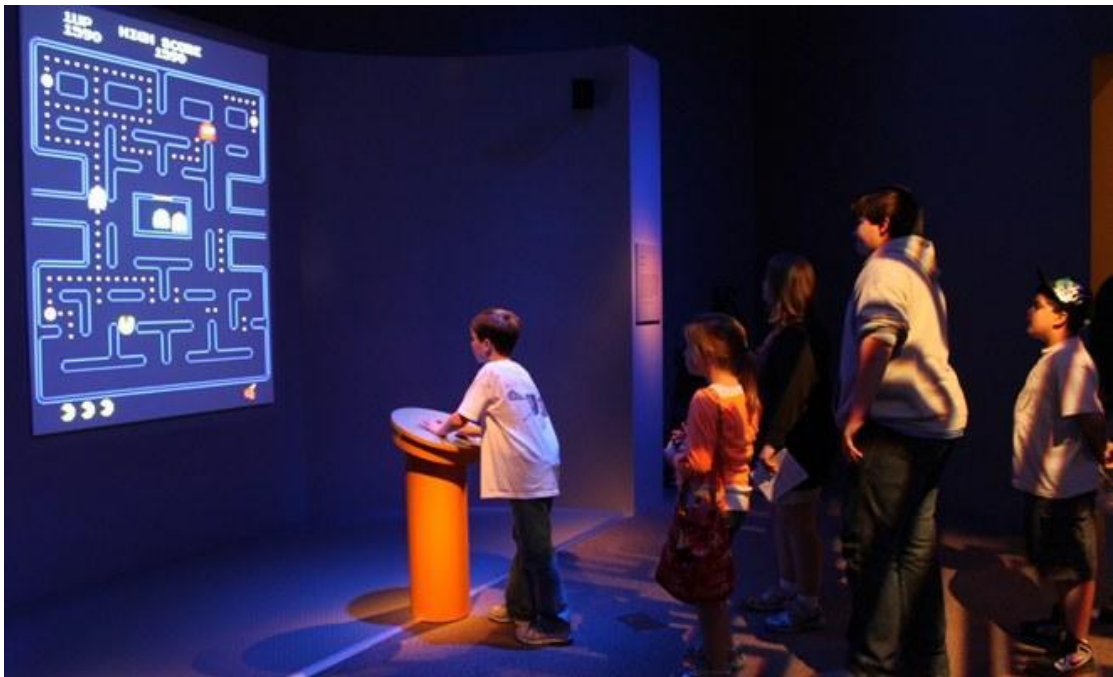


Figure 10: *Pac Man on display in “The Art of Videogames” (2012) Smithsonian American Art Museum*

Raiford Guins, in his reflection on visiting the exhibition notes that he often found himself “seeking what was not on view and what materials the curatorial script had omitted” through these display decisions (Guins 2014, 278). Not only does the original arcade cabinet *Pac Man*, as displayed at The Museum of the Moving Image, seem to now be missing its “historical base” but, additionally, the creative roles involved in the development and marketing of videogames beyond a single person or company identified as “game designer” are erased (ibid, 279). Seth Schiesel, a reviewer for *The New York Times* also indicates that The Smithsonian American Art Museum “does not point out that half of the 80 featured games were primarily made in Japan,” again concealing the networks of commerce, technology and collaboration that make up the videogame industry. He concludes that museums may one day put the same level of critical attention into an exhibition of videogames as an exhibition of paintings, but the Smithsonian’s exhibition was a “sanitized, uncontroversial and rigorously unprovocative introduction to the basic concepts of video games — which was, quite clearly, the point” (Schiesel 2012).

Schiesel's review argues that it is enough to "simply be there" presenting videogames in an art museum, as their cultural legitimization is still in its early stages. And, it is important to note that, unlike some of the other similarly structured traveling exhibitions, the Smithsonian has actually acquired some of the videogame works in the exhibition, with the goal of increasing knowledge about the form's material science and digital conservation to ensure "their ongoing preservation, study, and interpretation as part of the national collection of fine art" (Goodlander and Mansfield 2013, 40). Citing the many examples of videogames in art institutions prior to 2012, however, Guins is not convinced "being there" is enough, and that by this point, simply presenting videogames in an art museum is no longer a novel lens for considering their cultural impact (Guins 2014, 282). Further, because of the lack of a coherent justification for labelling these specific games "art," or explanation of the exhibition's value judgements, Guins also found it unlikely for the exhibition to challenge any visitor's position on the "games as art" debate, positive or negative (ibid, 279).

This outsourcing of curatorial choice to a broad committee and even mass audience divested the curator and, beyond that, the institution of presenting a rationale for the history and values of the exhibition beyond popular consensus. In fact, the lack of editing in the first section of the exhibition, as well as its supposedly democratic selection process has the effect of making this history appear natural or comprehensive by virtue of not being shaped by a single subjective viewpoint. However, this conceals the fact that the structure and categories overwhelmingly favour typical commercial games for home consoles, and thus creates a very specific and limited type of history. Guins describes this history as "never ambiguous but structured, ordered and always progressing," and that the chronicle-style listing of eras and consoles comes across as "ransacked from Wikipedia's "History of Videogames" entry" (2014, 282).

Schiesel also noted that the "eager abdication of full curatorial control," represented by the emphasis on consulting the panel of advisors and general public means that the exhibition lacks "any strong point of view or deep sense of curatorial perspective and interpretation" (2012). Museologist Jenny Kidd notes that voting, and other types of public curation can initially seem to increase

institutional transparency, leading to a “direct reflection of the tastes and demands of the public,” but concludes that simply asking for visitor feedback in this way is often not meaningful “crowdsourcing,” but closer to marketing surveys (Kidd 2014, 62-64). The resistance towards tight curation in these major traveling shows of videogames went from being perceived as a celebration of a new and varied form to institutions simply not knowing what to say, or not having much to say about videogames at all.

The Smithsonian American Art Museum contextualized their decision to display videogames as art alongside the other paintings, sculptures, drawings, and time-based media in their collection as a continuation of the score-based, participatory, and durational art represented by artists they already represent, such as Nam June Paik (Goodlander and Mansfield 2013, 38-39). While this connection is present in how the Smithsonian staff understand the exhibition, it does not necessarily reach the visitors to the exhibition, nor is the connection explicitly made. Paik’s impressive, multi-channel installation of a wall-sized stack of CRT monitors, *Megatron Matrix* (1995) is a major work within the Smithsonian American Art Museum’s collection and was on view near *The Art of Videogames* exhibition when it was first installed. However, the opportunity to make a connection between an established part of the museum’s collection and its new direction was not taken advantage of. Guins observes that Paik’s work was instead a “casualty” of its proximity to the exhibition entrance, skipped by many visitors who were unaware of the narrative and conceptual throughways (2014, 277). While art institutions can see the connections between contemporary videogames and past works of new media, systems-based, or playful forms of art, they often hesitate to make this connection explicit in their exhibition selections, design, or contextualizing material. Even though it was a highly visible and large-scale validation of videogames’ cultural status, because of the lack of curatorial direction, *The Art of Videogames* ended up being little else.

These two 2012 exhibitions were followed shortly by *Applied Design* (2013), Museum of Modern Art (MoMA)’s exhibition celebrating their first acquisition of 14 videogame titles, including commercial successes like *Tetris* and *SimCity*

alongside niche indie and freeware titles like *Dwarf Fortress* and *Passage*. While the MoMA has both fine art and design collections, Paola Antonelli, the curator of the selection, was clear that they were collecting the games as design objects. In the blog post announcing MoMA's initial acquisition, she admits that videogames can be interpreted as art, but they are being collected in this case purely as interaction design (Antonelli 2012). In a later TED Talk, reflecting on the discussions about videogames as art the games' inclusion in the MoMA triggered, she avoids questions of evaluating games as art by again insisting they are acquired as interaction design (Antonelli 2013). In an interview with Matt Ferranto, Raiford Guins notes this may be a beneficial strategy, as it "gets away from the baggage" that already existing in discussions of videogames' artistic value, allowing the MoMA to present a unique angle (Ferranto 2015).



Figure 11: *Tetris, Pac-Man, and Distellamap (Pac-Man), a diagram of Pac-Man's source code (left) on display in The Museum of Modern Art's "Applied Design" exhibition (2013) Thomas Griesel*

Figure 12: *Katamari Damacy, The Sims and Sim City 2000 (right) on display in The Museum of Modern Art's "Applied Design" exhibition (2013) Thomas Griesel*

Discussing the specific concerns of the Interaction Design collection, Antonelli describes four areas of interest in evaluating the importance of the games to acquire, none of which directly address historical influence or popularity. Instead, they are the videogame's behaviour, its visual aesthetics, how it depicts and allows a player to move through space, and how it changes over time (Antonelli 2012). While the institutional collecting process at MoMA involves acquiring both the original hardware and software required to run the game, in addition to eventually having access to the source code, on display, videogames are presented without much of this contextualizing material. In the

case of the games in *Applied Design* that are interactive, only a screen set into the wall and a small shelf holding the minimum required control interface is available to the visitor. Other titles, like *Dwarf Fortress* and *Sim City 2000* are presented in the form of looping videos sourced from YouTube channels of players recording their own gameplay (Hakimi 2013). Finally, an emulated version of *Pac Man* is displayed alongside a “distellamap,” visualizing that game’s source code.

Reviews and responses to the exhibition indicated that some visitors were dissatisfied or confused by the decisions made to present some of the games as videos and some as interactive. Chris Suellentrop admits that many of the games presented as videos take hours to fully understand and develop the knowledge and skills to play effectively, but that the gallery experience also changes the way visitors play even the shorter and simpler interactive examples. He states: “playing the falling-block puzzle *Tetris* on a three-minute timer, as it is presented here, doesn’t exactly allow for a visitor to commune fully with that game either,” and notes story-based games having the ability to reset the game disabled presents another hurdle to understanding (Suellentrop 2013). In a blog post, Jedd Hakimi similarly notes that *Portal* tends to “be consistently stuck on the first couple of rooms which really fails to showcase *Portal’s* amazing design or its artistic merit.” Because other design objects are accompanied by videos of them in use or being made, Hakimi wonders if videogames like *Portal* could also be presented with a video of the game’s trailer or one which shows elements of the game making process to capture these elements that may be difficult for a non-gamer to access through simply playing the game as installed. (Hakimi 2013). Suellentrop, however, goes on to question the fit of the videogames alongside the other design objects on display to begin with, noting that the focus on function clashes with the fact that the games presented are mostly entertainment (2013).

The austere, Modernist aesthetic of the videogame displays at the MoMA are not as exciting or inviting as the lively, trade show or tech lounge styled displays seen in the other exhibitions, and this is reflected in the visitor comfort level and interactions with the games. Observing the installation, Guins describes most

people as silent, as if caught between observing and playing, and only engaging for a few minutes at most. A minority of visitors go in the opposite direction, jostling and high-fiving as if at an arcade in a way that “turns heads” (Ferranto 2015, 206). Hakimi similarly suggests that the videogames featured may be more comfortable to play in a media lounge or library setting, similarly to how MoMA presents its film collection, but that this introduces new problems. For example, while Antonelli chose not to include any games that featured graphic violence in the initial selections, this curatorial choice no longer makes sense through an archival or library lens (Hakimi 2013).

The approach MoMA utilizes in *Applied Design* and its subsequent displays of videogames is notably opposed to the collection and display strategy of the 1989 *Hot Circuits* exhibition at MoMI, which conserved material like the game cabinets as a part of the object acquired, and presented the games in a way that maintained some of the original arcade context. While Antonelli says this decision was made to isolate design elements and avoid “arcade nostalgia” in the presentation, it can also be read as a strategy that neglects important aesthetic and historical components. However, Antonelli justifies this choice by referencing earlier exhibitions in the history of MoMA’s design department, such as *Machine Art* (1934) which isolated industrial objects like propellers and springs to present them sculpturally, creating a shock and a distancing effect that led visitors to see these everyday objects in a new way (Antonelli, 2013).

Videogames in MoMA’s collection are collected as examples of interaction design, and to the MoMA’s judgement the site of this interaction, and therefore what’s worth collecting and conserving is the code of the game itself, which can then be emulated via almost any interface. However, Raiford Guins expresses concern at the MoMA’s reliance on emulation, which erases the medium and platform specificity important to the historical development of videogames, and the resulting “loss of historic interfaces” and social as well as “whole body” interactions allowed by these interfaces (Ferranto 2015, 210). He describes the screens set into the wall as oriented like paintings, and that the new historical context of Modernist “critical distance” and “shock” the display places them in is a poor substitute for the historical background of the videogames and fails to be

inviting or encourage sustained play (211). He also criticizes dismissing elements like cabinet art as only “nostalgia,” noting how they played a role in shaping the imagined space and narrative of the game (214). In the end, the approach borrowed from *Machine Art* does not seem to work in the case of videogames, as “(MoMA’s) installations meet visitors at the level of interface reception, not computational architecture,” not presenting the springs or circuit boards inside the object, but an object with its material components stripped away (218).

In her discussions of the selection process and display of MoMA’s initial videogame connection, Paola Antonelli makes many connections to the status of the MoMA as an institution, and its history of influential exhibition choices. The MoMA has gone on to acquire six more videogames, including *Minecraft*, early arcade and Atari games, as well as an original Magnavox Odyssey in a second, late 2013 acquisition (Galloway 2013). However, as the MoMA has reconfigured the exhibition of games on display in the design area, and presented them elsewhere, their style of display has not significantly changed.

The style of exhibition design that went into the distancing effect Antonelli attributes to *Machine Art* went on to become the highly influential and yet invisible display paradigm for a majority of modern and contemporary art and design institutions. The white cube gallery space, laden with the ideology and value judgements of high Modernist abstract art, is described by Brian O’Doherty as “unshadowed, white, clean and artificial,” presenting works as timeless, and “subtract(s) from the artwork all cues that interfere with the fact that it is art” (O’Doherty, 2000). However, in the case of videogames, as well as other complex, multifaceted and unstable objects made outside of the art world practices that embraced the white cube, the aggressive paring down of this display ideology may end up stripping away meaning, context, and vital elements of the object itself. Instead of changing or expanding institutional policy to respond to videogames, the MoMA’s display strategies seem to err on the side of changing the games it acquires.

2.6 New Frontiers: Art Game Festivals and Alternative Exhibitions

Outside of major institutions beginning to display and collect videogames, alternative venues, festivals, galleries and showcases have also emerged in new ways since the early 2000s to support the expanding number of independent and non-commercial games being produced. In the 1990s and early 2000s, prior to the increased accessibility of game making tools and hosting sites that arose with greater internet availability, a binary conception of game production as either commercial or artistic that exhibitions from this era presented seemed more convincing. Games made for an art context were high art, and other games were popular commercial products subject to the debate popular culture usually faces over whether it belongs in art museums and galleries or not.

However, due to the persistence of the homebrew, hacking and modding scenes this divide was never as clear cut as it seemed, and with the rise of internet and software technologies the weaknesses in this binary perception of game creation became even more apparent. Sites like Newgrounds, GameJolt and itch.io, as well as tools like Macromedia Flash, GameMaker, Unity, Twine, and many others, made the creation and distribution of games by individuals more broadly visible and popular. Game designer Anna Anthropy describes this phenomenon in her 2012 book, *Rise of the Videogame Zinesters*, noting that developers associated with the indie or art game movement's early success, like Jason Rohrer (*Passage*), were primarily white men with an already successful background in programming. However, with new game making tools and online communities for sharing and showcasing these games, videogames were beginning to take on the more accessible self-published, self-distributed, handmade form of fanzines. (Anthropy 2012, 8).

Now there are a whole range of methods of production, from a single developer or creator working on a title from start to finish (similar to how many of the earliest Atari games were created), to small teams, mid-size independent companies, and massive AAA studios. Additionally, the scale of the production method has less of an effect on visual aesthetic and gameplay design than ever due to the accessibility of tools and knowledge provided by the internet, as well

as increasingly sophisticated affordable home PCs. Many videogames created within this context, from highly experimental works to ones modelled on mainstream genres and conventions, were gathered under the umbrella of “indie.”

Indie game arcades and festivals, such as Indiecade which started in 2005, and similar exhibitions provided another influential exhibitionary style for videogames. Curated festival spaces like the Indie Megabooth, allows selected independent creators, who lack the resources of being associated with a publisher, to split a reserved area of floor space at major conventions, usually only accessible to AAA games. Parker, Whitson and Simon (2017) consider these curated showcases as a form of cultural mediation, an “influential curator and tastemaker” as well as a form of support for independent developers, which shapes the perception and consumption of independent games as both a practice and a stylistic movement similarly to institutional exhibitions, albeit in a much more explicitly commercial context (Parker et al. 2017, 1955).

Smaller exhibitions, festivals, parties, and DIY spaces have also emerged in multiple locations, using their narrower scope to explore specific themes within videogames. For example, in 2013, *XYZ: Alternative Voices in Game Design* at the Museum of Design Atlanta presented a selection of 40 games that challenged not only the presumed demographics of videogame players and creators, but also the aesthetic and conceptual potential of videogames. Exhibitions like this and *Code Breakers: Women in Games* (2017), at the Australian Centre for the Moving Image attempt to offer alternatives to both the types of creators and types of games that dominate commercial histories of videogames presented by other institutions. While featuring fewer games and taking up less space than the internationally-touring alternatives, these exhibitions offer compelling challenges to popular narratives which play into the existing biases of the games industry.

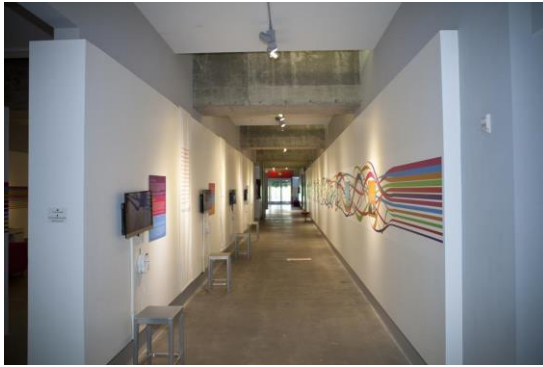


Figure 13: An installation view of *XYZ: Alternative Voices in Game Design* (2013) Museum of Design Atlanta (left)

Figure 14: The exhibition at A-MAZE festival, Berlin (2016) Andrew Gordon (right)

However, discussing their experience at XYZ, a reviewer notes frustration in seeing many of the experimental or custom-controller based games featured being labelled “out of order” or simply not functioning (Hamilton 2013). This demonstrates an important niche parties, festivals, and DIY or artist-run galleries fill. These spaces generally allow for more experimentation because of shorter exhibition duration and a more casual working atmosphere amongst the artists and organizers. For example, the A-MAZE festival, held in Berlin, Germany and Johannesburg, South Africa encourages the submission of VR, custom controller, and experimental works to its juried selection committee, and the shorter timescale of the event allows the artists to monitor or troubleshoot their own work if they attend, and learn valuable information from observing visitor’s reactions. Parties fill a similar niche, with Lynn H.C. Love observing the videogames showcased in these contexts “often differ in content, form or modes of interaction in comparison to events and games developed within commercial games making practices” (Love 2018, 69). While not usually within art institutions, these events still tend to align with the display styles of artistic exhibitions over commercial ones, fitting the more expressive and experimental nature of the work.

Parties and festivals offer an alternative to the “one size fits all” approach to display developers are offered in commercially oriented exhibition spaces, the “kiosks” that also frequently appear in exhibitions of commercial games (Love 2018, 70). They also serve as places game developers, academics, general

public and students can meet, and play socially, gain knowledge of new directions in game development, and develop community bonds and confidence over regular events (Love 2018, 72). Similarly, DIY and artist-led spaces like the Babycastles gallery in New York City often organize exhibitions where the artist develops a custom videogame-based installation themselves to experiment with or stretch their practice. The venue also holds a co-working space, and elements of custom installations are often disassembled and re-used after the show. These exhibition venues are more oriented towards supporting a community of artists working with videogames, and not oriented towards conservation, or even primarily towards attracting and informing a general public audience. Despite their limitations, they offer different strengths for artists developing their practice, and innovating on the ways videogames can be presented.

These festivals and events seem to intuitively grasp Howard S. Becker's conclusion that in the early days of a new medium, the medium will present "an enormous variety of work... produced by a host of local experimenters" (Becker 1982, 346). Like the alternative festivals and conferences which allowed early practitioners of new media art to display and receive feedback and insights on their work before new media works gained much institutional support, festivals and events dedicated to showcasing experimental games make up a sort of self-conscious art world, which demonstrates an awareness of the resources, social relationships, and infrastructure needed to champion and preserve the work done within it, and allow the artists working in it to continue creating (221-222).

While these alternative approaches have had a slight influence on major institutional exhibitions, they are still largely marginal. In 2014, the Museum of the Moving Image presented *Indie Essentials*, indicating a degree of institutional acceptance to what was becoming an increasingly contested and splintered classification. In 2016, *The Game Worlds of Jason Rohrer*, held in the Davis Museum at Wellesley College, was billed as the first monographic retrospective of a single game maker (Wellesley College 2016). Whether or not this is technically true, considering new media artists who worked primarily in games

and software during the 1990s and 2000s, as well as smaller, artist-led galleries, it demonstrates a further integration of games made outside of an art context into the art world and its styles of exhibition.

2.7 Conclusion

In his discussion of the exhibition of videogames at the Museum of Modern Art, Jedd Hakimi concludes: “even as video games are given resolute stamps of approval by various complimentary cultural gatekeepers, what fundamentally unites these objects we call “video games” remains an open question” (Hakimi 2017, 11). While it may be true that many exhibitions struggle with what to make of videogames, as objects, as software, and as cultural phenomena, this long chapter demonstrates that this is neither a short history, nor a solved problem.

Each of the approaches explored in this chapter demonstrates a different effect on the visitor experience, and makes a different argument about what games are, and what makes them an aesthetically and historically important part of culture. New Media scholar and curator Beryl Graham describes the function of the New Media temporary exhibition as a “test bed,” which shapes later collection, conservation and historicization for works institutions may see as potentially highly complex and risky to collect (Graham 2014, 1). This pressing issue of historicization as well as eventual collection and conservation is gated by the testing bed of these exhibitions, and so it becomes vital to interrogate what kind of narrative and value judgements regarding videogames institutions are creating through these selections and display strategies.

The goal in my further analyses of these exhibitions is not to decide on one strategy, technique, or type of exhibition or institution that is best. The opposite is much more beneficial, to question existing strategies, discover new curatorial or installation concerns based on visitor feedback, and develop a more comprehensive culture of display, collection and conservation through looking at how to capture neglected areas of game history and aesthetic experience. Examining the rhetorical arguments made by display techniques and contextualization materials used to build these exhibitions offers insight into

what criteria institutions use to make aesthetic and value judgements about what games are good or important enough to showcase, and even what the definition and role of videogames in our culture are in the first place. In further chapters, I will draw on existing perspectives in art history as well as new media curation to build a vocabulary of existing concepts to connect to the issues with presenting videogames in art institutions, and look towards a variety of perspectives in game studies and game preservation for new concepts that can be brought into arts institutions.

This overview of videogame-based artistic practices and exhibitions spanning the 1980s to the present demonstrates how videogames have been significantly incorporated into art institutions and their role in the construction of art history. Based on this exhibition history, it is possible to separate out several important threads for analysing the curatorial choices made in these exhibitions and how they shape history and conservation practices. First, exhibition and collection approaches each make different arguments about the purpose of videogames and play, and what, materially, a videogame is. The exhibitions also organize games through different methods, focusing on form, theme, chronology or authorship, all of which have varied histories as display strategies in art institutions in general. Finally, it is also worth examining how these exhibitions differently address practical concerns for staging video games in a public space. The most prominent of these issues are time spent, knowledge assumed, level of engagement, and functionality.

Initial exhibitions of a new medium tend to be organized around form, because it is not yet clear how they can be incorporated into the remit of forms accepted as fine art, which tends to be painting, sculpture, more recently drawing and photography, and even more recently, film and video. However, with new media objects in general, a discrete form is much more difficult to determine, and often exhibitions of videogames presented their objects in vastly different forms. Finally, there is considerable aesthetic and formal overlap between these selections, and in some cases, institutions chose the same games, indicating that an art canon of videogames is emerging.

This history of videogame-related exhibitions is necessarily incomplete and. My research was limited by selecting exhibitions that had both visual documentation in the form of installation photos and textual documentation available in English, or that I was able to visit in person. Similar histories could be written and expanded upon about gaming exhibitions outside of the English-speaking world. Likewise, I do not go in depth discussing exhibitions of videogame memorabilia, or videogames presented at science or history-oriented institutions, as these have very different goals and framing than the exhibition of videogames in an artistic or design-oriented context. There is both ample room and a need for study and comparison between this mainstream, and English-speaking and art world-based exhibition history, and more specific, local, and alternative histories. However, this historical overview in its current form serves as an exploration of the important context my own curatorial practice exists in, responds to, and becomes a part of.

3 State of Play: The Stakes of Art Institutional Display

As the previous chapter demonstrated, art institutions have taken a variety of approaches to incorporating videogames into their exhibitionary programmes. Further, how these games are selected, displayed, and framed within the larger work of the institution influences many aspects of how videogames are received by museum and gallery audiences, and make statements about the cultural status of the medium, its value and history that is being preserved, and even what a videogame is in the first place. Based on reviews and comments from both visitors and online gaming communities discussing videogame exhibitions at major institutions, such as the ones at the Smithsonian American Art Museum and the Museum of Modern Art (MoMA), the prestige and cultural status art institutions represent is obvious even to those outside of the museums field. Like exhibitions that involve new media in general, an exhibition that incorporates videogames usually attracts visitors that may not be the typical museum or gallery audience, including younger demographics and those more familiar with the commercial history of games than art history.

Discussing the long-standing “games as art” debate, Felan Parker notes that the positions taken by those in favour of considering videogames “worthy” of art institutions tend to involve both a deep personal and emotional involvement in videogames’ legitimization (demonstrating an awareness of the resources and prestige legitimization can offer,) as well as contradicting colloquial and common-sense notions of “art” that are used to argue for videogames attaining this status (Parker 2018). Arts institutions are naturally a part of this equation to those involved in the debate, who often feel their position is validated by these exhibitions (and visiting them) or who remark that the inclusion of videogames in art institutions is somehow ridiculous or does not necessarily make them art (See Jones 2012, Pedercini 2013, Rough 2014).

As evidenced by this dynamic, the question of how videogames are displayed, contextualized, and collected by art institutions is, at least partially about how institutional power forms and is wielded, and how it determines public ideas of what art is. This holds true for all other forms of art, as well as the artefacts in

historical and scientific collections. Art institutions trace their origins back to the emergence of public museums and collections, which occurred during dramatic reorganizations of relationships between social institutions and the public. This phenomenon helped to establish our current perception of art as a privileged and culturally important type of production. Videogames being displayed and collected by art institutions makes them a part of this process and can give them access to the prestige and resources that come from inclusion in the art world. However, for practices and media that do not fit easily into the museum tradition, artworks can also lose things through this process.

In the three main sections of this chapter, I will discuss how museums and other art institutions use their institutional power to impart social status to the works they collect and display, and how, historically, they have done this to create and reproduce certain historical narratives of art. A major element of how these institutions consolidate power and create these narratives is by isolating, displaying and preserving the art object, so section one will be a brief history of the social developments leading to this process. Technological developments like photography, the internet, accessible personal computers, television, camcorders and, of course, videogames, and the ways artists have used them as New Media have complicated and challenged the singular museum object, along with other social and immaterial practices like performance, scores, and participatory work. The second section will elaborate on some of these examples that can be relevant to videogames, and how art institutions have approached turning these practices into objects through display and collection. Finally, leading into the next chapter, the third section will discuss how the “unruly object” of the videogame has been displayed in ways that suit the art institution, how this affects the narratives presented, and how institutions define the videogame “object” that is displayed and preserved.

3.1 Turning Art into Objects and Objects into Narrative: An Overview of the Art Institution’s Power

In a broad study entitled *Art Worlds*, Howard S. Becker attempts to describe all the elements that contribute to the creation and display of a single work of art

and illuminate the social relationships between these elements. Becker considers how the artists' tools are manufactured, how artists are trained in art schools, and community networks where artists can receive feedback on their work and find buyers, among other activities, as all important elements of an art world. He describes these elements as "ephemeral" but notes that they also become "routine" over time, creating a pattern of activity that serves to determine the norms of artistic activity and resulting art objects (Becker 1982, 1). The place where art is exhibited, and situated in context with other artworks, is especially important. Becker writes:

"Museums become the final repository of the work which originally enters circulation through dealers, final in two senses: (1) work that enters a museum collection usually stays there, either because the gift or bequest which brought it there requires that or because, having staked their reputations as connoisseurs on the acquisition of certain works, museum officials do not want to admit they were wrong by selling the work, at least not until sufficient time has gone by so that they are not the ones responsible; (2) When a museum shows and purchases a work, it gives it the highest kind of institutional approval available in the contemporary visual arts world; no more can happen that will make that work more important or allow it to add more than it already has to the artist's reputation" (117).

While in the case of videogames and new media art, as well as newer art forms which are often not permanently acquired but instead included in temporary, traveling exhibitions, Becker's first point may not affect the works in question as strongly. However, the second point is still relevant, and acknowledges the feelings of cultural approval and improved reputation that gaming enthusiasts, creators and companies often refer to when discussing videogame exhibitions. The context of the museum, putting an object alongside a lineage of other objects that have received this institutional approval, raises the profile of that object but also incorporates it into a narrative where it is the next phrase in the story of institutionally-condoned art.

Becker is especially interested in emerging and borderline areas in this process where new media and aesthetics stand to be incorporated into a broader art world. He notes that at one point museum directors held significant power to determine what photography's place in the art world would be by choosing to include it in exhibitions or not, and even determining its place as a major or minor art form, "by deciding whether photographs would be exhibited in the main galleries in which paintings were ordinarily exhibited or confined to a special place with less prestige in which only photographs were shown" (152). As the reviews cited above demonstrate, there can be disagreement among other members of an art world and the general public about what can be classified as art, but institutions and those who work within them have a greater influence on these distinctions. Becker describes the people most likely to hold this influence as "a network of curators, museum trustees, patrons, dealers, critics, and aestheticians," and that art institutions "contain work that meets the aesthetic standards of some or all of those people, and those standards develop in response to the requirements of such institutions as museums," making the development of aesthetic values a two-way process between the output of artists and the traditions of art institutions (220).

Becker is also careful to note that acquisition and exhibition decisions are in large part determined by those who usually are from the wealthiest social classes and able to make gifts of art and money to the institution, and these trustees can also play a role in selecting trained art historians and administrators who also participate in the exhibition-making process (118). This hierarchy of roles, which still exists in many museums and galleries, can result in collections and exhibitions which glorify wealth and businesses and ignore "social conflict, minority groups, and other matters uncongenial to the interests and taste of wealthy patrons" (119). The interests of those who have greater influence on the institutional selection and exhibition of artworks also have greater influence on deciding the narrative they present, meaning that the narratives of art production and art history presented in museums and galleries is never truly neutral.

How did art institutions come to have this type of cultural power and wield it in the way they now do? The modern museum and its typical modes of exhibition emerged from the private collections of scholars and nobles known as a *Wunderkammer*, *studiolo*, or cabinet of curiosity. These collections gathered symbolic objects of natural, artistic and technological interest together, with little concern for their authenticity or the categories we currently associate with “types” of modern public museums, like art, natural history, and science. Instead, these collections represented the dominion of the prince or noble who owned it over an orderly cosmos (Bennett 1995, 36). While early public museums were influenced by these collections, and in some cases originated in the donation of such collections like the Uffizi Gallery in Florence, as public institutions they pivoted away from the focus on symbolic meaning that were the motivating factors for collection of *Wunderkammer* artefacts, and instead incorporated Enlightenment taxonomies and scientific ideals of the time (27). Museums became less about wealthy individuals indulging their tastes and displaying their power, both for their own gratification and for a small group of relative peers, but instead institutions for a new formation, the state, to educate and manage the public.

One of the first and most influential public museums of art was the Louvre, which Tony Bennett cites as an especially illustrative example in his book, *The Birth of the Museum*. In 1792, when the French monarchy was overthrown and the king was imprisoned, the Louvre palace and the royal collections within became public property. Initially, few changes were made to the display style except for “strategic replacements of images of royalty with allegorical and depersonalized representations of the state.” This allowed for the works of art within the collection to no longer represent the king’s power over his realm, but the power of the state, “an abstract entity in theory belonging to the people,” which incorporated the viewer of the collection into the narrative in a new way (36-37).

More dramatic changes in how museums ordered and presented their collections followed the shift from royal collections to public institutions. Gradually, through the end of the 19th Century, a new “evolutionary

historicism,” informed by scientific discoveries of the time within the fields of geology and palaeontology began to determine the content and arrangement of museum exhibitions. Representativeness became valued over rarity or symbolic value, and a new understanding of human history and development allowed these representative objects (and their locations and cultures of origin) to be organized along an evolutionary timeline, from “primitive” to “civilized.” This singular narrative placed modern man, the assumed viewer, as the outcome and inheritor of such a process (39). The man envisioned here is, of course, European, male and middle or upper class, and through the marginalization of all other categories to diversions along the way on the narrative of progress, museums came to represent not only the state, but its imperialist interests as well.

The effects of this new taxonomic organization may be more obvious for history and science-oriented museums. Indeed, Bennett notes, the rules organizing the display of artworks in art museums is where these taxonomies are most invisible to a visitor who is not “in the know” of the higher order theories and language of art that forms art history (164). While the historicist and nationalist logic of the chronological hang, artworks divided by movements or countries of origin may be conveyed more clearly through signs and labels, aesthetic appreciation and understanding of the narrative of an art exhibition is also an exercise of education and class distinction. The theory of art “mediates the relations between the visitor and the art on display in such a way that, for some but not for others, seeing art exhibited serves as a means of seeing through those artefacts to see an invisible order of significance they have been arranged to represent” (165). For the visitor who can “see through,” the public museum allows them to “stroll through” the history of art, embodying the “the lesson of art’s progress” that culminates in the Modern European Man, the archetypal genius artist (44-45).

While public museums were creating exhibitions to convey these organizing principles and narratives, they also had to create a public which was able to receive them. As the power of kings was replaced with the idea of the state throughout the Western world, governments became concerned with creating a

more self-governing populace. Instead of the socially exclusive origins of art collections, kept in private quarters for royalty and wealthy nobles to enjoy, culture began to be seen as a tool which could disseminate new norms and behaviours through self-management (23). Bennett's examples of how the museum targeted the visitor as an object for reform fall under what he describes as "a variety of routines and technologies requiring a shift in the norms of bodily comportment" common to lower-class activities such as drinking in a tavern or loitering. Stated or implicit rules included forbidding eating and drinking, touching the exhibitions, and running or talking loudly, and the encouragement of certain standards of dress. This was not only meant to create the environment of reverence seen as essential for appreciating great works of art, but also train the mingling working and middle classes to emulate and adopt upper class standards of behaviour and values (100).

Bennett also reveals formal similarities between the use of space and display strategies within the museum and the use of space and displays in the department store, describing them both as places to "see and be seen" (1995, 101). This relationship is made even more explicit as museums changed during the 20th Century. Discussing the history of the Museum of Modern Art's exhibition strategies, Mary Anne Staniszewski describes the "compatibility of aesthetics and commerce" increasingly noted by museum visitors and reviewers, as MoMA began putting on design exhibitions of affordable consumer goods in the 1930s (Staniszewski 2001, 162). This was a part of the institution's new focus on presenting design alongside the traditional high art forms like painting and sculpture which dominated the main galleries, a move which sought to unify culture and industry in the idealized environment of the art institution, affirming both aesthetics and art as timeless and universal (159). When the gift shop, a space where visitors could buy reproductions of artworks and objects from the museum's exhibitions, became incorporated into the museum building, it became explicit that the cultivation of public taste through exhibitions did not only apply to the abstract realm of art appreciation. Museums were also thought to be places where visitors could be transformed into savvy, discerning consumers.

Staniszewski also analyses another element vital to the MoMA's creation of an idealized space for art, which is so idealized that it has become "invisible" in museums and galleries everywhere. Alfred Barr, the founding director of MoMA, established an influential style of displaying art which differed from earlier museums as well as artists' salons. In these spaces, works were "skied," placed close together with multiple paintings in symmetrical arrangements or stacked vertically, in a decorative way. Beginning with the MoMA's inaugural exhibition, *Cezanne, Gauguin, Seurat, van Gogh* (1929), the featured paintings were instead hung at eye-level, with large amounts of space between them, on plain walls with neutrally-coloured monk-cloth covering them (62). Barr's strategy also included the addition of unobtrusive didactic labels for each painting, offering context for the artwork within Art History more generally (63). This "neutral" style of exhibition established the modern artwork as singular, and aesthetically autonomous. The artworks were framed as valuable in themselves and timeless, but this style of display further standardized the museum visitor (66). The ideal viewer of Barr's exhibition style was attentive, static, and met the paintings on display at the eye level of an average able-bodied man, who could discern the implicit connections between the artworks by combining the sight of them with the language on the wall labels (70).

While Barr's style of exhibiting art was an experiment at the time, influenced by the goals and aesthetic values of contemporaneous Modern artists, Staniszewski argues that this successful exhibition style became invisible through repetition, because it incorporated and reinforced the ideology of the modern museum and art gallery (293). By the time the exhibition *Information* occurred in 1970, presenting many important participatory and conceptual artworks, the monk-cloth beige of the walls had further flattened out to plain white paint. The gallery had become the pinnacle of the "vast... seemingly neutral container" for the artist's work that Barr's early experiments implied (270). This change was occurring as the MoMA and similar institutions gained power and influence in the art world and were becoming significantly less neutral, and this display style becoming an invisible norm disavowed institutional responsibility, making the political and corporate connections behind exhibitions far less visible (285).

Brian O'Doherty has written extensively on the effects of this shift in exhibition styles. He describes the goals of this "white cube" approach to display as following:

"The ideal gallery subtracts from the artwork all cues that interfere with the fact that it is "art." The work is isolated from everything that would detract from its own evaluation of itself... So powerful are the perceptual fields of force within this chamber that, once outside it, art can lapse into secular status. Conversely, things become art in a space where powerful ideas about art focus on them. Indeed, the object frequently becomes the medium through which these ideas are manifested" (O'Doherty 1999, 14).

Curators of New Media art also find that the "black box," a similar type of gallery where the walls are dark and the lights are lowered to allow for projections and screen-based works, does not end up functioning much differently. Christiane Paul writes that these spaces create the same sort of environment that is cut off from context and the outside world, an effect especially felt on works that are networked, performative, and contextual (Paul 2009, 56).

At the time of O'Doherty's writing, the ideology Staniszewski associates with the "neutral" gallery space, of the autonomy of the art object and timelessness of aesthetics, has become so powerful within art spaces that the space itself can make an object be received as art, and the art object becomes an expression of institutional ideas. Further, these generic and uniform spaces allow for the rapid circulation of the art objects, in the case of commercial galleries, to allow the wealthy to build up a valuable portfolio purchasing them. White cube spaces also allow institutions to absorb new and emergent practices, turning their permanent collections and traveling exhibitions into reiterations and reinforcements of their institutional power. As will be demonstrated in the next section, no type of arts practice, "site-specific, temporary, nonpurchasable, outside the museum, directed toward a nonart audience, retreating from object

to body to idea- even to invisibility-” has, as O’Doherty puts it, “proved impervious to the gallery’s assimilative appetite” (95-96).

These developments during the 20th Century demonstrate the importance of two concepts to my research. The first is the ascendancy of the curator figure as more than a caretaker of a collection, but instead a sort of creative figure in their own right, needed to make sense of an increasing variety of artistic practices. As the avant-gardes of the 20th Century broke away from traditional art forms in ways which challenged the taxonomic logic of traditional museum displays, the curator’s role became more active in creating new types of unifying narratives through how artworks were exhibited. Secondly, exhibitions, especially blockbuster traveling or temporary ones, have become “the medium through which art is known,” and as demonstrated above, exhibitions play a large role in the political and cultural framing of artworks (Obrist 2011, 7).

While exhibitions are still frequently organized by styles or periods, the “ahistorical exhibition,” an exhibition which abandons chronology and relies on other thematic correspondences, is a new format that large temporary or traveling exhibitions increasingly take (Greenberg et al. 1996, 8). Describing contemporary exhibitions as a form of rhetoric, “a strategic system of representations” that uses everything, from the institution’s architecture and wall colour, labels, lighting, security and surveillance, brochures, catalogues, promotional videos and curatorial premise, in addition to the simple inclusion or exclusion of artworks, Bruce Ferguson asserts that exhibitions are the “speaking subjects” in the stories art institutions and curators tell (in *Ibid.*, 176-178). This process of storytelling is largely determined by the curator, whose medium is the recombination of art objects within the space.

The traditional role of a curator, taking stock and caring for a collection, also created the museum object by removing a variety of artefacts, statues, panel paintings, and so on, from their original context to serve as examples of “art,” but the problems of distributed, dematerialized, and New Media art made this process more explicit (Graham and Cook 2010, 10). In the introduction to *Museums in the New Mediascape*, Jenny Kidd notes that museums have not

just increasingly become media makers as they expand into the wide varieties of media techniques for didactic displays that digital media allows, but they are also object makers, defining the terms of a “thing” as new forms of media emerge. (Kidd 2014, 4).

3.2 Challenging Objects Before Videogames in the Museum

A theme that emerges across several of the exhibitions discussed in the previous chapter is how videogames are conceptualized, by the framing and materials accompanying their entrance to art and design museums, as new, unexpected, and sometimes uniquely challenging for these institutions. Videogames as a phenomenon are a unique convergence of popular culture, time-based media, software and hardware, and a surrounding culture of creators, fans, and players, but there are multiple precedents for how work dealing with these issues, and various combinations of them, which have been incorporated into exhibitions and institutional art collections using a variety of approaches. Existing approaches to new media artworks, works that use the behaviours afforded by connective and computing technologies, as well as ephemeral, conceptual and performance-based work can all serve as informative perspectives for considering the institutional display of videogames.

In this section, I will draw together how museums have displayed and collected performance and score-based works, as well as new media works, demonstrating how these movements were often contemporaneous and influential to each other. During the first Fluxus Concert in 1962, for example, Nam June Paik executed a version of La Monte Young’s score-based work, consisting of the instruction to “draw a straight line and follow it.” Paik’s performance of the work, dipping his head in calligraphic ink and dragging it across a long piece of paper, both became its own performance, entitled *Zen for Head*, and created an artefactual document of La Monte Young’s instructions executed on paper (Robinson 2002, 111). Paik would go on to create works considered to be pioneering in the field of new media art, using the unique affordances of new technologies like the camcorder, video editing and satellite TV, such as *Good Morning Mr. Orwell* (1984). Indeed, Raiford Guins reflecting

on the exhibition of videogames at The Smithsonian American Art Museum notes that one of Paik's works, *Megatron Matrix*, is placed tantalizingly close to the entrance of the exhibition, yet many visitors overlooked it because a narrative or thematic connection was not made (Guins 2014, 277). Videogames in the museum not only have a technological connection with the broader field of digital or new media art, but complex performative, score based, and participatory art practices that predate the popular use of digital technologies.

Even if a single artist does not move through multiple modes of art production in the same way Paik did, art movements which were challenging the conventional museum object, and art movements which were embracing new media forms were often closely related, if not having significant crossover. Conceptual artists influenced and were influenced by what early artists who used computers were doing under the banner of systems art, and relied on networks of communication technologies to proliferate their works. This was an explicit concern of the mail art movement, which influenced many veins of Internet art approaches. New media art, which allows for performative and participatory behaviours remotely or within the gallery space also often consider the approaches of performance art and those working in other participatory forms. Additionally, while all these movements were once conceptualized as a way of disrupting the existing hierarchy and processes of the art institution, institutions have found ways to adapt to displaying and collecting this work. These methods can be limiting and controversial on the one hand, and vital for preserving and contextualizing ephemeral practices on the other. Therefore, it is important to take a broad view of techniques that have been used to display troublesome museum objects, rather than only focusing on the novel technological feats involved in the creation of videogames.

Challenges and critique of the museum's art object, and the surrounding art world structures that supported it, were repeated themes throughout Avant-Garde movements of the 20th century. Photography, which could quickly create an exact record of an object, person or scene seemed to radically destabilize the function of the visual arts in society. Walter Benjamin discusses this moment in conjunction with other technological developments leading to

increased mass production and distribution of culture in his essay *The Work of Art in the Age of Mechanical Reproduction*. About the unique work of art and its “aura,” Benjamin states “this *unique existence of the work of art* determined the history to which it was subject throughout the time of its existence” (Benjamin, 1936). Much of the work museums do evaluating works of art and conserving them is out of a concern for establishing and maintaining authentic works, confirming and preserving their “unique existence” through provenance, expert knowledge, and chemical tests. The aura “withers” in the age of mechanically (and later digitally) reproducible art, its authority and traditional value surpassed by its value as a circulating copy. Benjamin references work by the Dadaists, who he felt incorporated this new situation into their artworks, stating “what they intended and achieved was a relentless destruction of the aura of their creations, which they branded as reproductions with the very means of production” (Ibid.).

Mass production technologies fundamentally changed the role of art within society, but they also allowed artists to experiment and expand their arts practices beyond traditional forms like painting and sculpture. The incorporation of newsprint into Cubist collages and Dada photo-splices appropriated new reproduction and communication technologies of their time. Mass Production was also an element of artists’ increased interest in creating toys, and more generally creating work not meant for the museum, especially among women in the Dada and Bauhaus movements (Stals et. al 2012, 13). While the face of mass produced and banal objects entering the art world, frequently invoked in relation to considering games as art as in the Art History of Games Symposium, is Marcel Duchamp’s Readymades, videogames as a broad medium are a closer analogue to the mass-produced artists toys (Pedercini 2013). While art institutions may take the approach of selecting specific videogames (often just as marked by an author figure as “R. Mutt’s” signature marks the urinal) and elevating and isolating them from other mass-produced objects, videogames are almost always primarily a mass-produced and digitally replicable form.

Mass-produced forms were found to offer specific freedoms and opportunities for experimentation, allowing artists to play with the permeable boundaries

between “fine” or “high” and “applied” arts. However, within the art world, small runs of artists’ multiples rarely reached a scale comparable to other forms of mass media and failed to offer a true alternative to making a livelihood by selling expensive, unique art objects. (Rinehart and Ippolito 2014, 104). Mass-produced multiples typically go from their designed purpose, to being used up or outmoded, becoming “rubbish.” Most objects that reach this stage are disposed of or so worn they are no longer acceptable museum pieces, but any mass-produced object surviving this process which, from the perspective of an arts institution, becomes an important example, becomes “durable,” to be preserved for an “infinite life” (Guins 2014, 62).

Fluxus’ sets of cards and game boxes are another example of toy or game-like works which used mass-production techniques to make many copies of artworks that were expected to be used. The surviving “Fluxkits” are now displayed as objects not meant to be handled, carefully arranged in glass cases at most retrospectives of the Fluxus movement. Game Designer and researcher Celia Pearce describes this sort of display as a “tragic irony” where “objects whose entire purpose was to elicit play” become “trapped in a “Mausoleum” within the object-centric commodity-based world of art with a capital A” (Pearce 2006, 70). Displayed as artefact now, the Fluxus game boxes “at rest” do not become totally uninformative, because they do still provoke viewers to imagine their tactile qualities and use, however these imaginary situations cannot be tested. Pearce argues that this type of display is a “state of dormant play,” that prioritizes the institutional desire for a “beautiful object,” neglecting the process involved in the creation, distribution and use of the piece (Ibid., 71). While the original intent of Fluxus games was to appeal to a general public aware of a “ludus populi,” an existing familiarity and acceptance of popular board and card games, they have become artefacts, no longer allowed to be used in that way by art institutions protecting their historically significant holdings. (Ibid., 72).

Institutions have had similar issues determining display practices and policies for “durable” multiple objects that are often an element of experimental arts practices. For example, artists’ books or limited run publications become “boundary subjects” within museum exhibition and collection, where it is unclear

if they are best displayed for handling or in a glass case, or best stored in the library, archive, or arts storage (Graham and Cook 2010, 230). Issues of authenticity also arise if these works are presented as digital files or replicas, and this can be seen as surrendering control over a work or devaluing it within traditional institutions.

Many of the cards and games in the Fluxkits consist of instructions for a player to interpret and then perform. Like the event scores performed at Fluxus concerts by artists like Nam June Paik, these works that rely on a set of instructions or “score” that is followed importantly shift the focus of art collection, display and discourse “away from the object to the very enactment of the artist’s decision-making process” (Robinson 2002, 113). This brought a new focus on the process of artmaking, and challenged limitations on the skills, media, and distribution networks that were relevant to arts practice. Robinson goes on to write: “Thus the simple white event card, with a few lines of type stipulating a series of actions or ideas, was to generate a vast array of idiosyncratic interpretations and bring together a diverse group of artists- including more women and more different nationalities than any avant-garde group before them- for whom such new strategies of experimental composition were the crucial register” (Ibid., 117). The flexibility and relative accessibility when compared with other arts practices that the Fluxus game box or event score represented offered new ways of working and new visions for the potential of art which influenced and shaped subsequent movements.

Lucy Lippard’s *Six Years* is a catalogue of documentation relating to a series of four exhibitions she organized, which are referred to in a group as her “Number Shows.” Each exhibition took its title from the population of the town it was originally executed and installed in. These exhibitions are considered especially important in defining the Conceptual Art movement, which was influenced by practices and artists who worked in Fluxus, and, by Lippard’s definition, created “work in which the idea is paramount and the material form is secondary, lightweight, ephemeral, cheap, unpretentious and/or “dematerialized”” (Lippard 1997, vii). The Number Shows all presented a similar format for the participating artists; they were to create a work where the instructions for its execution could

fit on a standard index card which was sent to Lippard, then Lippard and local gallery workers would execute the work themselves while installing the show (Ibid., x-xi). The catalogue for the exhibition consisted of a randomly ordered stack of cards which included the instructions for the works included in the show, as well as “aphorisms, lists and quotes” mixed in to add context or encourage connections. Lippard intended for this unconventional publication to allow visitors to form their own connections and narrative through the works, but also be able to “discard whatever s/he found uninteresting” (Ibid., xi).³

Lane Relyea contextualizes the “dematerialized” practices of Conceptual art as a part of several changes that moved art away from the paradigm of a specific object in a neutral gallery space. Instead, “art” became more aligned with artistic practices, institutional processes, and its place in everyday life. Conceptual art specifically helped to make art less about timeless, decontextualized aesthetic achievements, and more about contracts, agreements and relationships. (Relyea 2010, 34). This tendency also manifested in art movements not seen as “dematerialized.” The material presence of Minimalist installations were often overwhelming, and that was the point, but Minimalist art was also engaged with industrial fabrication processes. In many cases works were sold and circulated via a diagram that provided general instructions for a fabricator to interpret. Minimalist artists embraced the fact that their work could be circulated as a diagram rather than through the expensive transport of large, heavy, industrial metal structures.

Still, the idea of “original” or “standard” can be fetishized within this context. New Media curators Jon Ippolito and Richard Rinehart cite the example of a Richard Morris sculpture which is meant to be rebuilt and painted a generic shade of grey every time it is displayed. When a member of museum staff at one exhibition added a swatch of the grey paint that was used to the object’s institutional file, this became the “authentic” colour of the work, an approach the authors describe as a greater commitment to the material authenticity of a work,

³ Interestingly, this presentation also implies that the visitor taking away a copy of the catalogue could also execute the entire exhibition themselves. Of course, this intended use was defied in the long run, as original cards from the show’s catalogue are often sold as collectables on eBay.

the typical art institutional paradigm, rather than commitment to the intent or context of Minimalist works. (Rinehart and Ippolito 2014, 81). As the types of industrial light fixtures used to make Dan Flavin's light works change over time, or as the consumer technologies originally used to display certain digital artworks become obsolescent, art museums and galleries have increasingly had to open themselves to reconsider what it means to preserve the intent of these works, rather than just the (unstable, potentially non-functional) materials.

The performative and participatory elements of avant-garde art practices may seem the most straightforwardly applicable to the collection and display of videogames. Such angles are also addressed by Game Studies, where there are several perspectives on understanding games through a theatre metaphor. Janet Murray, for example, sees the interactivity of computers, hypertext and videogames as allowing for users to participate in permutable dramas conveyed by computational processes, like NPCs, chat bots, and pieces of hypertext fiction (Murray 1997). Brenda Laurel also uses a performance metaphor, arguing that computer games are similar to theatre because they involve characters, action, suspense, and empathy, indications of the impact of dramatic ideas on computing (Laurel 2014, 64).

However, these interpretations are typically oriented on the single player or user's subjective, private experience. Performance and participatory art movements, on the other hand, were far more concerned with the social dynamics between the performer and audience, as well as among the audience. Even if the artwork in question is primarily technological, within the gallery space it becomes social and performative. Like conceptual and some minimalist work these action-based forms are also ephemeral, the form they tend to circulate and be understood in is through images or video.

Photographs, films or videos of specific moments from performances tend to become the medium through which they are exhibited and understood, despite being documentation. While these objects are documentation, and not the artwork itself, they become a primarily visual that represents the work and a discrete object that can be circulated in the gallery system. This form of

documentation is described as “after-the-fact,” however, a recording that does not provide instructions or context for the future (Rinehart and Ippolito 2014, 63). The shortcomings of exhibiting the history of art movements involving performative elements using this strategy becomes apparent when interpretations of photographs may not match or fully represent the living memory of artists or participants, if these perspectives are available (Cook 2010, 22). While art institutions that want to remain relevant now “have no choice but to accommodate” dematerialized and anti-institutional gestures, they have “very few curatorial concepts for performance” and other types of problematic work that don’t involve “the creation and elevation of “aura” through ephemera and documentation,” or “focus[ing] gratefully on the part of an artist’s oeuvre that was produced for the market in the first place” (Paul 2009, 240.).

Either way, these strategies risk misrepresenting what a performance-based piece was like, and suppressing these practices within institutional history. Like minimalist and conceptual works, performance-based works can also be re-executed. Sometimes this is done by the same artist, sometimes by a different performer; sometimes it is accompanied by original props and documentation, sometimes not. How institutions and performance artists respond to this strategy can be varied. Curators Caitlin Jones and Carol Stringari note that restaging can be interpreted “either as widening the definition of an artwork or degrading the original performance,” but that these still-conflicting points of view “recall the original investigative spirit in which artworks were conceived” (Paul 2009, 231).

Despite the problems it presents as an art object, performance-based and participatory work is often embraced by art institutions as particularly empowering, or as a social good. In fact, Beryl Graham notes that this idea often leads to the hyping up of these works in their descriptions to “one rung above” their actual function; “reactive works are claimed as interactive, participators are hyped into collaborators” (Graham and Cook 2010, 114). Art Historian Claire Bishop also counters this perspective on participatory work, emphasizing that the institutional embrace of the form masks its function as a replacement for cutbacks to public spending for leisure and education,

conforming with the self-improvement paradigm of Neoliberalism. Therefore, these “workshops” or “projects,” as they are increasingly conceptualized, do not radically oppose or change the art institutions, but instead ameliorate their exclusionary nature. (Bishop 2012, 14). Made under these conditions, documentation of participatory work can fail to serve its purpose, as it may be more concerned with demonstrating the positive effects of an event or workshop rather than its actual dynamics (Ibid., 256). Bishop further argues that the binaries of active participant and passive spectator the practice creates can also reinforce existing hierarchies along lines of class and labour, asserting, for example, that those who are lower class or more associated with manual labour need to “do” to understand and will not be interested in art that requires mental labour or aesthetic appreciation (Ibid., 38). While these arguments may not be explicitly made by representatives of an art institution, it is easy to see them manifest in the marketing, especially of new media and videogame exhibitions, as appealing to groups who would not normally visit an art institution.

Finally, like all other forms of media which were once new, videogames face issues related to their technological novelty that make them potentially incompatible with reputedly conservative and traditional art institutions. While “new media art” was used to describe almost any artwork using digital technologies between 2000 and 2006, after the initial technological hype, the term “new” within the phrase was questioned, and awareness of the many different practices and subgenres of work being “lumped together” began to emerge (Graham and Cook 2010, 21). In light of this process, Beryl Graham and Sarah Cook argue that new media works are better understood through the types of behaviours they allow, such as networked connectivity, computation, and replicability, among others.

In museum and gallery displays, and even at festivals, new media work has often been presented in incomplete or deliberately limited ways which neglect their context, and restrict these behaviours. Net artists felt they were strongly misrepresented by a display at Documenta X where the works were presented as offline, static files saved to the office-like arrangement of display PCs, yet none of the net art was connected to the internet (Bosma 2011, 102).

Technology and institutional structures can often clash, as Jon Ippolito notes in an essay entitled “Death By Wall Label.” In no unclear terms, Ippolito describes the wall label, where the most important information about an art object such as artist, date, location of origin, and medium are recorded, as a “typographical dynasty” which “has conspired to reduce every artwork... to a single artist, date, medium, dimension and collection”. He admits this approach to defining and presenting objects also “enfeebles” conceptual and performance art, but “threatens to obliterate digital culture,” which “can survive only by multiplying and mutating” (Paul 2009, 106). Art institutions which take a similar approach to preserving digital media as other forms of art, saving it to a hard drive or CD-ROM to be put in storage and only accessed when needed may find that the file doesn’t run, the required peripherals are no longer available or don’t work, how the piece looks on screen has changed, or other forms of degradation that are out of the control of the artist or art institution. Ippolito argues that digital media needs to constantly be copied, distributed, accessed and updated to ensure the important behaviours of the work remain intact (Ibid., 127).

These technical challenges are inevitably connected to the context in which technological innovation occurs. There is no technology without a footprint, after all, as the production of almost every digitally enabled device is entangled in carbon emissions, e-waste, sweatshop labour, the mining of rare minerals and the resulting decimation of indigenous lands, globalization, spread of the military industrial complex and crunch labour practices in first world countries (Cubitt 2013, 14). New media artists often must strike deals with the technology companies that are both responsible for these issues and the creation of cutting-edge technology. These collaborations can extend to the institutions, who need to seek equipment and support for exhibiting new media works. Therefore, tech company “sponsors” do not conform to the “distanced relationship with which museums are familiar” but instead become “experts” or “advisors,” influencing “curatorial and artistic aspects usually outside a sponsor’s role,” such as display or interpretation (Graham and Cook 2010, 199).

Even without the direct involvement of tech companies, consumer-grade technology which artists make use of is highly driven by hype cycles and rapid

obsolescence (Ibid., 285). Artists working with these forms of technology will have little control over standards changing, or support for certain programs or formats being discontinued, which may change how their software-based pieces work or render them non-functional. If a part breaks or wears out in the process of displaying an artwork, especially if the part was designed for home rather than heavy-duty use, there's no guarantee there will be any support for repairing or replacing it. The challenges inherent to using commercial technology is why new media curators argue for regularly documenting and copying, or if possible, updating or rebuilding of artworks if they want to be preserved and historicized (Graham 2014, 68-70).

The novelty of technology presents an additional problem: the gallery audience. Since the earliest examples of artists bringing new media into an art gallery, people have, in general, gotten far more tech savvy, and the likelihood that they own and interact with several digital devices a day has gone up sharply. Despite this, even interacting with a familiar form of technology that is used privately, like a touch screen, desktop PC or gaming controller, can feel self-conscious, new, and "special" in a museum or art gallery. When the technology used is unfamiliar, the interface "becomes the focus of attention," often against artist intent, while "expert" usage renders the technology transparent, allowing the user to focus on the work's content. (Paul 2009, 67.)

The gallery is often a spectated environment, with the presence of guards and other visitors implicitly enforcing behavioural norms discouraging the touching and playful behaviour interactive works often need, so using technology in the gallery can take a period of both observation and acclimation. Involving gallery staff is also an important element of how these works are shown, as visitors tend to ask more questions and sometimes require direct encouragement or direction to use the works (Graham and Cook 2010, 182). New media artworks don't tend to reveal their content at a glance in the way traditional art objects do, and the general nature of the work may not become apparent to the user without several minutes of use. This can present an issue that gallery visitors do not expect, especially when multiple works are shown, as they tend to have a specific imagined "time slot" in mind when they visit an exhibition or museum

(Graham and Cook 2010, 101). These issues can make visitors avoid using or engaging with technological works in the gallery, but including signage or information on the wall label about how long an average period of use is, and directions on what to do can help to minimize these problems.

Methods of presenting new media works that offer partial solutions to these issues are not always a good fit for an art institutional space. The “media lounge” style, which offers more seating to encourage browsing and longer engagement, is one example. However, discussing these spaces, Beryl Graham refers to the beanbag chairs, soft seating that could be moved around the exhibition space, which were included in the MoMA’s *Information* show. She describes them as “somewhat radical newcomers in the minimal and retentive curatorial vocabulary of hard modernist seating, and the fact that there were several of them hints dangerously at the possibility of audience members choosing where to put them, and of interacting with each other, as well as engaging in solitary contemplation of artworks, for comfortable periods of time.” Seating and display which adapts to how people use technology in their work and leisure time, while emphasizing the participatory and interactive behaviours of new media, can risk placing them “in the dark nether regions of museum ‘education’ departments, rather than in collections, archives or libraries from whence the distant gleam of the historical canon might be glimpsed” within institutional structures (Graham 2013, 244-246).

While the replicability of digital media may seem to be simply the next step or a technologically advanced form of the mechanical reproduction Benjamin discusses, it also presents some important differences. When opening, editing, saving or sending a digital file, a copying process is always involved and there is no true “original” of a born-digital file. Additionally, sufficiently advanced or proficient copying does not end or destroy Benjamin’s concept of “aura,” and instead it can re-emerge in different ways through digital technology. Bolter et. al. argue that “a media technology’s capacity to generate aura depends on the degree to which it convinces the user that she is in the presence of the authentic; presence and authenticity therefore depend on assumptions that the user has about the technology.” As an example, they draw on the change of

status analogue photography, one of the forms of “mechanical reproduction” which Benjamin discusses, and how it develops an aura of its own through our new cultural assumptions of film photography representing truth, while digital images are manipulable and ephemeral (2006, 29-30). New media, especially digital media, inherently mediate and change our relationship to other media, and rather than any new relationship “destroying” aura, it creates another stage in an ongoing “crisis” where the aura can be questioned and then reaffirmed (Ibid., 22). One type of reaffirmation is the ill-fitting limits art institutions attempt to place on technologically replicable works, such as short-run editions or physical copies of digital data (Graham and Cook 2010, 202).

There seems to be no type of artistic practice that can escape being made into an object and circulated within the art world’s systems. Even works that are purely performative, and where the artist forbids documentation or even writing down of instructions such as Tino Seghal’s *This Progress* rely on complex legal proceedings which could, theoretically, allow the idea to enter the secondary art market. McKenzie Wark uses this example to demonstrate how, within the art market, artist intent is often secondary to those who have financial or legal power over the work or art institution which commissions or owns it, especially when a digital object is made “collectable.” Wark notes that “*The Clock* by Christian Marclay... is only supposed to be seen in specially designed installations where it runs for twenty-four hours, although apparently the artist’s wishes about that did not stop the hedge-fund manager Steven A. Cohen from using his copy as a screen saver” (Wark 2017).

Mass production and reproduction, performance, instructions and the possibilities afforded by new technology have long been intertwined in terms of how they manifest within art movements, and all the issues that arise from these works entering art institutions are relevant to the display and collection of Videogames as art. Videogames are mass produced and digitally replicable. They are a subset of toys and children's media, and simultaneously try to reject or elevate this association. Videogames can also be said to represent a score, a set of instructions for the computer or console running the game to execute and specific rules that govern the player’s interaction possibilities and progress.

Videogames are performed, and in these unique performances result in completely different meanings and experiences. Even when played alone, videogames can be made and remade collaboratively by the social contexts surrounding them. Finally, videogames are also inseparable from our current relationship to technology. Like many forms of New Media artworks, they rely on multiple technological elements, hardware and software of varying levels of complexity, all working together to function.

3.3 Videogames: An Incomplete Object?

By comparison to notable past challenges to the art institution's object paradigm, we can conclude that videogames are and will continue to be troublesome objects for institutions, especially the more established and traditional these institutions are. However, drawing on this history we can also see that these problems are not unprecedented or totally unique to videogames as a form, and the art world has adapted to these practices and objects in several different ways. While institutions may still frame videogames as unusual or challenging in the way they talk about the development of their own exhibitions, the examples cited in the previous chapter demonstrate specific strategies that are repeated both in how videogames are exhibited and the accompanying narrative which contextualizes them. In this section I would like to conclude this chapter by exploring some of the current difficulties art institutions have in presenting the videogame as an art object, how they approach solving them, and the limits of these strategies.

The presence of mass cultural objects within art institutions no longer seems as radical or surprising as the 20th century Avant-Garde's use of photography, collage, and other mass-produced objects in their work. Exhibitions of more popular forms, like fashion, film, and comics have become common at institutions which previously limited the work displayed to "high art" media. Kylie Message identifies social changes that are causing art institutions to distance themselves from the elitism associated with high art saying, "culture now describes not only works of art, highbrow or popular, but the dynamics of all social exchange... Whereas historical museums have traditionally been

associated with elite culture... new museums --including projects that seek the renewal of what might awkwardly be called 'old-style' museums-- aspire to provide opportunities to the general public to explore what culture is and how it is constituted" (Message 2006, 25). Further, Kevin Moore argues that publicly funded galleries and art museums should reconsider their prejudices about mass and popular cultural forms because these institutions have a financial responsibility to the public, and increasing exhibitions and research about topics within popular culture is a way to appeal to a broader public (Moore 2000, 85). Herbert Gans sees the acceptance of popular culture into art galleries and museums as a type of "cultural bargain" from the position of high culture, allowing high art institutions to maintain some symbolic power as a gatekeeper of what popular culture is worth celebrating, while the overall influence of high art decreases (Gans 2008, 160). Especially coinciding with the emergence of new categories of art institution, such as design museums and media centres, that much of the work in the collection or on display was once mass produced or digitally replicable may be a given in some cases.

This may make it seem like art institutions have given up on the idea of an object's singular authenticity creating its value, but there are still ways that institutional control of reproduction and authenticity can make themselves apparent. As noted above, contemporary artists working in digital formats can create artificially limited "authenticated editions" of their works to be bought by institutions. To collect videogames, some institutions like the MoMA view receiving the source code (which is usually not available in the formats in which videogames are typically distributed) directly from the creator of a game or the rights owner as a sign of full ownership (Antonelli 2012). However, this is not always an option, nor does it necessarily make more or less sense than having any other widely available physical or digital copy of the videogame. The Museum of the Moving Image instead focused on acquiring good condition arcade machines in their original state for their own videogame collection, and other institutions also focus solely on running physical copies of videogames on their original hardware, believing it offers a unique experience which emulation through digital files does not necessarily offer, as elements like the cabinet art and feel of the original controls were also a part of the experience (Slovin 2009).

For major videogame exhibitions, mainstream videogame companies most often offer temporary licenses for the display of the game in the art institution, making videogames difficult to acquire for preservation and long-term display. Additionally, contextualizing material the companies would have initially been responsible for, like design documents, memorabilia and concept art, is not frequently made public or even consistently preserved by videogame companies. Industry standard Non-Disclosure Agreements (NDAs) and IP law complicate the ability of these documents or first-hand accounts of a game's development to be included in an exhibition (O'Donnell 2014, 205).

Even if an art institution does manage to license the rights to display a videogame or owns a copy of it, they might not have control over how they are able to display it or if it remains displayable in the long term. Commercial game consoles are often an enclosed technical "black box," making repairing or recreating the hardware needed to play games nearly impossible. Major videogame companies have long used Digital Rights Management (DRM) tactics to prevent piracy, and increasingly videogames can require a connection to a server to be present to provide updates or ensure the copy is validated. While these measures are often to prevent cheating or illicit copying in the wider market, they can also make the copying needed for long-term preservation difficult or impossible. All these issues can get in the way of art institutions being able to preserve and display videogames, and are reasons why acquiring them is often avoided. In the case of smaller and independent videogames, the studio or creator is more likely to work with the institution or exhibition organizers directly, making the videogame easier to acquire as a file or physical copy along with rights to display it.

Institutions conceptualize the object of the videogame in different ways, but there is a definite focus on maintaining a one-to-one level of interactivity. This may not be the more complex "each-acting-upon-the-other" definition Beryl Graham cites in her introduction to *Serious Games*, (and indeed, many videogames in art exhibitions have these more interactive qualities, like online play or modding capabilities, disabled), but it gives many of these exhibitions

the perception that the works on display are experienced through one-to-one interaction (Graham 1996). Displays of hardware that no longer work or are inaccessible due to being too delicate for crowds of visitors to use are common in history museums, but in arts-oriented exhibitions, while isolated hardware or forms of documentation may be shown, interactive exhibits are generally considered essential to the authentic experience of videogames in an art institution.

However, an “ex-game,” as videogame historian Raiford Guins describes these objects which are no longer playable, still “works” within a curated, contextualized display, rather than being an inferior “occasionally essential” alternative. These artefacts can be valuable examples and provoke visitors to imagine how using them worked or felt, which leads Guins to conclude that “artefact” and “activity” work best when joined together, rather than isolating or valuing one over the other (Guins 2014, 52). Guins also notes that the separation of activity from artefact and focus on activity is also in line with academic work surrounding videogames, where “the development and actual play of video games has tended to dominate scholarly interest.” But, these are only two phases out of the many in a videogame’s lifetime that make up how people interact with videogames and how their history forms (Guins 2014, 5).

Keeping these two elements together can be difficult, as both gameplay activity and the consumer electronics that make up gaming artefacts are not intended to exist on the timescale of typical museum objects. In the art historical cases described above, ephemeral works can enter the institution through scores or instructions, visual documentation in the form of images and video, or even be re-performed or re-executed in new contexts. When dealing with videogames, institutions have often hesitated to use these adaptive approaches, despite their historical precedent. Emulation could possibly be an example of re-executing a work, because it involves migrating the data on a cartridge, disc, or other form of videogame storage to a digital file which can be read by an emulator program, but institutions like MoMA have conceptualized this as directly preserving the interactive experience of the works. In other art media a re-execution of a performance piece is often obvious to the visitor or an element of

the didactics, and in the past The Guggenheim has staged exhibitions which explicitly present multiple approaches to preserving new media works alongside each other, but exhibitions of videogames rarely draw attention to the emulation strategies used, and can even conceal the use of emulation with “Frankenstein” devices that use the original hardware’s “shell” (Paul 2009, 220 and Swalwell 2017, 222).

To art institutions, if a videogame is no longer stable or accessible on original hardware, or if it is simply more convenient, emulating the game, often within devices which hide a contemporary computer inside the original interface, or completely hide their technological features in the wall or pedestal design, presents the same game within a display paradigm that centres the interactive videogame as the sole artefactual trace and object of videogame exhibition.⁴ In the case of videogames, re-executing a work would be more like the “port” or “HD upgrade” in commercial terms. From a conservation standpoint this could involve remaking a game in a format becoming obsolete, like a Flash web game, in an engine that exports to a more recent format like HTML5. However, the mainstream process of videogame remakes is not necessarily oriented towards preservation. James Newman notes that the typical re-release or remake updates the graphics, sound, or gameplay features of a videogame to be more like recent releases. These versions which are “enhanced” in various ways which do not provide historical context or make an ephemeral piece of history available again, but instead “decouple “the game” in question from the specific technologies of any historical implementation,” hailing past games as a benchmark while also erasing elements of their history (Newman 2014, 116).

⁴ It is also worth noting that art institutions have rarely developed the technologies and approaches to emulating the works they wish to display on their own. In this area, museums owe a massive debt to amateur and hobbyist coders who work together to develop emulation software and ROM databases. On the one hand, their distributed development is a part of why such a large number of consoles and games can be emulated, and also why they are fairly user-friendly. However, this also means that these projects do not have the resources or stability an institutional environment would offer. They are still subject to loss of interest or free time, copyright takedowns from videogame companies, and domains or hosting space running out.

Raiford Guins' criticisms of the MoMA's display choices, which he feels removes historical context, extends to the process of emulation, as well. Removed from the context of the arcade cabinet it was designed for and initially distributed in, Guins feels that arcade titles like *Pac-Man* risk becoming a floating "Ur-game" without its historical base, that can be formatted to fit any type of screen and work with any type of controller (Guins 2014, 40-41). Referencing the uniform, single-player kiosk style of most of the interactive games installed at MoMA, Guins goes on to say "regardless of arcade, computer, or console game, all are presented to the public via the same mode of exhibition, thus omitting the medium specificity and historic platforms for each game when displaying its collection to museum visitors" (Ferranto 2015, 210). Not only are the arcade games removed from their cabinets, but they are also presented in the same way as PC and home console games, with as little of the required hardware visible as possible-- "thus material conditions become contingent upon current technological capabilities and older forms can be forgotten altogether" (Ibid., 211). While Guins and Antonelli connect this style of display to the decontextualizing of industrial forms from other design exhibitions at MoMA, he argues this approach takes too much and does not give back anything new. The videogame screens, hung uniformly along the wall like paintings, allowing only one visitor to interact at a time and making it difficult for others to even watch, does not take advantage of the potential offered by an art institution like the MoMA, and instead offers an experience that is not much different from using an emulator at home.

Melanie Swalwell, however, cautions against too much reliance on a supposed "original" or "original experience" when trying to preserve the material elements of videogame history. The idea of an "original experience" is highly subjective, and the "original" context that is often drawn on in such displays tends to be defined by a specific generation and community of gaming enthusiasts (Swalwell 2017, 217). This leads to exhibitions that primarily focus on popular games and the most popular contexts they were received in, like the American paradigm of videogame arcades. Swalwell notes that this policy of preserving the "original experience" is less successful with other forms of gaming history, like early personal computer text adventures, which may require more context

and guidance for visitors to be able to use and understand. These issues demonstrate presenting a videogame within its authentic interface alone may not be enough to effectively “preserve” why videogames are important or relevant (Ibid., 226).

All the above approaches, by focusing on preserving the point of one-to-one interaction or the original material artefact, neglect addressing the inherent performative and participatory nature of videogames, which they share with new media works and several threads of Avant-Garde practice. New media curators Sarah Cook and Beryl Graham resist classifying new media as a set collection of media, tools, or practices and instead focus on the behaviours they enact and allow (Graham and Cook 2010, 22). Understanding these behaviours, and the elements of them that are most vital to the work is an approach new, experimental methods for art documentation and preservation like the Variable Media Questionnaire are taking, which allow museums and art institutions to better understand what the artist considers essential to unstable, multipart and ephemeral works (Paul 2009, 117). James Newman also makes a similar argument for a more in-depth approach to videogame preservation that doesn't fully rely on either attempting to preserve unstable consumer goods or alienating videogames from their original context through emulation, stating “play is not the outcome of game preservation but its object” (2014, 155).

Newman expresses concerns that the interaction-focus many videogame exhibitions express will lead to a neglect of context, or separation of material ephemera from an understanding of how videogames were played historically. He argues for a broader variety of approaches to be used in the preservation and display of games, not only supplementing displays of emulated games or original hardware with memorabilia or original concept art when accessible, but working with videogame companies as well as communities of players to get a better understanding of how games were played at different times and in different communities. This kind of work may involve recording interviews and gameplay footage, preserving online communities' work like TAS speedruns and walkthrough documents, and figuring out ways to work with major companies and IP holders to have research access to more design documents,

to ensure that these physical documents and digital files are not simply discarded or lost once a videogame is released and the company moves on to the next project. Considering all these elements to be relevant to preserving gameplay will also change the way videogames are exhibited.

3.4 Conclusion

In the context of the art institution's history as an element in the legitimizing process for art that prioritizes the interests of businesses and the wealthy, a disciplinary apparatus designed to cultivate education, upper class manners, and good taste in the general public, and a taxonomic system oriented around the acquisition, preservation and display of specific "objects" that often must consolidate or condense a broad variety of practices into narrow paradigms, why certain problems repeatedly emerge in past videogame exhibitions I discussed becomes more clear. These exhibitions rarely stray far from a mainstream industry perspective on the form and are beholden to mismatched industry-approved practices for licensing the games or playing them on original hardware, rather than acquiring them or engaging in longer term preservation strategies like emulation, documentation, and porting or recreation. They frequently return to the form of the gaming kiosk which encourages brief, one-to-one interaction as the sole mode of experiencing the games on display because this is the consumer experience as imagined by trade shows and other locations where videogames are sold. Finally, they are presented either as (potentially unstable or non-functional) "original objects" or reduced to easily transferred and emulated files that fail to acknowledge or even obscure historical context.

In many ways, this chapter may seem to discuss what videogames stand to lose, or have already lost, through incorporation into art institutions rather than gain. Because of the typical functions and aims of the art institution, videogames are often displayed in ways that significantly alter or remove existing cultural context. This seems paradoxical because many perceive the role of the art institution to be to maintain and reveal the context of works, especially when they are ephemeral or incomplete, by incorporating them into a

larger narrative of art. In the case of videogames, they are often lifted from a social and cultural context that still exists but is not incorporated into or understood by art institutions in the way that accepted 20th Century art movements are. An isolated, “museified” display of static gaming artefacts or interactive kiosks by itself is not a sufficient tactic to increase the cultural status as well as understanding of videogames, despite the “proof” of art world acceptance it may represent to some fans.

What art institutions currently do for videogames should not be idealized or overstated, and what they *can* do is still important, with an awareness of historical limitations of the art institution and a willingness to change these norms for the benefit of emerging art forms. Game preservation, game criticism, and the telling of the history of videogames has, until this point, largely been done by fan communities and enthusiast press, within terms that are subject to the interests of multinational businesses that own the proprietary technologies and Intellectual Property of the most popular videogames and gaming technologies. Often, the way that videogames are incorporated into institutions, especially as temporarily licensed displays or borrowed traveling exhibitions, are not able to offer a practical alternative to this situation, as they still rely on profit-motivated companies which have a poor track record of accurately preserving playable videogames and important information on them, or the fan labour that goes into collecting and preserving these games in the form of personal collections, ROM databases, and emulation software.

While these fan resources may seem to be outside or even against the control of videogame companies, they are still subject to the planned obsolescence which effects games and consoles the companies do not plan on porting, re-releasing, or continuing to support, as well as the ability of these companies to threaten legal action against sites which host ROMs or emulator development teams. The resources and authority of an arts institution committed to supporting videogames as an important part of contemporary culture could be a powerful ally with fans, and the amateur conservators and historians among their ranks, to find longer term solutions to these issues and provide

infrastructure for more experimental game designers to receive the recognition and resources that will make their practice more sustainable.

Videogames are undoubtedly now a part of the social and discursive formation of art, even as debates as to whether it reaches other subjective definitions continue. But the way videogames are displayed in art institutions can have several frequent, repeated shortcomings. The most significant of these is the lack of integration, both with relevant parts of new media art practice, and other playful, participatory, and rule or instruction-based forms of art that are also within the remit of these institutions. This is a double gap to bridge, as new media art still struggles to appear in exhibitions alongside the non-digital artworks that influenced these practices. Conceptually bridging this gap, by contextualizing the display of videogames alongside these other movements and how they are displayed in art institutions reveals connections and useful precedents for how videogames could be presented in art spaces.

4 Displaying an Unstable Object: Frameworks for Collecting and Exhibiting Videogames

In the previous chapter I described past art historical movements which presented challenges to art institutions, and then identified several parallels in how art institutions currently present videogames in an incomplete way, whether it be through incomplete historical contexts, incomplete connections to the rest of art history, or as incomplete objects, with important parts of how they are received and become meaningful deactivated or removed. In this chapter, I will draw more from game studies (but still also touching on art historical and new media perspectives when relevant) to discuss potential approaches to displaying videogames which would aim to not only mitigate their troublesome elements from the perspective of traditional art institutions, but also embrace and foreground them. These ideas and approaches influenced my curatorial practice which will be described in the following case studies.

The three categories of issues I identified and will focus on will each be elaborated on in their own section. First, videogames are multipart. From their technological supports to their serial nature, it is hard to identify a stable, single object that makes up a videogame. Videogames are also durational, sometimes to an extreme or indefinite degree. While some indie or experimental titles that have been exhibited in galleries defy this convention by being only a few minutes or seconds long, videogames generally take much longer to complete than the couple of hours an average visitor may set aside for a museum visit, and this tension can become apparent even when an exhibition presents only one videogame, much less an exhibition made up of tens or even hundreds. Lastly, videogames are also performed. They must be engaged with on some level to “work,” a point game studies traditionally places at the moment of interaction with an imagined, abstracted player. However, certain types of performances, which may be inaccessible to casual players or the non-videogame playing public, also contribute to the cultural meaning of these games and how they are played as a result.

After reviewing these issues, this chapter will close with a review of examples of how these problems can manifest in exhibitions, citing the example of *Pac-Man* (1980), a popular videogame history touchstone that has been displayed in different ways across several major exhibitions. I will also discuss issues new media scholars and curators have identified in documenting exhibitions of videogames and present my approach for documenting and analysing my own curatorial practice in the following three chapters.

4.1 Videogames are Multipart

Videogames are most apparently multipart in their materials. The videogame software is often held on physical media like a disc or cartridge, which needs to be run on a computer or console. These two elements working together must be plugged into an appropriate screen, and a functioning, compatible controller must also be available to the player. However, functioning “videogame software” is also rarely reducible to a single computer file, and may have dependencies on operating systems, file libraries, plugins and network connections to function properly.

Both game studies and videogame conservation initiatives have developed different ways to describe the multipart nature of videogames. An early entry in the field of Platform Studies, Nick Montfort’s article “*Combat in Context*” defines six elements, five “levels” and the surrounding “context” that makes up a videogame. The levels are, from lowest to highest, platform, game code, game form, interface, and reception/operation, and the lower levels “enable and constrain” the higher levels of the videogame (Montfort 2006). The “Concentric Circles” model used by The Strong National Museum of Play in Rochester, New York takes a similar approach and shows the influence of the Platform Studies perspective on videogame preservation and display. Their model defines the innermost circle as the software and hardware objects that make up videogames. The second circle represent producers, the people and companies who make videogames. Then the third is “players,” and the fourth circle is the larger context of play in general that videogames are a part of (The Strong Museum 2014).

However, these approaches can be light on describing the process of the videogame in play. Additionally, it presents how the videogame is played out in spaces beyond the screen where the meeting of hardware and software is displayed as furthest from the “core,” or “outside” the game itself. Perspectives like Michael Nitsche’s *Video Game Spaces* instead describe the multiple types of space, which videogames represent and are situated in. Nitsche situates videogames as existing simultaneously in: a *rule-based space*, made up of the actions allowed by the code, console and so on; a *mediated space*, which is how the rules are expressed on the screen; a *fictional space*, which is how the player imagines themselves acting in the space; the *play space*, which is where the videogame is played, such as on a couch in a living room or in an internet café; and the *social space*, which includes the surrounding community discussing the game, as well as bystanders and other players (Nitsche 2008, 15). This idea of videogames inhabiting multiple spaces is especially useful for presenting videogames in a format that is closely related to the experience of space, like curating exhibitions. If many videogame exhibitions are focused on representing the mediated space of the screen, alternatives could instead investigate the way that the play space or social space is depicted.

Not only are videogames not reducible to a single physical object, but also it is often unclear how to conserve these sets of objects. The consumer plastics that make up a videogame’s material elements are chemically complex and change over time, and forms of data storage are subject to demagnetization, bit rot, and other types of degradation (Newman 2012, 12-16). Further, videogame companies and electronics manufacturers generally show very little interest in making their products repairable or replaceable over the long term. While “obsolescence” is sometimes considered an unavoidable phenomenon associated with the instability of new technologies, and therefore positioned as a “natural” consequence of technological progress, James Newman argues that this process is not unavoidable, and instead is created discursively by videogame companies and manufacturers. As much as the plastics used to make consoles and cartridges are chemically unstable, data formats subject to loss, and so on, manufacturers, designers, and videogame companies make

decisions in the availability of repair services, the rules governing warranties (attempting to open or repair the console oneself usually breaks them) and the rhetorical creation of hype cycles and the need to “upgrade,” which play an active role in creating our idea of what is “obsolete” (Newman 2012, 44).

Storage and repair strategies of varying effectiveness for “obsolete” videogame materials that are mostly discovered by collectors and hobbyists circulate online on gaming fan sites and forums demonstrate the urgency for conserving many of these games, and how far amateur collections are from the greater knowledge base and resources an institutional archive or collection would be able to offer (Newman 2012, 140). Based on the number of videogames that exist, and the currently limited number and scope of publicly available, institutionally supported videogame collections, alternate strategies have also become vital to the preservation and contemporary understanding of videogame history.

The only other major strategy for preserving playable videogames is, as discussed earlier, emulation. However, this practice is considered a potential threat to IP and profits of major videogame companies, some of which go to great lengths to prevent or stop it, through either legal threats to sites which host ROMs or emulation projects, or increasingly complex Digital Rights Management strategies. An emulator is a software program, often developed by online fan communities to run on a PC, with the aim to replicate the behaviour of a separate console. While this is not strictly illegal, transferring ROMs to a PC or distributing them online can be classed as illegal forms of copying (Newman 2013, 48).

Videogame companies’ other strategies for controlling the copying and usage of their software can, ironically, lead to these games becoming unplayable much more rapidly and suddenly than a physical game disk or cartridge. Requiring a videogame to connect to a server for online play or synchronize with a server for updates gives these companies control over exactly when and how these games, or certain versions of them, become obsolete. Digital Rights Management strategies which rely on registration codes or connections to an

online service can also make a piece of software become suddenly inaccessible, if the company which requires the registration process goes out of business and cannot issue codes or approve registrations. All these strategies serve to limit the resources videogame companies have to put into supporting released videogames and point consumers towards instead purchasing new games and consoles.

Even if a videogame company acknowledges the concerns of fans or archivists, the videogames in question may still not be possible to preserve in a playable state. James Newman observes that due to the complexities of IP ownership and associated laws, especially regarding digital objects, “the state of current legal frameworks and the restrictions on circumventing technical measures of protection such as password-protection or more complex DRM systems are so onerous that even if a developer wished to permit preservation of its intellectual property, the systems, procedures and protocols for doing so do not presently exist in an unambiguous manner” (2013, 50). While developers may be more likely to work directly with cultural institutions like art museums, archives and galleries, rather than the fan preservation communities they have cultivated a sometimes-antagonistic relationship with, they may not know where to start, further hindering the long-term preservation of videogames.

Videogame players who have developed ways to “crack,” evade or work around these DRM measures and distribute videogame software freely, while often blamed for potential financial harm to the videogame industry, have played an important role in documenting history and maintaining the accessibility of games which would have otherwise been lost. The development of a history of videogames, as well as their ongoing collection and exhibition currently owes a massive debt to legally grey practices of fans and collectors, including hardware modifications, emulation and piracy prohibited by the companies who control the IP and distribution of the games. While this work involves highly skilled programming and a deep understanding of videogame consoles, it is also precarious, usually done by fans as a hobby, and progress on projects can be lost due to lack of interest, lack of free time, or threats of legal action from videogame companies (Rinehart and Ippolito 2014, 135). James Newman

describes the activity of gamers and fans who participate in uploading, cracking and downloading videogame ROMs as “aberrant, illegal” in a strict sense, but also “mainstream,” frequently so. He encourages a reconsideration from both academics and institutions looking to preserve games if they fear the illegality of activities placed under the banner of “piracy,” stating:

“Given the nascent state of formal game preservation as a discipline and in light of its own presently intractable legal complications and entanglements, the resolutely and sometimes unapologetically illegal undertakings of code rippers and file sharers give rise to some of the most highly advanced, sophisticated and well-organised archival collections of videogames currently available.” (Newman 2013, 46).

Newman argues that there are few publicly accessible archives or institutional collections of games, and game companies, rarely conserve materials or keep a formalized record of the games they develop, if they have a company archive at all. This corporate archiving is also usually intended to remain mostly internal in the service of protecting IP, and not offer historical information to researchers and fans. Much of videogame history is in the process of becoming inaccessible, obsolesced by the future-looking orientation of the game industry, where the best game is always the one that is coming out next, and this creates a culture whose artefacts are easily discarded, forgotten, and disappear (Newman 2012, 61).

The ability to download and play titles over the internet with emulators like MAME, FCEUX and DOSBox provides access to decades-old titles whose IP is neglected or abandoned by their original publishers. It has also shaped our perception of the history of videogames and game studies as a field, and these fan-developed emulation programs have also been used in videogame exhibitions. However, to rely on these methods is to rely on free amateur labour that can be subject to legal takedowns at any time. Museums and galleries will ideally continue to step up to the plate and build on the trails blazed by these enthusiasts to provide thorough legal, long term conservation to ensure there is a future for this form in the first place, by using their greater resources, archival experience and institutional status. Art and design institutions have previously

expanded their remit to include new media as they emerge, like film, video, photography, and most recently, some net art practices. These media all were unstable at some point in their development and required new approaches and skills to display and conserve, but institutions played a large role in their initial cultural acceptance and formation of a history and body of research and theory around them. Art institutions will also likely play an important role in the conservation and development of a history of videogames, if they are willing to.

Each playthrough of a videogame, even if it presents a linear narrative or progression, also creates subtly different experiences and meaning for the player. Patrick LeMieux discusses the serial structure of videogames, a product of their mechanical and digital nature, observing: “The sweaty palms, particular grip, and proprioceptive experiences of the player must be translated into digital data. The phenomenology, materiality, and physicality of play must be sampled, serialized, and stored as bits before it can impact the operation of the videogame” (LeMieux 2014, 10). What this implies is not that every playthrough of a videogame creates a different work, but that each player experiences a different combination of serial states that are all already present within the videogame. This validates Beryl Graham’s position on digital “interactive” art, that these objects only respond reactively, allowing communication between a user and a source of information, but not allowing for them to truly be “acting upon one another” (Graham 1996).

However, the experiences of play within this paradigm can be extremely broad. Casual players are usually unaware of how their actions are being translated to serial data through the controller and videogame software, while speedrunners who use emulators to investigate how this serial data is processed in order to shave seconds or even frames from their run “play the serial interface itself” (LeMieux 2014, 21). While these may seem like totally different “games” being played, the multiplicity of the videogame object means that they are a part of the same complex mesh of hardware, software, interface and performance.

“Videogames” as a category are often reduced to a linear, mainstream, commercially-oriented history that focuses on major companies and

technological developments centred in North America and Japan, but there are multiple histories of videogames that exist outside of this category. As demonstrated in previous chapters, there are whole histories of art world and homebrew activities which led to the display and collection of what essentially are videogames, mods, or rom hacks, in art institutions throughout the 1980s, 1990s and 2000s. However, these are rarely included in attempts to describe the history of videogames, even if we include broader definitions of “indie” or “art game” in the same history. This divide provides an example of how art institutions, and specifically the exhibition form, don’t simply relay existing history, but play an active role in constructing it. The terms “indie” or “art game” can also have a similar function, as critic Lana Polansky notes in “Towards an Art History of Videogames”; people have always made personal, experimental, and artistic projects using videogames and software, for as long as the technology was available, but “the overwhelming cultural narrative posits that certain independent games... have succeeded as both critical and commercial successes and therefore represent a milestone in the actual artistic development of the medium” (Polansky 2016).

Other researchers such as Melanie Swalwell and Jaroslav Švelch, among others, have drawn attention to game development practices in locations not recognized by commercially oriented histories of videogames, like New Zealand and the former Czechoslovakia. In the case of New Zealand’s local software culture, Swalwell notes the remoteness of the country restricted influences from countries like the United States and led to locally developed software and videogames being the primary way people became familiar with personal computers and related technology. In this case, in the absence of relevant institutions, private collectors keep alive their personal histories of this period, which can lead to difficulties both in terms of the preservation and organization of the collections, as well as the degree of access to researchers and public knowledge that would come with institutional support (Swalwell 2009, 266). Researching and developing conservation strategies for these local collections, Swalwell discovered that a surprising variety of approaches to software development and distribution, spanning educational games to ports of popular titles, freeware, locally-distributed titles, and commercially successful software,

even personal hobbyist, artistic and conceptually-playful programs, demonstrating that outside of internationally successful titles and companies “the uses invented for computers in the home or community context, by contrast, are generally not well remembered” (Ibid., 274).

Švelch draws similar conclusions in his study of “non-entertainment” uses of computer software in hobbyist circles of 1980s Czechoslovakia, a gaming culture that was separated from commercial console releases and recent technological advances in gaming because of government restrictions on private enterprise. In this context, the use of computers organized around local “computer clubs” which would share hardware and software, or spotty import and black-market suppliers. Within these local and close-knit subcultures, playing and creating videogames became a medium not just for entertainment, but for demonstrating coding skill by “cracking” copy protection, creating demo videos, and remaking popular games. Videogames could also send messages, from trivial group in-jokes or taunting other software “crackers,” to political statements about issues like police brutality (Švelch 2013). Raiford Guins criticizes the tendency of institutions to simply reproduce popular or commercial histories of videogames through the timelines or narratives they present, arguing that “at best, chopping up the history of development via console generations and their technological components... is a page taken right out of chronicle-era historiography. At worst, it is ransacked from Wikipedia’s History of Videogames entry” (Guins 2014, 283). To avoid such a pitfall, it is vital that these areas, underserved or unknown within the history of videogames, also receive art institutional investigation and support, not only to present a more nuanced picture of the form, but to also discover and preserve new ways it was used.

To be placed in a museum narrative, an object, especially an art object, also tends to need an attribution or author figure. For videogames created by an individual or small team, this attribution may be straightforward enough, but the production of mainstream videogames increasingly involves teams of tens or hundreds of people, with different skills and different degrees of influence and oversight on the final project. Researching the production processes of

videogames, Aphra Kerr notes that these “teams” are becoming a complex web of outsourced labour, temporary hires, and increasingly specialized roles (Kerr 2006, 78). When an exhibition wants to present a general historical overview of videogames, which will end up including AAA titles made in a large studio environment, the challenges of navigating attribution, especially if they are placed alongside other videogames which have a clearer “author” figure, becomes apparent.

Jedd Hakimi has investigated how institutions draw on the “auteur” figure, originating in film, to help circumscribe the authorship of videogame works more uniformly. Because the videogames acquired are not straightforwardly created as “artworks,” the institution is seen as making a critical intervention to uncover the significance within a cultural form that was previously ignored, similar to the intervention made by auteur theory in the interpretation and institutional collection of film. In both cases, the “laudatory formal qualities” of Hollywood films or major studio videogames, “were concealed until the critic recognized a pattern,” usually a thread of thematic meaning, formal skill, and creativity which is attributed to a single figure with a higher degree of control over the production (Hakimi 2017, 3). In the case of film, this is almost always a director, but in videogames, where the production roles are not as defined, the attribution can be inconsistent, as Hakimi notes:

“Most of MoMA’s games are still credited to single “artists”. Although this perhaps makes sense for games like *Yar’s Revenge* (Atari, 1982) and *Passage* (Jason Rohrer, 2008) ... for other games, like *EVE Online* (CCP Games, 2003) and *Portal* (Valve, 2005), MoMA lists entire companies as the “artist” ... Yet, the same could be said about *Hyper Street Fighter II* (Capcom, 1991), but this one is attributed to two of the dozens of creative personnel who contributed various aspects to this version of game... Another curious case would be *The Sims* (Maxis, 2000), which, while a large-scale production by a big company, is only credited to Will Wright” (4).

Hakimi goes on to argue that despite these inconsistencies, the variety of games in the MoMA’s collection also maps roughly to types of film it collects,

falling into categories of art games or films, independents, auteurist studios, commercial auteurs, and mainstream studios (Ibid., 5). Felan Parker similarly sees the attribution of an “auteur” figure as an important element in defining the category of “artgames” stating:

“Although the various games grouped under the heading of artgames (sometimes ‘art games’ or ‘art-house games’) bear little surface similarity, they are understood to have analogous approaches to game design practice and shared conceptual/aesthetic concerns. Common features of artgames include: a distinctive or highly stylized audiovisual aesthetic; small (or entirely individual) development teams with identifiable author figures; and an existential-poetic ‘point’ or ‘message’” (Parker 2012, 42).

He also goes on to note that it has become common for “mainstream, big-budget digital games to be marketed and received according to the logic of auteurism, elevating star figures such as Shigeru Miyamoto, Hideo Kojima and Peter Molyneux” (Ibid., 45). Despite these useful parallels to how more traditional art and film works are discussed, Hakimi identifies many problematic aspects of applying auteur theory to a medium which often includes the efforts of many people in a single work. This style of attribution can “[idealize] a romantic notion of the author, disregarding historical and socio-political forces, and snubbing other labour contributions,” especially along lines of nationality and gender, but some are willing to ignore or suppress these drawbacks in a gambit for achieving cultural legitimacy (Hakimi 2017, 3). This is demonstrated by the demographics of named creators in the *Game Masters* exhibition, which followed shortly on MoMA’s acquisitions. The majority of attributed individuals or companies were based in Japan, America, or Europe, established centres of mainstream videogame development, and, as I observed in Chapter 2, only one woman is credited by name, ignoring the complex specialized roles and outsourced labour that plays a major role in the final product of commercial videogames, as well as the variety of independent, hobbyist and arts approaches that exist around the world (The Australian Centre for the Moving Image, 2012).

There are many ways in which the object of videogames can be described, presented and defined. Acknowledging these many elements of what is often conceptualized as a singular object, with a singular strand of history is vital to more fully preserving and exhibiting videogames within art institutions. Sensitivity to the variety of practices that can be a part of game development, and avoiding models for displaying videogames that are “one size fits all” in both the technology and installation style that is used as well as how each videogame-based work in an exhibition is contextually framed must be considered for any videogame exhibition. As the issues identified in the following two sections demonstrate, this may involve challenging the primacy of both videogames’ material aspects and the point of interactivity by which they are most often understood.

4.2 Videogames are Durational

Whether a videogame is ten seconds long or hundreds of hours long, this change over time is something that typical displays of static art objects don’t have to consider. While galleries have also shown video and film-based works, in many cases these are only partial solutions to the problem videogames present. “The black box” is an alternative to “the white cube” space which has emerged in galleries to present screen-based works, but in general it does not promote durational engagement with the works in any significant way. As opposed to the cinema, which arrests viewer attention through both a completely darkened room and individual, comfortable seats, even rooms with lengthy screen-based works in galleries often only feature minimal benches, if any seating at all (Groys 2008, 79).

Almost paradoxically, as durational and screen-based works entered the gallery, the gallery space simultaneously cut back on any sort of comforts to ease longer viewing, or even make it pleasurable, as Reesa Greenberg observes. She connects this tendency to 20th century Modernism’s moves to frame the reception of art, especially “difficult” artwork, as active and a form of work, and shunned any association with “feminine” qualities in the gallery space, such as luxury, decoration, and sensuality, asserting the masculinity of

formalist aesthetics. However, cutting back on comforts like decoration and comfortable seating also has the effect of highlighting the art gallery's role as a mechanism for circulating both visitors and artworks as elements of art market flows. Instead of a deep, prolonged gaze these gallery changes more often resulted in the visitors' encounter with art becoming "pedestrian," replaced by a "glance." When seating does appear, it is often "arranged so that its focus is not the art," instead functioning as a place to read the catalogue or literature related to the exhibition. Regardless, "the pleasure of sitting and looking at art has been replaced by the task of reading about it. The work ethic prevails." (Greenberg in Greenberg et al., ed. 1996, 351-352).

In line with Tony Bennett's (1995) arguments, the structure and layout of the gallery space makes arguments about the proper behaviour for visitors in the art gallery, and shapes how they receive the art. Durational art, as well as interactive and new media work suffers in this case, because it does not often reveal its contents "at a glance." Most new media art works specifically are not interested in a "object outcome" but "the process, the engagement, and the interaction" (Graham and Cook 2010, 61). Boris Groys describes the effect of the durational, screen-based work in the gallery, saying "the museum becomes obscure, dark, and dependent on the light emanating from the video image, that is, from the hidden core of the artwork, from the electrical and computer technology hidden in its form, and that, instead of the viewer having "almost complete control over the duration of contemplation," moving pictures inherently "escape the viewer's control," not pausing if they turn away (Groys 2013, 40).

Groys sees this as naturally leading to the display of screen based works in museums that exceed in number and length the typical period of a museum visit, because, outside of the fixed and durational position of the theatre, the visitor being physically unable to view the entirety of the works on display makes film "uncertain" and "obscure" to the spectator. This uncertainty makes what Groys describes as "a new difference," or a different context for screen-based works which is only possible within a museum, and changes both how they are received and their meaning (Ibid., 42).

Therefore, the main question of this section is not necessarily how to make visitors play videogames on display longer or how to condense the experience of longer videogames, but how the exhibition context necessarily changes the durational nature of videogames, just as the intervention of display and collection may differently define the object of videogames. Beyond the issues with screen-based media in general, which are often also mimicking the cinema, presented as large-scale projections, videogames present several other practical issues. The way videogames are displayed in art institutions most often reference two previous historical sites for the display of videogames, the industry exhibition hall and the video arcade. In both spaces the emphasis was on efficiently circulating multiple players through one-to-one experiences with videogames. While there were other behaviours and roles visitors to video arcades (and presumably industry shows) fulfilled, these methods for displaying videogames in public remained common because they drew attention specifically to the action onscreen and the one-to-one responsiveness of the videogame, the “finished product” of the videogames industry and the purportedly special experience offered by the videogame medium. In this context, condensed demo modes, attract screens and fast-paced mechanical loops are also used to capture the attention of players and circulate them through many available cabinets or kiosks.

While many videogame exhibitions use adapted forms of these spaces in their displays, the most common and fundamental difference is that only one copy of each videogame on display is made available, maintaining a connection to the idea of the art institution presenting a singular and authentic art object, even if the videogame in question is mass-produced and infinitely digitally replicable. Introducing this deliberate limit to differentiate a gallery mode of display with a more openly commercial one has consequences for how visitors use and move around the space, which can result in frustration. The arcade or trade-show like display, especially when it maintains their dim, noisy and hyper-stimulating characteristics, aims to appeal to the enthusiasm of an often young, male and tech-savvy demographic of consumer-gamers, and may be intimidating and unappealing to typical gallery-goers as well as those unfamiliar with these elements of gaming culture. They also demand a single, limited way to engage

with games on display, standing at the kiosk or arcade cabinet as a lone player, which limits the availability of spectatorship as a method for understanding the games on display, especially if most of the videogames are “occupied” and a visitor cannot find a videogame to engage with. The feeling of “occupying” a work without engaging with other visitors by letting them watch, due to the size and position of the screen that is mostly blocked by the player’s body, can also limit the time spent with it, as “the fact that other people are impatiently looking over your shoulder is very uncomfortable” (Graham and Cook 2010, 101).

“Black box” galleries and computer lounges are the alternatives the contemporary gallery offers for screen-based works, drawing from the non-gallery contexts of cinema and net cafe respectively. The black box gallery is similar to the white cube, but with lowered lights and perhaps seating to draw the viewer’s attention to a large-scale screen. These installations often require their own room because of sound bleed, leading them to resemble a cinema, the significant differences being that the seating, or lack thereof, implies an amount of time to engage with the work (from pedestrian glance, to brief respite or long-term, absorbed viewing), and viewers do not necessarily enter at the beginning of the work. These elements can make the relation of the visitor experience to the whole work ambiguous, rather than guaranteed, as in a cinema where audiences are encouraged to enter, watch, and exit at certain times. In the case of interactive videogame works presented in this way, a black box-style installation still typically only allows for one primary player, but makes an important change from the kiosk-style installation, because it encourages the player to see themselves as performing, and the other visitors in the gallery to be spectators, watching and possibly even playing socially, by offering advice or to take over the controls, presenting multiple ways to gain understanding of the game.

Outside of the “black box,” other gallery-based forms of new media art installation can feel like “wandering in the no man’s land of lobby, education space, and performance space” (Graham and Cook 2010, 99). The space that most represents this ambiguity is the “media lounge,” an area offering uniform computer terminals and seating which may be presenting software-based works

as well as archival and library information. While these spaces do not resemble, and may not be read by visitors as an exhibition, they offer alternative durational modes of engagements with software-based works, like longer and more private sessions or even encouraging people to “drop in” regularly because there will always be new media works available (Graham and Cook 2010, 105). With flexible placement of equipment and seating, the lounge can also become a place for social sharing, with visitors grouping wheeled or beanbag chairs around a work to discuss it as they play. (Ibid., 131). The drawbacks of the lounge type space is that the curators or audience may have less control over the look of the space or how visitors interact with the work (if the lounge only includes a set of desktop computers, for example), and its ambiguous position within the institution means that the works presented in the lounge may be treated the same as educational or interpretation materials, and not be contextualized or conserved alongside the permanent collection of art.

While a videogame’s change over time may be mostly internal to a specific playthrough, what is significant about a videogame can also change over time, especially if that game has an active online, modding, speedrunning or competitive esports communities. The problem of preserving virtual worlds, such as those associated with MMOs like *World of Warcraft* or *Everquest* is especially challenging, since the games are often being upgraded with new features and missions, while old areas and items can be phased out. These virtual worlds can also have lively economies and metagames which change as the game and community using it does (Boluk and LeMieux 2017, 14). In this case, simply preserving a functional copy will always be an incomplete depiction of the game. How a videogame changes over time can take many forms, from formalized versions, expansions, and updates provided by the publisher, to the effect circulating fan knowledge has on how the game is played, its “social space,” which can manifest in metagames like speedrunning, or even knowledge of how the software works through discovered glitches (see Newman in Swalwell ed. 2017). Some museums, though mostly ones aimed specifically at depicting videogame history like the Computerspielemuseum in Berlin, also extend depicting change over time to physical “play spaces” of games, building depictions of the bedrooms or other home spaces where

personal computers and videogame consoles were used. These displays offer a perspective on videogames' social history, which is often overlooked in technology-focused timelines (Computerspielemuseum 2018).

New media curators have found that visitors usually come to an exhibition with an imagined "time slot" that they expect to spend on it, similar to a movie or concert. However, if certain works or exhibitions break out of this predicted "time slot," by demanding an unexpectedly long duration, visitors can get frustrated, and may only engage with the works shallowly, becoming protective of their time. Therefore, making an honest prediction of the commitment in time and effort a work demands and making this information available to visitors is often the best way to address challenges associated with durational works, though how the visitors can move through the space and what affordances for comfort are made also significantly contribute (Graham and Cook 2010, 101). In some cases, when videogames are still found to be too lengthy or demanding of to understand, curated moments of gameplay that are "representative" are selected to stand in for the playable game. Institutions like the MoMA frame this decision as a last resort, not a true engagement with the object but the only choice when a game is too challenging to display interactively (Antonelli 2012). However, it is also possible to consider them instances of the videogame being performed, only recorded and replayed rather than enacted by the gallery visitor.

4.3 Videogames are Performed

As noted in the previous chapter, the metaphor of theatre appears frequently in game studies literature, and perspectives like ergodicity and procedural rhetoric place understanding in process of play/interaction. Games scholar Espen Aarseth discusses ergodic literature as a concept which, while not exclusive to, includes videogames, describing a form where "nontrivial effort is required to allow the reader to traverse the text," in contrast with nonergodic forms which do not require this effort, instead demanding only actions like "eye movement" or reading the pages of a book in their bound order (Aarseth 1997, 1-2). That videogames also demand the player to perform a type of "work," and that this

work is the primary way of experiencing and understanding videogames is also echoed by Ian Bogost's concept of procedural rhetoric, outlined in his book *Persuasive Games*. In these studies, Bogost explores how enacting the rules of a videogame through playing it can offer understandings of the systems, rules and arguments of the game in a way that is unique to procedural forms, like computation-based media (Bogost 2010, ix). Similarly, videogame exhibitions have been found to generally focus on playability over static, "educational" content, even though videogames can be cognitively appreciated on multiple levels, not just through this specific view of interactivity. (Nicoll in Swalwell ed. 2017, 192).

Both these perspectives foreground an idealized videogame player and attitude towards play, rather than materialist perspectives on play and play cultures. Thomas Apperley and Darshana Jayemanne present platform studies (mentioned above), as well as ethnographic and digital labour studies as important categories of more materialist perspectives on game studies (Apperley and Jayemanne 2012). TL Taylor's *Play Between Worlds* (2006) is a representative work which studies the social activity that surrounds an online gaming community like *Everquest*, and Scholars like Stephanie Boluk and Patrick LeMieux have also taken this approach to document types of meta-play which happen outside the software or hardware based limitations of the videogame, but still have a powerful effect on its play, such as diplomatic activities in the *EVE Online* community (Boluk and LeMieux 2017, 69). Further, from eSports teams to digital currency trading, as well as the work of developers, manufacturing line workers, and other roles in the production of gaming consoles and videogames, studies of videogame from a labour perspective also supplement the general focus on players, such as Nick Dyer-Witheford and Grieg de Peuter's *Games of Empire* (2009).

In videogame exhibitions these processes are often only hinted at through the occasional inclusion of concept art, or interviews with a minority of well-known, big name developers, or simply the names of designers or companies associated with particularly popular or influential titles. The actual technical processes behind developing game hardware and software are often excluded

from videogame exhibitions, influenced by the tendency of the industry to make the technical and decision-making processes behind game development to seem like a “black art” (O’Donnell 2014, 75). Citing exhibitions which sought to contextualize and inform the public about industrial design and production, such as *Machine Art* (1934), Raiford Guins suggests it might be interesting to see, instead of an interactive display of a videogame displayed in a way which is disconnected from its technological development, a non-interactive display of a cutting-edge gaming console disassembled, presented in parts (Ferranto 2015, 222). Other elements of how videogames are a product of a labour process like design, asset outsourcing and pipelines, and manufacturing could also be highlighted, especially in design-centric institutions, to contextualize videogames as a product of labour. However, evidence of these processes (in the form of concept art, design documents and other company archives) are also often the hardest elements of a videogame to track down and display, because it can be unclear who owns the copyright for them, or they may be under a corporate non-disclosure agreement (NDA) (deWinter and Kocurek in Swalwell ed. 2017, 171). While it serves both the typical bourgeois and corporate interests of an arts institution’s board (as summarized by Howard Becker (1982)) and the similar interests of major videogame companies to only present videogames as a finished product, intervening in preserving and drawing attention to manufacturing and development processes is an important point where the resources of an arts institution could be particularly useful.

In many cases, the performativity of a videogame is limited to the performance at present of a visitor playing the videogame in the gallery. However, especially in a context where visitors are playing self-consciously in public, with different postures and durations of play and a very different context than how videogames are played on a personal computer, mobile device or console, visitors’ play will be limited in certain ways. The implied social comportment of visitors within a gallery space, as Tony Bennett observed, generally discourages both touching the objects on display, as well as postures and behaviours associated with lower class activities such as talking loudly, slouching, sitting or leaning, and other behaviours associated with the videogame arcade or home console play (Bennett 1995, 100). Raiford Guins

cites the example of two young men attending the MoMA exhibition of videogames, who exclaimed “Shit, they have Street Fighter” and jostled and high-fived their way through a match as if at an arcade as a moment that “turned some heads” and illustrated the incompatibilities between how videogames are often consumed and the expectations of behaviour in a museum space (Ferranto 2015, 206).

Participatory and interactive art projects as well as ones which bring novel technology into the gallery, do not just let the visitors observe these works like traditional art forms; often they are encouraged to become part of the spectacle of the gallery exhibition itself. Claire Bishop sees this as a potentially exploitative form of relationship with the audience, a conflicting situation where the audience are required to participate to supposedly counter the “apathy” or passive state of viewing static artworks (Bishop 2012, 89). She goes on to say that “participation” as an artistic or exhibitionary device quickly becomes ideological, “by which the viewer in turn is manipulated in order to complete the work “correctly,”” often for the benefit of the artist’s and institutions individual reputations (Ibid., 93). When there is no choice but to participate, the participants are offered a situation not much different from the passive reception of an art historical canon or the false choices of mass culture that these projects supposedly offer an alternative to. Beryl Graham also goes on to say that this model of participatory exhibitions also favours the already tech-savvy, young and confident, who are happy to “perform” the work, and may not feel uncomfortable or anxious using new technology, especially types which require certain vulnerabilities such as rigorous movement or obscured vision required by gaming technologies like motion controls and VR (Graham in Dovey 1996, 165).

Further, even the most basic videogame technologies, such as a keyboard and mouse or traditional controller, require familiarity and a set of skills that is built through familiarizing oneself with the visual language of videogames, the tactile qualities of the controller, and the genre conventions of how different types of games are typically played. This embodied knowledge often becomes invisible to frequent videogame players, similar to the invisible organizing principles

Bennett identifies in art exhibitions. Examining the history of game controller design, David Parisi concludes that the increasingly uniform controller designs across new consoles developed by the major international videogame companies represents a “counterrevolution.” In an effort to create a balance between “the exotic and the familiar,” as he puts it, videogame companies put a large amount of money and resources into creating controllers that are generally only slightly different than the previous generation’s. While motion controls like the Wii and EyeToy or controllers designed for specific games like *Guitar Hero* are examples of moments which both “interrupted” the stability of the typical videogame controller while attracting new audiences (who usually had to pay an additional cost to use these new interfaces), the typical handheld controller, with upwards of 16 buttons and multiple joysticks, was reasserted as the normal mode of playing videogames. The broad return to this conservative and familiar style of interface “can be read as part of an explicit strategy aimed at maintaining brand loyalty and cementing brand identity using the haptic channel.” The decisions that go into the constants of design which appear in these controllers “participate in forging and cementing the contested, gendered, normative, and hegemonic “gamer” identity, bringing with them particular notions of what constitutes the ideal, and non-ideal, gaming body,” encouraging and enforcing a specific “gamer experience” that is participated in and repeated over time (Parisi 2015).

Even beyond this level of familiarity which is only accessible to established “gamers,” highly skilful play such as speedrunning, glitch exploits, and other unconventional play styles can make up a significant part of a videogame’s history and cultural significance that is only accessible to a tiny minority of them. James Newman cites the example of the “Minus World” glitch in *Super Mario Bros.*, an unintended area that is accessible within a small window of a single level, and requires precise knowledge and button presses to access. The contents of this area are also determined by underlying data processes specific to the videogame of *Super Mario Bros.* and the platform of the NES. Over time, passionate fans have analysed this glitch and the variety of minus levels which can result from activating it, contributing to the game’s meaning (even if the glitch was unintended by Nintendo) creating a situation where players and fans

have a hand in creating in the game's history alongside official narratives (Newman in Swalwell ed. 2017, 160). However, Newman also argues that focusing only on certain types of "difficulty" in deciding how to improve accessibility of videogame exhibitions:

"is to miss the larger point which is that all games are hard. All require at least some degree of skill in execution, some knowledge of the operation of the interface and of the connection between physical controls and on-screen activity. And, as they develop and refer to one another over time, they increasingly rely on a priori knowledge gleaned from other games" (Newman 2018).

Therefore, a variety of alternatives to direct interaction with a displayed videogame is not only useful in the case of unusual or particularly difficult instances of play, but generally as well, and they can preserve the performed nature of videogames.

The above issues challenge the primacy of interaction in both understanding games and presenting them to arts institutional audiences. Especially in a context where those unfamiliar with videogames are likely to attend alongside those who are excited by an exhibition of videogames that are familiar to them, interactive presentations of videogames present multiple problems. It is difficult to reliably predict how many people who enter an exhibition with interactive elements will actually use it. Curator Beryl Graham's PhD dissertation, which is based on observing the behaviour of visitors in an exhibition where new media works were displayed in separate rooms and with attendants, records the percentage of users who did not interact with a piece they approached as ranging from 0% to 19% during her observation periods. Even fewer users spent a short period (less than 30 seconds) with the installations, implying most visitors observed had at least a somewhat significant interaction with the work on display (Graham 1997, 191). Additionally, she found being watched by other gallery attendees who were observing or waiting their turn did not always lead to a shorter interaction period, but instead lengthened the average time spent with the work in some cases, as the primary user "performed" with the piece or interacted with the other viewers (Ibid., 193).

New media artists speaking from other experiences are not so optimistic, however. In an interview conducted in 2001, Tamas Banovich estimates that in a typical exhibition context, with many interactive artworks sharing the same space, 90% of visitors over 30 did not use a new media artwork directly, while the “younger generation” was much more comfortable engaging with technology directly (Cook and Graham 2002, 53-54). These two examples do not refer directly to consumer-oriented videogames, and do not account for increased familiarity with technology in gallery audiences over the years, but the possibility remains that a significant proportion of the audience of an arts exhibition including videogames will not choose to pick up the controller for several, or any of the videogames on display.

Visitors may have several reasons for making this choice, related to the reservations people have around using New Media artworks discussed above. They may not have time to engage meaningfully with everything on display, especially in large-scale shows. They may be escorting children or students and see the interactives as a way to occupy the children and a chance for them to take a break (Kidd 2014, 100). They may be self-conscious about playing with an unfamiliar game or piece of technology in public or feel that they will take up the controls for too long when others are waiting. They may simply not want to play. Lynn Love notes in her research of instances of public gameplay that spectatorship alongside exhibited games is not necessarily a failure and can lead to “engagement in socially mediated narratives co-constructed by spectators and past players which sit on top of gameplay, exposure to new types of games and game making practices or finding a sense of togetherness amongst a group of strangers through playing socially,” but that to encourage these developments, organizers must bridge gaps between dichotomies like “comfort or discomfort,” and “insiders and outsiders” (Love 2018, 70-72).

Not wanting to play a videogame may seem paradoxical as both the technological hype surrounding the medium as well as the marketing and rationale for major exhibitions of videogames prioritize this, by focusing on terms like “immersion,” “interaction” and “fun.” Media archaeologist Erkki

Huhtamo also observes that “in the context of digital culture, interactive media is seen as an affair involving a single user sitting in front of a computer display” but that in a historical context, taking into account both past and emerging instances of “interaction,” “such an understanding of interactivity is too restrictive” (Huhtamo in Kelomees and Hales ed. 2014, 173). Taking a broader viewpoint, multiple areas of game studies research show that videogames are increasingly being engaged with through spectatorship or collaborative and indirect forms of interaction.

Forms of spectatorship surrounding videogames have always existed and were always relevant to how players and communities experienced videogames and made them culturally meaningful. Samuel Tobin brings attention to the variety of roles those “hanging out” in a 1980s videogame arcade could take on and drift between: not only playing the machines but also observing, waiting, and other behaviours a whole range of arcade visitors from loiterers to arcade employees enacted (Tobin 2016). A more recent study of “onlookers” in arcade spaces in Taipei also reveals that “player and onlooker identities are flexible and fluid,” responding to the type of arcade space as well as the skill level of both player and onlooker (Lin and Sun 2011, 129). James Newman has discussed the variety of primary and secondary player roles that could take place in the space of home console play, assisting a primary player with navigation or puzzle-solving, for instance, as a part of a larger spectrum of more “on-line” or “off-line” interaction behaviours in videogames in general, which are not universally or homogeneously interactive (Newman 2002, 409). Seth Giddings has also noted that videogame play can influence later social behaviours, imaginative and outdoor play, arguing therefore game studies must acknowledge that “game worlds and temporalities, modes of presentation, puzzles and combat, engagement with computer-controlled characters, are all constantly configuring the player’s experience,” so the position of the player cannot be reduced to one point of interaction or type of behaviour (Giddings 2009, 148). In a museum context, Jenny Kidd has observed that interactive interfaces are also often used socially by visitors, with many using a touch-enabled screen at once, or a “leader” using the interface for a whole group (Kidd 2014, 98).

Other researchers within game studies have developed these perspectives alongside technological developments which allow players to share a fuller picture of the variety of ways they interact with games in specialized communities online. Patrick LeMieux and Stephanie Boluk detail a wide variety of “metagaming” behaviour, in which “play” takes place around and outside of the structures offered by a game or videogame. Their examples include speedrunning, the self-referential design of retro videogames, real-life espionage on other players and teams in online games, and even the “standard metagame” of the videogame industry which encourages players to consume software in specific ways that maintain their technological “black box” and treat them as a commodity (Boluk and Lemieux 2017, 279). These alternate ways of “playing” with videogames become alternate ways that players can come to understand the form, and represent possible alternatives to the in-gallery performance of videogames by visitors, which has several shortcomings in certain situations.

The increasingly accessible ability to record gameplay and share the record of it online, via websites or streaming services has played a large role in these practices becoming more visible and influential on how videogames are consumed. Investigating the motivations of users behind the rapid expansion of videogame streaming services, where players can broadcast their gameplay live, often with a webcam enabled, an empirical study of Twitch users’ motivations found that while the social and recreational aspects of videogame streaming are the primary motive for many in the audience, seeking information about the best way to play certain games or new games they may enjoy is also a significant predictor of how many hours these viewers will watch (Sjöblom and Hamari 2017, 991). This shows that there is not a clear binary between people who watch videogames and people who play videogames, but that there are a variety of circumstances where a single person can cross over, prefer to play at one moment, and watch at another. These streamed gaming broadcasts can cover several genres of play, including casual Let’s Plays, as well as competitive play and speedrunning. However, these performances, even when incredibly creative or skilful, still exist in legal grey areas because of the

complexity of copyright and broadcasting laws involved, as well as varying levels of tolerance from different publishers (Newman 2013, 58).

Presenting recordings of particularly important, skilful or creative styles relates to the strategy of presenting of video clips of videogames in exhibitions, to manage their duration. However, this is also one way to work around issues of performance. The form of videogames, and their serial nature also offers several ways to record and replay player performances. Machinima skits and *Doom* demo files are examples of frameworks for performance and replay that could be created with tools within their games, that are cited by Henry Lowood, and archivist and curator who worked on the Preserving Virtual Worlds project. Emulators can also be used to schedule and replay tool assisted speedruns. In these cases, the performances can exist as different file formats which are “scripts” for a copy of the videogame to play. An archive of game performances may not necessarily be video files (Lowood 2011, 117). An example of an exhibition which was specifically interested in demonstrating how these recordings of performed play are just as vital to the memory and cultural understanding of videogames as an interactive game is Furtherfield and HTTP Gallery’s *Zero Gamer* (2007).

Zero Gamer was a non-interactive videogame exhibition that presented machinima, self-playing games, and gameplay videos as the primary object, and not just to provide context for interactive videogames. The exhibition was presented as a counterpoint to contemporaneous discussions surrounding videogames that focused on interactivity. Most of the work was from artists in new media or Game Art movements, but there were also works by independent game designers, such as Erik Fredrickson’s *Progress Quest*, machinima and speedrun videos, and mods of mainstream games, including Corrado Morgana’s self-playing *Carnage Hug*. The keynote text accompanying the exhibition describes “pauses, breaks and interruptions” as “the backbone of gameplay experience,” and that meaningfully interrupting the playing process facilitates “a platform for reflection,” removing players from the immersion or flow state of interaction (Stockburger 2007). Additionally, the introduction to the exhibition notes this “allows the audience to engage with crucial issues arising

from the hugely complex field of games and gaming ... without actually playing.” The introduction offers an alternative way to view the gameplay videos and self-playing games as more than just “non-interactive,” instead stating “the works in this exhibition don't remove all action from interaction, but they do shift the sites, times and agents of action” (Catlow et. al 2007).

Another approach for exhibiting videogame performances, as well as other elements of the game's historical context is the Game Inspector system, piloted at the National Videogame Arcade by James Newman. These displays allow visitors to see an entire level or area of a videogame on a large screen. Visitors can also zoom in to find historical details, facts about the game, or archived videos of gameplay at certain points in the level. Piloted with classic games like *Sonic the Hedgehog* and *Super Mario Bros.*, Game Inspector offers a possibility for elements like glitches, secrets, and instances of particularly skilful play to be accessed and understood in the larger context of the game by visitors.

James Newman describes the design interface for the Game Inspector as “a playful interface, for sure, but an exhibit in which the play has already been performed.” Additionally, he usefully differentiates this approach from simply presenting a recorded video of gameplay, noting that in those cases, “the challenge becomes one of communicating the extent of the control and influence the original player did have when they performed those moments of gameplay.” The layers of different types of information and gameplay the visitor can access while moving freely around the mediated space of the videogame reveals the “malleability of gameplay” within the “linear” limits of a video clip. Further, this device predicts the eventual possible “end of playability” videogames may face, and imagines how gameplay performances can be conserved in such a future (Newman 2018).

Some perspectives may argue that these non-interactive or alternatively-interactive strategies are based on recent developments, like the emergence of video streaming services and the variety of ways gameplay is depicted on those channels, and risk diluting the longer history of direct gameplay experience. However, videogames have always worked across watching and performing,

troubling the idea that these are two strictly separate states. Early arcade games often featured “attract modes,” which offered example gameplay to both showcase the audio-visual spectacle of the videogame and convey the nature of the gameplay to a potential player. Sonia Fizek also discusses “interpassivity,” a feeling of delegated pleasure associated with outsourcing or automating one’s effort, citing the popular genre of the “Idle Game.” Idle Games are videogames which make few demands on a player and in which “participation is optional or entirely redundant” (Fizek 2018, 139). While these games have increased in popularity recently with the release of titles like *Cookie Clicker* (2013), *AdVenture Capitalist* (2015) and *Everything* (2017) which play themselves when left unattended, they reveal the underlying automation that exists to some extent in all videogames, where the systems within the computer are responsible for remembering the rules, as well as the location and qualities of the virtual objects in play, tasks that would have originally been mediated by the players of a sport, popular or table game. Every digital game, because of the quality of automation they all share to some degree, contain an element this “interpassivity” which deconstructs interactivity-centred discourse and lays bare the illusory nature of interactivity” (Ibid., 153). An ideal state of “true” or “total” interaction is therefore unattainable in the field of digital games, confirming Espen Aarseth’s argument that interactivity is “a purely ideological term, projecting an unfocused fantasy” (Aarseth 1997, 51). A sharp line between play and non-play in the case of videogames cannot be drawn, nor is it productive to try.

There are many reasons people may choose not to play the videogames in a museum exhibition related to familiarity, confidence, availability and ability. But it is also an important component of how people who are avid players also choose to experience them. There are not inherent “spectators and participators” or “watchers and interactors” that enter a gallery, instead the boundary between these two states is porous, and most visitors will move between both. Therefore, exhibitions of videogames must expand their vision of what it means to understand a videogame, and its place in culture beyond the gaming industry’s unrealistic paradigm of direct interaction, to include methods

that are both more accessible and represent more elements of a multiple and multifaceted object.

4.4 The Myth of a Unified *Pac-Man*

An illustrative example of how varied approaches to displaying videogames can manage their multiple, durational and performed qualities differently can be drawn from the exhibitions referenced in the earlier exhibition history chapter. Several of the major acquisitions or touring exhibitions included Namco's 1980 arcade title *Pac-Man*, but each in a very different way. Each of these different display styles make a different argument about what components make up the videogame itself. *Pac-Man* is certainly one of the most canonical videogames, if a canon of videogames can be agreed upon. An iconic arcade title throughout the 1980s, *Pac-Man* was subsequently ported to many different gaming consoles and physical media formats, as well as appearing in many forms of cross-media promotion (such as cartoons and movies) and became an easily identifiable cultural icon.

Is *Pac-Man* the playing of the initial arcade cabinet? This is the view reflected by many retro gaming hobbyists, who are especially interested in materially preserving what they see as the "original experience" of the game (often within the context of an American video arcade). This is also the primary strategy that *Hot Circuits* (1989) took. As the first exhibition at the Museum of the Moving Image to include videogames and an acquisition which would expand the museum's collection to include a new area of cultural production, curator Rochelle Slovin says that the institution was insistent on acquiring cabinets that were still in good condition, and in which parts like the circuit board or cabinet art had not been switched out or altered. Further, the gallery took an extra step to preserve the arcade context of the videogames featured in the exhibition by giving visitors a limited number of tokens to play with. The primary way the exhibition strategy differs from the context of the arcade it refers to is by spacing out and placing the cabinets at an angle in the well-lit gallery space, a move which encourages the contemplation of the whole cabinet, including the screen playing the videogame, as the art object. The tokens place an approximate limit

on the duration any one visitor could “occupy” an arcade cabinet, and the physical placement of the arcade cabinets in the space allow for both visual appreciation of the videogame object and a “performing” player using it, whether standing on their toes to reach the controls or hunching over the recessed screen. At the time when the most culturally visible way of encountering games was the arcade cabinet, it seemed like an obvious and straightforward “object” for an institution to draw a hard border around as a “videogame,” though Slovin still indicated that this boundary was already potentially permeable by the arcade owners swapping circuit boards between cabinets and repainting the outside (Slovin 2009).

But the inclusion of “Pac-Man” in this early exhibition within an art institution already reveals another issue. *Hot Circuits*, while one of the first exhibitions to present videogames as an art historical object, includes the “original” arcade cabinets but does not include the “original” *Pac-Man*. Instead, the exhibition presents *Ms. Pac-Man*, a sequel where the meaning relies on a “metagame” awareness of the previous *Pac-Man* arcade game. Patrick LeMieux and Stephanie Boluk discuss the serial nature of games in relation to late capitalist modes of media consumption like “new seriality.” With the emergence of iconic characters and franchises, the consumption of a videogame extends beyond a single game, to other games as well as “transmedia adaptations” like strategy guides, animated TV series, and other forms of character merchandise (Boluk and LeMieux 2017, 189). Thus, the potency of Pac-Man or Mario or any other gaming mascot is “an infinitely renewable resource” not based in their singularity or scarcity but in their ability to multiply, cross-pollinate and mutate (Ibid., 190).

In this case, are these objects also an element of “Pac-Man” that can be exhibited as such? Raiford Guins cites cases, especially in institutions more oriented towards computing history or the history videogames more specifically, where game boxes, licensed merchandise, and advertisements are included alongside interactive versions of the videogame, referring to exhibits on the history of videogames at both The Strong Museum of Play and the Computer History Museum. These many forms of “ephemera” or even “realia... objects

that elude classification based on printed materials” provide “mediation” and historical context for the videogames, Guins argues, demonstrating the extent of a phenomenon like 1980s arcade gaming (Guins 2014, 169). In the context of a historical institution, presenting multiple forms of evidence which support the interpretation “*Pac-Man* was a popular and influential arcade game” is not as problematic as it is for the context of an art exhibition, where it problematizes both the singularity of the art object, and the constructed neutrality of the gallery space. These displays represent an even more overt multiplicity as they also include portable and console ports of *Pac-Man* as material culture, challenging its position as a single videogame.

The difficulty of finding arcade cabinets which met the MoMI’s standards for display, as well as the displays of *Pac-Man* as material culture under glass prefigure the inevitable breakdown of vigorously-played electronic devices in a setting such as a museum where they face a broad variety and number of visitors per day. If videogames in a museum space want to remain “playable,” due to a number of factors like planned obsolescence, plastic degradation, bit rot and data loss, alternatives to a 100% historical setup must be considered, or else the videogame will only be able to go on display as a “museified” artefact. Guins describes the artefact that is too delicate or non-functional to play as usually untouchable, more valued for what it represents than what it can do, citing the example of the “Brown Box” Magnavox Odyssey prototype, which is held in the archives of the National Museum of American History’s collections, or the “iconic object” of Al Alcorn’s *Pong* prototype (Guins 2014, 67). While these “ex-game” objects still “work” at providing context, meaning, and imagined tactile qualities to a narrative of the history of videogames, in an arts context they are often unsatisfactory on their own. Consoles in glass cases are supplemented by videos of gameplay and later, playable games in the Smithsonian’s *Art of Videogames* exhibition, and in the MoMA’s displays a single, noninteractive Magnavox Odyssey is the only visible piece of gaming hardware outside of the necessary joysticks and controllers.

The MoMA’s approach, as described in a brief blog post introducing the first set of videogames they collected, is to acquire a variety of material, such as

hardware and software, when adding a game to the collection, but their primary focus for long-term conservation is what they describe as the game's "source code" (Antonelli 2012). From a technical standpoint this is a little strange; the source code is not typically encountered by the player or distributed. The closest is the compiled software that is either downloaded (via online storefronts, personal sites or ROM repositories) or copied to a physical format like a disc or cartridge to be distributed. This also makes for an unusual relationship with the rights holders of the videogames in question, especially if the game is from a still-active series or IP, since, conceivably, the MoMA could re-write and recompile the source code, for conservation purposes (such as making it work on another platform) or even to change how the videogame appears on display (managing elements of duration or difficulty).

While the MoMA has been successful in acquiring a few of the games in this way, curator Paola Antonelli notes that others did not immediately agree to this end goal, requiring persistent, long-term relationships (Antonelli 2013). In the end, these relationships and continued communication may be more valuable than the possible acquisition of source code, since videogame creators and companies are often uneasy about an arrangement which gives long term or permanent display rights to a gallery. At the same time, long-term communication establishes better channels for conservation and archiving other materials than a more typical temporary license agreement which is the arrangement for other major art gallery exhibitions of commercial videogames, even if they do not lead to the institution acquiring the source code of a videogame anytime soon.

Can *Pac-Man* be reduced to a singular piece of emulated code, simulating the original circuit board configuration on which the arcade game runs? This is what both the exhibition and collection policy of the MoMA argues, and it presents *Pac-Man* in two ways. The primary way is through an interactive kiosk-like display, which provides a small shelf with a joystick emerging from the wall, in front of a portrait-orientation flat screen an emulated version of *Pac-Man* runs on. In this case, the "arcade nostalgia" of the cabinet orientation and design are positioned as extraneous and unnecessary for (even getting in the way of) the

experience of the object of “Pac-Man” (Antonelli 2013). The kiosk removes the two-player mode from the original cabinet, limiting the durational engagement to the arcade play of a single visitor. This addresses some elements of duration but causes other problems. As observed above, the tilted orientation of the arcade cabinet screen and detailed cabinet art provided something for non-playing arcade-goers to watch, evaluating whether the game appealed to them or watching the player for an idea of what the gameplay was like. That the orientation of Pac-Man at MoMA significantly reduces or removes these elements, it can create a bottleneck of lingerers who want to play in the exhibition space, and prevent an appreciation of the game as performed (Ferranto 2015, 211-12).

The other way *Pac-Man* is presented is a “Distellamap” by the artist Ben Fry. This work attempts to present a visualization of *Pac-Man*’s code which reveals its underlying construction on the level of programming process. This visualization makes the object of MoMA’s collecting policy, the “source code” of *Pac-Man*, seemingly available without any type of mediation, not even a screen. However, this depiction does not reveal anything about how the code was written, which is often a highly iterative process, nor does it allow visitors to explore the code as it would appear in a programming environment, presenting it as text on the wall with the only layer of illustration being arched lines drawn between “goto” statements. Again complicating the idea of “presenting the code” as the authentic object of display, the code depicted in this project is from the Atari 2600 port of *Pac-Man* (1982), generally considered an inferior and far lesser known version. Raiford Guins concludes that neither of these approaches manage to present “code,” instead offering either an artwork which uses the code, or the sterilized “published product,” failing to consider both the development process and the process of reception which precedes and follows a videogame’s release (Ferranto 2015, 218).

These displays also do not address the issue of specialized knowledge it takes to understand computer code. In many cases, rather than inform viewers about the coding process, this style of display can simply further establish the privileging and fetishization of a videogame’s source code. This plays a role in

code being deemed the most important element of software design because of its exclusivity, seeming “arcane” or “utterly inscrutable” to those without insider knowledge of programming (Lowood and Guins ed. 2016, 53). This element of mystery or artistic aura is irresistible to an institution like the MoMA, as their collections and display approaches show, even though the videogame design process may not involve working directly on the code at all.

The display strategy for *Pac-Man* at the Smithsonian American Art Museum’s *The Art of Videogames* has many similarities with MoMA’s approach, but also presents an important difference. *Pac-Man* is one of the five playable games which follows the multiple video kiosks that display looping videos of games from each featured console that make up the first half of the exhibition. As at the MoMA’s exhibition, *Pac-Man* is presented emulated, with a generic joystick instead of any elements of the arcade cabinet. The two-player mode is also disabled. However, the important difference lies in the fact that, instead of being displayed on a small screen that is built into the wall, the Smithsonian’s *Pac-Man* is projected large-scale into a nook.

The same is true of how all five playable videogames are displayed, and it dramatically changes the way visitors interact with the work and move through the gallery. In the Smithsonian display, a group of spectators could easily gather around the player at the central joystick podium, connecting the gameplay and its performance to the action on-screen, made oversize by the projection. This foregrounded performance of the videogame and also helped to manage the duration of play, since because there were only five playable videogames in the exhibition, a sense of performing for an audience, as well as easily moving between roles within the provided space was vital for creating a visitor experience where most visitors felt they could get some sort of experience with the videogames on display.

An experimental approach to presenting *Pac-Man* is demonstrated by the Pori Art Museum in Finland’s *Pac-Man* exhibition, where it is turned into a multiplayer and performative event. *Pac-Man in Flesh* is an adaptation of the imagery and rules of the *Pac-Man* videogame into real space, consisting of

“human players, human ghosts, live sound, lighting effects and even with live reporting” (Suominen and Ala-Luopa 2011, 172). Players donned simple cloth Pac-Man or Ghost costumes and had to figure out how to adapt the rules which governed the iconic 2D labyrinth that makes up the game’s play space to the auditoriums and halls of an art gallery. The event supplemented a broader display of historical information and playable versions of *Pac-Man*, but this approach presented an unusual way that the performative and multiple nature of *Pac-Man* could be embodied, experienced and reconsidered by gallery attendees.

Even using the example of a very early and well-known arcade game, there are a variety of approaches museums and art galleries have already taken to display it, and given the experimental examples and examples in other types of institutions, like computing history museums, it is possible to imagine even more possibilities. Because *Pac-Man* was designed for the video arcade context, it already acknowledges a public space of play similar to that of the museum or gallery with its attract screen, limited duration of play, and elements of the cabinet art and screen orientation that acknowledge watchers and the performative aspects of arcade play. For longer videogames, videogames with online capacities, videogames meant to be played in home settings such as console and PC games, videogames that demand different skill sets or controllers, the issues of duration, multiplicity and performativity must be negotiated in different ways, but they remain primary issues in how videogames are presented in gallery spaces.

Each of the above examples show an approach to displaying what is ostensibly the same videogame. Each manages the multipart, durational or performed aspect of *Pac-Man* in different ways, altering or presenting it in a way that is appropriate for the particular gallery context. None of them are a singularly “accurate” depiction or “original experience,” because, as Swalwell notes, the idea of an “original experience” is often based on one out of many possible subjective positions from which one could initially experience a videogame (Swalwell in Swalwell ed. 2017, 217). However, each reveals important aspects of the game as a culturally mediated object in different ways. Beyond the ways

depicted here there are even more possibilities for displaying *Pac-Man*, such as recording different playthroughs via video or script which is interpreted by an emulator, drawing out connections between elements on the arcade machine circuit board in the same way MoMA visualizes the code, or even exploring industrial design perspectives on arcade cabinet design or the multiple ports of *Pac-Man* to various home consoles. The issues of how to adapt these difficult aspects of videogames to an art gallery context, and the expectations that have been built around what is acceptable within that space was the primary concern leading my curatorial practice, case studies from which follow.

4.5 Conclusion

In an interview, Anne Marie Schleiner describes the multiplicity of the process involved in curating videogame or software-based exhibitions, stating: “I was technical support, curator and an artist for “Cracking the Maze”, a mix maybe as unholy as the relationship between the commercial PC game industry and the gift ecology of game modding” (Jansson 2009). This quote indicates both the mix of roles and skills often demanded of a curator working with software-based art, as well as the broad variety of sometimes incompatible approaches that fall under the category of cultural production called “videogames.” The issues and strategies identified in this chapter represent still-unanswered questions about what makes for effective ways to display videogames in an art environment. Dealing with these issues of multiplicity, duration and performativity were the primary concerns which informed my research into past exhibitions, and my curatorial practice.

In the case studies following this chapter, I will describe the curatorial practice I underwent as a part of my PhD research in three events. The first is a group exhibition of new experimental videogames and art games held in a gallery space which typically displays new media art, *The Blank Arcade 2016* at the Hannah Maclure Centre (August-October 2016). The other two are custom, one-off installations of art games and videogame related material that took place at subsequent evenings of the curated gaming parties, *Games are For Everyone*. These two case studies are Kitty Horrorshow’s *ANATOMY* at *Games*

Are For Everyone V (April 2017), and a collection of FUCKGAMEDEV's games and a zine library at *Games Are For Everyone VI* (November 2017).

It is difficult to write about exhibitions due to their temporary form, and despite their importance in the dissemination and interpretation of art to the public, several scholars have noted the lack of documentation and historical study of how art was exhibited. In her introduction to *The Power of Display*, Mary Anne Staniszewski describes the history of exhibition installation design "as an aesthetic medium and historical category" that has been "repressed" and almost completely forgotten, by both institutions and the public who visits exhibitions (Staniszewski 2001, xi). Despite representing both "conscious and unconscious subjects" such as "issues and ideological agendas... manifestations of historical limitations and social codes," exhibition photos, if they are kept by an institution, are usually kept alongside publicity material in an archive (xxii). Staniszewski describes the photographic documentation at the MoMA as "unusually rich" compared to other institutions, but still with some significant shortcomings. She notes "an almost complete lack of people in the photographs," matching the "modernist" view of the ideal gallery as eternal and uncluttered. Additionally, the only exceptions to this tendency either focus on "honoured guests" at opening events, a far from representative experience of the gallery, or for public relations purposes, often depicting women and children participating in gallery events aimed at their demographic (xiii-xvii).

Beryl Graham observes that these limitations in exhibition documentation have persisted and especially affect how new media art installations are documented and remembered. The typical empty "glamor shots" that document and publicize exhibitions do a poor job of conveying how new media forms worked in a particular installation, and doesn't depict how anyone used it. Additionally, citing the example of an image documenting the exhibition *Les Immatériaux*, Graham notes that while it may initially appear to be informative as to visitor behaviour in the exhibition, a photo people in the gallery space using headphones, with no caption or further contextualizing material can lead to more confusion, as it is unclear whether they are using an audio guide, experiencing a sound-based artwork, or listening to the audio from a more complex interactive work (Graham

2013, 247). Therefore, preserving the behaviour of the installation solely through images, and what behaviours are important to preserve or convey in later installations or recreations of these images can lead to confusion.

Graham proposes a more active and comprehensive model of exhibition documentation that can capture both the technical needs and behaviours of new media and otherwise variable artworks. The techniques such a document would use include annotating floor plans, taking photographs of the installation both stationary and in use, by museum staff, artists, and visitors, keeping a diary of curatorial process, providing summaries of discussions with artists, sponsors, and marketers, and a review of press and audience responses. The collection of audience responses particularly can be difficult to tie to the archival material of the exhibition, because they are “less respected” documents, often recording answers or observations more for the benefit of funders than historians curious about what an exhibition was like (Ibid., 254-255). Likewise, press or marketing materials alone may overstate certain aspects of the exhibition strategically, or lack institutional and historical context. While these materials are useful to preserve with other archival material of the exhibition to determine how the exhibition was framed and information on the audience that attended, Graham cautions against a “behaviourist’ quantifiable approach to art” in using these documents in an interpretation of an exhibition, because simple metrics like “usability” or “popularity” may not be the goals of the artworks on display, or the overall exhibition narrative.

Therefore, when looking at past exhibitions, it is important to be aware of the things which are not typically captured in a photograph, and to also not extrapolate based on speculation from these images. For the future, it is also important to document an exhibition in several ways beyond the traditional installation shots. This is the approach I take in the following case studies, combining floor plans and photographs with an in-depth discussion of curatorial process, background information on the featured artists, and audience survey information in the case of long-running exhibitions or observation over the course of temporary, short-term installations. This approach is modelled on new media exhibition case studies collected by Christiane Paul in *New Media in The*

White Cube and Beyond, as well as Beryl Graham and Mary Anne Staniszewski's writings on visually and contextually interpreting exhibitions (Paul 2009, Graham 1996, 2013, and Staniszewski 2001).

Reflection on curatorial practice is an important methodology for several reasons. HS Becker and Tony Bennett have drawn attention to how the roles of museum staff like curators, and the organizing principles of art exhibitions are often invisible to typical visitors, who take the construction of canons and development of exhibition styles as given. The invisibility and immateriality of these processes, alongside the fact that the written history of art focuses on objects and artists, means that the influence exhibitions have on the framing and communication of art history is ignored in many discussions to do with the canons and histories of various art movements. As the curator's role increasingly becomes that of a creative figure, the importance of investigating both contemporary and historical exhibition forms became apparent. The emergence of museum studies and curatorial studies programs have led to these practices becoming varying degrees of self-conscious.

In light of this self-consciousness I try to make my description of curatorial practice in the resulting case studies qualify as "thick description," which is an anthropological term for "actor-oriented" descriptions of cultural behaviours which not only describe a series of actions, but an interpretation of intended meaning in the cultural context of each action. Clifford Geertz, describing this method, states: "culture is not a power, something to which social events, behaviours, institutions, or processes can be causally attributed; it is a context, something within which they can be intelligibly, that is, thickly described" (Geertz 1973, 14). He sets thick methods of description apart from the "radically thinned descriptions" of decontextualized data or simple reportage, similarly to Graham's hesitancy to let curatorial activity be overly determined or interpreted by quantified "audience feedback" (Ibid., 16). This method is therefore especially relevant to discussing how exhibitions and display choices emerge in an art institution; they do not emerge deterministically from the institutional structure or broader art culture, but instead are an act within certain existing assumptions that at the same time shape and influence what subsequent acts

are possible, reasserting an institution's power, changing its nature, or sometimes both at the same time.

These case studies, therefore, are inevitably a type of autoethnography, as the research is describing reflecting on my own practice, even as I create some distance from it by placing it in the context of past exhibitions and other curatorial case studies. Therefore, it is important to be aware of the personal context that my work is coming from, as well as my aims. These initial chapters have established the context of exhibitions I draw from, as well as the position I play in the institutional space as a curator. One out of many possible definitions of autoethnography put forward by Leon Anderson in *SAGE Qualitative Research Methods* presents three points: "work in which the researcher is (1) a full member in the research group or setting, (2) visible as such a member in the researcher's published texts, and (3) committed to an analytic research agenda focused on improving theoretical understandings of broader social phenomena" (Anderson in Atkinson and Delamont eds. 2010, 298). While not inclusive of all autoethnographic methods, this is the definition I feel most closely describes my process. While I am clearly a central figure in the exhibitions described in subsequent chapters, by using the analytic perspective provided by HS Becker's analysis of art world processes and the technique of "thick description" to explore and evaluate the aims and outcomes of my curatorial choices creates a self-reflexive process with the aim of improving both the theory and practice behind exhibiting videogames.

It is important that, to be investigated, rich documentation of these exhibitions must be preserved. Beryl Graham asserts that while "the artwork might be in a collection... the exhibition itself is a temporary act" (Graham 2013, 251). Therefore, I see my in-depth case studies of my own curatorial practice functioning as a form of intervention to an under-documented area vital to the interpretation and history of videogames in art spaces. In recording the exhibition and gathering data on visitors through observation notes and surveys to illustrate these "temporary acts," I was sure to comply with the ethical research standards of the University of Abertay. All demographic data points which could possibly connected to an individual in the surveys and observation

notes were anonymized. Additionally, signs clearly indicated that recording was occurring at the exhibition events that I observed, and offered visitors the opportunity to ask event staff to not be included in any recordings of the event. These ethical considerations are also standard for museums and galleries gathering visitor data or recording video and images of their events, and acknowledging the right to privacy and consent from visitors did not interfere with my ability to take thorough notes and gather illustrative images of the exhibitions.

Beyond simply developing exhibitions of games as an element in the research of my dissertation or as a way of building a portfolio of work experience or varied skills, my goal with the following three case studies is to provide a model for capturing information about videogames in exhibition that provides context and information about the “temporary act” of the exhibition beyond what is captured in install photos and visitor demographics. The three case studies that follow also demonstrate a narrative arc in my own practice of identifying and reconsidering the issues of multiplicity, duration and performativity I identify above.

5 Case Study 1: The Blank Arcade 2016

5.1 Introduction: Context and Goals

In the previous chapters I investigated how strategies enacted by a spectrum of arts institutions, from small galleries to internationally renowned museum collections, not only reveals arguments about the place of videogames in a larger arts and cultural context, but also positions on what makes a videogame in the first place. In the following chapters, I summarize and reflect on my practical work in games curation, further exploring how exhibition and collection strategies can be used to incorporate a comprehensive and engaging history of videogames into the history of art. The first of these projects was *The Blank Arcade 2016*. By reviewing both the process of organizing this exhibition and resulting visitor feedback, I reflect on the effectiveness of the present curatorial process and issues it will benefit from considering in the future.

When the Corcoran Gallery in Washington, D.C. temporarily welcomed arcade machines into its halls for its ARTcade, held in 1983, the institution was making certain aesthetic, historical, and value judgements about videogames. Since then, more art and design institutions around the world have also welcomed videogames and similar software-based works into their exhibitions, and eventually, collections. New Media scholar and curator Beryl Graham also describes the function of the New Media exhibition as a “testbed,” the success of which determines later collection, conservation and historicization. (2014, 1) For over 25 years, exhibitions of videogames have been temporarily on display at major institutions, recently the V&A in London, Smithsonian American Art Museum, The Museum of Modern Art in New York, and many others. Major touring exhibitions, such as *The Art of Video Games* and *Game Masters* are also still in the process of traveling across several continents. My research so far has attempted to evaluate how these institutions select videogames to display and decide how to display them.

Putting this research into practice, during 2016 I co-curated an iteration of *The Blank Arcade* with organizer and game developer Lindsay Grace, an exhibition of videogames that launched during the joint DiGRA-FDG Conference in August

2016 and ran through October 2016 in the Hannah Maclure Centre (HMC), the institutional art gallery of the University of Abertay, Dundee. This weeklong academic conference travels between locations in North America, Asia, and Europe, and the exhibition is usually put on the week of the conference, in a small venue nearby or within the conference centre. The featured videogames, software, artworks and other forms of interactive technology are selected from a submissions pool by the co-curators of the exhibition, and are evaluated specifically for their playfulness, innovative qualities, and how they expand mainstream conceptions of videogames and play. Existing knowledge of issues in the history of exhibitions of videogames informed my curatorial approach and shaped my reflection on the message conveyed by the exhibition itself.

During its three-month run *The Blank Arcade 2016* reached audiences beyond games academics and creators, like computer arts students and members of the general public with an existing interest in the HMC's usual program of New Media and contemporary art. The longer exhibition period and higher accessibility to the public offered an opportunity to collect information on how many types of visitors respond to exhibitions of videogames, while applying interdisciplinary and practical approaches to the display strategies used in the exhibition.

Reflecting on feedback received from visitors provides some interesting insights into how accessibility, visitor engagement and spectatorship affect the reception of videogames in an exhibition environment. Both the history of art and game studies focus on the moment of individual engagement with the work as the primary site for transfer of meaning. Investigations into the history of exhibition methods, and spectator studies are relatively new approaches in each field. While facilitating accessible interaction with the games on display is still an important consideration in organizing an exhibition of videogames, considering how contextualization, performance, spectatorship and the public environment of the gallery influence how visitors experience the games allows for new approaches in games curation.

Because of its relationship with the organization of FDG-DiGRA and its proximity to the event venue, as well as the gallery staff's experience with new media art objects and the resources to display them, the Hannah Maclure Centre gallery at the host institution, Abertay University, was identified as the best venue for the exhibition. Use of the HMC also allowed for resources, such as an IT department, catering, attached cinema, and established presence as a gallery space to support extra programming alongside the exhibition.

Because of the convenience and resources afforded by the location, *The Blank Arcade*'s usual weeklong exhibition duration was extended to last almost three months, from August 2nd, 2016 to October 27th, 2016, taking the slot for the usual Autumn exhibition in the HMC. *The Blank Arcade 2016* would also have an opening event targeted at delegates of the conference, and a later event for students and the general public. The longer exhibition period and higher accessibility to the public offered an opportunity to collect information on how many types of visitors respond to exhibitions of experimental and unusual videogames.

In early meetings, we determined the goals of *The Blank Arcade 2016* as an exhibition were to curate works and organize events that would continue the tradition of presenting interactive artworks, games, and other forms of playful experience that offer experimental perspectives on the purpose and potential of play. This presentation would not only be meant to complement the academic gathering it was associated with, but also make these works accessible to a non-academic, non-specialist public in this iteration. The submissions would be rated on appropriateness to exhibit based on their functionality, accessibility, aesthetic effect and suitability to the exhibition's purpose of presenting new and unusual perspectives. Adjustments to what type of works could be accepted as well as how many had to be made to adapt the exhibition to the expectations and limitations of a space that was also like a more traditional contemporary art gallery, featuring white walls and abundant natural lighting. While experimental works were encouraged, they would have to be durable and non-ephemeral enough to withstand three months' worth of being displayed five days a week, and also be possible to transport to and fit in the top floor gallery space of a university building rather than a conference venue or other multipurpose space.

5.2 Selection Process

Conscious of the above issues, a call for submissions was drafted and made public in the form of an online submission page in March 2016. It was distributed to artists and creators via online mailing lists and social media, extending the invitation to submit to communities of independent game developers, games-related academics, and new media artists. Based on this call, we received a response over the six weeks the call was open of 57 different submissions from a variety of individual artists, studios, collectives and teams based across the UK, Europe, Asia and North America.

After submissions were closed, Lindsay Grace, the original curator of *Blank Arcade* and an associate professor at American University Game lab with experience in game design, and I, prepared to co-curate the submissions. We evaluated the pool and ranked the entries separately before meeting over Skype calls to discuss the works and decide on the content as well as general theme of the show. Selecting from a pool of submissions is a limit not always necessarily present in curatorial practice in the arts broadly, but is very common for independent game awards or shows. Drawing from submissions places a “crowdsourced” limit on the curatorial selection similar to the issues identified with curation by poll, as in the case of *The Art of Video Games* at the Smithsonian American Art Museum. In this case, it also led to most submissions being recent, rather than historical, work. However, distributing a submission call widely also led to a variety of submissions which were new to both curators.

While evaluating the selections, some had to be discarded offhand for lack of quality or insufficient relevance to the prompt. For example, the files provided by the submitter did not work, or had many glitches or crashes, failed to present a coherent experience, or presented an experience that was already generally acceptable in the gaming mainstream. Other works were conceptually original and of sufficient quality, but simply required too much space, or more advanced technology and resultant constant monitoring by an attendant that the HMC could not afford to provide for the three months over which the exhibition would

be held. For works outside of these categories that were not disqualified, I personally split them into three categories, acceptable, good, and excellent, and among the good and excellent selections curated two ideal but different selections, one of a show that featured games that responded to current events, with more of a political edge, and another that focused on games that appealed to the senses in unusual ways, through alternative graphics styles, tactical interfaces, sound engineering or other approaches. After this process, when I met with Lindsay Grace to discuss our selections, I found that, as co-curators, we overlapped more on our positive opinions of the latter category of games. The games we both felt positively about and felt fit this general theme were narrowed down to 9, which led to the eventual 8 selections featured in the show.

The final selections were *Abstract Playground AP1* by Will Hurt, *Beeswing* by Jack King-Spooner, *eBee* by the collective Pins and Needles, *Fugl* by Johan Gjestland and Team Fugl, *Katakata* by Kirsty Keatch, *Lissitzky's Revenge* by Christopher Totten, *Orchids to Dusk* by Pol Clarissou, *You Must Be 18 or Older to Enter* by Seemingly Pointless, and *Walden* by Tracy Fullerton, though *Walden* was pulled due to space concerns and also requiring an extensive graphics and video card setup the HMC could not supply. After the selections were made, the creators of each work responded positively to confirm that they would still like their work to be featured in the gallery and gave the copyright permissions for images of it to appear on *The Blank Arcade* website and catalogue for the exhibition.

Many submissions we received were extremely sophisticated in concept and execution. However, due to limitations of space and budget, as well as the desire to create a tightly curated show, the 2016 edition of *The Blank Arcade* ended up being the most selective iteration. Several games, such as *The Meadow* by Richard Lemarchand, related to the theme of expanding the aesthetic horizons and types of sensory engagement offered by videogames, but because the work needed several attendants, a large amount of space and advanced VR technology, it was not feasible for the gallery space or maintainable for the length of the exhibition. Other games with complex VR

setups or unstable custom peripherals were also turned down for these reasons. Biome Collective's *Killbox* was another exceptionally well-designed experience which effectively provoked questions about drone warfare, however it requires two synchronous players at separate computers, which made it difficult to guarantee that it would often be playable in a small gallery like the HMC. Additionally, its broad political themes would have been an outlier in a show that is primarily concerned with the work's tactile and aesthetic qualities.

Videogames like *Magic Wand* by Stephen Gillmurphy, while having unique visual design and commenting recursively on the conventions of videogames while being structurally unconventional was thematically appropriate, but the controls took a period of adjustment to understand, where most of the games in the exhibition were intuitively accessible, or at the most could be figured out through a brief period of experimentation. *Fugl* and *Lissitzky's Revenge* were the games in the exhibition which demanded the most skill with controls, but they also allowed the player to restart and change their approach quickly in the case of failure, so that it was not a major discouragement or setback.

However, this is not to say that all gallery games must be simple, and a difficult control scheme that draws from tacitly accepted "gamer" culture norms cannot be used to add to the themes of a piece and its aesthetic experience. Eddo Stern's *Vietnam Romance*, for example, was displayed concurrently in the Dundee Contemporary Arts centre as a part of a different exhibition and has a complex control scheme with a high learning curve for anyone who has not previously played combat games. However, it was also situated in a larger gallery space and had a robust attract mode that could communicate the content of the game to people intimidated by the control scheme. Gauging the appropriateness of including difficult or unintuitive games is a case-by-case judgement, and the other games in the exhibition, the flow of visitors through the space as well as the likely audience is an important part of this curatorial process.

The final selections draw from the history of videogame exhibitions and challenge it, by including works by teams and single creators, works of vastly

different scales and media, and works from creators that described themselves as artists, designers, and game developers alike. This was done partly to bridge the gap between the parallel histories of independent and new media art game development which rarely interact in the history of game exhibitions, in the hopes of creating fruitful and provoking juxtapositions between works that feel more like “art” and “games,” or works made by teams and a single artist. After the selections were made and the creators of each work confirmed that they would still like their work to be featured in the gallery, we moved to preparing for the installation stage of the exhibition.

5.3 Exhibition Installation

The information the artists submitted was then reviewed and they were asked to confirm the technological needs of their works before requests for furniture, computers, and peripherals were made to the estates and IT departments of Abertay. Organizing the equipment through the university’s IT department lessened the usual cost of renting or purchasing equipment, but it also required us to work within the existing hardware and setup limitations set by the university, which led to later issues running some of the games in their ideal format. Finally, between the selection process and the setup process for the gallery opening texts were prepared for the gallery’s labels (see appendix 9.1) as well as the catalogue (see appendix 9.2) to offer background information, interpretation and an explication of the exhibition’s theme for visitors.

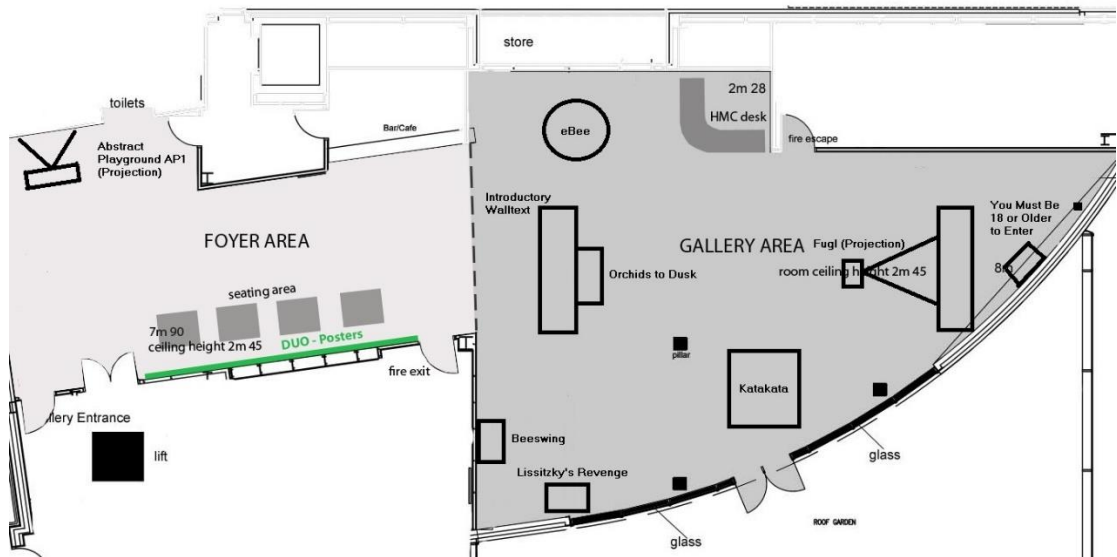


Figure 15: Floorplan for *The Blank Arcade 2016* installed at the Hannah Maclure Centre in Dundee.

Before setting up the exhibition, we had to make important decisions about the use of the space's characteristics, including a long row of large windows. The previous show in the space was an exhibition of prints, primarily consisting of works on paper, and therefore left the large windows of the gallery uncovered to let in natural light. However, because some of the exhibited works for *The Blank Arcade* were displayed in the form of screens or projections, and the long stretch of windows would primarily provide only distracting backlight or glare for the works on display, they were covered with black vinyl to allow for more control over the exhibition's lighting. Two mobile wall forms or partitions were also used to mount the introductory wall text and direct flow through the space, as well as to create a slight barrier between the general exhibition space and *You Must Be 18 Or Older to Enter*, the sole submission that had consistent suggestive sexual content. For this work, some specialized furniture for setting a scene similar to the one implied in the game was also selected working with the artists. The rest of the works were either on standard desks or plinths provided by the gallery, projected, or freestanding in the case of *Katakata*.



Figure 16: Installation photo of *Abstract Playground AP1* by Will Hurt at *The Blank Arcade 2016*, Kathryn Rattray

Upon first entering the gallery, visitors were in front of Will Hurt's *Abstract Playground AP 1*. Will Hurt is an artist whose work primarily deals with creating digital compositions that draw on formal elements of architecture and diagrams. This work is made up of a projection of a 3D program developed in Unity which presents a reactive architectural environment that players interact with through a custom-made control panel of arcade buttons. Interactions trigger sounds and animations, changing the colour scheme and configuration of the depicted structure, as well as the sounds it produces. It was considered a strong inclusion for the show for its distinct graphical style which referenced Brutalist and Modernist architectural movements that appear in the skyline of Dundee. Will Hurt's project also involved collaboration with players who have learning and/or motor disabilities and may not be able to enjoy the complex control schemes or speed and challenge of more mainstream videogames.

The brightly coloured and simplistic interface which gives instantaneous feedback to curious players and has no scoring or fail state is a potentially more effective way to get people who may see videogames, especially the additional

layer of pressure from playing them in public, as “not for them,” to feel more comfortable engaging with interactive works on display. While few of the videogames on display in *The Blank Arcade* had traditional fail states or Game Over screens, they still frequently utilized more complex and therefore potentially “intimidating” control schemes such as contemporary game console controllers or WASD-Mouse style controls for PC, which tend to rely on pre-existing knowledge of videogames. Placing a work with an interface more firmly and universally rooted in daily life at the beginning of the exhibition (the visitors likely used similar push buttons in the elevator on their way to the gallery), established confidence in a broad swathe of visitors before leading them to more complex experiences. One visitor from the 45-65 age group, noted that *Abstract Playground* was the only work they found “immediately accessible,” and needed help from the gallery attendant to use the others. *Abstract Playground’s* lack of explicit goals often caused players to treat it more as an instrument than a game, “performing” small compositions before moving on. The visual and audio interest of the game also makes it a “grabbing” work to put at the entrance to an exhibition.

Moving past *Abstract Playground*, the visitor next went through a small seating area used for catering and talks during gallery events, and would come to face the introductory wall text, presenting the exhibition title, a summary of the selection process, and its goals and important themes (appendix 9.1). From there, the visitor could go left or right into the main exhibition space, where the bulk of the works were. The four games nearest the exhibition text were *eBee*, *Orchids to Dusk*, *Beeswing* and *Lissitzky’s Revenge*. Further back in the space were *Katakata* and *Fugl*, and finally, behind a partition onto which *Fugl* was projected, *You Must be 18 or Older to Enter*.



Figure 17: Installation photo of *eBee* by Pins and Needles collective at *The Blank Arcade 2016*, Kathryn Rattray

Like *Abstract Playground*, *eBee* is another selection that does not utilize a typical gaming interface. In terms of genre, it is the selection most unlike mainstream videogames, and instead has more in common with tactile puzzles and table games. *eBee* utilizes e-textile activated patches and a game board to stage gameplay that can be either cooperative or competitive, but is guided by the universal laws of electronics. The rules of the game are literalized in that, to be successful, the players must place game pieces that represent a functioning electrical circuit, and because of the e-textile elements in the pieces, properly placed pieces will result in an actual circuit being created and an LED light turning on.

eBee was created by the Pins & Needles collective, which is a group of students and faculty at Northeastern University with a multidisciplinary background interested in game design. The game not only experiments with possible uses for e-textile, as well as the expanded potential of table games involving electronics, but it also aspires to bring forward forgotten elements of the history of computing and social life that are neglected in mainstream

videogames. The choice to use textile and quilting processes and motifs in the creation of a game about electronics is intended to emphasise the origins of early punch card computing, which was used to control textile design through Jacquard looms, and to draw inspiration for games from female-oriented social spaces, like quilting bees.

Some minor logistical concerns became apparent with implementing *eBee* in the gallery space and keeping it functional for the three months of the exhibition. Prior to the exhibition, I made sure to request that the creators provide spare pieces in case of loss, and they agreed, also providing spare batteries and a simple repair kit. Gallery attendants were also shown how to check if the game was working and how to regularly change the batteries to keep it running smoothly. Because of the game's more complex and flexible rule structure, and because it was partly up to visitors to enforce the rules, as it is not a digital game managed by a computer, laminated cards fully explaining the rules were provided in addition to the gallery text.

While it does not have the draw of animated imagery or a simulated world, the that most of the other screen-based works on display have, *eBee* was still remarkably popular, and even encouraged visitors to sit and engage in play sessions of upwards of 15-20 minutes. Perhaps this is due to its novelty, because while new media art works, including videogames have long been present in gallery spaces in the form of familiar computer terminals or projected screens, table games may be a surprise for gaming fans, and more approachable to those uncomfortable with more typical computing interfaces. Additionally, the rules allowed for competitive and collaborative play, making it a work that a social experience of multiple visitors could be built around, allowing many interactors at once and creating less pressure for players to take turns and hand off the controls if they feel they are taking too long or playing poorly. And, despite the lack of computer graphics, the colourful choices of fabric and craft media tactility that made *eBee* unique in the space may have been just as effective a draw.



Figure 18: Installation photo of *Orchids to Dusk* by Pol Clarissou at The Blank Arcade 2016, Kathryn Rattray

Next to *eBee*, immediately behind the wall text partition, was Pol Clarissou's *Orchids to Dusk*. This game is another 3D rendered environment made in Unity, like *Abstract Playground*, but is controlled by a much more typical keyboard and mouse setup. The simplistic, white, lightweight furniture and equipment chosen to serve as the desk, chair, and headset for the display of the game both referenced the smooth, minimalistic style the player character, a lost astronaut, is rendered in, as well as the iconic clean white interiors and interfaces of many science fiction films, most notably *2001: A Space Odyssey*.

Orchids to Dusk was uniquely suited to gallery display because it has a set play time that is the same, or shorter, for each player. The game follows an astronaut who crashes on an apparently depopulated planet. Unable to repair their ship and with only a single oxygen tank, it becomes apparent that the player has no choice but to die on this unknown planet. The player can explore the environment, sit and watch the landscape, and choose whether to end their own life deliberately or die of suffocation inside the suit. Players who open their suit to the planet become organic material for the planet to subsume and turn

into trees and flora, which may eventually clump together to make oases. Players who do not open their, remaining hermetically sealed inside, instead become perfectly conserved corpses, petrified in their final location.

After pausing to examine the environment for a few moments, the option to remove one's helmet appears to the player. Unlike the fast-paced action in many mainstream games that has been associated with videogames, this game requires the player to stop and play slowly and carefully to reveal all gameplay choices and possibilities. The game also offers very little agency, in terms of choices for the player to make, which is also frequently touted as a defining characteristic of videogames. The player is limited to one choice, to die with their helmet on or off, and each player can take a different symbolic and philosophical meaning from this choice. More complexity is added by the fact that the game remembers each respective player's choice in terms of whether they open their helmet or die of suffocation, and what point on the map their play session ended. Based on the cumulative choices of many players, areas of the map can become lush and fertile from many astronauts returning their bodies to the land, or littered with hermetically-sealed frozen corpses.

Orchids to Dusk also exists as a networked, online environment that records every play session experienced by players who download the game from Clarissou's Itch.io page. In the year since it was released, Clarissou noted on his Twitter account that some areas of the networked version have become heavily forested, as previous plays' effects on the gameplay environment shape how the next players explore (Clarissou 2017). The iteration displayed at *The Blank Arcade* is not connected to this networked version, however, so the environment created was specific to those who visited *Blank Arcade*. This created a distinct record of plays and an experience over time that differs from the online version and offered an indirect way for visitors to playfully interact with those who visit long before or after them in the exhibition's lifespan. While the gallery environment did not change much about how the game was played, it did change how the environment was generated through the various playthroughs.



Figure 19: Installation photo of *Beeswing* by Jack King-Spooner at The Blank Arcade 2016, Kathryn Rattray

Beyond *Orchids to Dusk* were a pair of games presented on computer monitors at plinths, with either a keyboard or game controller control scheme. Both shared visual aesthetic themes in that they were games utilizing tactile media like cut paper, sculpture and drawing in the creation of their digital graphics. However, in terms of mechanics and theme, they were very different. I made the decision to group them together in the space to demonstrate that their aesthetic starting points are similar, and yet they take them in totally different directions.

The first game in this corner was by local Edinburgh-based developer Jack King-Spooner. *Beeswing* is a personal narrative game about revisiting the Scottish village he grew up in, and so was a good way to pull local topics into an international selection of games. It also relates to King-Spooner's larger artistic practice, producing games with collaged visuals and original soundtracks he creates himself. All of *Beeswing's* graphics began as drawings, paintings, or clay figures, which he scanned or photographed and animated digitally before putting them into the game. The game allows the player to take control of the

creator's avatar within the world and explore locations of the village and nearby city at their leisure and in any order. Given only a vague to-do list as guidance, it is mostly up to the player to discover how the various threads of the many stories going on in the village resolve across the different key locations, which include places like a nursing home, a video store, a forest, and a lake.

King-Spooner's own background as a musician also provides the soundtrack for the game, which is made up entirely of original acoustic compositions. Personal photographs and video clips are included in addition to the subject matter and the fact that all game assets, writing, audio and programming were created and implemented by a single author gives *Beeswing* a different feel and potentially a different reception as an art object within the gallery, opposed to other projects which rely on abstract or digitally generated imagery, or work credited to teams or collectives. An individual not only creating all of the parts of a videogame themselves (as was often the case in the very early days of the medium), but also including aspects of personal history, memory, and ephemera of daily life is a growing tendency in small, free to play and online distributed games (especially over platforms like Game Jolt and Itch.io) that is both noted and encouraged in Anna Anthropy's 2012 work, *Rise of the Videogame Zinesters*.

Including a game which reflected this working style and approach to game development, as well as emphasized the handmade feel also associated with the zines Anthropy references, were primary reasons why this work was selected as an example of how the aesthetic horizons of videogames were being expanded. However, *Beeswing* was also an interesting selection because of its themes, which also expand the social role and implications of videogames by covering topics such as elder neglect, mental illness, and other problems that are often overlooked in small towns and cities alike. The fact that it was released by a local developer, and drew on locations and themes that are familiar to Scottish visitors to the gallery also made it an exceptional draw, and Jack King-Spooner being one of the developers who was local enough to give an artists' talk at an event after the opening, once local university students had returned, also played a part in the popularity and success of the events associated with the exhibition.



Figure 20: Installation photo of *Lissitzky's Revenge* by Christopher Totten at *The Blank Arcade 2016*, Kathryn Rattray

Next to *Beeswing* was Christopher Totten's *Lissitzky's Revenge*. Like *Beeswing*, this videogame also features graphics made primarily in a non-digital medium, in this case papercraft and drawing. The graphics are done in this way to mimic the drawings and designs of the Suprematist painter, El Lissitzky. Christopher Totten is an independent game developer who is interested in facilitating meeting points between videogames and cultural institutions like galleries and museums. *Lissitzky's Revenge*, like *Beeswing*, expands the aesthetic horizons of mainstream games by referencing an art historical movement in all aspects of its design. While other mainstream games have occasionally referenced specific art historical moments in character costumes, architecture, or paintings within these game environment buildings, the most common artistic reference point for videogames tend to be either increased photorealism, or nostalgic references to past games and consoles.

Suprematism is a unique moment in the history of design because it was a movement that explicitly attempted to shape the not only the aesthetic taste of the people, but also their political consciousness through abstract design.

Lissitzky's Revenge utilizes motifs and principles of Suprematist design to question whether such abstract symbols can provide motivation and narrative to the player, and if the videogame player of the 21st century can be manipulated by the same principles developed by the Suprematism movement a century ago. This not only taps an unusual design inspiration and medium for the videogame's visuals, but also challenges dominant preconceptions of the game studies field, which often rhetorically separate the underlying code of a videogame and its aesthetic trappings." (Niedenthal, 2009) Here, however, Totten challenges this division by referencing a visual style that was also intended to have clear rhetorical purpose. While it may seem to fit comfortably into existing game genres like puzzle and arcade shooter if its gameplay alone is examined, and it uses a standard Xbox-style gaming controller, *Lissitzky's Revenge* is both visually unique and challenging to mainstream game aesthetics through its engagement with the history of art.

Moving towards the centre of the exhibition space from these plinths in the corner, visitors would next encounter an object that initially does not seem like any recognizable form of game at all. This large sculpture, made of a metal frame, wooden plinth, and a long Jacob's Ladder toy with a robotic servo motor and contact mic attached was Kirsty Keatch's *Katakata*.

This project consists not only of the visible material of the sculpture, but also of a computer and Wi-Fi router within the plinth that allows visitors with a smartphone to connect to the sculpture and control it. Once the user connects with their phone to *Katakata*, not only does flipping the phone activate the motor at the top of the statue, turning the Jacob's ladder toy and processing the audio data that goes through the contact mic into an accompanying sound that is played through nearby speakers, but moving the phone from side to side allows the user to alter the frequency of the sound, speeding it up or slowing it down as it is repeated.

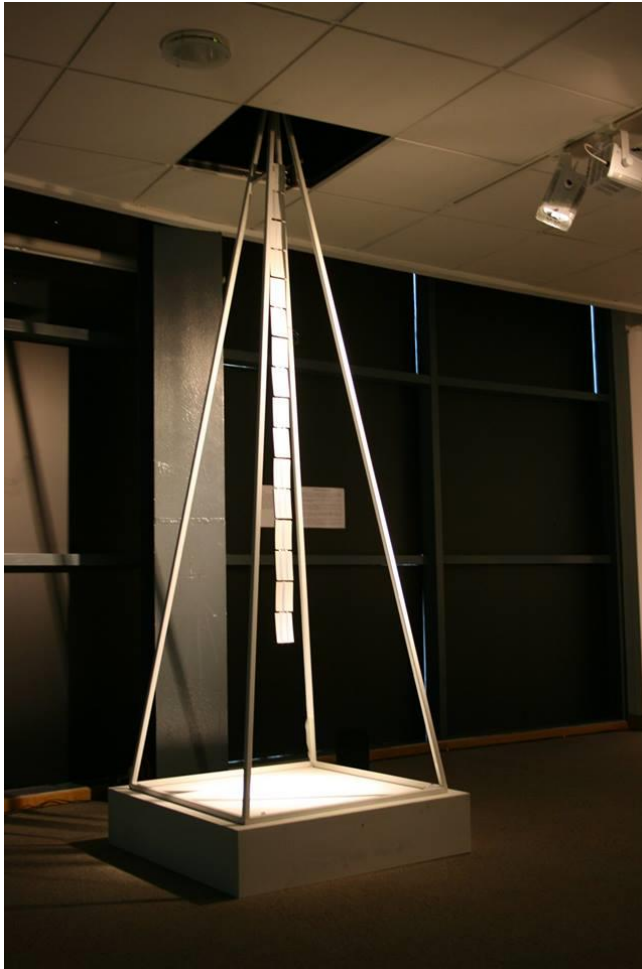


Figure 21: Installation photo of *Katakata* by Kirsty Keatch at *The Blank Arcade 2016*, Jeannette Ginslov

The directions to interact with *Katakata* require some technical knowledge, opening the smartphone browser and entering a URL to connect, in addition to requiring visitors to have a smartphone with an accelerometer feature to activate the work. The fact that the work was not self-sufficient and required some form of technology to be brought to the gallery by the visitor was considered and weighted against the aesthetic effect and innovative nature of the piece. These could be counted as serious accessibility issues, but *Katakata* was also one of the most unique and polished entries the call for submissions received.

While some visitors did make complaints about the requirement for a phone with these features to fully appreciate the work, phones with these features are common in the United Kingdom, and museums have made use of them to supplement exhibitions many times in the past. Additionally, every Gallery

Assistant working for the HMC at that time had a phone with these features, and therefore could demonstrate or lend the phone to any visitors who had problems or did not own a sufficiently featured smartphone. In the end, the use of the personal phone was deemed not only necessary to the piece technologically but also in line with the artists' intent.

For Keatch, *Katakata* originated in a dissatisfaction with sound design for mobile technology, where, despite the potential offered by the portability and features of the technology, generally little effort is put in beyond basic sound effects and music because many users simply play the games on mute, while in a noisy area such as their commute. Keatch's other sound design work includes an infinite runner puzzle game for mobile phones known as *Hedra*, uses reactive and looping audio to create a soundscape that has a tighter relationship to the player's actions, while *Katakata* also innovates on mobile phone related audio by using the ubiquity of mobile devices to control external sound. *Katakata* operates on a queue system, so only one user can play with it at a time, adding elements of spectatorship and performance to the often solitary or networked world of mobile gaming. Overall, the work challenges preconceptions about the potential of mobile gaming and extends the aesthetic horizons of sound use in relation to mobile technology and gaming, areas where the function of sound is often not a priority.

Kirsty Keatch was able to elaborate on these points at the same artists' talk event that Jack King-Spooner spoke at, since she was also a local creator, having earned her degree in sound engineering in Edinburgh and living in Dundee. This again was a great opportunity to contextualize local interest within an international selection. While *Katakata* was clearly a worthwhile choice for inclusion with many positive elements in its favour it was also one of the more challenging selections. It was the only piece with robotic moving parts, which frequently had to be repaired or reset by Keatch herself or another expert. Therefore, *Katakata* experienced the most downtime in the exhibition. We were also unable to place it in the initial location I had planned within the gallery (where *eBee* ended up being located) because it measured differently with the plinth and without, and was too tall for the initial exhibition space when

placed on the plinth. Even in the main gallery area a ceiling tile had to be removed for there to be enough space for the work to stand unobstructed, however the unexpected effect of this compromise was that everyone agreed it was aesthetically pleasing and suited the work to have it appearing to emerge from the ceiling. *Katakata* was an impressive and experimental one of a kind work, whereas all other works in the exhibition were duplicable digital files or one of several existing prototyped sets in the case of *eBee*. It came with more risk and challenges than the other objects in the exhibition but because of its innovation and uniqueness in sound design as well as the new interaction concepts it offered it was one of the most impressive inclusions when it was working.



Figure 22: Installation photo of *Fugl* by Johan Gjestland and Team Fugl at The Blank Arcade 2016, Jeannette Ginslov

Past *Katakata* was a large projection that served as the visual focal point of the main area of the exhibition. Projected on the central wall was Johan Gjestland and Team Fugl's *Fugl*. Gjestland is also known for *Melodive*, a mobile game designed to create a relaxing, dreamlike environment players feel as though they are falling through. *Fugl*, like *Lissitzky's Revenge*, can fit neatly into an existing video game genre, in this case the flight simulator. However, while

mainstream flight sims typically involve piloting some sort of vessel, like an airplane or spaceship, and navigating to specific goals or engaging in combat, *Fugl* does not include any of these typical features. Instead players control a bird. Rather than the controls approximating vehicular movements, they include flapping, perching, and riding gusts of wind. This was decision was meant to create a flying simulator that was less about racing or combat and instead focused on the sensation of flight itself.

Fugl utilizes “voxel” graphics, similar to those seen in the popular building simulator *Minecraft*, to allow the environment to be quickly reconfigured from modular parts. Every time the game is opened a new environment to explore is generated. A variety of environment styles, such as archipelago, canyon, and forest can also be accessed from the start screen, as well as a list of animals within these environments that the player has spotted. That these are the only two implied features of the game beyond flight leave the goals and motivation for play up to the player.

As a game, *Fugl* is interested in capturing the sensation of flight itself, rather than simulating piloting a craft or allowing for competitive battle or racing scenarios. The game is available on mobile platforms, using tactile touch and tilt controls, for the virtual reality headset Oculus Rift, and for basic desktop PCs. The PC version may seem like the version most detached from the idea of sensation, as a mouse and keyboard or game controller controlling the action onscreen would be the most abstracted form of engagement with the work, diminishing the sensation of flight in the player considerably more so than it would be with touch and tilt controls or the perspective of VR. However, we decided a VR helmet would hamper flow through the exhibition and require more monitoring, space, and resources than the gallery could provide, and similarly using the mobile game would only accommodate one player at a time and risk being overlooked as the smallest screen in a large gallery space, as well as increased breakage liability. Running the game on a PC, but projecting it, was found to be the best option.

Because of the scale, all viewers, not just the player, could get a sense of the feeling of Roger Caillois' concept of *Ilinx*, or vertigo, a type of play that relies on sensations of speed and being out of control from disruptions of perception that *Fugl* provokes. (Caillois, 2001) Another feature that contributes to the sense of motion instilled by *Fugl* is its careful sound design. However, the sounds of the wind whipping past the players' ears, waves, and nearby animal calls risked losing their subtlety among the background noise of the gallery, so the person controlling the game was encouraged to wear a provided set of headphones to hear the sounds more clearly.

Overall, running the game on a PC worked well, despite initial trouble with installed software and library requirements that made it difficult to get running. With greater budget and resources, a high-end PC could have also provided more stability and run the game more smoothly. While it did occasionally suffer lagging or crashes, gallery attendants were taught how to quickly restart the game if this became an issue. Again, because *Fugl* was a beta version of a game and still in development these sort of performance risks came with its selection, however, its use of *Ilinx* to play on the senses and how it used procedural generation to foster an exploratory and open-ended play style were considered positive enough to downplay the potential drawbacks.

The final game in *The Blank Arcade* was displayed in a small room created by movable walls within the gallery space. Separating it from the main area of the exhibition with the partition served multiple purposes. *You Must Be 18 or Older to Enter*, by collective Seemingly Pointless, was the only game in the show to have explicit sexual content. The game is an interactive fiction piece primarily about being a child sneaking onto the family computer to look at online pornography for the first time. Seemingly Pointless includes the developer James Earl Cox III, as well as Joe Cox and Julie Buchanan providing graphical and audio support.



Figure 23: Installation photo of *You Must Be 18 or Older to Enter by Seemingly Pointless* in *The Blank Arcade 2016*, Kathryn Rattray

James Earl Cox III's games, developed solo or with different teams, are mostly short, and unique in that they explore personal and humorous themes. The personal nature of this game is heightened by the graphics and visual design which place it in a specific period of early internet culture. ASCII Art makes up the imagery of the computer and the AOL homepage the story is told through, as well as the eventual graphic pop up ads and porn sites the player encounters. The use of ASCII, or Unicode text characters to represent these explicit elements puts a level of abstraction between the viewer and what would typically be scandalously distracting content, making the focus more on the narrative and atmosphere generated by the work. However, some moments in the game could still be seen as inappropriate for children, so the installation of the game was placed behind a partition and a small content warning is under the label.

In art galleries there is no single standard on what degree of depictions of nudity or explicit sexual activity should be shown in an area children may access, and more explicit and detailed works have been shown without any warning in other

institutions. Generally, the Scottish National Gallery will provide a small warning plaque and some form of distance from the main exhibition space, or a curtain between the spaces, as in the case of the video work of Henry Coombes and Smith/Stewart in the major exhibition *Generation: 25 Years of Contemporary Art in Scotland* which ran in the National Galleries of Modern Art Scotland from 2014 to 2015.⁵ This was also the strategy used when Robert Yang's *Cobra Club*, which featured detailed 3D depictions of nudity and suggestive dialogue, was featured at Somerset House's *Now Play This* in 2016.⁶ Therefore, this style of display for a game dealing with sexual imagery and themes was seen as standard and appropriate for the audience expected at a show of videogames at the HMC.

However, these display choices also were intended to serve the content of the game and make this freely available online PC game, which visitors could simply find and download from home, become a unique gallery experience. The partition also served the purpose of allowing us to simulate the scale and setup of the computer room mentioned within the game itself. Used furniture and knickknacks were acquired from the gallery's existing resources and local thrift shops under the supervision of myself and the artists. The light of a lamp also added a glow that extended beyond the partition, which *Fugl* was projected on, to increase visitor awareness that the exhibition continued that way.

The effect of creating the computer-room like setting within the gallery was successful and contributed to the exhibition's overall theme of games extending the aesthetic and sensorial potential of digital game design. The shape of the created room mimics the implied setting of the game, and the layout of the room, with the visitors being able to see the computer screen over the current player's shoulder as they enter the room, mirroring the anxiety within the game of the player character sneaking onto illicit websites and looking over their shoulder to ensure their parents aren't home.

⁵ More information on this exhibition can be found at: <https://www.nationalgalleries.org/art-and-artists/features/generation-25-years-contemporary-art-scotland>

⁶ More information on this exhibition can be found at: <http://nowplaythis.net/2016-exhibition/>

The game has jokingly been described as a member of the horror genre, because despite its light-hearted take on the subject matter and nostalgic visual appearance it still manages to create an element of tension with the narrative content, for example, the player character mentioning their nerves, slowly building up to the act of looking through porn sites, as well as unexpected visual and audio cues. The external speakers of the PC were left on to heighten the effect of the pop-up ads with loud alert or suggestive sounds, as well as the fear that they would be heard by others, resulting in discovery and embarrassment. In this way, the gallery setting was altered to enhance the “jump scare” horror elements of the game. It created an atmosphere that was both intimate and nostalgic, as well as spectated, playing with ideas of comfort and performance as well as suggesting the typical setting where games are played, and how they are displaced from that setting within the game.

In addition to these selections, both events, a launch party accompanying the week of FDG-DiGRA and later a night of gallery talks after Dundee’s large student population had returned for the fall semester, were accompanied by a performance of Christos Michalakos’ *Pathfinder*. While not a part of the official selection, it was selected as a performance to contribute to these events because of its thematic relevance to the other works and the overall aims of *The Blank Arcade*. *Pathfinder* is typically presented as a performance of a game that is played through a custom drum set. The game software responds to the sounds made by the drum set, and the player must feel out what sounds the game best responds to, allowing them to navigate the environment. It incorporates elements of percussion, experimentation and chance to create a way of controlling a traditional 3D space that does not make use of any directional controls that would be recognizable in commercial game controllers.

Christos Michalakos’ performances of playthroughs of *Pathfinder* can end in success, clearing all levels, or a premature game over and multiple attempts. While he has become skilled at the game after performing it multiple times, he still sometimes deliberately fails as part of the performance, to demonstrate how the input methods work and change throughout the play session. While it was not an inclusion in the show officially, it was a consistent element in the

programming and therefore was regularly mentioned by visitors in the surveys used to collect data on the exhibition.

5.4 Data Collection and Evaluation

A single-page survey was available for visitors to fill out throughout the duration of the exhibition. The complete survey sheet and questions can be found in Appendix 9.3. These surveys asked basic demographic questions that are a traditional part of gauging the reach and influence of gallery shows. However, because of the interactive element of the artworks, as well as their technological interfaces, which may seem complex, daunting and unfamiliar to certain audiences, I also made sure to include questions about the perceived accessibility, clarity, and functioning of the works in the exhibition. Sections one and two ask typical demographic and reasons for visit questions that are found on most exhibition surveys, while three through six ask questions related to accessibility and visitor experience, and a final section asks for any additional comments not covered by the other questions.

Surveys were left at the information desk during the gallery's opening hours. Because they were voluntary for visitors to fill out, they do not represent nor were they intended to record an accurate number of attendees or precise demographic data. Instead, they were primarily for gaining impressions of the general variety of people who attended and their perception of and response to the exhibition methods. The demographic data may also be slightly slanted towards the demographics likely to attend the gallery events, specifically Abertay students, because they were mentioned during the events but individual visitors at other times were not directly asked to fill in a form. Overall, 48 responses were collected.

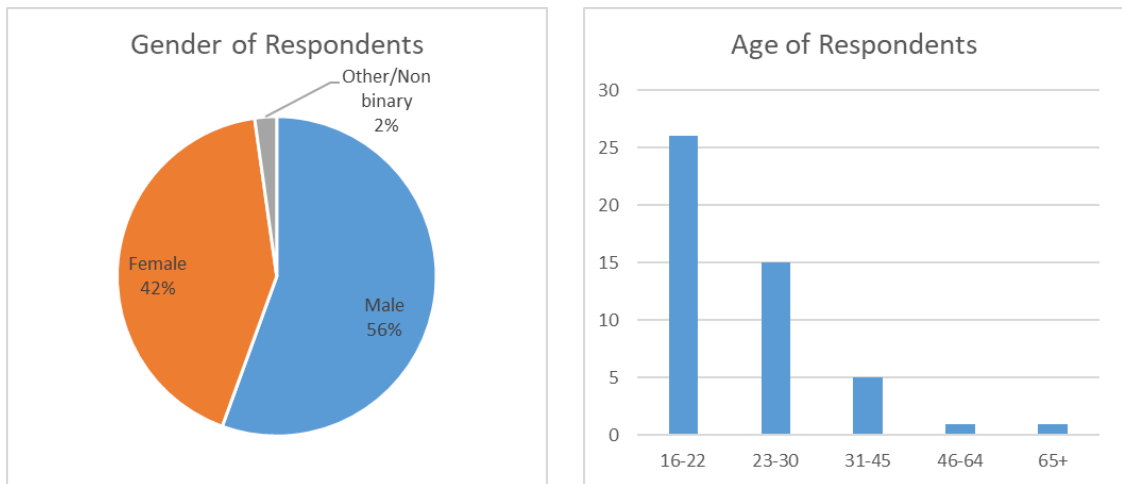


Figure 24: Gender Demographics (left) collected from The Blank Arcade 2016 visitor surveys

Figure 25: Age Demographics (right) collected from The Blank Arcade 2016 visitor surveys

The first section asks the visitor to select a gender and age range. The gender distribution was close to even, with 42.2% responding female, 55.6% responding male, and 2.2% responding as non-binary or other.

Given that interest in videogames is still stereotyped as being primarily made up of men, and that the industry still suffers from major gender imbalance at all career levels, this statistic challenges the presumption that the field naturally only appeals to men, as well as the presumption that an exhibition about videogames would not attract women. The represented age groups, on the other hand, were dominated by the 16-22 category, most likely representing Abertay University students, specifically from its well-known Arts, Media and Games department. 54.2% of the responses indicated the 16-22 age group, followed by 23-30 at 31.3%, 31-45 at 10.4%, and 46-64 and 65+ both at 2.1% with one response each.

While this data apparently confirms the common idea that videogames are predominantly interesting and accessible to young adults, the responses from older demographics, though not as prominent, were helpful in context of their other responses to the later questions.

The next section allowed the visitor to select any number of available statements that were related to their reasons for coming to the exhibition, as well as provide their own. Within the 48 responses, 33, or 70.2% noted that they were a student at Abertay University, whether at the undergraduate or graduate level. 22 or 46.8% noted an existing interest in videogames as a primary reason. 19 responses or 40.4% indicated a pre-existing interest in new media or contemporary art generally, more in line with the program of the HMC, which does not regularly exhibit videogame works. 10 responses (21.3%) indicated that the visitor lived nearby and a further 10 responded that a teacher or professor had recommended the exhibition. 6 visitors (12.8%) cited a social media post as encouraging them to visit while postcards and posters for the exhibition were mentioned by 1 visitor each (2.1%). 2 (4.3%) visitors were students from other Universities in the area, and 2 noted that they typically visit all HMC exhibitions. Finally, 3 (6.4%) of visitors primarily attended for an event.

These results both confirm the possible bias in age demographics, as mentioned above, that Abertay students attending events or tours were simply more likely to fill in a survey than other visitors, but also offer some encouraging figures, with existing interest in both videogames and art being equally represented. “Gamers” and mainstream gaming often tends to be at odds with so-called “art games” or use of gaming technology in new media art, so that the exhibition was advertised and presented in a way that appealed to both interests is encouraging. The survey sheet also allowed the visitors to select “other” and provide their own reason for attending. Six visitors took advantage of this option, citing reasons such as “inspiration,” attending with a friend (2), knowing a featured artist (2), or supporting their college course. Five visitors also recorded prior knowledge of an artist featured in the show in the respective blank, with 3 referencing Christos Michalakos (*Pathfinder*), and 1 each referencing Will Hurt (*Abstract Playground AP1*) and Jack King-Spooner (*Beeswing*).

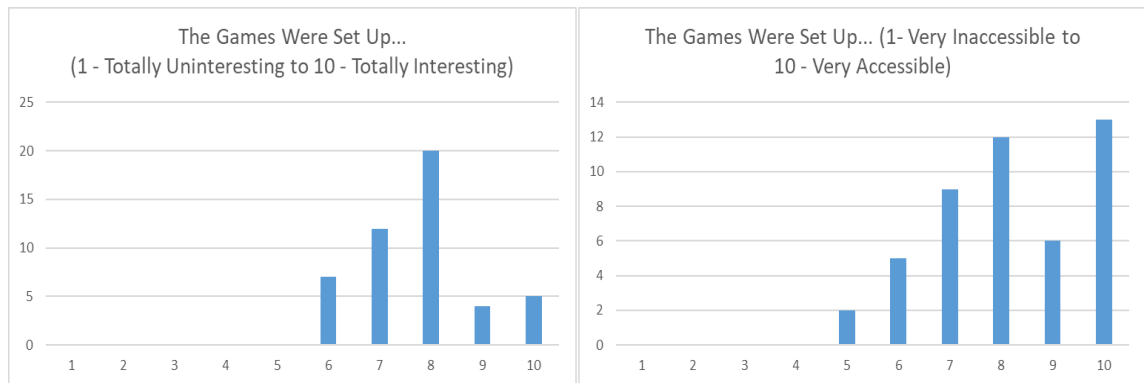


Figure 26 and: Distribution of rating the visitor's interest in games displayed at The Blank Arcade 2016 (left)

Figure 27: Distribution of perceived accessibility of games displayed at The Blank Arcade 2016 (right)

The following part of the survey, questions three through six, asked the visitor to rate their opinion or experience on a spectrum between 1 and 10. The first question had two sub-parts. First, the visitors were asked to rate the way the games were set up, whether they found them Totally Uninteresting (1) or Totally Interesting (10). The average value of these 48 responses was 7.75. Next, visitors were asked if they found the way the games were set up to be Inaccessible and Confusing (1) or Accessible and Clear (10). The average value of these responses was ~8.15. The lowest score in the first category was a 6, and the lowest in the second was a 5. From this data, we can conclude that most visitors found determining how to interact with most of the games was easy to determine, or at least not extremely difficult. There may even be space for more experimental and creative ways of setting up the game while retaining sufficient clarity and accessibility.

Next, the visitors were asked to rate how they primarily learned about the games, Only by Playing (1) or Only by Watching (10) with a clarifying note of Equally Playing and Watching Others in the centre (5). Surprisingly, the mean value of these responses was 5.5, very close to the middle, with an even distribution. This response especially has interesting connotations for exhibitions of videogames. As noted in previous chapters, academic discourse surrounding games has long prioritized the individual experience of the player, or the game as activated by player interaction as the primary object of game studies. Only recently has work considering spectated and cooperative play of

so-called “single player” experiences, such as Let’s Plays, streaming, speedrunning, and so on, entered the mainstream. This statistic is also a practical support of the importance of these considerations. Not only in recreational play of mainstream and commercial games does watching have a marked effect on how players receive games, but the same also appears to be true of less typical games in a gallery context. More investigation into how to foster both playing and watching in gallery environments, or experimental displays that play on the relationship between playing and watching should be a priority in games exhibition and curation methods moving forward.

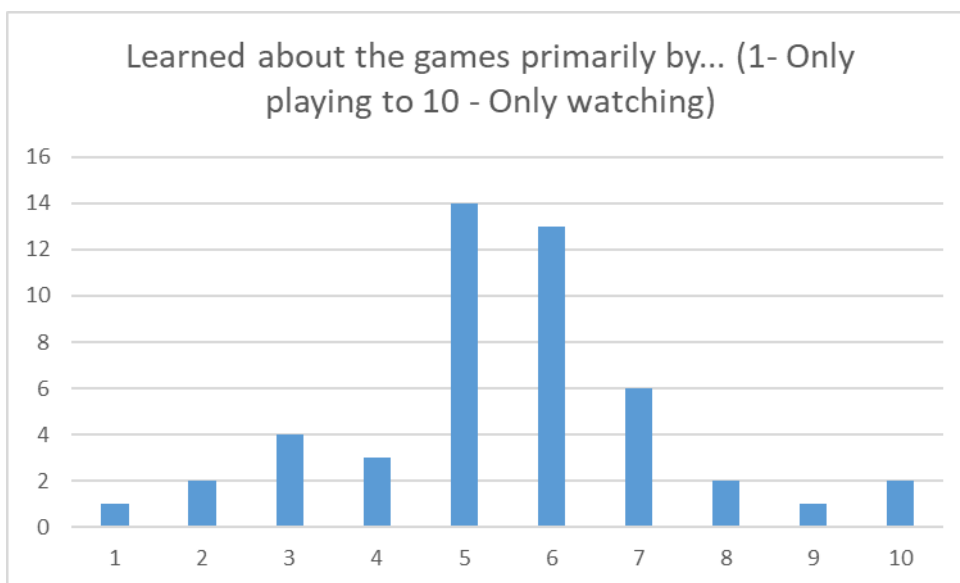


Figure 28: Distribution of responses to how surveyed visitors self-reported on how they primarily learned about the games on display at The Blank Arcade 2016

The next two questions also related to visitor experience. The first asks the visitor to rate how the games in the exhibition were working, from Not Working (1) to All Working Well (10). The mean value of these responses was ~8.58, a fairly high score, with no response lower than 6. This was no surprise, as only *Fugl* and *Katakata* experienced significant technical errors during the exhibition and these were the only two works mentioned as not working in the additional comments section, if the visitor noted them. Issues with *Fugl* were generally only occasional crashes which could be quickly fixed by gallery attendants restarting the game from a desktop icon. *Katakata* often required attention from the artist directly because of its custom hardware, but Kirsty was locally based

in Dundee and willing to come in to do minor repairs on the hardware. If not for this, *Katakata* may have been down a significant amount of time during the exhibition.

These situations demonstrate what new media curator Beryl Graham has already noted about exhibitions involving interactive electronic components. Training gallery attendants and always having one on hand to demonstrate the works or restart a crashed machine was something she noted as vital as early as 1996, when she organized the *Serious Games* exhibition. (Graham in Paul 2008, 203). Additionally, without accessible expert knowledge, games exhibitions, especially ones running on original or custom hardware, are especially susceptible to long periods of works being out of order, which can alienate visitors and also give the impression that videogame works are minor or less valued than other objects on display, as Raiford Guins notes in his study of arcade cabinet exhibitions in *Game After* (2014, 140). While some risky choices were made for *The Blank Arcade 2016* by featuring works with custom hardware or still in beta these unconventional games also represented important tendencies and innovation in the field. Working with the artists and training gallery assistants to navigate any issues was able to prevent significant downtime.

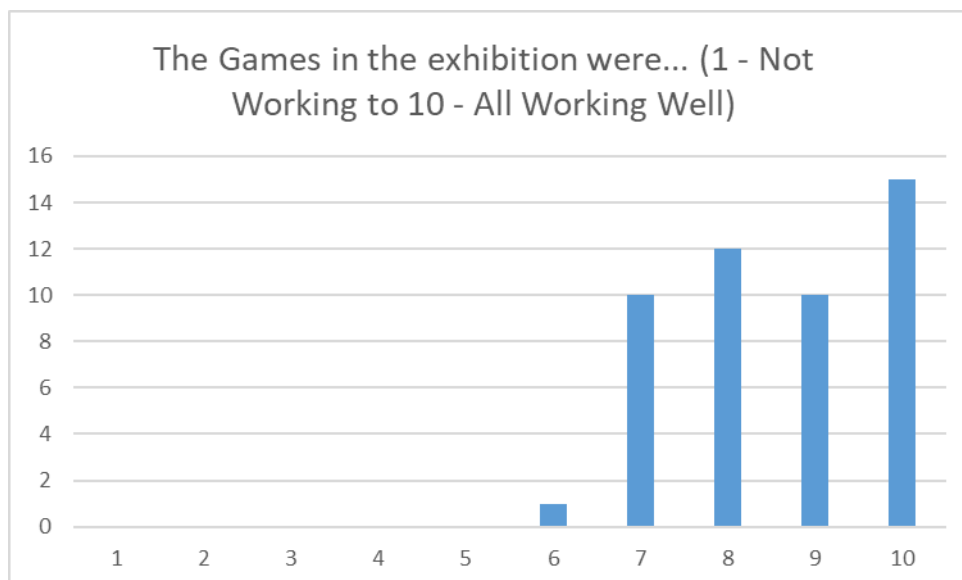


Figure 29: Distribution of responses to how surveyed visitors perceived the functionality of the games on display at *The Blank Arcade 2016*

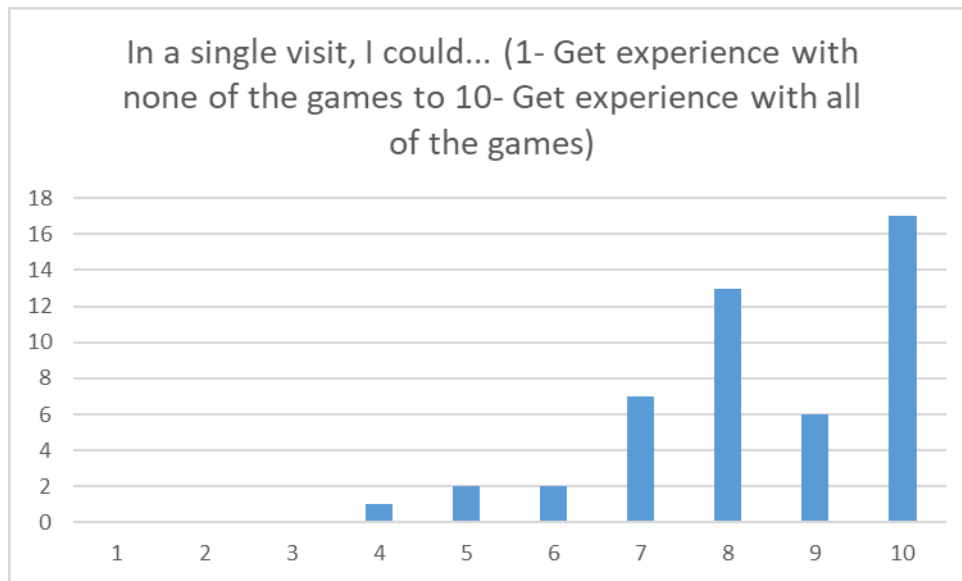


Figure 30: Distribution of responses to how many of the games on display at The Blank Arcade 2016 surveyed visitors were able to experience during a visit.

Finally, visitors were asked how many games they felt they could get sufficient experience with during a single visit to the gallery, rating it from None of the Games (1) to All of the Games (10). The mean value of all the responses in this case was ~8.4. The distribution in this case was a bit broader than other categories, ranging from as low as 4, implying slightly less than half the games, to the maximum of 10. The number of games available to play has been a selling point for several past exhibitions discussed in this dissertation, such as *Game On*. However, that a comparatively small exhibition of only eight works still overwhelms some visitors in terms of being satisfied in the amount of time spent with each game confirms the assertion that increased curatorial control and tighter selections may be more satisfying, and offer a deeper understanding of the games on display than an overabundance of choice offered by large-scale, big budget exhibitions. At the selection phase, some concerns were raised that a selection of eight or nine games would be too few; however, given the space and resources of the HMC, eight was the best fit. Based on the survey data, it also seems like eight works was a sufficient or even still excessive number of games for the average gallery visit for most of the visitors.

Visitors were also able to leave any additional comments not covered by the survey questions. Generally, they commented on the value of assistance from trained gallery attendants, that the ideas presented in the exhibition were

creative and they would like to see more exhibitions that are similar in the HMC, the accessible interface for *Abstract Playground*, interest in Christos Michalakos' *Pathfinder*, and appreciation for offering nonbinary gender options in the demographic data collection. These comments were generally in line with what was also apparent in the responses to the questions; however, the comment about carefully considering demographic data categories is an important note going forward to collect accurate and informative data.

5.5 Reflection and Conclusion

The Blank Arcade 2016 was both a continuation and expansion of an existing curatorial approach towards games. By staging it in a gallery location and for a longer period, as well as building an event program around it and collecting visitor feedback, we were able to gather insights into how a variety of visitors respond to experimental videogames in an exhibition context. While *The Blank Arcade 2016* did not contain any games that would be considered mainstream, it did cover a variety of approaches, with creators describing themselves as artists, designers and game developers all included. It was thematic rather than historical, with the aim to present new works that surrounded the topic of experimental play with the senses, and came from a variety of different production methods and aesthetic approaches. In the end, the goal of the exhibition, to present a set of unconventional approaches to digital games and play, and accessibly expose them to a broad audience of academics, students and the public, was achieved through the selections and display choices. Despite this, it is important to pay attention to additional issues that arose amid the exhibition's reception.

This case study has addressed certain issues evident in videogame exhibitions, primarily visitors' perceptions of the accessibility of experimental games, the challenge of creating experiences that build on games that are downloadable or free to play at home, and presenting works together that cross lines of genre, production method and form. As I progress with my interpretation of past videogame exhibitions, and curation of new ones, visitor feedback to *The Blank Arcade 2016* has emphasized the importance of not only examining the direct interaction with videogames on display in these analyses, but also considering

those who, because of crowds, ability or just personal preference, end up understanding the exhibition through spectating gameplay. While the history of videogame exhibitions in art institutions may take many different approaches in terms of how it organizes the form's history, what it includes, and how it presents interactive displays, most of these approaches are primarily oriented around a normative idea of a player, which does not reflect how many experience videogames.

Like the eSports, Let's Play channels, and speedrun communities studied by Stephanie Boluk and Patrick Lemieux in *Metagaming* (2017), the gallery space is another context for videogames to become sites for performance and collaboration. While these behaviours aren't what is typically considered "interaction" with videogames, they are not a lesser form of engagement, and can reveal their own forms of understanding and aesthetic appreciation of videogames.

The data collected from visitor surveys only offers impressions of what visitors subjectively reported on their experiences in the gallery, but still supports the importance of these emerging areas of scholarship that consider spectatorship. The finding that the majority of surveyed visitors reported both playing and watching the games to understand them, as well as scholarship that criticizes the binary separation of these two states, both in the gallery and in the context of videogame play, challenged the preconceptions I brought to *The Blank Arcade* and the installation style I used for the featured games.

In her study of the history of spectatorship and participation in art contexts, Claire Bishop notably does not examine any new media exhibitions. She considers interaction with technology different from participation because interaction is a one-to-one relationship, whereas participation involves multiple people (Bishop 2012, 1). This is similar to the view of interaction demonstrated by the MoMA and other exhibitions of videogames, which focus on a single, direct interactor. However, within the gallery, videogames (or in the case of videogames that are only shown in galleries, such as work by new media artists, videogame technology and interfaces) are placed in an unfamiliar

context, and use of them becomes somewhat self-conscious and performative. Along these lines, Beryl Graham notes that how interactive and technological works are exhibited often favour those that are already confident and experienced, and at worst can further alienate those who are less comfortable with a technological interface or not willing to “perform” in front of others, turning a democratizing gesture into one that instead only appeals to the typical audiences of videogames and technology (Graham in Dovey 1996, 165). Some major exhibitions, such as *The Art of Videogames*, presented their interactive videogames in a way that made their performance element explicit, with large projections into nooks that many could gather around while a player stood at the controls, but emphasis on one-to-one interaction can still dominate both discussion of videogames and how they are exhibited.

Bishop’s work complicates the contrasting of participation and spectatorship in the art world. While spectatorship is seen as an old and elitist form of engaging with artworks, which forces the viewer to concede to the expertise of the artist or institution, participatory exhibitions are seen as politically and socially engaging, allowing the visitor to take part in the institution, and even become empowered. However, like the binary of player and non-player, things are not so simple. Drawing on reality TV and social media as examples, she argues that participatory media are not necessarily empowering or enriching, and can entrench existing power relations just as static exhibition forms do. Further, she argues that a binary contrasting spectatorship as passive, and participation as active inherently maintains inequality, “either a disparagement of the spectator because he does nothing... or the converse claim that those who act are inferior to those who are able to look, contemplate ideas, and have a critical distance on the world” (Bishop 2012, 38). This usually maps to class divisions of the aestheticized; intellectual fine arts as high culture, and the popular and hands-on as low culture, or upper-class intellectual labour versus working-class manual labour; an issue it is especially important to be sensitive to when presenting a popular art form.

Returning to the three main challenges of videogame exhibitions which I identified in chapter 4, the foremost issue which I tried to focus on in *The Blank*

Arcade's exhibition style was the performed nature of videogames. Our selection goals and the works submitted for consideration (focusing on work made recently for an exhibition context) led to few works with complex multipart formats, preservation issues or long duration, and the way the selection of works was displayed did not formulate new ways of addressing these issues. However, the presence of games like *Abstract Playground AP 1*, *You Must Be 18 Or Older to Enter*, *Fugl* and *Katakata*, where the way they were presented in the space allowed for play, spectatorship and performance, foregrounded the performed nature of videogames in the exhibition. Instead of limiting the performativity of videogames within gallery spaces to an instance of direct interaction, the way these games were displayed acknowledged that every instance of play is a performance, and performances can be shared and spectated.

Engagement with spectatorship in *The Blank Arcade 2016* was mostly led by the experimental nature of the games included, but going forward I believe it is important for curators to consider how to engage with the presence of spectatorship in any exhibition of videogames. Instead of viewing accessibility in terms of an unrealistic ideal of every visitor engaging in one-to-one interaction with every game, it may be more appropriate to consider an exhibition as accessible if it facilitates the variety of ways people engage with videogames, without necessarily judging one as more legitimate. Curiosity about how to better address the variety of behaviours and experiences observed in visitor responses to *The Blank Arcade 2016* through curatorial strategies influenced the choices I made in the subsequent case studies, working with Edinburgh-based curatorial collective *We Throw Switches*.

6 Case Study 2: Kitty Horrorshow's ANATOMY at Games Are For Everyone V

6.1 Introduction: Context and Goals

The following two case studies describe and reflect upon my experience selecting works and developing temporary installations for the fifth and sixth iterations of *Games Are For Everyone*. *Games Are For Everyone (GAFE)* is a twice-yearly event held by the Edinburgh-based videogame curating collective We Throw Switches.⁷ Typically, We Throw Switches rents a venue used for events like weddings, concerts, or nightclubs, and instead fills it with playable installations of experimental, independent and art games from creators both locally and further afield.



Figure 31: An example photo of how videogames are set up at a Games Are For Everyone night, in the venue The Caves. GamesAreForEveryone

The games are presented in a casual social environment, which developers may or may not attend because We Throw Switches provides the AV and

⁷ More information on other events organized by We Throw Switches can be found on their website: <https://www.wethrowswitches.com/>

security for the venue. The event is ticketed, and drinks are served. There is also often a DJ or some other form of music in the venue. While there is often a set “quiet area” where more lowkey games and headphones are provided, the overall atmosphere is much louder, more social, and turned towards fast-paced games than a traditional gallery. It is a straightforward iteration of the type of display strategy for independent and arts-oriented games Lynn Love describes as a “play party” (Love 2018). In contrast to the more traditional art gallery context in which *The Blank Arcade* took place, the “play party” still often involves curating and displaying a selection of videogames, but is also focused on creating a social environment around their reception and creation, through series of events.

The first iteration of *Games Are For Everyone* was made possible through seed funding and curator Andrew Dyce’s personal savings. Using the money raised by tickets has allowed the collective to continue putting on the event around every six months, and gradually it was able to expand from the Mash House, a multi-level club venue with many smaller rooms over three floors to its current larger venue of The Caves, a former whisky storage facility with larger vault-like structures and stages alongside small and mid-sized rooms from its 4th iteration on. Sponsorship and gradual increases in price as well as number of tickets for sale has allowed the event to continue to fund itself for the most part, with occasional in-kind AV support and equipment. Their partners for the events include local independent game studios like Blazing Griffin and No Code, companies like the Brooklyn Brewery for bar support, and the Scottish chapter of the International Game Developer’s Association.

I attended both the 3rd and 4th *Games Are For Everyone* events before collaborating with We Throw Switches directly. In both cases, I made note of installations that not only presented a game in a novel way by adding to how it would be experienced on a personal computer or at home, but also offered new possibilities in terms of creating a space that allowed for many approaches to play and interaction. At the third event, a large projection of Powerhoof’s *Regular Human Basketball*, a comedy physics-based game for 2-10 players, generated an experience somewhere between watching live sport and being in

a jostling pub during a football match that filled the whole room, even if a visitor never took over one of the controllers. In this case, the darkened room, nearby bar, and music in the background added to the atmosphere, rather than detracting focus from the game that was on display.

Games are for Everyone V was the second time the event was held in the larger venue of The Caves, allowing for further experimentation within the large and unique venue space. Unlike the purpose built contemporary gallery space of the Hannah Maclure Centre, The Caves tends more toward stone walls and dim lighting, historical fixtures, a combination of high and low vaulted rooms, and areas that function as stages or balconies.

The previous iteration of the show, *Games Are For Everyone IV*, offered a variety of gaming setups, placing computers in seating areas, building custom arcade cabinets, using large-scale projections and setting up kiosk-like displays for works with unconventional controllers. The combination of a temporary setup, and novel, customized controllers for the event, as well as the social atmosphere and venue style are also similar to the “new arcade” style of exhibition, exemplified by events like *No Quarter*, held annually at NYU, The Alt-CTRL exhibition which accompanies the Game Developers Conference, and many other events held by local groups and collectives of game developers.

Jesper Juul describes the “new arcade” as one way independent games deal with the various issues involved in generating “authenticity,” as an element of how they appeal to an audience. While commercial videogame publishers can create “authenticity” in their titles through production value, legacy IP, copyright, proprietary technology and DRM, independent creators who distribute their comparatively low-tech games over the internet create special controllers or experiences specific to events around their work as one way of denoting the “authentic” and unique experience indie games offer (Juul 2014). Curating displays of games that highlight the unique qualities of independent and artistic videogames is an important element of how *Games Are For Everyone* events advertise themselves to the local gaming community, and the social context for creators and players the events foster.

An example of one such installation at *Games Are For Everyone IV* was a custom installation of No Code's text adventure, *The House Abandon*, where lighting and props responded to the events onscreen, and the atmosphere of the event's setting served to extend the world implied in the game into real space. While this installation was set on one of the balconies around the venue, in the same way that others typically held one or two arcade machines or kiosks, this concept influenced the types of projects We Throw Switches would seek for future events.

However, the display of *The House Abandon* at *Games Are For Everyone IV* was in a small area that did not allow for the group of spectators that the large room, sound system and projection helped to create in the third iteration's display of *Regular Human Basketball*. Regardless, the role of props and lighting in staging the game and presenting it to players in a way that differed from a personal computer experience at home also created a distinct atmosphere and place for the work. Drawing from both of these examples already in We Throw Switches' repertoire, as well as my observations of responses to works like *Katakata* and *You Must Be 18 or Older to Enter* in *The Blank Arcade*, which facilitated both interaction and spectatorship, I began to develop concepts for experimental installations that would fit with the curatorial ethos, event atmosphere, goals and budget of the *Games Are For Everyone* events, while also further exploring the interplay of spectatorship and interaction when games are exhibited.

6.2 Selection Process

After *The Blank Arcade 2016* was deinstalled and works were shipped back to contributing artists, I got in touch with the Edinburgh-based curatorial group We Throw Switches to explore the possibility of working with them on a drastically different curatorial project. The eventual installation of *ANATOMY* by Kitty Horrorshow took place as a part of *Games Are For Everyone V*, the 5th iteration of their one-night events that present a selection of unconventional, indie, and

art games. The event was held on April 21 – 22 2017, with doors opening at 8 PM and the venue closing at 1 AM.

This section of the case study will cover the initial discussions and issues that led to selecting *ANATOMY* for exhibition, as well as the process of working with the artist, conceptualizing the installation, and gathering resources for it. Then I will discuss the process of setting up the installation, unexpected decisions and adjustments I had to make on-site due to the nature of the event, and a narrative impression of my observations of how people engaged with the installation over one evening. This will be accompanied by images and explanatory diagrams of the final installation. Finally, I will reflect on how the installation performed in terms of appealing to both direct interaction and engaged spectatorship, based on observations and comments I received from those attending the event.

Based on the data I had collected at the end of *The Blank Arcade*, as well as the research in new media curation and game studies that I was consulting at the time, I became interested in developing an approach to exhibiting a game that was focused on both primary interaction with the game, being directly in control of it, as well as other ways of engaging with the game, such as watching, engaging with supplementary material in the installation environment, and collaborating with the primary player. Multiple existing academic studies had confirmed the importance of these practices and materials in addition to the direct interaction with a game, alternately describing them as onlookers, co-players, and backseat gamers. Tobin (2016) has specifically traced these practices back to the early instances of videogames being played publicly in arcades, where the types of games available and how they were set up contributed to a set of codified play and spectatorship behaviours. Other scholars have observed that this has progressed in various forms to the popularity of walkthrough sites, eSports, Let's Play videos, and speedrunning marathons today (Newman 2008, Boluk and LeMieux 2017). Additionally, Giddings (2009) writing on micro ethnographies of gaming problematizes the binary states of playing or not playing altogether, observing how children can fluidly move between direct interaction, cooperation, and imaginative play that

references particular videogames. In both academic research and the culture surrounding videogames, a spectrum of behaviours between interacting and not-interacting have become apparent.

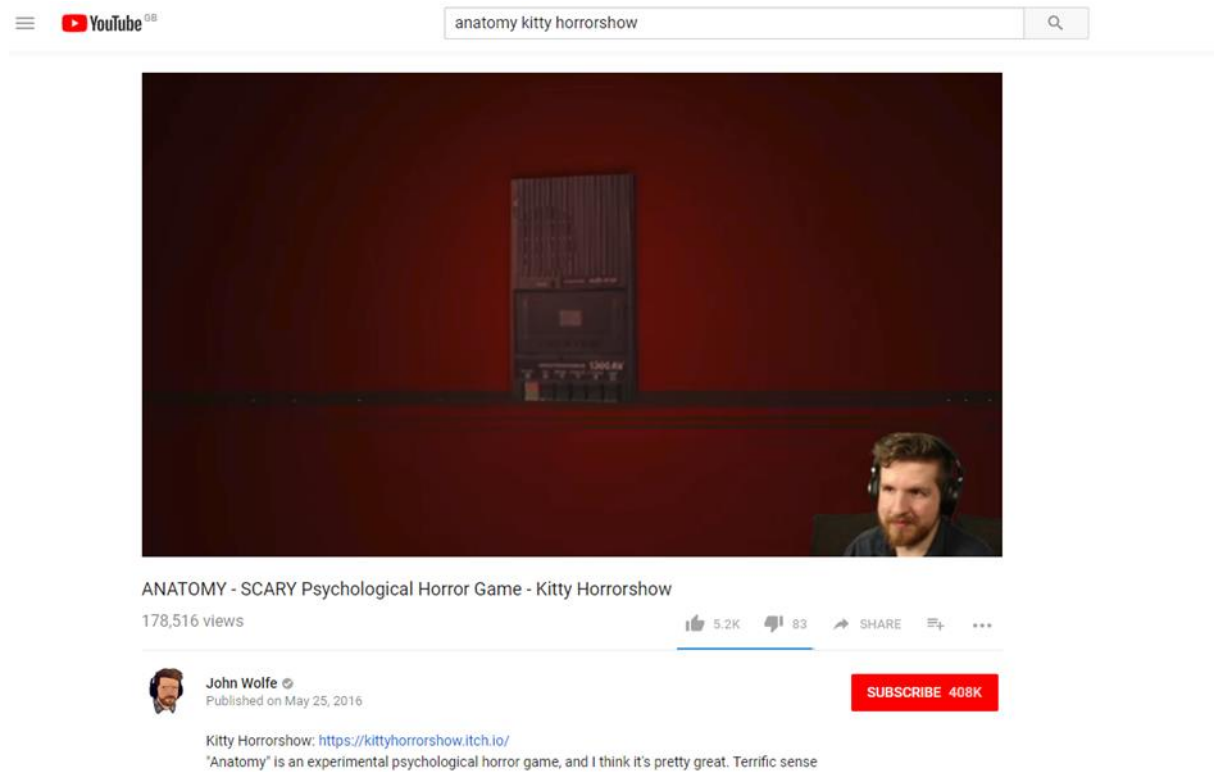


Figure 32: Screenshot of a typical horror game “Let’s Play” video as it appears on YouTube

Especially within the category of Let’s Play videos, a genre of gameplay capture video that is more casual and based on the player’s personality and style of playing the game over any competitive or goal-based motivations, horror games are a popular genre for cultures of indirect participation. Series of videos capturing players’ reactions to new indie titles like *Five Nights At Freddy’s*, or established genre franchises like *Resident Evil*, are often featured on the channels of popular Let’s Players. Smaller channels devoted to horror games in general and even specific types of horror game, can attract passionate audiences, who often refer directly to the LP-er in the comments. These comments demonstrate a level of identification with the LP-er by commenting on their reactions, giving examples of places where they felt the same, and offering advice of what to do or similar games to play. Similarly to how horror media can provoke sympathetic reactions in the audience, a tense soundtrack and fearful actor or avatar allowing the audience to feel negative or unpleasant

emotions in a safe way, via empathy and sympathy for the fictional situation, the cathartic identification with another player may be why horror games make a particularly popular category of Let's Play videos (Perron 2009, 135).

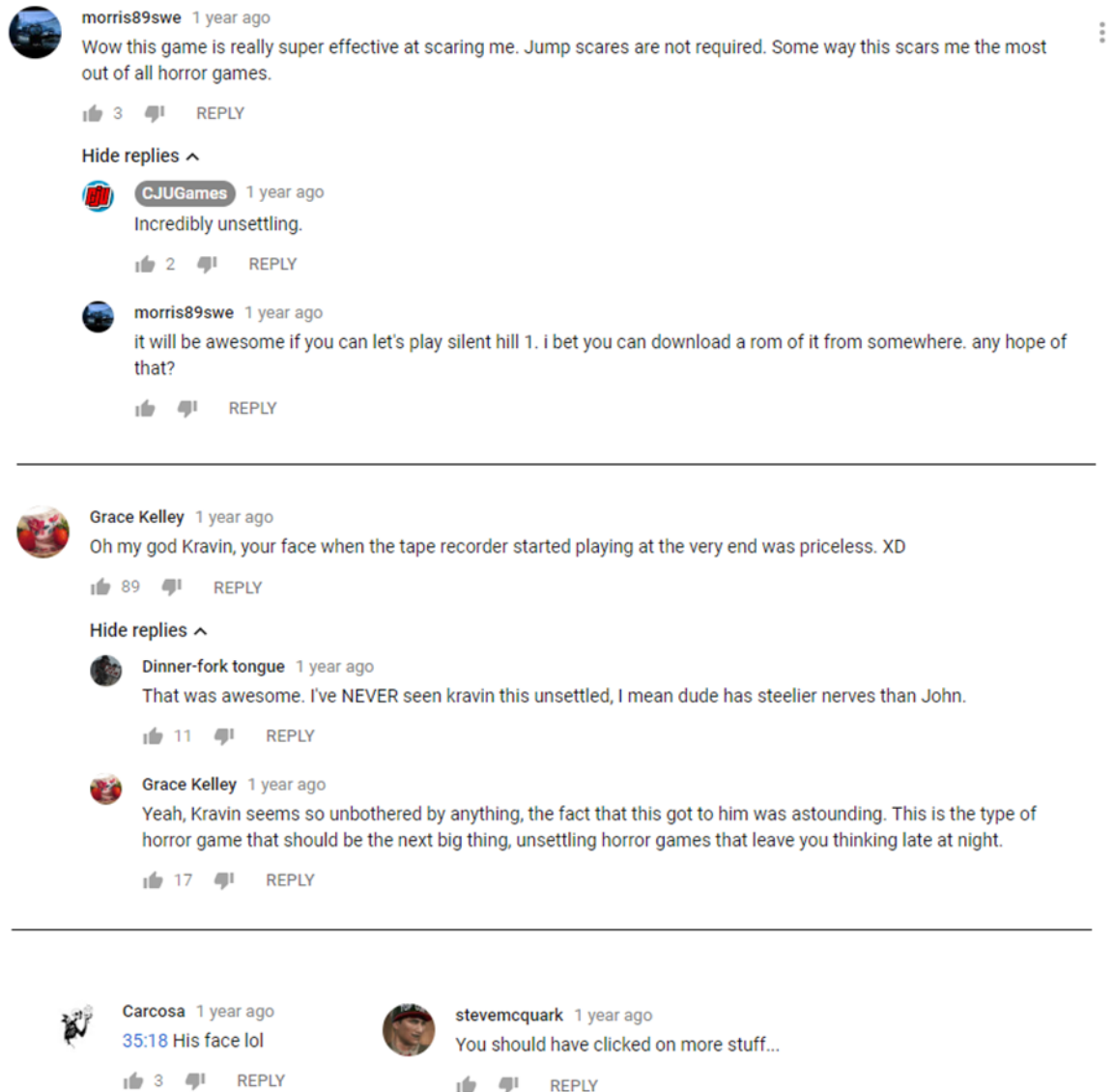


Figure 33: Selection of comments on horror-themed Let's Play videos

These videos and the communities around them are an extension of ways game scholars have already noticed players engaging with videogames that differ from direct or primary interaction, and make up a large portion of how games are received in recent years.

Early discussions with the We Throw Switches team covered many exciting possibilities for installations but given space and equipment requirements,

creating a custom room sized installation of a single game, Kitty Horrorshow's *ANATOMY*, became the best choice for the project. Choosing a horror title from a single developer specializing in experimental games kept with We Throw Switches' goals of presenting diverse independent games that represent a wide variety of approaches to visual style, game design, and interfaces.

We Throw Switches organizes and consults for a broad variety of events like pop up arcades, tech conferences, and arts festivals that wish to present unconventional installations of games as a part of the programme. *Games are for Everyone* is We Throw Switches' own event and therefore the one they have the most curatorial freedom over. The collective envisions it as a platform to not only offer videogames in an environment that is different and potentially more appealing to people who are not typically videogame players at home or in existing mainstream game events, like competitions or trade shows.

To go along with this goal, they also aim to select games that similarly do not appeal to common mainstream gaming sensibilities of complex, skill-based systems and increasingly elaborate graphics. Games made by small teams, usually with less demanding graphical styles and gameplay are the norm, as well as games exploring unconventional topics or offering a twist on standardized genres. In this way, the curatorial goals for *The Blank Arcade* and *Games Are for Everyone* could be considered similar, with the main difference being that *GAFE* events tend more towards noisier, quick-to-play party games and multiplayer experiences because of the venue. It also allowed for more custom installations and controllers that were observed to be difficult or impossible to maintain for the longer running time of *The Blank Arcade 2016*. Therefore, I had to both extend and tweak my approach in developing a custom installation for *Games are for Everyone V*.

Finally, the events serve as a point for local independent developers and artists to showcase their work, as well as for international works to be brought in and presented to a new audience. These events importantly bring people from the game development scenes in Edinburgh, Dundee, Glasgow and beyond together to both show their work and be exposed to new approaches. These

goals guided the selection criteria of the event. Rather than relying solely on judging submissions, though there were developers who got in touch and submitted their work to We Throw Switches directly, proposing installations relied on my knowledge of both local and faraway developers, as well as what were current trends or movements in the indie scene.

In general, I proposed works made with the accessible 3D tool Unity, though some of the games were 2D. I also tended towards considering games made outside of the local indie community, since three of the spaces in the programme were already set aside for the winners of popularity polls at post-Global Game Jam events in Glasgow, Edinburgh, and Dundee, allowing the latest work from these cities to be showcased. We considered Team Lazer Beam's *Wrestling With Emotions*, a game where you create a wrestling persona to speed-date other wrestlers, but didn't have any sources for borrowing wrestling-related materials to build a more elaborate installation, and buying or building the items was too expensive and too short notice for the current iteration. Ian McLarty's *Catacombs of Solaris* was also considered, alongside a multipart projection of CeMelusine's *East Van EP* collection of games, but the limited number of projectors available to the collective, as well as the other games planned meant that there would not be enough for another large-scale projection installation. In addition to the projection-based projects I was also considering an area with a small curated selection of games, working together on a theme, but the remaining allocated spaces that offered enough separation from the larger and noisier areas were already occupied or too small, so ideas around this format were set aside to a potential later event.

I proposed Kitty Horrorshow's *ANATOMY* based on the reception of No Code's *The House Abandon* installation at the previous *GAFE*. *ANATOMY* is also a short horror game, taking around 35-45 minutes for one playthrough, based on the description on the game's webpage, and experiments with both existing and new elements of the horror game genre. It was a similar project and so would fit with the goals and atmosphere of the event, but at the same time would stretch the event, as well as typical videogame exhibition approaches, in new ways.

The first new aspect of the plan developed for *ANATOMY* is that it would be a full-room installation. While *We Throw Switches* had done installations of a single game in a room before, such as *Regular Human Basketball* and *Pequod*, they were either large projections or oversize custom controllers that spatially suited the existing size of the room, but generally did not incorporate extra props or other ways of extending the game into the physical space. The curation of *ANATOMY* for this iteration of *GAFE* would not only involve selecting the game as appropriate within the venue and other selections in the history of the event, but also selecting furniture, images, texts, and props to make the space within the venue relate to the represented space in the videogame.

Secondly, while occupying this space it would be both a narrative single player game, and a game that takes a much longer time to complete, on average, than the games presented at *GAFE* events. Of the games by independent developers embraced by galleries, many are short or have set runtimes, and if acquiring a longer game, galleries may ask for a controlled demo mode or choose to just exhibit a video, as in the MoMA's approach to displaying *Dwarf Fortress* and *Sim City* (Antonelli 2012). The rationale for this is likely based in awareness of studies of how long visitors tend to spend with artworks, as well as a desire to establish good flow through the gallery space and not have any one player occupying a game for a long period, presumably depriving others of the experience of interaction that is often listed as a selling point for these exhibitions.

Many commercial games can be tens or even hundreds of hours long, with long segments of repeated, modular material, as they were intended by developers to be completed gradually and in the players' home, and often marketed on their large scope and hours of gameplay. These experiences are simply not physically feasible to complete within the context of a gallery visit, and even spending a few hours with them in a gallery setting will likely not reveal significant portions of the game. Video and film works that are several hours long have been shown in galleries but often in ways that can accommodate multiple viewers, and present interpretation that contextualizes the work for gallery visitors that may only browse or walk past. The privileging of

“completion” as well as direct interaction in the way videogames are often discussed has contributed to both selection and display style processes seen in videogame exhibitions and museum acquisitions.

This was not an issue I had significantly considered during the development of *The Blank Arcade*. Because I was working with many experimental games, the majority of works in the exhibition were open ended, with no strict beginning or ending, and no instance of “completion.” *While You Must Be 18 Or Older to Enter* and *Orchids to Dusk* had more traditional narratives, and therefore beginnings and ends, they were quite short. *Beeswing* also has a longer narrative, but the parts can be visited in any order and it is mostly told through vignettes. *ANATOMY* was a unique work for me to curate based on my previous experience because it was both longer and had a specific linear narrative that all players go through in the same order. Making a space where multiple people would be able to comfortably observe the gameplay in addition to creating an inviting and intuitive interface for the primary interactor became a primary consideration in this project.

The room assigned to the installation I would be curating after we reached a preliminary list of games and discussed where they would fit in the venue was informally described as The Cow Room. In the original use of the venue as a storage building, this room was likely a small store room and currently features a sculpture of four cow heads emerging from the stone walls titled *Four Cows Looking over A Dyke*. The room came with some candles for low light as well as some unconventional lounge furniture such as benches and stools made from logs and overstuffed couches.

The room was small, had no windows, and one above-door light that could be blacked out as well as electric ceiling lights connected to a switch that could be turned off. Having control over the lighting was an especially important part of creating atmosphere to develop a contiguous game space between the representational or “mediated” space of *ANATOMY* and the space of the player, described by Michael Nitsche as the “play,” and “social spaces,” representing the area where the play takes place, as well as where possible discourse with

other players and observation by bystanders occurs (Nitsche 2008, 15). This would also play into the given how areas of light and dark serve important functions of creating tension and guiding the player in horror games. Simon Niedenthal notes that, while darkness is present in most horror media to convey menace and the unknown, in video games it can serve not just to obscure, but to draw the viewer's attention to the edge of the darkness, stoke their curiosity, and help to delineate how to move through the space of the game (Niedenthal in Perron ed. 2009, 176).



Figure 34: Photo of “The Cow Room” prior to the installation of ANATOMY at GAFEV (left) Emilie Reed



Figure 35: Photo of “The Cow Room” prior to the installation of ANATOMY at GAFEV (right) Emilie Reed

Other benefits of the space included that it was somewhat insulated from the noisier areas of the venue, such as where the DJ set was happening, and had accessible electrical sockets. Problems which became apparent in the space were working with the bulky furniture and permanent décor already existing in the room, and difficulty in allowing for a flow of people through its narrow, rectangular shape. Despite these challenges, on the initial visit to the site I still felt confident that the Cow Room was an exciting and unique location to stage a custom installation.

At this point, the constraints I was working within was to make a single game installation for The Cow Room that did not require a projector. Of the games considered, *ANATOMY* suited these limitations best and so at the next meeting with We Throw Switches, I proposed a plan of what I had in mind for the game.

6.3 Exhibition Installation

Kitty Horrorshow is an American art game developer who works with disjointed narratives, surrealism and horror in her videogames. Many of these games are free to download from her personal site or on the indie game sharing platform itch.io. Her previous works include *Dust City*, and *Sigil Valley*, both of which allow players to move around a 3D environment in a mostly unstructured way, discovering or intuiting bits of possible narrative from found artefacts or the architectural landscape. *ANATOMY* differs from most of her catalogue in that it costs \$2.99 to download, and offers voice acting supporting a more elaborate and straightforward narrative, which is typically completed in 35-45 minutes.

While Kitty Horrorshow's games are firmly in the broader genre of horror, because they utilize surreal and supernatural themes to create tension and a creepy atmosphere, they tend to lack many of the mechanics that are seen as fundamental to the horror genre as it manifests within videogames. There are no other characters that you must find, protect, or that will attack you in these worlds. There is also no player death or failure conditions, allowing for indefinite open-ended exploration of the areas. Finally, the games also largely lack "jump scares," a term associated with low budget horror films and adapted to videogames to mean a sudden loud noise or flash of scary imagery (usually a combination of the two) that provokes a startled response many find unpleasant or that does not add to the horror plot or atmosphere of the work.

While horror games initially presented more varied and nonstandard playstyles, Therrien has observed that in recent years the survival horror genre has been "progressively geared towards player gratification," mirroring the general tendency for videogames to function as satisfying power fantasies and sources of fun, rather than exploring the same sense of fear and victimization that more

typically defines horror media (Perron 2009, 41). Mainstream horror videogames, such as the *Resident Evil* and the *Left 4 Dead* series, tend to have strong combat elements, fighting zombies and other monsters. The player character will no longer be able to progress through the stages and eventually die if they are not skilled enough at that type of gameplay, which prioritizes familiarity with shooter or beat-em-up style controls and a preference for fast paced action. While Kitty Horrorshow's games go against one of the most universal horror game conventions by not having any other characters, combat, or a fail state, it also removes the often-artificial skill gating that keeps the rest of the narrative from the player. This makes her games interesting within the current landscape of horror videogames and suited the ethos and goals of *GAFE* events by being easy to pick up and not discouraging to people who may not have intensive experience or skill at horror games in general.

The narrative of *ANATOMY* is also unconventional. Most horror games, as well as studies of videogames which discuss narrative, tend to focus on the importance of the player character, and their ability to interact with other characters through decisions, dialogue, combat, and other actions. In the case of Kitty Horrorshow's depopulated environments, most of the narrative is delivered through found objects, texts and the environment, which proceeds in a nonlinear way. Specifically in *ANATOMY*, the player finds different cassette tapes in different rooms of a suburban home, each of which can provide narration, change the environment, give a bit of text as a clue, simply create eerie noises, or a combination of all of the above. When all the tapes in the house are found and played, the game closes, initially presenting a type of closure, but if the player chooses to open the game file again, they will notice things have changed about the house and narration.

With each cycle of the game, the player ventures through the house, gathering and playing the cassette tapes, and the environment of the house gradually distorts around them as the tapes are played. The sound of the tapes also distorts, and a different voice takes over the narration, as the virtual house begins to flicker, glitch, and collapse. The focus on signal interference and degradation fits with a common theme in Kitty Horrorshow's works, often

referred to as “glitch horror.” Crawford (2017) identifies this as a common theme in the discourse around games as well as the creation of fangames and other fan works. Related to the experience of the uncanny (that which is uncomfortably familiar yet not), as well as fear of loss, violations of order, and decay that are common themes of the horror genre in general, glitch horror applies these feelings to the fallibility of technology through the simulation or use of glitches and other technological distortions or malfunctions.

The voice narrating the player’s journey, which intrudes as the tapes decay and the house begins to behave abnormally, is the voice of the house itself. The narration goes from a strange series of descriptions, relating rooms of the house to various body parts, to the house’s response, its raw experiences as the host of the humans that enter and live in its body. The surreal and unexpected changes in the structure of the house become the house itself playing with the player, who is unable to back out of the presumably inert structure they have entered. The setting of the game, usually a passive environment that the player character traverses, encountering enemies, goals, and allies, now fights back against this assumption. The glitch horror becomes body horror as the player realizes they are the force violating the “body” of the house, and being righteously taunted by it.

The unexpected “antagonist” of *ANATOMY*’s otherwise depopulated world makes the horror element of the game surprising, and potentially more accessible for those not experienced with horror games that tend to rely on combat or evasion. The fact that the environment is so vital within the game made it especially thematically appropriate to create a special environment for the game to be played in during the event that would reinforce the mood and theme. At the end of the game, the player is forced to re-examine the game environment, the house, as instead a menacing threat rather than just the setting for the game’s action. Likewise, this would also ideally facilitate the players and spectators of the installation to more closely consider the environment their gameplay takes place in. By controlling the lighting, visual imagery and props, furniture, room layout, and accompanying texts, I intended to emphasize and extend the theme of *ANATOMY* to create a custom

installation that helped with the interpretation and reception of the work and provided an experience beyond downloading the game at home.

After examining the site and developing the concept, which was enthusiastically received by the We Throw Switches team, I approached the developer to get permission to feature the game at the event and get feedback on the installation concept. I explained my plan and asked if there were any writing, sounds, or images she would like to contribute to the installation, and she declined this offer, but was eager to see what I would do with the game.

Curatorial research for the installation consisted of playing the game and watching several playthroughs of the game on Let's Players' channels on YouTube, as well as reading the comments on the videos, and reviews of the game. This step let me both become very familiar with the themes within the game as well as the possible behaviours and sticking points of the game while played, but to also observe what the commenters stated they got out of spectating the game within their posts. In addition to hearing the player reactions, having an idea of what those who preferred to watch the game found interesting, appealing, or confusing was important to developing an installation style that appealed to both those who would be eager to play the game, as well those who would prefer to watch first, or only watch.

Reviews of Kitty Horrorshow's games, as well as my own experience playing it provided a base knowledge of what playing the game was like, and what players got out of it. Many mentioned that they were expecting monsters to appear or jump scares to surprise them, because they were standard devices in horror games, but *ANATOMY* only focuses on how the environment creates horror. Reviewers comment positively on how low lighting, visual effects and audio cues guide the player through exploring the house while still creating suspense and tense moments, how the game cleverly plays with its framing devices of narration and obsoleted media formats like cassette and VHS tapes (Douglas 2016).

Comments on YouTube videos were also mostly positive but took on a different tone and emphasized different details than reviews. Commenters frequently identified with the let's player, citing parts they were also scared by, and commenting on their response. Some viewers did not play the game themselves nor went on to play the game, instead experiencing and evaluating the game through the gameplay video, but those that had played it or wanted to also often compared their experiences, identifying or disidentifying with how the let's player plays and reacts to the game, praising their choice or criticizing their gameplay. If the video was multi-part or incomplete, commenters would offer advice on how to continue playing the game. These behaviours all align with those identified earlier in their research of social behaviour at videogame arcades of the 1980s and 1990s as well as backseat gaming and collaborative play of single player games.

I also reflected on my own experience of the game, and what qualities of it were visually and thematically compelling to me. How lighting guided my feelings about the space and how I moved through it was an element I could expand to the space of the installation through the careful use of different kinds of lighting equipment. The cassette tape deck was also a central image and important gameplay node because finding and playing cassette tapes are the primary means through which the player advances the game, and the clunky button sounds as well as the whirring of distorted tape added a physicality to the low-poly and nightmarish visuals. The presence of signal decay as a new take on death and decay as a longstanding horror theme interested me. The game is also clearly interested in the social functions of Anatomy and Architecture as disciplines, the moral difference between investigation and intrusion, and historical depictions of scientific anatomy contrasted with fanciful images of dreaming.

First, I curated a selection of texts and images to represent and enhance these themes by incorporating them into the space and included them in a bibliography in the specially-prepared computer that would be running the game. Because the game closes between its three main "parts," players would have to engage with the banal desktop screen, folders and icons that are

typically considered outside of the virtual space that makes up a videogame. This necessary element of starting up and playing a videogame is hidden in most exhibition displays of games, in both commercial and art settings, because it is seen as extraneous to the videogame on display and reveals the technological structure behind videogames in a way that makes it vulnerable to be tampered with by visitors. Even though visitors may interact intuitively with desktop computers elsewhere, at home and work, the visibility of the desktop in the gallery space is often taken as a sign the display is not working. However, careful settings configurations and monitoring the exhibition can open the game launcher, folder structure, and other files for contextualizing material.

I borrowed a laptop from the Abertay IT department to be able to prepare these settings beforehand, and I also altered the appearance of the desktop, icons and menus to match the low-fi and ominous aesthetic of the game to work against the expectation of the installation's visitors that they are not supposed to be seeing the desktop, or that it means the game is not working properly.

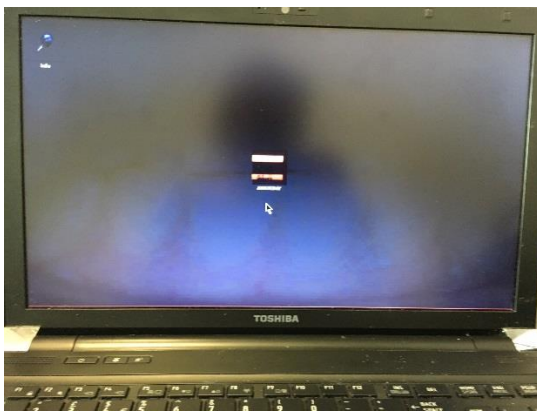


Figure 36: *The desktop as it was prepared for the GAFE installation of ANATOMY (left) Emilie Reed*

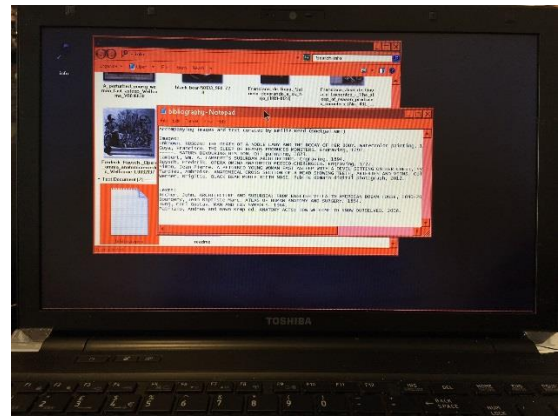


Figure 37: *The contextualizing images and texts included on the computer at the GAFE installation of ANATOMY (right) Emilie Reed*

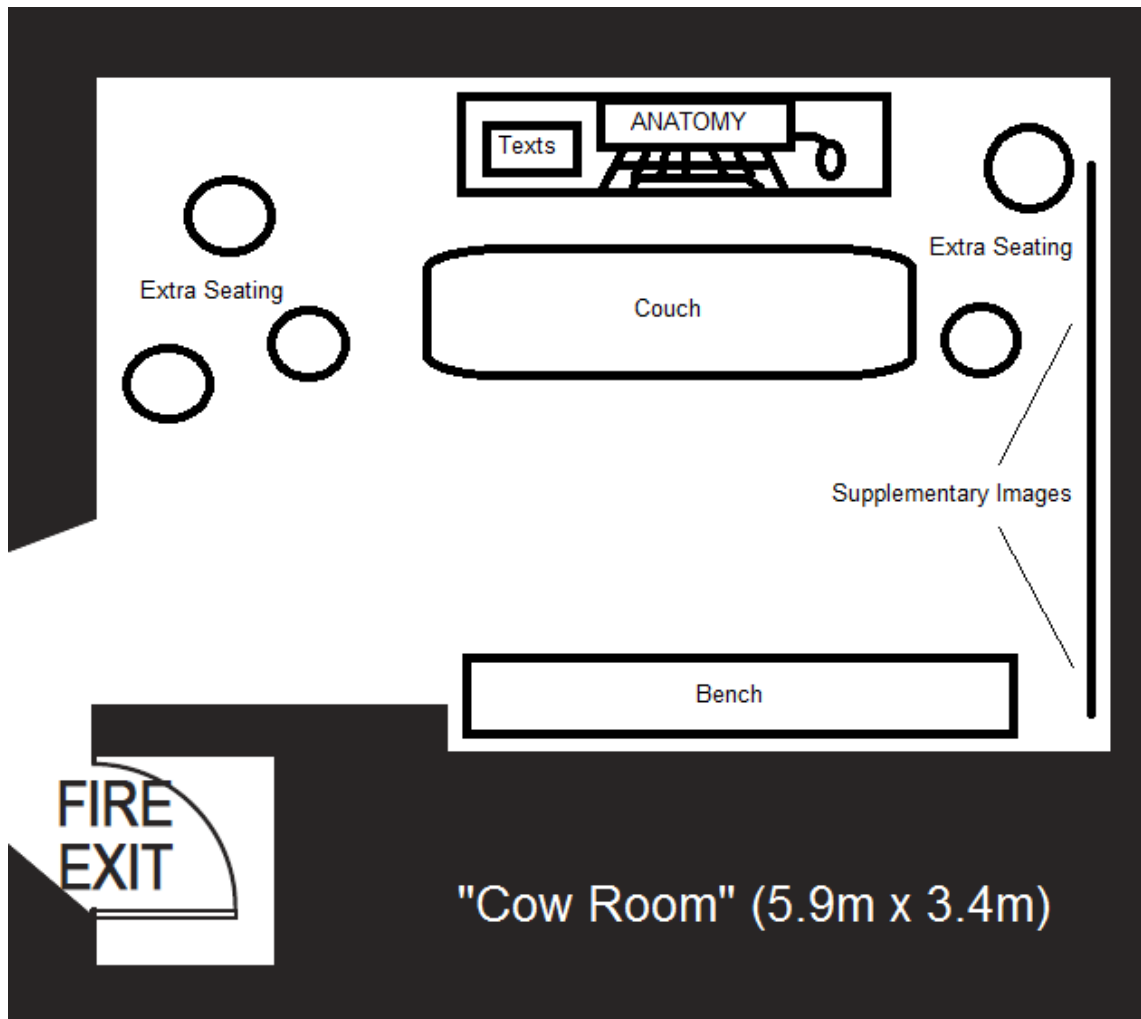


Figure 38: Diagram of "The Cow Room" as set up for the installation of ANATOMY at GAFEV

Once I had prepared the visual aesthetics and contextualizing material within the computer, I also investigated my options for extending this material into the physical space. The We Throw Switches Team was able to provide a £50 budget to work with, so many of my choices were constrained to using AV equipment they already owned or borrowing materials. The physical aspects of the installation included furniture provided by the venue, benches, long wooden tables, overstuffed sofas and stools. The sofa was placed front and centre before the long table on which a screen was running the game from the laptop I prepared, and spread the other forms of seating throughout the room while also allowing space for people to stand to watch, and walk around the room. The existing frame images in the room were modified non-permanently (to not damage the temporary venue) with printouts of some of the images featured on the prepared laptop as well, which related to the theme of the game. LED light

boxes projecting red-orange light were placed behind the table and the lights were dimmed to mimic the prominence of the colour red in the game, as well as draw the eyes to the single installation in the dark room. A PA system, rather than the speakers on the computer used to run the game was sourced for sound because of the general noise of the venue



Figure 39: Images featured in the ANATOMY installation (left) Emilie Reed

Figure 40: The keyboard and mouse interface, screen, and supplementary materials in the ANATOMY installation (right) Emilie Reed

I also gathered texts and objects related to the aesthetic and themes of the game that were placed on the table with the screen and control interface with a desk lamp, creating the atmosphere of a study, connecting to the overall theme of rooms in a house explored by the game. The texts included *Man and His Symbols* by Carl Gustav Jung, a classic text about the subconscious and visual symbols, *Anatomy Acts*, a study of depictions of anatomical study and the laws governing dissections and other elements of this area of study in Scotland, a classic collection of human anatomy illustrations that would have been produced by this study during the 1800s, and a monograph on the history and social function of the suburbs. The images that were within the room were all public domain and included historical works of art about nightmares, decay, and other themes related to the game, stock images of animal mouths, and historical blueprints of suburban houses. A list of the sources and bibliographic information of these items was included in the text document and folder structure presented on the computer as a part of the installation. (Full list of cited images and texts in Appendix 9.4).

The typical interface to control *ANATOMY* is by mouse and keyboard. In this case, We Throw Switches had existing kit, including a mouse and keyboard set that had been customized to be painted red and have all the keys, except the WASD keys (traditional for controlling walking direction in first person 3D games) and spacebar (usually indicating jump). This usefully hides access to certain keys, such as the Escape and function keys, which would close the game or change its display, and draws focus to the keys that are used to control the game. While WASD controls are intuitive to most PC gamers, their layout can seem arbitrary to those who are not habitual videogame players.

This mouse and keyboard combo was initially customized for the installation of *Devil Daggers* at *Games Are For Everyone IV*, and in this case both aesthetically and functionally suited the exhibition of *ANATOMY*. Significantly altering the nature of how a game is controlled for simplicity, accessibility, or to make it intuitive for a broader audience is a common approach in displaying videogames, however, in certain cases it can obscure the history of how the game was played, or remove the context it was designed for. The MoMA's approach to displaying videogames is criticized for locking multiplayer mode, changing the interface and removing the cabinet art which was an important part of the historical context and experience of arcade games like Pac-Man (Ferranto 2015). While presenting the player with only the most necessary buttons to play a game on a PC keyboard may seem like less of an intervention, it still can be an important change in the nature of the experience, and such radical changes to how an artwork is received would be unthinkable with other, more traditional media.

In this case, however, the developer gave the freedom to make these significant interface changes, because the custom colour as well as the degraded state of the keyboard after having most of its keys removed and turned to empty sockets, not only enhanced the accessibility of the controls, but also suited the aesthetic and themes of the installation. A used tape player similar to the one in the game, as well as a desk lamp to illuminate the curated selection of texts was also placed on the desk. To mimic the thematic decay of the tapes in the game, and discourage players from attempting to use and possibly harm the

functioning tape player, it was not plugged in, and the magnetized tape within the cassette was pulled out of the cassette and interspersed on the keyboard, as if the tape had malfunctioned. This added an unnerving and unusual tactile element to using the keyboard to control the installation, and visually and thematically mirrored the images on display, of decaying or dissected bodies, relating to *ANATOMY*'s core theme of the interior of the body of the house being invaded and exposed.

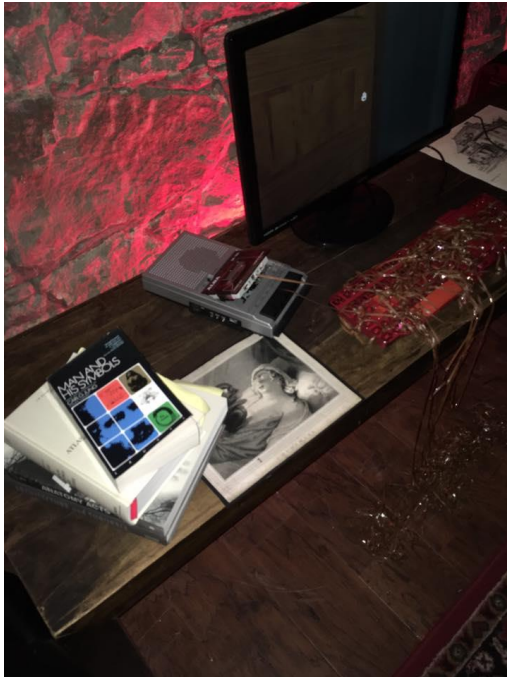


Figure 41: Alternative view of supplementary materials included in the *ANATOMY* installation (left) Emilie Reed

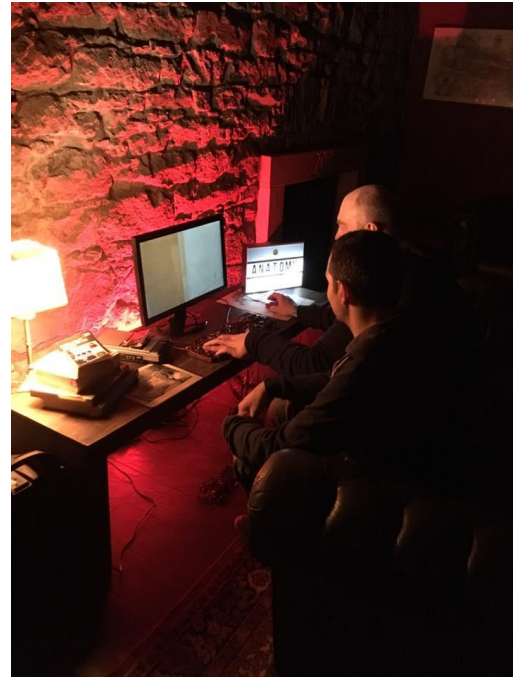


Figure 42: Two visitors interacting with the *ANATOMY* installation (right) Emilie Reed

6.4 Observation and Evaluation

Because of the nature of the event, collecting impressions of visitor experience through surveys or interviews was impractical. However, due to the truncated length of the event, I was able to observe and take notes for the entirety of the exhibition in place of this. After the doors opened at 8 PM, it took around 15 minutes for visitors to do more than peek in the door to the cow room. While from the outside, it was obvious there was some sort of videogame installed in the room, as there was in the rest of the venue's rooms, entering an area with a lot of seating and a carefully set up environment alone may have been

intimidating. New Media artists and curators have long noted that the element of spectatorship in terms of using technology in an exhibition context can favour the confident and experienced due to the awareness of being watched.

Additionally, because there were many rooms that were more open and featured several games within the venue, approaching a more closed off, single player experience may have not seemed initially appealing. In this case, many people would only peek into the room before deciding to approach the more open plan areas of standing kiosks where games could be played in the main rooms. However, soon a single person entered the room and with a bit of guidance took the seat at the front and began to play. In the case of full-room installations, often one person must lead to get spectators and other participants to linger on the game. In this case, it took about 15 minutes after the doors opened for an initial player to approach the game, and this first player was only intermittently accompanied by one spectator, whereas other games out in the open or in bar areas seemed much friendlier to being picked up and played immediately.

The latter installation styles may seem to be a success initially, while the former, used for this installation, would seem flawed. The way computer or videogame console kiosks and touchscreens are displayed in exhibitionary spaces often encourages brief, shallow engagement via straightforward interfaces, accessibility, and placement in visible or high-traffic areas. However, while this works well for games that have a quick turnover or need to attract multiple players or both, like many games at *Games Are For Everyone* events, videogames dealing with complex, multipart narratives and thematic elements like *ANATOMY* demand deeper attention and longer engagement. This is easy to get, and the expected mode of attention when one downloads a game and plays it privately at home, however it is not the norm for engaging with technology in a public, exhibitionary setting, and a sense of “performance anxiety,” being watched, or spending too much time with an interactive work (not being able to judge how long it will take to complete during a limited event time or gallery visit) contributes to these difficulties (Kidd 2014, 90).

Therefore, it was apparent early on that the display of *ANATOMY* would have to function both as a comfortable space where direct interactors would not feel too much pressure to perform, but also encourage a degree of spectatorship and long engagement for both players and indirect interactors who watch, offer advice, explore the installation elements, comment on the game or what the player is doing, or even take over part of the controls. While it took a while for this environment to emerge, and it relied specifically on an initial player's curiosity and personal confidence with first person horror games, it did eventually arise, and the room was consistently occupied by groups of various sizes for the rest of the event. In cases where there may be a need to facilitate this more reliably or quickly (the audience for *Games Are For Everyone* events are people who tend to have an existing interest in videogames or make them), an "attract mode" (a feature typical to arcade games where the machine demonstrates gameplay while unattended) may be developed for the game, or facilitators of the event or exhibition could be encouraged to play the game themselves and hand off the controls to interested visitors if players are hesitant to come forward.

The first player was closely engaged with the game while a companion watched, occasionally getting up to leave the room or purchase a drink, for around 20 minutes, which was enough to complete the first narrative "loop" of the game, where it closes and returns to the desktop. As noted earlier, the desktop had been carefully prepared with a background image that matched the theme of the game (a faint photo of clenched teeth) and the display settings of the desktop and menus had also been altered to give it a "low resolution" look to match the "old media" aesthetic of the game, plus a similar colour palette, but to also make as many other functions of the computer as possible inaccessible, so only the folder of information on the installation and the icon that would start the game were accessible.

Because of these tweaks, there were no issues with visitors navigating to unrelated functions or applications on the computer, because this setup strongly discouraged it. This was a change from the approach used during *The Blank Arcade*, where if a visitor closed a game, or if it shut down due to an error, the

computer would return to the typical Windows desktop. In this case, there was no single, large icon to restart the game, so it was much more likely that visitors would need the assistance of gallery staff to start the game again, or use it as an opportunity to meddle with options or files on the computer, which both interrupt the functionality and aesthetic intent of the installations. Therefore, it is important to not only ensure the videogame or software on display functions well on the computer provided, but that the computer is prepared in a way that is contiguous with the game and how it runs so that errors are possible for visitors to self-correct, and the installations are less likely to become appealing to meddle with.

It was easy for the next players who took over the controls after the first player left, interested in seeing the other things on display and deciding he would rather follow up on the rest of *ANATOMY* on his home PC, to figure out that they could restart the game by double-clicking on the large icon on the desktop. Throughout the rest of the night, generally one or two players would be interacting with the game directly on the couch, while spectators, which could vary from one or two people to a significant crowd for the space of 14, would watch and take on various backseat gaming roles. Visitors would rotate between watching and playing, and look to the room for who to hand the controls off to when they were done, or simply watch, sometimes for a surprisingly long time. The spectators in this case did not function as a queue in any straightforward way, though the controls usually went next to someone already in the room.

Players engaged with the game for long periods of time whether they were watching or directly interacting with it. Of course, this is in part because Kitty Horrorshow is an acclaimed horror game developer and is considered to create exceptionally mysterious and thematically complex works. However, the size and position of the screen, the atmosphere of the room that was facilitated by the props and lighting, and the presence of space to stand and sit contributed to people who were watching not feeling as though they were simply “waiting for their chance” or possibly “missing out” by not being the one at the controls.

The game was first completed an hour in to the event by the second pair of players to take over the controls and the central couch. These players shared the controls back and forth and offered advice and interpretation of the audio clues given by the house while playing, but did not engage with the books or images in the room. After completing the second “loop” of the game they immediately thought to restart the game by clicking on the desktop icon and understood the structure of the game and its narrative when they noticed the changes in the game. After this, it was a matter of again finding the cassette tapes and tape players while moving through the house until the final tape plays.

At this point the concealed escape key must be pressed to close the game and reset the narrative “loops” back to the beginning. Because of its program closing function, the escape key was removed from the customized keyboard used to play the game to prevent visitors from resetting the game, but because of the style of keyboard it was still possible for any of the facilitators monitoring the game to activate the escape key using a pen cap or similar stylus-like device. After giving the players and spectators a chance to file out after hearing the last tape, I reset the game for the next players, and, while it was a moment of attending to the game with others around, it did not seem to significantly interrupt the effect of the installation.

The first playthrough took approximately an hour, and the average playthrough time estimated by Kitty Horrorshow on the game’s webpage is 25-45 mins. This estimation may be low as some Let’s Plays of the game take closer to 55 minutes or an hour, making the playthrough length in the “play party” context typical. Even more encouragingly, this general period to completion of the game continued throughout the event, as it was completed 4 times during its 5-hour duration. That the time it took for a series of players, receiving prompts from the installation and advice from other spectators in the room is about the same as the estimate for playing at home or the times recorded by Let’s Play channels was an unexpected but positive sign for displaying longer-form games with complex narratives in an exhibition setting. Generally, games which have been exhibited are shorter, party-game like experiences that only take a set amount

of time between one to fifteen minutes. While they can be played for longer, one “round,” the time between players picking up the controllers and either losing or meeting a goal, completing a narrative or exploring the options available, generally does not take more than a few minutes or seconds of engagement, and the standing kiosk style of many videogame exhibitions encourage this behaviour.

Even when larger, commercial games are displayed, which can have average playthrough times in tens or hundreds of hours, the kiosk-style displays which also appear at trade events and are used to circulate a large number of players through carefully designed and time-limited demo stages, encourage the same sort of brief, shallow engagement. This can present several issues. Not only do these displays give a poor idea of the total effect or overall quality of the game to visitors because they only experience a very specific, limited moment of the game, but it may even make the game more frustrating and opaque to the player. An inexperienced player is most likely to put the controller down or walk away when they get into a frustrating or confusing situation, and the next person to pick up the controller will be immediately placed in that situation as well. Unless an experienced or extremely determined player comes along, it is possible the game will remain “stuck” in place indefinitely, and curious players will continue to “bounce off.”

I was aware of this risk in showing a longer format game like *ANATOMY*. There are several points where the low lighting effects, mysterious hints, and glitchy visuals can make it hard for players to figure out what to do next or evaluate if they are progressing. However, in practice the game had few true “sticking points” because the play area in the game is relatively small, and there are no complex combat or navigation controls. Additionally, providing seating and creating an atmosphere where the spectators who were not playing felt more like a relaxed audience or even potential advisors than an impatient queue who were not also experiencing the game. Therefore, I was happy to see that this style of display doesn’t cause a longer narrative game to become confusing or impassable an exhibition audience.

Discussion during the event between the players on the couch and spectators sitting or standing elsewhere in the room mainly fit into two categories. In line with the idea of “support players” described by James Newman, people throughout the room who were not the main player would jump in to offer advice and interpretation of the game if the player seemed to hesitate or showed signs of being stuck such as revisiting the same room or trying to interact with the same object several times (Newman 2002, 409). They would remind the player of rooms in the house they hadn’t visited yet, tell the player about things they saw onscreen that the player did not seem to immediately notice, or offer alternative interpretations of the garbled audio and text that made up the hints of where to find the next cassettes. If they had an audience, the player would also sometimes ask for help or “ponder aloud” (i.e. “should I go back there? Have I already been here?”) to solicit this kind of advice. This may have been an element of the exhibition which contributed to the players completing the game in a relatively normal amount of time and not getting significantly stuck.

The second type of discussion was more personal and less directly functional. It was also primarily addressed the spectators and came from the player. Players often brought up similarities between their experience of the game and other horror games or horror media. This included their personal tastes or levels of comfort with horror themes (for example, being especially scared of “creepy voices” or anticipating “jump scares”), evaluating the effectiveness of the horror by comparing it to how they felt playing similar games, or just describing previous personal experiences with horror games that made playing this game appeal to them. Sometimes this discussion took the form of joking or sarcastic comments, to alleviate tension if the player felt a bit more frightened than usual or something particularly unexpected or unnerving happened. While this helped to establish a relaxed, social environment where discussion and collaboration in the gameplay experience was welcome, it also mirrored the performative element of the Let’s Player that extends beyond simple capture of their gameplay. They are also there to offer commentary that not just explains or evaluates the game, but expresses a personality viewers can connect to and entertain through jokes and humorous reactions.

6.5 Reflection and Conclusion

Behaviours observed from the visitors who engaged with *ANATOMY* at the *Games Are For Everyone* event demonstrated several positive responses regarding my intent with the installation design. However, there were also some elements of the installation that influenced visitor behaviours and experience in more ambiguous or negative ways. While a major reason I selected Kitty Horrorshow's game for the event was that, as a horror game, it was more accessible than most due to its lack of combat or complex control schemes, this still did not address all possible accessibility concerns.

A major issue with *ANATOMY* for many players with limited hearing or auditory processing issues is that while most of its narrative is related through audio, there is no subtitle feature offering visual transcriptions of what is said. Subtitles, often in multiple languages, have long been standard for AAA games with narration or character dialogue, but in hobbyist and independently made titles their prevalence can vary. While it may be difficult to adequately implement subtitles in *ANATOMY* without somewhat changing the overall effect of the game, because tape distortion and ambiguity is part of the horror effect, this lack makes the game completely inaccessible to a significant group of people, and also difficult to understand at events where the player cannot control the volume and there may be background noise. While the PA system that was used for the sound during the event and the enclosed room allowed for the audio to be played at a high volume and clearly, there were still moments where increased background noise interfered with the player and spectator's understanding of the game.

Additionally, while I put a lot of thought into collecting and preparing relevant props to extend and supplement the game into the installation environment, this did not always work in a straightforward way. Players and spectators alike were hesitant to engage with the books provided, though they did notice and comment on the images. Stacking the books on the same table as the monitor and keyboard for the game may have influenced this hesitancy, because it seemed like they would be disturbing the player or the aesthetic of the

installation itself if they moved the books. While videogames are usually considered a way for art exhibitions to satisfy younger visitors who want to touch and be hands-on in a context in which it usually is strictly forbidden, there is still some hesitancy over whether touching is “allowed” or “encouraged” for objects whose function is not immediately clear, like a chair placed in front of a computer screen, a keyboard, or a game controller.

There may also be the issue that at a videogames-related event people are not expecting to read, and so the books seemed to function more as décor. Additionally, unless spectators used the light of their phone there were few spaces around the room besides on the couch with the primary player that were sufficiently lit to easily read the books. Spectators eventually began perusing the books provided with about an hour left in the event, around midnight, and were interested in how their topics and images related to the themes of the game, but I expected and would have been happier with earlier, longer, and more detailed engagement with the texts, and tweaking the ways in which they are presented in terms of location and lighting provided may improve this in the future.

While spectators and players commented positively on the images that were selected and placed around the room, noting that they enhanced the creepy vibe and related to the game’s themes and aesthetic, there were some drawbacks in how they were received. Players often were eager to start up the videogame and so during the night the folder of information on the images and texts throughout the room was rarely consulted, and how the visitors understood the source of the images around the room remained ambiguous. This became especially clear in one incident where a player became confused because he was referring to the image of a floorplan of a typical suburban home included in the installation (similar to the type that is the setting of the game) as if it were a map of the videogame’s space. This image was intended to highlight the historical basis of the suburban home featured in the game and connect to the texts included in the installation. The image was similar to the layout of the house in the game, but the location of some of the rooms was mirrored, making using it as a map seem initially logical and eventually frustrating. While the

player eventually found their way to the room they were looking for and stopped consulting the “map,” the frustration and potential sticking point could have been alleviated by selecting an image that was not easy to mistake for a map in the first place. Additional care in selecting and attributing extra materials like images used to contextualize a game within an installation will help to avoid these issues.

Finally, a WASD control scheme, where the WASD keys on a typical QWERTY keyboard control the player’s position in the game while they move their character’s “head” around and interact with objects with the mouse may seem like a very straightforward control scheme for most people who have gaming experience. In *ANATOMY*, since there are no additional controls for weapons or combat, these controls may be seen as especially simple and accessible. However, this does not stop players from using them in unconventional ways. I was surprised to see two players sharing the couch not by switching between the roles of advisor and player themselves but by one player controlling the keyboard and another controlling the mouse, which I had never seen anyone do with a WASD style game before and seemed totally unintuitive to me. While these two players did not seem to be having a hard time or getting frustrated, their progress was a bit slower than other players’. However, it is still an important reminder that even the most intuitive and commonplace control schemes for videogames are not yet universally accessible to the point that everyone, including a surprising number of non-gamers and non-computer users, will approach them in the expected way.

While *The Blank Arcade* emphasized the idea that videogames are performed, which I discuss in chapter 4, as well as the previous case study reflection, in this instance I tried to incorporate those insights, while also more explicitly dealing with *ANATOMY*’s durational challenges for an exhibition space, as well as the multipart nature of videogame experience. I observed how successfully the game was able to attract a fascinated audience, not only via online distribution but through Let’s Play YouTube channels, and determined *ANATOMY* would likely attract both players and watchers, which would help to manage its unusually long duration for a videogame played outside of a home

setting. Additionally, drawing on Michael Nitsche's multipart model of videogame spaces (Nitsche 2008), I made changes to the space within the computer, the desktop from which the game runs, as well as the interface and space around the computer, where play and spectatorship took place. This involved incorporating texts and images into the space that built on the themes of the game, as well as creating a similar atmosphere as the space within the game. Therefore, considering issues surrounding the multipart, performative, and durational qualities of videogames should not only be addressed in isolation, but can also reinforce each other to lead to more comprehensive display strategies.

Overall, many elements of how I installed Kitty Horrorshow's *ANATOMY* at *Games Are For Everyone V* proved successful in creating an environment where a game is exhibited in a way that appeals to both players and spectators. However, creating the installation and observing how players responded to it revealed some areas where accessibility and clarity could be improved. This installation project emphasized that achieving balance in how the game appeals to players and spectators alike while offering clarity and accessibility in the experience of the game requires an awareness of audience, location and the game itself, unlike the one-size-fits-all kiosk approach. While this approach is efficient in terms of visitor circulation, space, and planning AV needs, and has been theorized by institutions such as the MoMA in New York for "presenting the game as stripped down and without distractions" it is not an approach that suits all games (Antonelli 2013).

Sensitive installation development cannot only make it possible for a broader variety of games to be effectively exhibited to new audiences, but can also lead to experiences which highlight different aspects of the gameplay experience, like spectatorship and collaboration, and place the work in different contexts beyond its relation to other videogames.

After the April *Games Are For Everyone* event, I planned to do a different type of installation at the November event, which would take a different approach to a custom installation, while carrying-forward the observations on spectatorship,

collaboration, and multiple degrees of accessibility that I made during this event. Despite some of the drawbacks and elements of the installation which did not work as expected, the overall impact of the game and the installation design seemed to persist because at future events, the “cow room” brought back memories or was still closely associated with *ANATOMY* among those who attended again, especially among those who considered themselves non-horror-gamers.

7 Case Study 3: FUCKGAMEDEV and Zine Library at Games Are For Everyone VI

7.1 Introduction: FUCKGAMEDEV

The next *Games are For Everyone (GAFE)* event was scheduled to be held on 30 November 2018, from 7PM to 1AM on December 1st. In this case I wanted to carry forward my observations on visitor behaviours in the experimental installation of *ANATOMY*, adapting and expanding their application. I worked with shorter but more experimental games, as well as performance and additional documents in the form of videogame-related zines. My goals were to continue to explore the ways exhibitions of videogames could accommodate a variety of interaction-based and spectatorship behaviours, as well as how the “final product” of a videogame could be displayed alongside various contextualizing materials providing information on its process.

For this *GAFE* event I first approached a French developer who goes by the online handle FUCKGAMEDEV about creating a game specifically for the event. While in the case of the Kitty Horrorshow’s *ANATOMY* the experience around the game was developed for the event, this would be the first time a game was developed from beginning to end for the event. Unlike games at previous events as well it would also only be available for the duration of this *GAFE*. To the We Throw Switches collective, this demonstrated a novel approach and something that had not been featured at any previous event, so was a welcome suggestion.

FUCKGAMEDEV creates videogames and “(inter)active paintings” that can only be downloaded by one person through his itch.io page or are hosted at a secret URL players must discover. The price for these “unique experiences” can range from 1 – 230 euros, and once the file is in the purchaser’s possession, they may play it, copy it, sell it again, or delete it (FUCKGAMEDEV 2018).

FUCKGAMEDEV’s approach may initially seem similar to methods new media artists and institutions used to manage digital arts using paradigms of more

traditional mediums. When traditional institutions try to add new media objects like software, webpages, and videogames to their collections, there is often confusion about what exactly they are acquiring, and how its value and uniqueness is ensured. However, as discussed in chapter three, immateriality has long been a quality of contemporary art, and many artists are used to their work being distributed and materialized or performed in a variety of ways for a single artwork. The value of these works can be ensured through certificates of authenticity, deluxe editions or packaging for the discs that carry the data making up the work, or the artist may only give permission for their work to materialize at venues or events of “high social value” (Graham 2014, 31-35).

However, FUCKGAMEDEV’s practices are, on the other hand, quite antagonistic to presiding logic about videogames, and even independent or artistic videogames in general. The disposal of new Atari cartridges that had become so depreciated in value from oversupply that they could not even be stored in a warehouse predicted the eventual race-to-the-bottom prices independent developers selling digital, (and therefore supposedly “no cost”) copies of their game are expected to conform to through the pricing and sales structures of online platforms like Steam. Even though independent games from a single developer may contain several years of full-time work, they often face audiences who expect to pay far less for indie titles than they do for AAA titles. Additional pressure comes from the most popular marketplaces for digital games introducing more “customer friendly” policies like refunds and the ability to report “fake games” which are generally judged against the expected qualities of mainstream games (Frank 2017).

These categories are value judgements that express a specific perspective on what games should or can be, which favours mainstream titles’ sensibilities. For example, Steam’s 2-hour refund policy may seem reasonable for mainstream videogames that take tens or hundreds of hours to complete, but it specifically disadvantages developers making shorter experiences that may only be an hour long (Robertson 2015). Independent games have also been targeted with negative “review bomb” activity, and platforms like Steam have done little to moderate coordinated misuse of their platform which targets small game

creators, who do not have community management or PR staff to rely on (Chalk 2017).

In this case, when independent games have become low-value and disposable to their audience, referring to art historical techniques for artificially creating value and rarity can be interpreted as transgressive, or at least unusual. Jesper Juul (2014) has identified multiple ways in which indie developers who distribute their work online create their own forms of value and authenticity to help create a space for their practice in a market that generally favours large studio productions, which can be similar to how new media artists made space for their work within an art market based on traditional media. This can include developing unusual controllers or specific events to create an aura based on exclusivity around how their game is played, as noted earlier to contextualize *Games Are For Everyone*-style events, but authenticity can also be generated by reviving older gaming styles and “retro” signifiers, or demonstrating skilful or unusual craftwork. Prior to the event, FUCKGAMEDEV’s work could have been argued to adopt the third style, though the abstracted minimalistic text and graphics and non-goal-oriented gameplay does not demonstrate the typical ideas of “good craft” Juul discusses.

None of these approaches necessarily limit who can access and download the games’ file, making FUCKGAMEDEV’s approach of only selling it to one person an unusual approach to independent game marketing. In an interview with small developer zine “Trashzine,” FUCKGAMEDEV admits that part of the appeal of these unique releases is that they make the experiences “more fragile, almost physical” (Trashzine 2017). Many who have purchased or found FUCKGAMEDEV’s games have kept the file to themselves, but others have offered them in exchange for other tasks, like making a small game for a game jam. Retaining some element of exclusivity seems to be appealing. FUCKGAMEDEV tends to announce his games by posting them to his itch.io page and making a tweet advertising the page a bit later. While some consist of simply one copy to be purchased, others have a puzzle to be solved that may reveal the secret URL for the download.

7.2 Exhibition Installation

FUCKGAMEDEV's work was especially appealing to the event structure of *GAFE VI*, not only because it was a new commission specifically for a *Games Are For Everyone* event, but it would also only be available through attendance to the event, and the performative deletion of all of the games at the end gave the installation even more of an aura of exclusivity. I felt it would also provide a unique opportunity to build on what I had done in the previous installation by working with similar concerns, but also being able to use the artist's presence and feedback.

In initial discussions it was decided that it would be both thematically appropriate and useful in the sense that it would circulate people by encouraging them to explore more remote areas of the large venue by making FUCKGAMEDEV's project the first game that would be hosted on the third floor of the venue, which had previously only been used for AV and administrative purposes. The identified area was a nook underneath an arch that created an area about 4 meters square and two meters tall at its highest point. The large area provided plenty of room for the artist's drawing and performative elements which they proposed to accompany the work. However, using this space was vetoed by the owner of the venue, and the project was moved to the cow room which has also featured *ANATOMY* in the previous edition of the event.

More unexpected issues arose when we attempted to run builds of the game that FUCKGAMEDEV had prepared for the day on the laptop which was provided by the University of Abertay IT department, in the same manner as last time. In the interest of giving the artist who was commissioned specifically for the event the most amount of time to respond to the project within a somewhat brief window for creating a short videogame, I did not require a specific deadline prior to the event to test the build FUCKGAMEDEV planned to use. This was a risk that could have been avoided, but as I had no previous issues running his games, and knew that they were made in Unity, the same free and well-tested engine used to make *ANATOMY*, I didn't think there would be any issues, however, there was a version compatibility error. This emphasizes the

importance of being able to test builds prior to the opening of the event, even if it is just a temporary or short notice installation.

While we waited for the back-up PC to be provided by a developer who was presenting a different game at the event, we decided to take a break from the tech setup and allow the artist and his assistant to gather necessary materials and begin to plan the physical installation and performance part of the piece. In this case the collective provided them with a budget to buy supplies from local craft stores which they planned to use to decorate the space and add performance elements. The materials they acquired consisted of paint, markers, large sheets of paper, full-face masks, and some plain white clothes which came to around £20. Because some of the process, especially painting on the clothes and masks, was messy, the artists required the use of a covered area in an alley outside of the venue where they could work without risking the room's floors or furniture.

When the backup PC arrived, all four builds of games that FUCKGAMEDEV prepared for that night were tested and worked properly. Therefore, we acquired the power source, sound system, projector, screen, and LED lights that made up the AV equipment for the room and began setting the technological components of the exhibition up. While this briefly interrupted their work with the other aspects of the installation in the space, having the screen, sound system, and other technological elements in place helped to set limits of where they could be and how much space the other elements could take up.

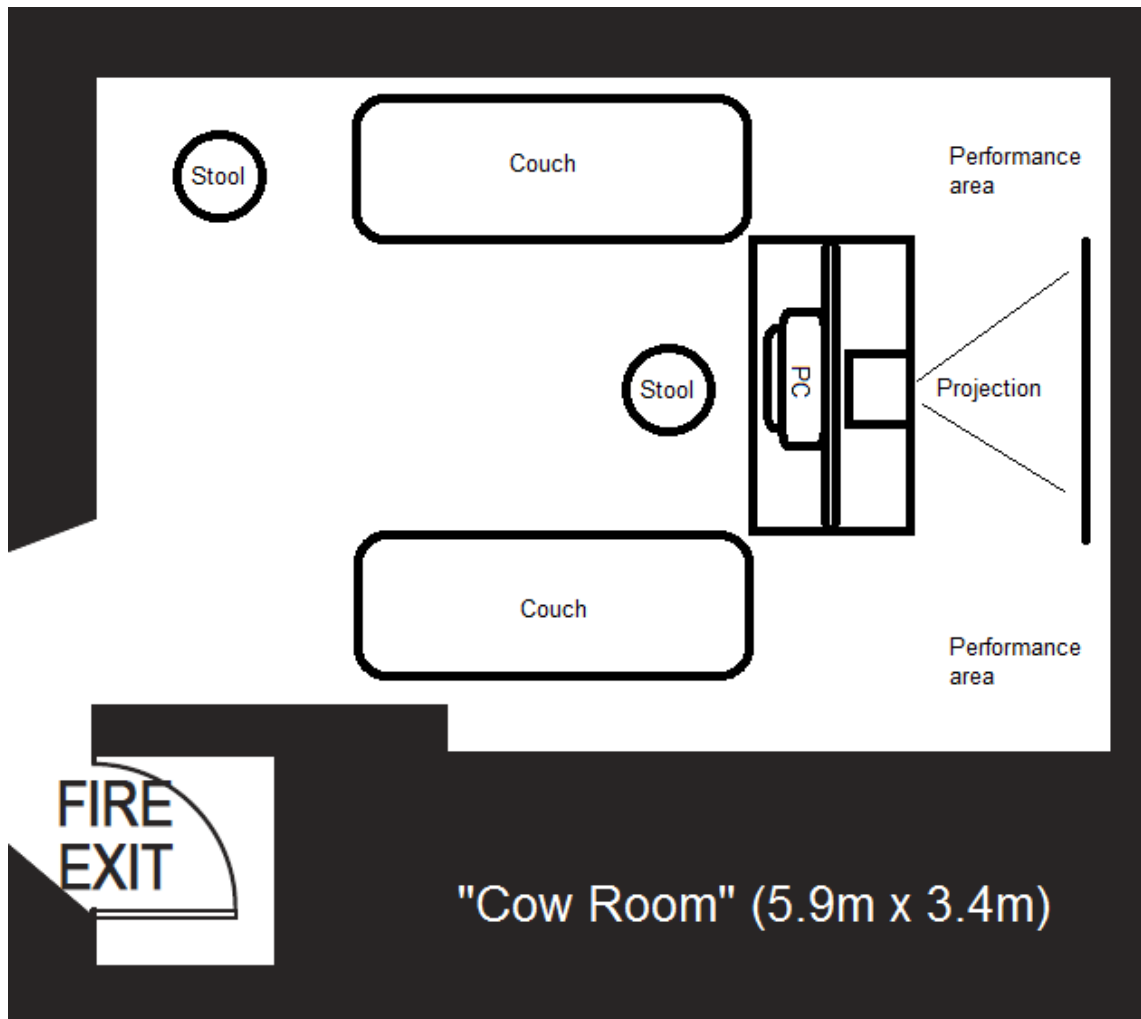


Figure 43: Diagram of "The Cow Room" as set up for the installation of FUCKGAMEDEV's works at GAFEVI

Instead of only displaying the games on a single monitor or screen, the artist decided to have the games visible on both the laptop where the primary interactor would be playing it, again using a WASD-mouse setup, and the larger projection screen. The LED lights placed on either side of the screen to draw attention to the room and created ambiance, and the lights were dimmed to bring focus to the screens, though the room was not as dark as for *ANATOMY*. The PA system was used for sound again, which allowed for louder sound than typical computer speakers. The laptop was placed on a low table, which required the player to sit on a low stool or crouch. The rest of the seating in the room, facing the screen, were low stools or overstuffed armchairs. As opposed to *ANATOMY*, where the screen was along a wall which was perpendicular to the entrance to the room, so the game was not visible from the doorway, the

large screen of FUCKGAMEDEV's game was parallel to the door and therefore visible from the doorway.

After the audio-visual equipment was in place and tested, we prepared the laptop in much the same way as I had for *ANATOMY*. In this case, all other icons and menus on the desktop were hidden, and the icon representing the four limited time games FUCKGAMEDEV had prepared for the event were made larger than normal and centred for clarity. Options like the computer going to a screensaver or turning off after a period of inactivity were also switched off, as well as the Wi-Fi and as many notifications as possible.

At this point the artists were free to work on the other aspects of the installation until it was time for the event, and because this installation was more artist led, my role became mainly to ensure they had everything they needed for the set up they desired. The other components of the installation included several hand-painted posters that were on the door and walls of the room. They consisted of drawings and mysterious phrases around themes of fashion, royalty and death which usually accompany the presentation of FUCKGAMEDEV's work online. The artist would also perform as a part of the installation in a specific outfit, made from painting on the plain white clothes, and a mask which was covered in similar drawings and his online moniker, FUCKGAMEDEV. He would also offer a mask to the primary player to wear while playing one of the games. The artist would be positioned in the area between the low table with the laptop and the screen, and the paper and paints were kept in this area to continue making posters during the event. This allowed the artist to alter and add to the work during the event without risking damage to the venue by keeping paints in the areas where attendees would be wandering or sitting.

Finally, the artist prepared a piece of paper with handwritten notes about each of the four games, as well as the "rules" of the installation, that the games would all be deleted at the end of the exhibition.

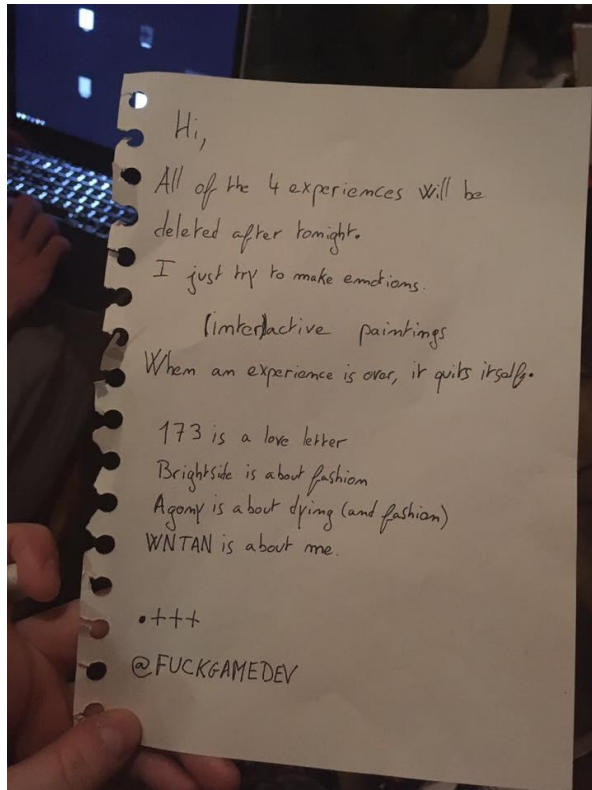
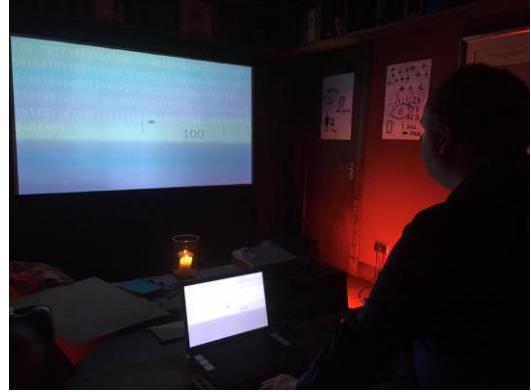


Figure 44: View of performance space and artists' drawings in FUCKGAMEDEV's installation (top left) Emilie Reed

Figure 45: Visitor interacting with FUCKGAMEDEV's work at Games Are For Everyone VI (top right) Emilie Reed

Figure 46 (bottom): Artist's statement prepared as an element of FUCKGAMEDEV's work at Games Are For Everyone VI (2017)

The four games were labelled "173," "Brightside," "Agony" and "WNTAN." FUCKGAMEDEV described "173" as "A Love Letter." In this game, an amplified ticking sound signalled a number counting down from 173, and the number would appear wherever the player moved within the mostly empty game space. Sometimes, instead of a number, a line in a disjointed, abstract love confession would appear. "Brightside" was described as "about fashion," and was not

straightforwardly interactive, instead mostly consisting of a 10-second flurry of images of models and distorted sounds. “Agony” placed the player in a series of rooms labelled with the name of a fashion brand and a black cube that would expand to fill the space more quickly with each level. When the player was inevitably submerged in the black cube, they would be transported to the next level. This game was described as “about dying (and fashion).” Finally, “WNTAN” consisted of colourful abstract environments populated by pulsing scribbles and incidental bits of text. The player could progress through doors or jump off the side of the game space and be transported in ways that did not follow typical spatial logic. This game was described by FUCKGAMEDEV as being “about me.” Together these four works as well as the drawing and performance elements and the unique dual-screen audio-visual setup made up the installation.

Entering the room, exploring the installation and playing through all 4 games took around 10 minutes when I tested them just prior to the doors opening at 7 PM. Therefore, it was also a significantly shorter engagement period than *ANATOMY* had asked at the previous *Games Are For Everyone*.

7.3 Observation and Evaluation

During the event, there were both successes and challenges in how the game was received. Despite the slight change in the layout of the room, especially regarding the relationship of the screen to the doorway, it still took a considerable amount of time, again, for attendees to be willing to step away from the more open, standing-kiosk based areas and spend time investigating the cow room area. Because it is a separate room and does not encourage traffic passing through it like many of the other areas that feature videogames in the venue, it does not have the visibility and immediacy of the areas that receive high traffic early in the night, but the area offers insulation from background noise and a more intimate space which suits other games.

As with *ANATOMY*, for the first 30 minutes of the event it was hard to encourage sustained lingering beyond people looking in the door, because

there are many games available and visitors do not want to get “stuck” too long in a single room before fully exploring. Interestingly, some games in the more open areas were set up with couches rather than standing kiosks in this iteration of *Games Are for Everyone*, and fast-paced multiplayer games like *Muddledash* did not face the same hesitancy of people to take a seat and linger with the game. However, this may be because multiplayer and party games are usually living room, couch-based activities, and while a game of *Muddledash* can also take around 10 minutes to play, it is something that requires sitting with a group, and therefore does not have the individual pressure that deciding to sit down alone with a more ambiguous type of game would. In this case, the presence of the artist (even in costume as his FUCKGAMEDEV persona) was both intimidating to some potential players, but also allowed some players to be drawn in and form a connection with the artist, who could directly encourage them to play through body language and gesture.

While FUCKGAMEDEV’s work and Kitty Horrorshow’s *ANATOMY* are both experimental, even within the line-up of unconventional videogames featured at GAFE, Kitty Horrorshow’s work visually references a familiar genre, the dark, eerie interiors and first-person viewpoint associated with horror games. Therefore, it at least initially implies what the player is supposed to be doing before the structure of the game becomes more ambiguous. FUCKGAMEDEV’s work is much more abstract and, while technically in a first-person perspective, eschews most of the visual cues associated with first person games because the player is not in any identifiable or accurately simulated environment. His games are also much more minimalist, with no items to pick up or narrative thread to follow, as the description “Interactive paintings” implies, they are primarily attempting to be visually experimental experiences, with few game-like elements beyond being made in Unity and using a first-person control scheme. The games also exit automatically when they end, as noted on the description page, and do not offer the typical evaluation or closure at the end of a round. Because of this, these games were more challenging and seen as more inaccessible by attendees.

However, around 30 minutes in more attendees were coming forward to investigate the other elements of the installation, such as the masks and posters, even if they were not sitting to play the games. The posters and installation, as well as the note and silent presence of the masked artist (the mask representing the anonymity and mystery of his online pseudonym while showing his work “irl”) were eventually intriguing enough that players began to engage with the dauntingly un-game-y videogames, and a significant number of spectators were both sitting and standing in the back near the door by 20:35. By 21:04 players had completed all four games several times and more people were seated in the room. Because the games were short and could be played several times, many of the attendees were satisfied half-watching, only turning towards the screen sometimes, and chatting with friends at others. Despite the visual and thematic ambiguity of the games there seemed to be no trouble understanding how to start them up with the icons or how to control movement within the game. In fact, players seemed more confident, perhaps because the game was not simulating a realistic location, and therefore precision or moving around in a way resembling the way one moves around their actual house were not primary concerns, nor could typical gaming “skill” be performed or evaluated in the usual ways.

All four games featured in the installation would automatically close after a period ranging from 2-3 minutes to 10 seconds, so the games were cycled through much more quickly than *ANATOMY*. This led to a bit of a lull at 21:21 where the current primary interactor turned around to offer handing off controls to others waiting in the room, but no one seemed eager to take over. They had either already played the games or were satisfied with how much they had watched. One spectator who had been watching intently even replied “I’m good,” when offered the controller, indicating that solely watching the games had satisfied their curiosity about the work. Because no new player took over, the game aspect of the installation was temporarily abandoned while the player and spectators examined the notes and drawing more closely and began to discuss their interpretation or experience of the work.

One of the most immediate statements evaluating the meaning of the work was based on the nature of the graphics. Because the game was graphically abstract and minimalistic, unlike typical videogames, the consensus in the discussion was that there must be something “more” to it, such as symbolism or a secret meaning. Multiple visitors expressed or agreed with the sentiment that videogames with these kinds of graphics are typically not “just for fun.” Bringing up the themes of death and alienation that were apparent in the art and games around the room, another person commented that these games were not for “a fun evening,” which may be a fair evaluation of how the *Games Are For Everyone* events are marketed.

The group gradually cycled out of the room and newcomers arrived. By 21:51 they had played the games several times again and had reached a similar lull where the activity in the room turned towards discussing the meaning of the work. Specifically, the visitors wondered about the nature of the relation between the posters, the text and numbers on the posters, and the games. They wondered if they were “looking too far into it” by searching for numbers or phrases that may have been a hint or password to “unlock” something or cause the games to behave differently. While this was, to my knowledge, not a feature in any of the FUCKGAMEDEV games, it is easy to see why, in the context of a work being presented as a videogame, these types of “puzzles” or “cheat codes” would seem like a logical feature to search for when stumped or uncertain about what to do in a game.

The discussion also evaluated the overall effect of the games and installation itself. One spectator asked if the works presented were really a game, since they had no goals, no apparent plot, and didn’t offer any closure or feedback on the player’s actions. Another spectator responded that even if it wasn’t a game, it was still an experience, potentially placing the work more in the areas of art or performance for the visitors. Again, the engagement of the work followed the pattern of play, lull, and discussion for the rest of the evening, with some notable shyness and performance anxiety around picking up such an ambiguous and unusual videogame. More passionate discussions about the nature of the game, why someone would make something so ambiguous, and

its relation to art in general would occasionally crop up. Towards the end of the event, at 00:24, a player who noticed I had been observing the room throughout the evening asked if “I made this” because “they thought it was art.” When I said no, I was just event staff, they asked me and their companion whether they then thought the artist was a “he or she,” showing how the presumed identity of a creator is seen as relevant to interpreting a work of art, and that the art can possibly be read as “clues” to a fuller picture of the artist or their intent.

FUCKGAMEDEV’s work was challenging and highly experimental compared to many of the other videogames featured in *Games Are For Everyone*. The “party” atmosphere of a one-night event set in a venue featuring bars that usually hosts parties or concerts can mean that many visitors are unprepared or unwilling to engage with works that are less straightforwardly game-like or playful. While this installation did not appeal to as many people or hold as consistent crowds as the display of *ANATOMY*, those who did engage with the work for an appropriate period of time, whether as spectators or players or going between both roles, often came away with provocative questions and conversations which caused them to reconsider their previous views or opinions on art, expression and videogames.

Working with FUCKGAMEDEV also was beneficial in that it offered a chance to work directly with an artist on how their work was installed. This led to some atypical display choices which I thought an artist would necessarily be opposed to, such as running the game on both a laptop and projector screen, but which ended up being rather effective in facilitating simultaneous play and spectatorship. In fact, letting the player approach and control the game through a smaller, more familiar screen like a laptop may have helped alleviate the not insignificant discomfort with playing a dauntingly abstract videogame in front of the judgement of others. Beryl Graham also notes the importance of working closely with new media-based artists because they will often be good at predicting how audiences interact with their work, in ways which potentially can go against common sense assumptions (Graham 2013, 256). Allowing a work to appear on multiple screens in the same space goes against the typical art world model of the single, contained art object, but there is no reason it is

necessarily technologically impossible or a poor display choice. Again, due to the many cultural and industry events and showcases where game developers and artists are required to mostly manage the setup of their game in a public place on their own, without the direct involvement of a curator, when you work with an artist working in videogames they will likely have useful insights about how their game works in an exhibition context that may be unexpected in an arts context.

The main unexpected challenge of this installation was the panic around the game builds being incompatible with the PC acquired for the installation, against my previous experience with Unity based games. While we were able to secure an extra laptop belonging to another developer at the event, it could have easily been a context where extra PCs are not available at short notice. The ephemeral nature of the FUCKGAMEDEV installation was exciting and conceptually interesting, but this working style led to the final versions of the game only being tested on the day of the event. While ephemeral practices have historically been innovative and challenging to the art world because of their immediacy and inability to be fully collected or owned as a discrete object, the reason they were executed successfully and documented in detail must be attributed to a certain amount of (seemingly contradictory, but necessary) planning and practice. Especially when working with technology, where an unexpected problem can make a work completely inaccessible, taking time to test the work on the hardware that will be used at the event prior to the day of the event is probably more advisable than improvising.

In this case, with the two-screen display, not only did the room allow for spectators to easily observe the primary interactor playing the game, and what the player was seeing onscreen, but the installation also created an area where, based on my observation during the event, discussion flourished. In addition to the direct discussion that may occur in person, over messaging systems or by voice chat during multiplayer gaming sessions, James Newman (2008) notes the importance of reflective conversations to creating social spaces around a variety of games, especially online via message boards and fan sites. He argues the “differential experience of games,” where each player makes their

own path through the various possible states, is precisely what encourages this type of discussion, as players share different techniques to better beat the game, but also different experiences and interpretations to more deeply analyse it. (Ibid., 27).

The discussions with players and spectators who were lingering in the installation space tended to be primarily concerned with a deeper level of analysis than simply determining if there was a win condition to FUCKGAMEDEV's work, or a "better" way of playing it. Instead, they more often focused on meaning, the games' place in the larger context of art games, and speculation on the creator's identity or intention. Discussion, or comparing and contrasting multiple experiences and interpretations is an important part of how game players develop a fuller understanding of a videogame, and an installation of a game that acknowledges indirect interaction with videogames can potentially facilitate this.

7.4 Introduction: Zine Library

Nathalie Lawhead's *Everything is Going To Be Ok*, a multipart videogame that draws on both the developer's personal experience within the technology industry and early 2000s web aesthetic touchpoints like Flash games and personal homepages, was also selected for inclusion in *Games Are For Everyone VI*. Lawhead describes the project as an "interactive zine," referencing a format of self-publishing that often combines clippings from professional publications with personal writing and drawings, distributed via inexpensive Xerox copies as a form of fandom, information, and self-expression.

The "zine" has been frequently connected to small scale game development, exemplified in Anna Anthropy's writing on "videogame zinesters," people who capitalize on the ability, thanks to new tools, personal computers, and internet networks to make and share short, personal games. She defines zines as "self-published, self-distributed magazines and books" and says that thinking of video games as zines acknowledges them as "transmissions of ideas and culture from

person to person, as personal artefacts instead of impersonal creations by teams” (Anthropy 2013, 9).

The relevance of the “zine” descriptor to *Everything is Going To Be OK* appears most in the collaged tribute to visual elements of many different parts of computer history, such as Flash animations, viral GIFs and retro operating system UI, and in its content. The game adapts Lawhead’s personal experiences, journals, and poetry into cartoony vignettes, where strange characters like blob-bunnies, worms living in skulls, and talking slimes go through darkly humorous situations surrounding burnout, sexism and abuse, where explosions and over the top gore stand in for emotional trauma. Each vignette is called a “page” and the pages can be accessed in any order from the main menu, allowing the player to explore and revisit these scenes in any order.

To accompany this game thematically, I proposed complimenting it with a library of traditional paper zines about videogames. Again, because this iteration of *Games Are For Everyone* would increase the number of tickets available and therefore would possibly have to circulate significantly more visitors than past iterations, the idea of a zine library was seen as not only something new and different from previous events, but also an area that could hold an indeterminate amount of people, as opposed to games which only could “hold” one person, or a set number of players. It was also an opportunity for *Games Are For Everyone* to make connections with artists, writers and game developers they had not worked with before, and establish connections with local zines that covered indie games, like *Paper Arcade* and *TRASHZINE*.

7.5 Selection Process

I was given a budget of £50 for cost, shipping and any other resources I would need to display the zines. Within the selection, my goal was to curate a variety of approaches to both the zine form and the topic of videogames. It was important to have good local representation, so those connections could be fostered, but I also wanted to feature some interesting picks from the larger UK and EU area. I primarily contacted zine creators through Twitter, through their

personal sites, or through their Etsy pages where they sold zines. In the end I was able to acquire most of the zines I initially proposed. The selection consisted of *Paper Arcade*, *Spektrum Crush*, *Analog*, and *TRASHZINE* which were made by collating submissions from many collaborators, as well as three zines by Hannah Nicklin, *Games To Play Outside* by Thryn Henderson, *Space People* by Stephen “thecatamites” Gillmurphy, and *Tiny Island: An Animal Crossing Fanzine* by Eleanor Weil.

Paper Arcade is a local Scottish zine based in Dundee that collects submissions from monthly Zine Jam events. The events are both held in local pubs and aimed at adults, or all ages events in libraries and arcades. At the free events, participants are invited to make zines about videogames, and can submit pages or selections of their work to be included in a compilation that will be professionally printed and published. Issue .5 of the zine premiered in September 2017, and there were still copies from the first print run available to be purchased for the library. The content of the zine included fanart, original art, personal writing about favourite games or working on making games, and pages featuring small games made by local artists available to download on Itch.io. Because they were local to Dundee, I was able to purchase this zine directly from the organizers.

Spektrum Crush is an art zine based in Berlin, which solicits artwork from game developers, 3D and VR artists, and other creative people working with games and technology. Each issue has a theme the submitted art should adhere to as well as the requirement that it only uses two specific colours, since the zine is printed using a two-colour risograph technique. This zine, and *Paper Arcade*, both also come with an extra insert poster of a larger format artwork. Because of the unique risograph process, where a copier silk-screens each colour onto the pages separately, *Spektrum Crush* is unusually large and pricy for a zine, but it still seemed like a strong selection because it offered an example from further afield and demonstrated a unique process. I purchased this zine from the *Spektrum Crush* website.

TRASHZINE is an Edinburgh-based zine that interviews creators of small, hobbyist, and “trashy” games from all over the world. The interviews are purposely brief, conducted in a question-and-answer style over email, and edited to under 1000 words. The zine is distributed for free online, and a file is provided from which you can assemble your own print version. The goal of the zine is to make visible the variety of approaches and practices within game development that often go overlooked or unnoticed. I printed and assembled the copies of the zine myself in this case.

Hannah Nicklin’s three zines, *Games We Have Known and Loved*, *A Psychogeography of Videogames* and *Hannah and the Klondikes*, collect research work funded through Nicklin’s Patreon. *Games We Have Known and Loved* is a found poem-based zine which draws from oral histories collected at the Nottingham games festival GameCity of casual and improvised games visitors remember playing. *A Psychogeography of Videogames* consists of a series of narrative interviews conducted with a variety of independent and experimental game developers who talk about biographical and cultural influences on their work while on a walk through an environment they believed inspired it. *Hannah and the Klondikes* is another collection of interviews, this time with members of a French art game collective called Klondike. These zines highlight casual and experimental cultures of play and investigate them in unusual and surprising ways, through engaging on a personal level with the creators. I purchased these zines through Nicklin’s personal website.

ANALOG magazine is a quarterly zine organized by editor Alex B, who is based in Colchester, England. The zine collects writing, comics and illustration from a variety of people throughout the games industry, from people working in production, art, quality assurance and so on. The themes of the zine cover a variety of topics relevant to people working with videogames, such as managing mental health, dealing with workplace issues like burnout and discrimination, and tips for applying to jobs successfully, as well as fun content like comedy and reflections on favourite videogames. The zine is distributed freely at industry events such as EGX, and the organizer offered to send me copies of the first two issues for free in this case.

Games to Play Outside and *L&M* by Thryn Henderson are “playable” zines in the sense that the zines consist of instructions or, in the case of *L&M*, materials for playing games. *Let’s Play Outside* adapts popular videogames such as *Animal Crossing*, *Shadow of the Colossus* and *Katamari Damacy* into outdoor activities, exploring how the essence or themes of certain videogames can be expressed in a different, non-technological way. *L&M* is a zine that consists of games that can be played on paper or made from the paper of the zine. The topics of these zines related to a videogame zine library, but they also offered something unique in that they were “playable” as well. *Let’s Play Outside* was featured at the 2017 Feral Vector conference, an event where experimental multiplayer and live action roleplay games are showcased, and Henderson provided a printable PDF of the zine for me to assemble and include in the library, and offered the mail copies of *L&M* for free.

Space People by Stephen “Thecatamites” Gillmurphy uses a collaged style similar to the visuals associated with his videogames, including *50 Short Games* and *Goblet Grotto*. The zine thematically accompanies *50 Short Games*, which is a collection of simple games made in a day where all the visual assets were drawn by hand on an index card. The zine consists of short, humorous narratives about videogame NPCs as they go about their rote existence, and connects the practice of moving around “little guys” in videogames to imaginative childhood play. When I approached the artist of this zine, he offered to provide copies for free.

Finally, *Tiny Island: An Animal Crossing Fanzine* by Eleanor Weil is a zine about the UK-based artists’ experience playing *Animal Crossing: Wild World* for the Nintendo DS. The zine is like a typical fanzine in that it covers topics like the author’s favourite characters and locations in the game, but also relates to deeper themes of how videogames are incorporated into our lives and routines and can be productive spaces for self-care and self-expression. I purchased a copy of this zine through Weil’s Etsy shop.

7.6 Exhibition Installation

Once the collection of zines was confirmed, all of the zines that would be included were either in my possession or in the process of being shipped to me, and I had secured permission to be featured in the event from each of the artists or zine organizers, I prepared a series of texts to provide a brief description of each zine, and also mark its place in the library (Appendix 9.6).

Discussing space requirements with the We Throw Switches team, it was decided that Lawhead's *Everything Is Going To Be OK* would likely be in the area by the bar on the lower level referred to as the "Quiet Area" because of its distance from the louder portions of the venue and its ability to offer more comfortable seating. Typically, more low-key games or games that rely on subtle sound cues and music are placed in this area to give them space from the more loud and raucous installations. Lawhead's game prominently features voice acting, but also has some darker and more serious themes than the rest of the games that would have been on display, making the quiet area an appropriate choice.

Because of the thematic connection, I wanted to ensure that the zine library would be near Lawhead's interactive "zine." Therefore, a long table with two benches that would be next to the large screen displaying Lawhead's work in a standing kiosk style was set aside as the location for the zine library. The other two games in the quiet area room were *Art Deck*, a live card game by Holly Gramazio where players play cards to add to a work of art before one of them signs it, ending the round, and *Beasts of Balance*, an NFC-enabled balancing game by Sensible Object where animal-shaped pieces placed on the gameplay area produce new hybrid creatures on a nearby tablet device.

The shortcomings of this space were that the lighting was hard to control, and so it was a bit dimmer than ideal reading conditions, and also the seating was not as comfortable as I initially would have liked, but there was not enough budget for the project to bring in more comfortable seating, or space and availability to move other forms of seating from other areas in the venue.

Instead, using the remaining £10 of the budget, I acquired colourful printed tapes and sticky tack for installing the descriptions of the zine library and decorating the table, and acquired a small lamp from elsewhere in the venue that was not being used to partially mitigate the non-ideal lighting conditions.



Figure 47: A visitor reading zines at the Games Are For Everyone Zine Library table (left) Emilie Reed

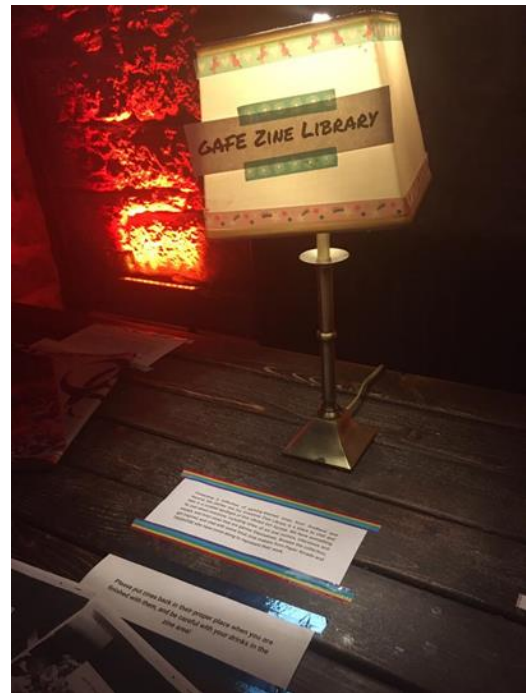


Figure 48: Installation photos of the Games Are For Everyone Zine Library at Games Are For Everyone VI (right) Emilie Reed

The zines were placed on the table and arranged so that they were appealingly spread out, encouraging the visitors to sit and read. I then used the sticky tack and printed tapes to attach the texts I had written about each zine to their place in the table. I hoped this would encourage the visitors to return the zines to their indicated spaces so the table would be somewhat self-managing throughout the evening and remain clear and inviting. Finally, I decorated the lamp with a “GAFE ZINE LIBRARY” label to make the purpose of the table clear, and decorated the lamp with some of the coloured tapes so it would match the appearance of the rest of the table.

Bordering the descriptions of the zines with colourful tapes and decorating the rather homey-looking desk lamp was intended to emphasize the passion of (often female) DIY work that went into defining the aesthetic of zines, as well as creating and circulating them in addition to being visually appealing, and giving off a casual vibe so that visitors were not self-conscious about picking up the zines or sitting and lingering with them. Satisfactory lighting remained a challenge, and a budget specifically for a reading lamp should be implemented if the zine library is featured again at future events. The bench seating was a bit uncomfortable and not as accessible as more comfortable alternatives but again that would be a matter of re-evaluating the space and budget. Finally, there was some uncertainty about what to do with the insert art that came with *Spektrum Crush* and *Paper Arcade*. I tried to hang them to make the area more visually representative of its contents and prevent damage from being handled all evening, but the walls were not flat or uniform enough to be able to hang the posters in an appealing way, therefore they were left as inserts to their respective zines.

7.7 Observation and Evaluation

Similar to the other experimental installation, it took a while for visitors to begin to engage deeply with the zine library after the event's doors were opened. Because it is slightly remote from the main areas of the event, many visitors do not find their way to the quiet area immediately, and the types of experiences grouped in this area, which demand more low-key and serious engagement, may not be what they want to experience first compared with the easy to pick up party games which dominate the main area. Once some visitors did make their way to this area, they were not yet willing to sit down and engage with the zines longer than briefly paging through them while walking by.

However, as a few visitors got drinks and circulated through the other areas, by 20:15 there was a group of three to four people consistently sitting, reading zines, and enjoying their drinks at the table. Because *Games Are For Everyone* events do operate with several bars open in the venue, it is important to be aware of areas within the installation that may be damaged or made

unappealing by seeming like a place to discard empty cups, or offering precarious positions to put a beer that may damage the work if it is spilled. To attempt to mitigate this, I also printed out short warning texts asking visitors to be aware of their drinks and not leave them on the table or spill them on the zines. This was a primary worry going into the evening, but no zines were significantly damaged by drinks by the end of the evening.

An hour into the event, however, one of the copies of the *ANALOG* zine went missing. I had assumed the label “library” would communicate that the zines were not free to take but instead should remain in the general area of the table and be shared. The zine that went missing resurfaced around 20:41, which made me consider that the person who took it away from the table may have simply read it in another part of the venue then returned it, demonstrating a more literal interpretation of “library” behaviour.

By 21:00, the zine table had become noticeably in disarray. The zines were not always being put back in their original locations or even near their descriptions, which forced me to reconsider the effectiveness of the table layout and the descriptive texts. While I didn’t have time to make significant alterations to the display, I made sure to maintain the installation by rearranging the zines back to their proper positions whenever a group dispersed. By 21:30 there were a few empty and half-empty drinks left on the table, which I moved back to the bar area to clear the zine table and make it look more inviting. Shortly after this, I also noticed that the copy of *Spektrum Crush* had been removed from the table, but assumed, similarly to the copy of *ANALOG* magazine, that it would be returned.

As the evening went on, the zine table became noticeably livelier, as people who had organized or contributed to some of the featured local zines came to the table to talk with other visitors. This also emphasized the local connections that were fostered by the We Throw Switches curatorial team. Between 22:22 and 23:00 there were several people involved with the zines at the table, and they facilitated passionate discussions about why the zine format was specifically appealing and accessible to them, and the inspiration they drew

from examining the other zines at the table. Creators and other visitors alike commented that they didn't expect or know that something like this would be at a videogames event, and that it offered something different. This may explain why it became so much more popular as an installation towards the middle and end of the event. As a break or change of pace from the high energy and multiplayer games the event featured more prominently, a zine library appealed to the type of person who may need respite from that kind of atmosphere, which is notably not catered to at many games industry events and independent game showcases.

By 23:30 *Spektrum Crush* had not returned and would be written off as likely a loss during the evening. Because the *We Throw Switches* team and I were uncertain about how a zine library at a livelier event where alcohol was being served would go, we had prepared the budget with the mindset that it would be alright if any of the zines were destroyed or went missing. After the event, the table was cleared of the sticky tack and tape decorations, and the labels and remaining zines were deposited with the *We Throw Switches* team for use at future events.

Overall, the zine library met my initial goals of offering something unusual for the event, thematically meshing with other projects that were on display, and developing connections with the local zine making community. However, some expected and unexpected challenges also arose. While attempts at managing the signage and setup of the zine area in a way that would make it self-maintaining, meaning that visitors would intuitively know to put the zines back into their particular place and not leave other objects on the zine table, were not totally successful. Enough people either ignored or did not see the signs that the zines were totally disorganized, or the table was cluttered with abandoned drinks a few times throughout the evening.

While there was no immediate deep engagement with the zines, they served the purpose of offering a moment of respite or a differently paced activity for visitors who desired it later in the evening. The presence of local zine creators and organizers, who were more likely to hang out at the table after they had

explored the rest of the event, helped to contextualize the zines and provide more information to visitors who took an interest in the process involved in their creation, and led to lively conversations at the table.

While the location of the zine library put it close to Lawhead's interactive zine, which was thematically appropriate, there were several practical aspects of the location that could be improved in future iterations of the zine library. The heavy wooden benches around the table offered enough seating but were difficult to move and had no backs making them potentially uncomfortable for longer term seating. Also, the ambient lighting in the area could not be specifically adjusted, and the lamp offered by the venue only partially illuminated the zine table. More planning and a further budget allocation for seating and a reading lamp could help with these issues if the zine library is repeated at other events.

Overall, however, the zine library offered a unique experience for visitors who were not aware of the variety of videogame related zines available, and also a new context for zine creators who are local and also further afield to present their work to new audiences. It related to *We Throw Switches'* goals of forming connections with and supporting local creators and also offering a broad variety of experiences at their events, to make them appealing to people outside of the typical games industry events circuit. While the zine library experienced some growing pains during the event itself, it left a positive impression on many attendees to the *Games Are For Everyone* event who may not have read a zine before that day.

There is a DIY or "do-it-yourself" ethos that exists both in zines and the creation of indie games. As noted above, Anna Anthropy (2012) made the connection between these two forms because of the proliferation of simple tools that opened up amateur game publishing in the same way that copiers opened up amateur publishing. However, while zines often tell of the way they are made in a way that is visibly obvious to us, taking the form of black and white copies that present the collage of clippings, drawings and notes that make them up in an almost tactile way, digital media is far less transparent. Still, the way that a videogame is made, and the tools used to make it, can have a concrete effect

on its outcome. Hurel (2016) observes that the amateur game making software series *RPG Maker* encourages a development style based in playful tinkering, and “extending” the fun they experienced with certain types of Role-Playing Games the software is based on. Extending this investigation, each of the many different tools and approaches available to amateur and professional game designers will have different processes that effect the resulting games. When considering a variety of development scales and historical approaches to creating videogames, an investigation into process, and making this process visible through interpretation and display, is an important element of contextualization to consider in the exhibition of videogames.

7.8 Reflection and Conclusion

This second *Games Are For Everyone* event allowed me to continue to refine my practice in relation to curatorial collectives and temporary events. Like the Hannah Maclure Centre, *We Throw Switches* does not have a permanent collection. However, it differs from the HMC in that it also does not have a permanent location. All the exhibitions organized by *We Throw Switches* have been less than a week in length, and more often must be installed and deinstalled over a single day. This also means that the installations must adapt to a variety of venues, few of which are purpose built digital art galleries. Additionally, the presence of a permanent location, even without a collection of works, means that it is possible for the HMC to maintain a more consistent history of their exhibition projects, because they are in the same spaces, attached to the same institution, and receiving steady funding to maintain an archive.

The brevity of *We Throw Switches*’ curated events compared to the more typical 2-3-month period of the HMC’s exhibitions can be both a benefit and a drawback. While both can have weeks and months of preparation time leading up to them, within the HMC more time can be spent in the venue adjusting the installation of the works and testing to see how they work in the space before the exhibition opens. This allows for more in-depth testing and better recording of the process of decisions going into the exhibition. Because the period of

exhibition in the HMC is based on standard contemporary art galleries, the elements of the installation also mirror the aesthetic and level of polish expected of these exhibitions. Windows can be professionally blacked out, the walls can be painted, vinyl lettering and professionally formatted wall labels can also be ordered and installed by professionals. In the case of We Throw Switches' events, however, much of the signage is created and installed on the day of the event, and the unusual character of the specific venue, rather than the unobtrusive white cube gallery space, is not significantly altered. Therefore, the venue has much more of an effect on how the work will be received, and the artists and curators are limited to working within the venue rules.

However, the benefits of temporary curating experiences also become apparent. An interesting venue can give new context and qualities to a work, and installation can be inspired by or respond to the site. The temporality of these events also makes things possible that would not be feasible or difficult to maintain over weeks or months, such as the artist being present and performing with their work, works that can be heavily handled or moved around by attendees, and piloting fragile or experimental works. In this case, I felt less limited by what could be used to make the installation because it did not have to physically last for more than one night. There is also a bit less stake which can make curators more confident in experimenting; if an installation approach is less successful observations from the single evening it was shown can immediately be used to iterate and improve, as opposed to the months a traditional gallery would have to commit to a similarly unsuccessful installation. Expectations of professionalism in the installations also differ because of the more casual atmosphere, with drinks being served and abundant seating, and so a certain degree of experimentation and the potential malfunctions or confusion that may lead to is more tolerated.

Curators Graham and Cook agree, discussing similar new media art contexts which are more temporary and experimental, stating that works which are participation heavy or use delicate new technologies are more suited for festivals and labs, because they "might otherwise simply wear out and indeed might also wear out the exhibition staff and curators" in a longer-term exhibition

(Graham and Cook 2010, 106). However, they also later warn against only relying on temporary events and installations to display new media work, noting “if there are few catalogs and sparse documentation, then the historical criticism does not build up; and if there is no collecting, then there is no provenance” (ibid., 296). While these temporary events serve works and creators in the early stages of their lifespan, these temporary contexts must also connect to institutions like museums and archives to ensure the innovative work is conserved and historicized.

Another important difference between We Throw Switches and the Hannah Maclure Centre is that the HMC is attached to an institution (Abertay University), and, while it can have an overall positive impact on the community, it will inevitably primarily serve and offer its resources to those in the institutional community or who appeal to the institution’s interests. We Throw Switches is independent, and therefore can serve the different communities in more freeform and unconventional ways. While We Throw Switches offers a place for games from all over the world to be showcased to a local audience, they also set aside platforms specifically for local work, such as the local zines included in the zine jam, or the specific areas set aside for the winners of IGDA play parties, which follow the Global Game Jam at Edinburgh, Glasgow and Abertay universities, to display their winning games.

Even more than a platform, We Throw Switches provides important resources to many people with an interest in videogames that they can not necessarily access without an institutional connection otherwise. They provide expensive audio-visual equipment for student and amateur game dev events and their expertise with the equipment in transporting and setting it up. These events create and supplement new connections between game makers, curators, and event organizers, and allow them to work together in ways they otherwise would not have been able to. The collective or “scene” as a local resource can even provide things not straightforwardly connected to displaying games or professional networking. Sometimes, the artists or curators need a place to crash, advice on their new projects, or a group to go out to dinner with just as

much as needing the equipment for their installation to work properly (Parker 2012).

Curatorial collectives and temporary events have some drawbacks, specifically relating to archiving and the testability of their exhibitions, but they offer an important platform and service for connecting local artists with audiences, curators and venues for their work. Especially in the case of hobbyist, independent and experimental game development, where there are few established institutions supporting, collecting and recording this work and activity, they are especially vital. While We Throw Switches does not formally collect or archive videogames, they provide equipment and can work with artists to develop custom controllers for their work. The price of renting or purchasing high end equipment that will stand up while demoing work to hundreds of players is a prohibitive expense for many artists working with games technology, as well as finding venues and events suitable for their work. This is a gap We Throw Switches fills.

In this instance, again returning to the three primary issues of videogame exhibitions I have identified in chapter 4 and hoped to address throughout this dissertation, this final case study deals less with the durational issues surrounding videogame based works, returning to more brief or open-ended engagement periods. I built on some elements of the performative and spatially multipart qualities of videogames to again extend the game's atmosphere into a space that enables both play and spectatorship, as I did for the previous *GAFE* event based on the observations and surveys of *The Blank Arcade*. By incorporating new work made in collaboration with the game developer, in the case of FUCKGAMEDEV's work, and adding artefacts of cultural context and process to both, such as the collection of zines and FUCKGAMEDEV's accompanying drawings and performance, I hoped to also capture important contextual and process-related details that communicated the multiplicity of game development approaches, experiences, and communities as well. Preserving and displaying these fascinating bits of information and artefacts is something I hope to continue in my curatorial practice. As James Newman demonstrates in *Best Before* (2012), these elements are not just acceptable

substitutes for videogames that are no longer playable, but just as relevant, alongside playable videogames, as objects that can connect visitors to the history of the form, and specific instances of community and play.

Working with We Throw Switches for two of their *Games Are For Everyone* events gave me the space and resources to experiment with the large scale, specific installations, and make observations on the dynamics between players and spectators of videogames in an exhibition context which I had initially developed and observed during *The Blank Arcade*. While these two events were successful in exploring these issues, they also only used games made within the past year or so from the time of the event, and their curatorial rationale was simply to showcase new work. Of course, many galleries organize shows with this remit, so this is not unusual, and typically they offer an opportunity for new artists and trends to connect with an audience.

However, the question remained after these two projects how the dynamic of spectator and player coexisting in the gallery space can affect other types of videogame exhibitions, beyond showcases of new and experimental work. I was especially interested in how this dynamic can assist in exhibitions attempting to present a more historical perspective on the videogames presented, possibly working with an archive or specific collection of games. Another concern which arose from working directly with an artist to develop an installation, and working with local zine creators, was the element of making process visible.

While mainstream games are often commercial products too large to isolate the work of a single contributor and are distributed on platforms that are “black boxed” by DRM and proprietary technologies, they have been frequently displayed alongside smaller studio and indie productions. Further, videogames of the past are often transformed by institutions through emulation, to run on the same types of screens, computers, and with the same controllers as contemporary games. Institutional choices can obscure the wide variety of processes and approaches that went into creating games, rather than revealing them. Based on my observations developing and observing custom installations for single games, and presenting supplementary material, such as zines in a videogame exhibition context, my future work will be concerned with presenting

games from a historical perspective, while also revealing something about the process involved in making them.

8 Conclusion

Over the course of my research and case studies, I have analysed and contributed to the now longstanding history of exhibiting videogames, and more broadly, technological, performative and interactive works in arts contexts. The most obvious conclusion is that institutions which wish to display videogames need to move away from a novelty-based framing for many reasons. Following my introduction of this problem, the history chapter of this dissertation demonstrates that institutions have been putting on exhibitions of videogame-based works for over 30 years, and a variety of technical approaches to the displays, selections and framing narratives have emerged. Videogames have long been incorporated into arts institutions, and this offers an initial base of examples to draw on for further curatorial work. Doing the research which compiled and interpreted this history was a major goal of this dissertation.

The following chapter draws on the history of art institutions, as well as museological analysis of these institutions, to examine how videogames are selected and adapted for museum display, and what they stand to gain or lose in this process. The most common perspective on what videogames have to gain from institutional recognition is a part of what Felan Parker observes as discourses increasingly concerned with videogames' cultural status and classifying them as art objects (Parker 2012 & 2018). A major exhibition in a well-known museum obviously lends prestige to videogames more broadly, which is satisfying and validating to developers and fans alike. Additionally, institutions can offer archival and conservation resources which fan communities, who have largely been responsible for videogame conservation until now, would not typically have access to.

However, the art museum brings history and ideological baggage with it that extends beyond simply selecting objects to elevate as art. Expected behaviours within the gallery space, as well as museological models of authorship, objecthood, and aesthetic movements are not a precise fit for the variety and complexity of videogames, as well as their social reception. Fortunately, there are many examples in art history of museums adapting their display

approaches, or turning diffuse manufactured, performed, or immaterial works into singular museum objects. Additionally, as Raiford Guins argues, it is no longer enough for videogames to “just be there” in museums, or to simply replicate narratives driven by technological development or commercial success (Guins 2014, 282). Curators of videogames can benefit from crossing game studies with arts perspectives, especially media archaeology and critiques of interactivity. Placing kiosks that run playable videogames in a museum or gallery space is a limited approach, and historical precedents for how museums present artworks as variable, performed, and process-based can inform alternatives.

The following chapter further developed these ideas, looking at three qualities of videogames which make them challenging for traditional museum display. The fact that videogames are performed, multipart, and durational all play a role in why their conservation and cultural contextualization lags behind other art forms, despite these characteristics also being present in more established art forms like video art, conceptual art, and performance art. In this chapter I attempted to analyse these three elements specifically, combining game studies and new media arts scholarship to inform how I would develop experimental display approaches in my practical curatorial work. I demonstrated how different strategies for presenting these three elements in museum and gallery spaces can offer radically different narratives and modes of reception by evaluating several diverse approaches to displaying the classic arcade game *Pac-Man*. These examples provide different visitor experiences, and create a different narrative of *Pac-Man*'s cultural and artistic importance, demonstrating that a single object or exhibition approach cannot present a unified, objective version of *Pac-Man*.

I carried these ideas forward into the three case studies of my own curatorial work, which are detailed in the next three chapters. Using thorough documentation and thick description of the process, I wanted to demonstrate through these case studies that curatorial decisions related to videogames are not limited to selecting what will be included or excluded. Curation must also consider the type of experience that is created, and what elements of a

videogame are emphasized, or removed. Based on survey data from my first curatorial project, *The Blank Arcade 2016*, I collaborated with experimental curating collective We Throw Switches on two *Games Are For Everyone* nights, where I worked more closely on custom installations of a single videogame to create environments which balanced direct, one-to-one player interaction with the game, with other forms of social and spectating behaviours.

Exhibitions of videogames which focus on their novelty, or presenting a commercially-oriented overview of popular consoles and titles are often advertised to visitors as a unique opportunity to “interact” in a typically “hands-off” context, the art museum. It is also cited as the primary reason videogames are “different,” even though artwork requiring various degrees of interaction or unexpected behaviour from visitors has a significant history of being presented in museums and galleries. However, my findings in surveying and observing the visitors to the exhibitions and installations that made up my curatorial practice found that this is a narrow definition of the ways people engage with videogames. Scholars like Erkki Huhtamo and James Newman have expressed this idea from a new media and games studies perspective, respectively, and scholars investigating varieties of eSport also demonstrate that how a game is watched and socialized around also impacts its meaning and importance (Huhtamo in Kelomees and Hales ed. 2014, Newman 2008, Boluk and LeMieux 2017).

Therefore, it is important to keep the three challenges of institutional display which I identified in mind. Videogames are performed, whether we consider this performance as the directly interacted-with instance of play, or other activities which take place around the game. Spectatorship, secondary players, skilful and meta-play are also not only things that can be represented in museums and galleries, but in many cases are already there. Museums and galleries were already conceptualized as places to “see and be seen” to promote middle-class social norms, and this social element persists even when objects from the home (like game consoles) or objects the visitors are encouraged to interact with (like videogames) are brought into the social space (Bennett 1995, 101). Curation which ignores this essential element of the museum’s social function, focusing

on providing the experience of one-to-one engagement but in a gallery space, not only leads to issues with the accessibility of the displays, duration of engagement, understanding of the videogames on display, and flow of visitors through the space. It misses opportunities for alternative ways of appreciating and understanding videogames offered by the aesthetic, didactic and social space of the art institution.

Similarly, videogames' duration can be challenging for gallery spaces to accommodate. While many videogames, both from the height of the arcade era and made by experimental developers today, were made with brevity and display in public space in mind, there is also an equally prominent amount of videogames that are made for long-term play on home consoles or PCs. Any attempt to present a comprehensive history of videogames will have to balance these significant contrasts. First, the gallery space can play an important role in how long and in what manner visitors feel like they can linger with a specific object. Secondly, and perhaps counterintuitively, videogames do not always need to be presented interactively, and there are a variety of ways, through playthrough videos, contextualizing materials, and other types of interactive displays, which allow a videogame can be conveyed succinctly and accessibly.

Finally, videogames are notoriously difficult to reduce to a single object for gallery acquisition and display. Not only do they require specific combinations of hardware and software, in many cases there are multiple versions, servers and communities of play that contribute cultural context and content of the games themselves. Sometimes, nondigital elements, such as box and cabinet art, walkthrough guides, and the physical or social location of the videogame can make up a significant element of its meaning. Extending the display and collection of videogames to consider these materials for inclusion is vital for preserving the history and experience of play, rather than merely saving a handful of pristine hardware objects or an executable digital file with little other information.

Because videogames are often considered an exclusively commercial or low culture form, leading to common doubts about their institutional and artistic

legitimacy, art institutions have been slow in developing long-term plans for their display and acquisition, beyond the frequently temporary and traveling exhibitions described in this dissertation. The commercial orientation of major videogame companies has also meant that comprehensive conservation techniques, and a mindset of conserving not just ownership of IP and playable libraries of “classics,” but development material and original code and hardware, have been low priority or even resisted in the industry. While independent and homebrew production is able to partially avoid these problems, they are still affected by the lack of support and sometimes legal challenges faced by fan conservators and enthusiasts, which lead to there being few standards on what to conserve and how to conserve one’s own work. The challenges to collecting and exhibiting games within an institutional context make all these present hurdles urgent to overcome. Deeper consideration of the three qualities of videogames which I identify, being multipart, durational, and performed, not only can help to improve exhibitions of videogames originating from a variety of artistic and cultural contexts, but they can also give creators and institutions a comprehensive way of evaluating what they think is important to contextualize and preserve their own work or work they acquire.

This dissertation is necessarily limited in scope, and this initial investigation presents a variety of areas for further research. Focusing on the framing of videogames within major exhibitions at art institutions in the English-speaking world reveals one set of strategies and narratives, but exploring other regions or other contexts for the collection and display of videogames may reveal others. There are already videogame exhibitions at art museums, design museums, pop-up galleries and festivals in locations like LABoral Centro De Arte y Creacion Industrial in Spain, annual festival Game on! El Arte en Juego in Argentina and the extension of the A-MAZE festival to an event in South Africa. There are also a variety of institutions which do not present videogames through an art or design lens, but are more interested in the scientific, technical, or social history of the form. Despite prioritizing a different kind of experience than one focused on aesthetics, craft, or creativity, these institutions also develop museological narratives and define the videogame object in their own ways through display choices. Utilizing a similar focus on analysing previous

exhibitions and curatorial choices in the larger context of both the institution, and the history of videogames being publicly displayed, and conducting research projects or practical work in a similar way to the project I have done here would reveal useful information about any of these areas.

Videogame exhibitions in art and design institutions are at an exciting crossroads. While many past exhibitions seem stuck simply presenting a commercially-driven, retrospective overview, reviews and feedback from visitors increasingly imply that a generic assertion that videogames are worthy of being displayed in an art museum is no longer needed. Many are ready for more interesting territory, lesser known narratives, and works which may challenge their existing impressions of videogames. As videogames expand to be not only a greater influence on culture, but also include more types of play, styles of development and avenues for reception, moving away from a retrospective historical approach for displaying videogames will become even more vital.

Future exhibitions of videogames could take a multitude of approaches, some of which are addressed by exhibitions I researched, or elements of my own curatorial practice. My curatorial work focused on installation styles which would allow for a variety of spectatorship behaviours in addition to the common paradigm of one-to-one interaction, to address the limitations of displays styles exclusively focused on single-player interactivity in the gallery space and test alternatives. The increased variety of small scale, community-based, hobbyist, and artistic approaches to game development, as well as recent attention to labour issues in the AAA videogames industry could also potentially encourage a deeper focus on process, which would illuminate artistic practices and demystify the videogame as a complex, often “black boxed” technological product.

Additionally, curators of videogame exhibitions must be aware of their role in the canonization and historicization of the videogames they feature. Curators should expand their investigations beyond corporate videogame console timelines to overlooked technologies and local approaches like those addressed in the research of Melanie Swalwell (2009) and Jaroslav Švelch (2013).

Exhibitions which draw out discussion of processes, communities and influences outside of the mainstream can expand the canon of videogames, as well as public perception of the form. Finally, while curation does play a role in determining which works are acquired by institutions and conserved, this link needs to be emphasized in relation to videogames, which many institutions hesitate to acquire even after hosting an exhibition, due to distinct technological and IP challenges.

In his review of *Bang The Machine*, Adam Chapman relates that in 2004 he had already begun to expect that videogame exhibitions would be “fairly run-of-the-mill fun, but not terribly enlightening.” Yet the review goes on to express pleasant surprise at how the exhibition incorporated aesthetic and political themes beyond celebrating well known consoles or genres of videogames. (Chapman 2004). Videogame exhibitions have not developed in a single, linear path over time. They have always been boring; they have always been innovative. Revisiting the history of videogames exhibited in arts institutions presents a variety of strategies for exhibiting videogames in a context that will almost always be different than the one they were created for. However, like many of the qualities videogames have that make them seem difficult to display as art, the same is for most works of art that are acquired by museums and galleries. The history of new media and Avant-Garde artistic practices, as well as game studies work which highlights overlooked histories and contexts of videogames demonstrate that there are many ways to display the unstable, always-changing object of the videogame, and putting this knowledge into practice will lead to discovering even more.

9 Appendices

9.1 Exhibition Chronology

“ARTcade” funding event at the Corcoran Gallery, Washington DC (1983)

Lorna, interactive installation by Lynn Hershman Leeson (first exhibited in 1983)

GOVERNMENT-APPROVED FALLOUT SHELTER AND SNACK BAR at Castelli Graphics, New York. Installation by Michael Smith and Alan Herman (1983)

Hot Circuits: A Video Arcade at the Museum of the Moving Image, New York. Curated by Rochelle Slovin (1989)

Serious Games at the Laing Art Gallery, Newcastle. Curated by Beryl Graham (1996)

Cracking the Maze (online exhibition). Curated by Anne-Marie Schleiner (1999)

SHIFT-CTRL at the Beall Center for Art and Technology, Irvine California. Curated by Antionette LaFarge and Robert Nideffer (2000)

Game On at the Barbican Centre, London. Curated by Conrad Bodman and Lucien King (2002)

games: Computer Games by Artists in the Reserveteillager, Dortmund Germany. Curated by Tilman Baumgärtel, Hans D. Christ and Iris Dressler (2003)

Bang the Machine: Computer Gaming Art and Artifacts at the Yerba Buena Center for the Arts, Yerba Buena California. Curated by Galen Davis and Henry Lowood (2004)

Gameworld: games on the edge of art, technology and culture at the LABoral Centro de Arte y Creación Industrial in Gijón, Spain. Curated by Carl Goodman (2007)

Zero Gamer at HTTP Gallery, London. Curated by Corrado Morgana, Ruth Catlow and Marc Garrett (2007)

A-MAZE annual festival in Berlin (2008-2019)

Pac-Man in Flesh, performance at the Pori Art Museum, Finland (2011)

Game Masters at the Australian Centre for the Moving Image, Melbourne. Curated by Conrad Bodman (2012)

The Art of Videogames at the Smithsonian American Art Museum, Washington DC. Curated by Chris Melissinos (2012)

Applied Design at the Museum of Modern Art, New York. Curated by Paola Antonelli and Kate Carmody (2013)

XYZ: Alternative Voices in Game Design at the Museum of Design, Atlanta. Curated by Celia Pearce, Cindy Poremba, Adam Rafinski, John Sharp and Akira Thompson (2013)

Indie Essentials: 25 Must-Play Videogames at The Museum of the Moving Image, New York. Curated by Jason Eppink (2014)

The Game Worlds of Jason Rohrer at the Davis Museum, Wellesley College. Curated by Michael Maizels (2016)

The Blank Arcade 2016 at The Hannah Maclure Centre, Dundee. Curated by Lindsay Grace and Emilie Reed (2016)

Code Breakers: Women in Games at the Australian Centre for the Moving Image, Melbourne. Curated by Kate Inabinet, Helen Stuckey and Leena van Deventer (2017)

Games Are For Everyone V at The Caves, Edinburgh. Curated by We Throw Switches and Emilie Reed (2017)

Games Are For Everyone VI at The Caves, Edinburgh. Curated by We Throw Switches and Emilie Reed (2017)

Videogames: Design/Play/Disrupt at the Victoria and Albert Museum, London. Curated by Marie Foulston and Kristian Volsing (2018)

9.2 Glossary of Terms & Abbreviations

AAA: Also “triple-A,” videogames made by major studios with large production and advertising budgets, similar to blockbuster films.

AAAI: Association for the Advancement of Artificial Intelligence, an international research society which holds an annual conference.

Acquisition: The process of an art object formally entering the collection of a museum, as opposed to being temporarily displayed.

ASCII Art: The practice of using characters from the American Standard Code for Information Interchange encoding set to make images in text-only contexts, like early internet chatrooms.

Audio: Components of an electronic or digital work related to making sounds.

Aura: A concept theorized by Walter Benjamin which describes our perception of a work of art as meaningful, authentic, and unique due to the context of its history and material form.

AV: Audio/Visual equipment

Beta: A version of a piece of software that is still in development or being tested.

Black Box: In the context of New Media exhibitions, a counter to the “white cube” where screen-based works are presented in a plain, dark room. In the case of electronics, a device which is designed so that consumers cannot typically repair or alter it, such as most game consoles.

Bot: A computer program which automatically performs certain actions, such as an “aimbot” in shooter games, or a “chatbot” responding to specific terms in a chatroom.

CD-ROM: Compact Disc Read-Only Memory

Crack: To remove copy protections and digital rights management from a piece of software for unofficial distribution.

Crowdsourcing: When an institution gathers data, content or feedback from open groups of participants, such as internet users or visitors.

CRT: Cathode Ray Tube

DiGRA: Digital Games Research Association, a game studies research group which holds annual and local conferences.

DIY: Do-It-Yourself

DRM: Digital Rights Management, elements of software and digital media designed to prevent them from being freely copied or accessed, such as serial numbers, copy protection or passwords.

DVD: Digital Versatile Disc

EGX: Electronic Gaming Expo, an annual convention in the UK.

Emulator: A piece of software which allows videogames to be played on platforms other than their original hardware. Examples include MAME, FCEUX, and DOSBox.

eSports: Professionalized competitive videogame play.

E-Textiles: Textile art such as weaving, sewing or quilting which incorporates elements of electronics, such as lights and sensors.

E-Waste: Electronic waste, specifically dangerous metals and other chemicals that can leech into soil or water sources if disposed in typical landfills.

FDG: Foundations of Digital Games, an annual game studies conference.

First-person: In videogames, a point of view where the player is looking through the avatar character's perspective while directly controlling them.

Flash: Used to describe games, animations, and other embeddable web elements created with the now-defunct Macromedia Flash software.

FMV: Full Motion Video, footage taken from digital cameras and inserted into videogames.

GAFE: Games Are For Everyone, Edinburgh-based game events.

GIF: Graphics Interchange Format, an image format developed for its file size portability, which also supports animations.

Hacktivism: Promoting political or social change through (often illicit or unintended) uses of digital technology.

HD: High Definition

HMC: The Hannah Maclure Centre

Homebrew: Amateur game development which creates new software for "closed" gaming consoles like the NES.

HTML: Hypertext Markup Language, the formatting standards for writing content to be displayed in a web browser.

Hypertext: A text with "links" that allow a user to quickly access related information or content. Can be used to make webpages, but also experimental fiction and videogames.

Indie: A term used to describe a variety of scales of production of videogames, from individuals working in their spare time to small and mid-size studios, that work independently of large publishers or hardware manufacturers.

Infinite Runner: A type of videogame where a single level is generated infinitely, and the player is scored on how far they go.

Installation: The process of setting up an artwork or exhibition which engages with and alters the gallery space.

Institutional Critique: An artistic and curatorial approach which examines the power structures behind how museums collect and display artworks.

Interpassivity: A counter-concept to interactivity, where the user instead defers the action to a program or machine which automates it.

IP: Intellectual Property, describing laws which consolidate and protect corporate ownership of immaterial products via copyright, patents, and so on.

irl: An abbreviation used online to indicate something happened “in real life” (offline or away from the computer).

ISEA: International Symposium on Electronic Arts, an annual conference aiming to set up interdisciplinary links between people working in art, science and technology.

IT: Information Technology, managing networks and data retrieval within the context of an institution of business.

Jump Scare: In horror media, the use of sudden sounds or images to shock the player, often considered a “cheap” tactic compared to other types of horror.

Kiosk: A type of display, often with a computer, touch screen or console, where a user can briefly access information while standing. A common way of presenting videogames and game demos at high-volume gaming expos.

LED: Light-Emitting Diode, a type of light that is low power, releases little heat, and can come in many colours.

Let’s Play: A popular type of video on YouTube where a user records themselves playing a videogame, and supplementing the footage with commentary or a webcam to capture their reactions.

LPer: Let’s Play-er, someone who records and shares Let’s Play videos.

Metagame: Forms of play that exist outside and around the explicit rules and space of a game. Can include practices like cheating, speedrunning, or mathematically optimizing certain strategies.

MMO: Massively Multiplayer Online, a type of videogame that connects to a server where many players are playing at once.

Mods: Pieces of software or code which modify a videogame's visuals or rules. Some videogames ship with software for modding them, while other mods are not explicitly encouraged by the developers.

MoMA: The Museum of Modern Art in New York

MoMI: The Museum of the Moving Image in New York

NDA: Non-Disclosure Agreement, an agreement, usually signed on employment, to not share certain specifics of the products worked on, common in AAA game studios.

NES: Nintendo Entertainment System, also called Famicom.

Net Café: A place where users can pay for membership or by the hour to use internet-connected PCs.

net.art: A variety of practices throughout the 1990s which took an experimental approach to exploring what internet technology would allow.

New Media: An umbrella term which can cover a variety of artistic practices which use or are distributed through digital technologies. However, these technologies are no longer necessarily "new," nor does the work necessarily have consistent stylistic or thematic elements.

NFC: Near-Field Communication, technology which allows two devices to connect and share data if they are within a few centimetres of each other.

NPC: Non-Player Character, elements in a videogame which are not controlled by another human, but can be interacted with and interact with the player as if they are human.

NYU: New York University

Obsolescence: When a piece of technology is regarded as out of date, no longer useful, or unrepairable. Technology companies, including videogame console manufacturers, are often criticized for making their products quickly obsolescent.

PA: Public Address, a system of amplifiers and speakers for broadcasting sound in busy spaces.

Patch: A piece of code, either distributed by the developer or created as a fan mod, to fix a certain problem with a videogame after its release.

PC: Personal Computer, can be a desktop model or laptop model.

Pixel: A portmanteau of picture and element, a term which describes the smallest unit of a digital image.

Retrogaming: Playing games of previous console generations, usually on the original hardware.

ROM: Read-Only Memory, digital data on a disc, cartridge, or other form of storage that cannot be edited.

SIGGRAPH: Special Interest Group on Computer Graphics, an annual conference on computer graphic technology.

Site-Specific: A term for artworks which are created or installed in such a way that they rely on physical, cultural or historical elements of their location to be complete.

Speedrun: A gaming practice, often conducted in forum-based communities, based around discovering the fastest route through a videogame. It may involve both typical but skilful play and the use of glitches.

Streaming: The practice of broadcasting video of oneself over a web platform like Twitch or YouTube. If you play videogames while doing this you are referred to as a “videogame streamer.”

TAS: Tool-Assisted Speedrun, a speedrun completed through the use of emulation tools, which allow runners to write out a script of button presses down to the millisecond.

Thick Description: An ethnographic approach developed by Clifford Geertz, where actions and behaviours within a cultural context are not simply described, but fleshed out with the intent and meaning of the actions, so that individuals outside of the culture can make sense of them.

Unity: A game design engine that is flexible and available in a free version, so it has become widely used in the development of independent games.

URL: Uniform Resource Locator, a “web address” which will take your web browser to a specific internet page.

V&A: The Victoria & Albert Museum

Voxel: A portmanteau of “volume” and “element,” an approach to rendering 3D space where all objects are built out of 3D objects with assigned qualities

and values. The most well-known example is the visuals and gameplay of *Minecraft*.

VR: Virtual Reality

WASD: A control style for PC games where the player character is moved with the W, A, S and D keys.

White Cube: A style of contemporary art display where objects are placed in plain white rooms with little other furniture or decoration.

Wunderkammer: A style of collection and display that preceded museums and galleries as we now know them, often found in the homes of wealthy nobility of Europe from the 1500s to the 1800s. Also referred to as: studiolo, cabinet of curiosities.

Zine: A small, amateur publication which is printed and distributed cheaply, and often conveys non-mainstream political, personal or cultural information.

9.3 Wall Labels: The Blank Arcade 2016

Intro:

The Blank Arcade

Co-curated by Lindsay Grace and Emilie Reed

Now in its third year, *The Blank Arcade* is an annual exhibition which highlights videogames, toys, and other artistic interventions and research exploring the blanks in mainstream perceptions of gaming and play. The selections for this year come from an impressive pool of international submissions, and include interactive sculpture and table games alongside digital games and other software works. These works subvert ideas that have become taken for granted in mainstream software development, challenging aesthetics, mechanics, and play styles we have become accustomed to. Primarily, the games in this year's exhibition address play's interaction with and effect on the player's senses, whether it be the scientifically defined five senses, our sense of space around us, or our sense of place and identity. From using textiles, sculpture and cut paper as direct sources for technologically-engaged work, to navigating themes of personal experience, emergent play, community, humour and awkwardness, these works present a broad and ambitious scope of playful interaction. In presenting these works we hope to highlight the importance of often-overlooked approaches, and inspire broader practices in digital gaming and beyond.

Works:

Abstract Playground AP1

Will Hurt

Digital software and custom interface

Abstract Playground AP1 was developed in collaboration with people with learning disabilities to encourage explorative play without the pressure of win conditions or high scores. The custom interfaces also encourage

experimentation and allow people with a variety of technical knowledge or motor skills to engage with the work. The imagery consists of abstracted forms taken from Modernist architecture, and each tweak of how these forms occupy space is accompanied by an associated sound. The novel combinations of imagery and sound often lead to players treating the interface like a musical instrument, generating surprising soundscapes and digital structures.

Beeswing

Jack King-Spooner

Digital game

Beeswing serves as an imaginative document of the sights, sounds and people of the small Scottish village in which the creator grew up. The personal focus of the work is emphasized by the use of traditional drawing, painting and sculpting techniques to make the characters and environments, as well as atmospheric acoustic music and spoken poetry in the soundtrack. It uses the potential for nonlinear narratives offered by digital games to present the story in a series of vignettes that can be discovered through exploration. These small but rich tales cover topics such as mental health, loss, and ageing.

eBee

Pins & Needles (Isabella Carlsson, Jeanie Choi, Celia Pearce and Gillian Smith)

Table game with custom electronics

The history of computing and electronics is intertwined with textiles in many ways. Computing and textile crafting both draw on patterns and rules, as demonstrated by the influence of the Jacquard Loom, which read patterns off punched cards, on later computing technology. While technology and craft seem to be demographically separate today, *eBee* hopes to reach diverse audiences and encourage players to cooperatively build an illuminated quilt by integrating e-Textiles and circuits with a cloth table game.

Fugl

Johan Gjestland and Team Fugl

Digital game

Fugl lacks the scoring mechanics of mainstream flight games, such as hoops, coins, shooting, scores, or complex simulation controls. Placed in a procedurally generated voxel environment, the player takes control of a colourful bird, and the intuitive feeling of flight becomes the crux of the experience, instead of explicit goals. Players explore the space, come up with their own games and objectives, or simply enjoy the sensations of speed and height that come from flying.

Katakata

Kirsty Keatch

Interactive sculpture

Kirsty Keatch is a researcher interested in potential relationships between interaction and sound design offered by video games and other forms of technology. Her work, *Katakata*, is an interactive kinetic sculpture that is activated through the accelerometers in visitors' tablets or smart phones. In the gallery space, it encourages play and experimentation, while building on the influence of previous sculptural works such as those by Alexander Calder with contemporary technology.

Lissitzky's Revenge

Christopher Totten

Digital game

This game reinterprets gameplay elements of classic arcade games with the historical artistic style of Suprematism. Active in Russia during the 1910s and 1920s, this art movement focused on geometrical forms and the feelings they trigger, and included artists such as El Lissitzky, from whom this game takes its name and inspiration. The paper cut-outs that are used for the game's graphics initially seem fully abstract, but as play progresses, it begins to explore the ability of these abstract symbols to express ideas, and even propaganda.

Orchids to Dusk

Pol Clarissou

Digital game

In this meditative and elegant exploration game the player takes on the role of an astronaut who crashes on an unknown planet. While the player's impulse may be to search for a means of escape or some way to repair the ship, the initially sparse alien landscape offers no apparent solutions. Instead, if players stop and observe their surroundings, they will begin to notice the beauty of this uninhabited land dotted with trees and flowers come alive. Displayed at *Blank Arcade 2016*, this build will record the play sessions of each visitor, creating a persistent game space unique to the exhibition.

You Must Be 18 or Older to Enter

Seemingly Pointless

Digital game

While the gaming industry and consumers are generally comfortable with increasingly realistic gore and violence, or at least see it as inevitable, topics such as sexuality are still seen as taboo. This game puts the player in the role of a preteen who is curious about online pornography, a topic they've heard about at school. *You Must Be 18 or Older to Enter's* ASCII renderings of mid-1990s porn sites prevent the imagery from being overtly explicit, yet the game still triggers feelings of unease and embarrassment. However, the experience can also be humorous, nostalgic and touching for its portrayal of a youthful first encounter with an adult topic.

9.4 Catalogue Essay: The Blank Arcade 2016

The Sensuous Possibilities of Play

The selections in this year's *Blank Arcade* come from an impressive pool of fifty-seven international submissions. Given the display space in the Hannah Maclure Centre we had to be extremely selective, and even narrowed down to the finest selections several possible shows could have emerged. The eight digital games, table games, interactive sculptures and software works making up the show are all exceptional submissions, but in my mind, they also hang together on a particular theme.

Because of their digital nature, their reliance on symbols and systems, the fact that reduced to their essence, video games are code, it's easy to divert our attention from the potential digital games have to engage with our senses. Sight and sound are a given, but what about touch? What textures can games have outside of the smooth plastic of consumer electronics? Further than this, can they provoke memories, taking us back to vivid sensations of a certain time and place? And what about the more abstract uses of 'sense,' sense of self, sense of space, sense of time? Can digital games let us 'play' with those, too?

The games in this year's *Blank Arcade* are all concerned with questions about the implications of gaming, play or interaction on the senses, whether it be the scientifically defined five senses, our sense of space around us, or our sense of place and identity. From the local community in Scotland we drew two radically different selections. *Katakata*, by Dundee-based sound design researcher Kirsty Keatch is an interactive sculpture which allows visitors to take turns playing with a large Jacob's ladder toy, controlling its cascading sound and motion with the tipping and tilting of smartphones connected to a network.

Jack King-Spooner, on the other hand, submitted one of his many digital games that take a playful and experimental attitude towards narrative, visual design, and sound. The tackiness of a thumbprint in clay, the rough surface of

watercolour paper and warm acoustic guitar melodies are the textures that make up the world of *Beeswing*, a game structured around nonlinear vignettes telling stories from the Scottish village where he grew up.

eBee is the outcome of a fascinating project by the collective Pins & Needles to expand perceptions about the demographics and culture of electronics and computing. The table game is played with patches that use e-Textiles to conduct electricity, and players collaboratively build working circuits while simulating the communal social attitude of a quilting bee. The way it brings the seemingly disparate worlds of traditional craft and technology together brings to mind Dundee's history both as a textile and technology hotbed. It was an exciting choice that I think converses well with the other local selections.

Christopher Totten also draws traditional art materials into the digital world with *Lissitzky's Revenge*, an arcade-style video game where every object is made from cut paper. Beyond that, taking a nod from the Suprematist art movement, this game poses the question of whether abstract geometrical shapes and solid colours can contain an emotional core. Can these simple graphics and arcade-style stages still carry a narrative of emotional weight? *Abstract Playground AP 1* by Will Hurt is another selection which calls back to art movements of the past to consider how the shapes and forms associated with Modernist architecture, as well as colour, pattern and music can work in concert to create an accessible and appealing soundscape that invites play as well as spectatorship.

Digital games are known for provoking exhilaration, especially through speedy movement and flight. *Fugl* presents the sensation of flying but with a different approach than mainstream video games, which often present time limits, paths, obstacles or shooting in concert with flying mechanics. Instead, this game frees the player within the procedurally generated environment to find their own landmarks and goals, and make a unique play experience. On the other end of the spectrum, *You Must Be 18 or Older to Enter* presents exhilaration of a completely different kind, putting the player in the shoes of a preteen using the internet to investigate sex for the first time. The veil of the ASCII art collage that makes up the images they find moves the focus from the scandalous contents

of the sites to the player's own personal memories of confusion, nervousness, and the excitement of something new (even if it is not fully understood yet).

And after all this stimulation, Pol Clarissou's *Orchids to Dusk* serves as an important reminder of the power that stillness and observation can have over our perception of the environment. Digital games often prompt us to immediately search for goals or solutions, but waiting and observing, in this case, reveals the game most fully. Stopping to observe how these games function together in conversation after the activity of selecting and organizing the *Blank Arcade* reinforces for me how important showcasing and sharing these alternative approaches to play and interactive technology is, to show not only what artists of all kinds are capable of, but also to provoke work we can't possibly foresee. I would like to thank my co-curator Lindsay Grace, as well as Clare Brenan and William Huber for their help in organizing the exhibition, and I hope you enjoy taking part in it.

9.5 Blank Survey Sheet: The Blank Arcade 2016

Hello! Thank you for coming to The Blank Arcade. Please consider helping us with future projects by filling out this short survey!

How would you describe yourself? (Circle one of each)

-Female -Male -Nonbinary -Other
 0-10 11-15 16-22 23-30 31-45 46-64 65+

Why did you come to The Blank Arcade? (Circle any that apply)

Live Nearby Visit all HMC exhibitions Interest in Videogames Enjoy Art
 Abertay Student Student at other Uni Poster Postcard Event
 Social media post Prof/Teacher recommended Other? _____
 Brought Children (How many & ages? _____)
 Know of a featured artist (Who? _____)

The way the games were set up was (Mark on the line how you felt):

--	--	--	--	--	--	--	--	--	--

Totally uninteresting Totally interesting

--	--	--	--	--	--	--	--	--	--

Inaccessible and confusing Accessible and clear

I learned about the games primarily through:

--	--	--	--	--	--	--	--	--	--

Only playing Equally playing and watching others Only watching

The games in the exhibition were:

--	--	--	--	--	--	--	--	--	--

Not working All working well

I felt that in a single visit I could:

--	--	--	--	--	--	--	--	--	--

Get experience with none of the games Get experience with all of the games

Please feel free to add any specific observations or comments on the back! Thank you again.

9.6 Supplementary Materials: ANATOMY at Games Are For Everyone V

Images:

Unknown. *Kusōzu: The Death of a Noble Lady and the Decay of Her Body*. Watercolour paintings, 1799.

Goya, Francisco. *The Sleep of Reason Produces Monsters*. Engraving, 1797.

Goya, Francisco. *Saturn Devouring His Son*. Oil painting, 1823.

Lambert, Wm. A. *Lambert's Suburban Architecture*. Engraving, 1894.

Ruysch, Frederik. *Opera Omina Anatomico-Medico-Chirurgica*. Engraving, 1727.

Simon, Jean Pierre. *A Perturbed Young Woman Fast Asleep with a Devil Sitting on Her Chest, Symbolizing her Nightmare*. Engraving, 1810.

Tardieu, Ambroise. *Anatomical Cross Section of a Head Showing Teeth, Arteries and Veins*. Coloured engraving, 1841.

Werner, Brigitte. *Black Bear Mouth Teeth Nose*. Public domain digital photograph, 2012.

Texts:

Archer, John. *Architecture and Suburbia: From English Villa to American Dream House, 1690-2000*. 2005.

Bourguery, Jean Baptiste Marc. *Atlas of Human Anatomy and Surgery*. 1854.

Jung, Carl Gustav. *Man and His Symbols*. 1964.

Patrizio, Andrew and Dawn Kemp ed. *Anatomy Acts: How We Come to Know Ourselves*. 2006.

9.7 Essay: ANATOMY at Games Are For Everyone V

Kitty Horrorshow's ANATOMY, Or: What does it mean to represent decay in the 21st century?

Fusae Kanda writes: “One of the most provocative images in Japanese art is the kusōzu, a graphic depiction of a corpse in the process of decay and decomposition. The kusōzu was executed in Japan from approximately the thirteenth through the nineteenth centuries in various formats... ..The subject itself is derived from a traditional Buddhist doctrine that urges contemplation on the nine stages of a decaying corpse. The teaching dates to the early fifth century and promotes a systematic meditation on the impurity of a decaying corpse as an aid to ardent devotees who wish to liberate themselves from sensual desires and affections.”⁸

Decay, abundant in the life cycle of recording, replay, copying and eventual deterioration into unrecognizability inherent to analogue media like magnetic tape, has almost disappeared from the day-to-day digital landscape. Programs or files either work or they don't, they're perfect copies or fatally corrupted, winking in and out of existence when accidentally deleted like the binary 1/0 that makes them. This all-or-nothingness, extreme instability, has been identified as one of the primary issues unique to preserving digital objects.⁹ While analogue media can decay over decades or even centuries yet remain somewhat legible, digital objects implode in on themselves, opting for annihilation, little between perfection and total inaccessibility.

Kusōzu images typically appear in series of nine, and begin with a freshly deceased corpse, still recognizable, “paled” but “as if sleeping.” The series continues through forms of deformation, which can vary between iterations, but

⁸Fusae Kanda, “Behind the Sensationalism: Images of a Decaying Corpse in Japanese Buddhist Art,” *The Art Bulletin* 87, no. 1 (March 1, 2005): 24.

⁹Jon Ippolito, “Death by Wall Label,” in Christiane Paul, ed., *New Media in the White Cube and beyond: Curatorial Models for Digital Art* (Berkeley: University of California Press, 2008), 124.

typically include discoloration, putrefaction, consumption by animals, dismemberment, skeletal remains, and finally, nothing but dust.¹⁰ These images, then and now, are provocative and startling, often pairing the image of a beautiful and fashionably dressed aristocratic woman with realistic, even observed-from-life depictions of a decaying body, which served to make their cathartic function even more powerful.¹¹

In Kitty Horrorshow's *ANATOMY*, another icon of femininity and domesticity, the house, is made to decay for a similar unsettling effect. Opening with the familiar mechanical clunk and whirr of a tape being inserted into a VCR and playing, you are greeted with the title and a date, then placed in a model of a house, mediated by some static and scanlines. Rather than appearing inhabited and welcoming, though, the home depicted is dark and stripped bare. Gathering cassette tapes from each room the first time you run the program lays out a topography of the house as human body, until you are trapped by the house, capable of locking, unlocking, and vanishing its own doors, in its master bedroom, which 'bites down,' 'like a mouth.'

Unsettling enough on its own, when the game is opened a second time, the tape's quality has noticeably deteriorated, the letters and numbers on the title screen deformed, slashed through. Similarly unusual things start happening to the house itself, and the tapes you play, repeating the steps of the first play-through. The house is no longer simply empty, but somehow corrupted. Polygons clip through walls, framed photographs flicker, textual and audio prompts are warped, decaying into indecipherable static and screeches. Then, another voice breaks through the familiar, though garbled, narration. The house describes how it murdered a violator who intruded and defaced its halls, luring him into the basement before the house's mouth snaps shut again.

The third time the game is run, the subtle structural glitches have now advanced to dominate the space, cast in an ominous, primal red. Pulsing, pink flesh

¹⁰ Kanda, 26.

¹¹ Ibid.

presses through the architecture, beds levitate, and when you are finally forced into the basement the house speaks to you, stating what has become obvious, that your presence has been felt all along, as teeth begin to press through the floor. A house left to decay for too long, empty of residents, hungers, and longs to entrap permanent guests.

What *ANATOMY* has in common with *kusōzu* is its focus on painstakingly replicating a form of decay, albeit very different ones. What's truly effective about the horror created within the house is not the way it describes the dark red blood oozing forth from the crushing and shredding of its victims, but how this scenario arises through the inevitable passage of time, 'what happens to a house when it is left alone.' Similarly, *kusōzu* are much less about death as an unfortunate event than they are about the transience of the body, how despite its admirable exterior in life it quickly becomes grotesque and defiled in death. In *ANATOMY*'s house, this process is represented by the structural glitches that alter the house around the player, but also the increase in static, warping, and deformation of the audio and simulated screen the house is being viewed through.

ANATOMY is part of a larger tendency in videogames that has a sort of nostalgia for the visual and audio trappings of analogue decay. Many of these games also fall into the horror genre. But what is so upsetting about the painstaking reconstruction of scanlines, static and warped audio? Weren't these simply the shortcomings of the banal technology of twenty years ago? What does it mean to represent this form of decay in 2016? The days of worrying over magnets coming into contact with the tape that housed our most precious data are, for the most part, over. Digital technology means that a program or hard drive is whole, accessible, one minute and corrupted, failed, flashed out of sight, the next. We are protected from the horror of the mortality of our documents, photos, music, our memories, spared seeing them degrade. Edible produce with a single blemish or imperfection are thrown out by supersized grocery store chains. Violence increasingly invades our day to day spaces as more and bigger screens inescapably bombard us with a ticker of the latest disasters and conflicts, but what comes after any of these events is

erased by the rapidity with which we are flung into the next story. Bodies are no longer left exposed in cemeteries, as they were in Japan until the 14th century.¹² Outside of a few specific career paths, (forensic entomologists, for example,) access to visible decay is being vanished from the world, and where it can't be masked we are told it is polite to look away. *ANATOMY* instead forces you to look, and listen, unflinchingly.

¹² Kanda, 25.

9.8 List of Zines: Zine Library at Games Are For Everyone VI

Presenting a collection of gaming-themed zines from Scotland and beyond, the Games Are For Everyone Zine Library is a place to chill and take in a curated spotlight of this vibrant DIY format. We have something for just about everyone, including zines of art and comics, interviews and essays, and even zines that are games themselves. Browse the collection, get inspired, and chat with some local zine makers from *Paper Arcade* and *TRASHZINE* who have come along to represent their work.

Space People

Created to accompany the collection *50 Short Games*, this zine by thecatamites (*Magic Wand*, *Space Funeral*) is a landscape of detritus, presenting bits of text and characters unused in the collection wandering the strange mental and virtual spaces of videogames.

harmonyzone.org

Spektrum Crush

Based in Berlin, *Spektrum Crush* collects the work of artists interested in altgames and digital garbage. It captures a cross-section of work by game developers, VR artists, graphic designers and more. Each issue provides a theme for inspiration, and also a 3-color palette, required by the risograph printing process that gives this zine its unique look.

Keep track of future issues and calls for submissions: @SpktrmCrsh

Analog Magazine

Analog Magazine is a UK-based zine that pulls together all kinds of writing from people working in videogame development, shedding light on the personal side of the industry. Topics include nostalgia, self-care and stress management. Fiction, personal essays, criticism, and tips from various industry workers and indies make for a lively mix in every volume.

If you are a game dev who would like to submit your work, get in touch at conduit4games@gmail.com, and follow [@analog_magazine](https://twitter.com/analog_magazine) for future issues.

TRASHZINE

TRASHZINE uses the zine format to present interviews with a broad variety of creators who also have an ephemeral, DIY ethos. Whether you call them experimental, art games, altgames, trashgames or not-games, the videogames discussed in the interviews play with popular assumptions and push games as an expressive medium. Read if you want to pick up a new perspective on game design or discover a few worthwhile titles to add to your “to play” list.

Follow [@TRASHZINEdotnet](https://twitter.com/TRASHZINEdotnet) for more info on upcoming issues!

Let's Play Outside

Forget HD remasters, what would your favourite game be like if it was ported to the great outdoors? Thryn Henderson's poetic zine of rules for games to play outside lovingly adapts titles from *Pikmin* to *Everybody's Gone to the Rapture* into potential adventures in nature. *NIDHOGG* has been featured at previous Games are For Everyone events, so relive the magic by grabbing a friend and playing a round!

Find Thryn online for more about small games: @thairyn

Paper Arcade

Originating in Dundee, *Paper Arcade* collects comics, fanart, writing, and small games from Scotland's videogame and zine-loving community. Hosting monthly zine jams in Dundee (and occasionally Edinburgh), and showcasing work from the participants, *Paper Arcade* also forms a network for game-loving zine makers and newbies alike to connect and collaborate.

To get involved, or check out zines that have been made at their zine jams, go to paperarcadezine.com

Games We Have Known and Loved, A Psychogeography of Games and Hannah and the Klondikes

Hannah Nicklin's zines span several years of her involvement with small game creators. *Games We Have Known and Loved* is a found poem that draws on stories she collected from the oral history of games culture. *Hannah and the Klondikes* consists of her study of an artgames collective in France, including interviews, and *A Psychogeography of Games* chronicles her (quite literal) journey to meet six game developers and join them on walks in an area important to them, reflecting on how those spaces influenced the spaces within their games.

You can follow Hannah at: @hannahnicklin

small world: an animal crossing fanzine

Ellen Welsh is a Newcastle Upon Tyne-based interdisciplinary artist who makes zines about memory, intimacy, nostalgia and personal narratives. In her *Animal Crossing* fanzine, she traces her experience with the series through its spaces, characters, and how it intertwines with her own routines.

Follow @ellenwelshart for updates on her zine shop and other projects!

ME&R

Rather than being about games, *ME&R* is a zine that's made of games. The playful creations in the zine push the boundaries of what games you can play with just a sheet of paper, and inspire approaches to creating games that foster storytelling and creativity.

Check out @meandrzine for more information.

Please put zines back in their proper place when you are finished with them, and be careful with your drinks in the zine area!

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