

Moving on from the Original Experience: Games history, preservation and presentation

Melanie Swalwell

Flinders University
Dept of Screen & Media
GPO Box 2100
Adelaide SA 5001 Australia
+61 8 8201 2619
melanie.swalwell@flinders.edu.au

ABSTRACT

The art historical notion of ‘the original’ continues to inflect games history and game preservation work. This paper notes the persistence of this concept particularly in the game lover’s invocation of ‘the original experience’. The paper first traces the game lover’s notions of history and preservation, recognizing their commitment to games, before noting that the appeal to original experience is problematic for more critical historical and scholarly perspectives. It suggests that there is a need to liberate critical thought from this paradigm and ask different questions, such as how exhibitions of 1980s games and gaming culture might be assembled for future audiences with no memory of this period. The model proposed by net art preservationist, Anne Laforet, of the Archaeological Museum offers a way for thinking about such exhibits of game history and visitors’ encounters with these, whilst moving beyond the notion that games must play exactly as they once did.

Keywords

Game history, game preservation, the original, original experience, fans, game lover, nostalgia, 1980s, exhibition, museums, archaeology

INTRODUCTION

In a recent chapter, Helen Stuckey and I recognise the contributions that fans, collectors and retro-game communities have made to the documentation and preservation of digital games. Retro-game communities grasped the threats to digital games’ longevity before the fragility of digital media was widely appreciated. Fans took the initiative and decided to start documenting and preserving games and related artifacts long before games were on the radar of most cultural institutions. In essaying the relationship of fans to museums, we consider what scope there is for collaboration between fans and museums, concluding that there are many possibilities for these groups of enthusiasts to work fruitfully with institutions, and vice versa (Stuckey & Swalwell, n.d.). However, as in any relationship, there may also be some sticking points, some things on which the parties differ. In this paper, I identify the privileging of ‘the original experience’ as one such point of difference, noting that whilst this notion is important to game fans and collectors, it presents problems for critical game historians, preservationists, and others involved in curating and presenting games history, now and into the future. Rather than

Proceedings of DiGRA 2013: DeFragging Game Studies.

© 2013 Authors & Digital Games Research Association DiGRA. Personal and educational classroom use of this paper is allowed, commercial use requires specific permission from the author.

arguing that one group presents a more enlightened view than the other, I identify two different cultures that are loosely associated with these groupings, that of the critic, and that of the game lover, and attempt to lay out the conceptions of history and the philosophies of preservation they espouse.

LOVERS OF THE 'ORIGINAL EXPERIENCE'

Original, adj. 2a. Belonging to the beginning or earliest stage of something; existing at or from the first; earliest, first in time.

Original, adj. 7. Of or belonging to the period in which a work of art was first produced; (esp. of a musical instrument) dating from or of the type used for early performances; period, authentic. (OED)

Early games seem to call forth a very strong desire in some for 'the way it really was', even as they simultaneously remind us of the impossibility of recapturing a past time. A desire for 'the original experience' is strongly evident in much contemporary writing about vintage games, games history, and game preservation. We often read accounts of historic game exhibitions, a trip to a specialist arcade, or reports of playing an emulated game in which the author reflects on the experience of play, only to note that it was (or was not) the same as it used to be, just like the original (or not). Nostalgia has been the dominant mode of remembering early games for at least a decade, but this tendency goes beyond what is now quite a widespread longing for retro games. In what follows, I present aspects of a discussion between members on the game_preservation list about the demise of CRT (cathode ray tubes) monitors. The four voices are ostensibly discussing the CRT monitor, the simulation of scanlines and artifacting in emulators, and the differences in monitor types, but throughout it a constant privileging of the 'original experience' of gameplay can be discerned.

The discussion began when Devin Monnens forwarded an email from Platinum Publicity bearing the subject "End of the arcade CRT monitor". In this email, the company Dream Arcades is apparently spruiking the last thirty CRT units they have in stock. Platinum seem to think that Monnens might provide them with some coverage of this story. In forwarding the message, Monnens asks whether people on the list were aware of the issues with CRT monitors, before asking "How does this affect classic arcade machines and the longevity of arcade systems?". Many list members were aware of the challenges. Jim Leonard reported that arcade operators are replacing CRT monitors when they break with LCDs. István Fábián brought up the simulation of scanlines and artifacting, volunteering that "It is possible to simulate CRT artefacts with sufficiently powerful graphics cards...". This turned discussion to the merits of scanlines, with Martin Goldberg opining:

Scanlines, artifacting and the like are already simulated in emulators like MAME and various computer and console emulators. Simulation[s of] those effects are always decent but never the same as the real thing.

Leonard, meanwhile, proffered:

There is no doubt that the emulation is excellent. However, LCDs [Liquid Crystal Displays] don't have the same gamma, curvature, or surface glare that raster and vector monitors have. Whether or not you think that's important is irrelevant; it's what is true and authentic. Proper preservation of any game must take these things into account to some degree.

I think that scanline/mask/etc. emulation is fantastic in general for people who want to get close to what the original experience was like. I myself turn it on whenever I run an emulator. But I would never suggest it is "good enough" as a replacement for the original.

The “original” and the “real thing” are repeatedly invoked and privileged in these excerpts, with departures from this deemed inauthentic. Valuation of the original is consistent with the above-cited senses of the original as “belonging to the beginning” and of items “dating from or of the type used” in the period. But what is prized here more than ‘an’ original is the concept of the experience that is said to be had with such an original. Such an original experience is judged superior to the experience had playing on an emulator, for instance, and terms such as “authentic” and “uniqueness” are used by some. Monnens goes on to claim:

Vector is also not something that can be emulated. You can have the visuals, but you'll never get that same amount of brightness! I always tell this to my students: you have to see an actual Asteroids machine and play it to understand what is so important with vector graphics. (Devin Monnens)

There is an organic quality to the experiences that are invoked here which resonates strongly with Raymond Williams’ discussion of the term ‘Experience’ in *Keywords*. Williams writes that experience (present) “involves an appeal to the whole consciousness, the whole being, as against reliance on more specialized or more limited states or faculties” (Williams, 1983, p. 128).

Such appeals to original experience rely on the historic past, that is, of the experiences some of these protagonists have had playing games in decades past, no doubt in specific contexts. This point is made clear in Goldberg’s response to Monnens comment that “playing 1942 on the multicade is not the same as playing it on the actual hardware due to the placement of the joystick and the play on the joystick”. Goldberg writes:

It's a constant argument I've [h]ad with younger generations who[se] only experience with older arcade games are game roms and collections on modern console[s].

I.E. the commoditization of 'retro games.' Why do they need to play a single game in a dedicated cabinet when they can simply play all the games like that they want in an emulator[?]. My answer is not much different than why some people still prefer their LPs and their packaging over cds and the like, the experience is much different. The cabinet design and control scheme is just as much a part of the experience as the game itself, and in many cases was meant to enhance the experience. Battlezone is just not the same without stepping up to those goggles. Pac-Man's cabinet is instantly recognizable to those in our generation. Space Invaders in its giant EM [electro-mechanical] cabinet with overlays on the screen is just not the same in an emulator. Then you have

completely unique cabinets and control schemes like Wacko, Kozmik Krooz'r, and Tron.

...

I take heart in getting these people to come to the Midwest Gaming C[l]assic every year and walk away with wide eyes at the experience. We have a living museum of about 300 coin-ops every year (think it was over that this past year.) Video, pinball, and traditional EM. The experience for them is far different than what they expected, even just being in a more traditional arcade setting than what passes for 'arc[a]des' now.

In this quote, Goldberg moves from concern with an original experience provided by original hardware (cabinets and control schemes) to an experience that is “far different than what [younger generations] expected,” courtesy of the play context at a festival, which is closer to an arcade c. 1980s. Whilst the “original experience” is apparently a key criterion for such game aficionados – Leonard goes so far as to say that “Proper preservation...must take these things into account to some degree” -- this slippage suggests that the argument is also readily adaptable, potentially able to be deployed to argue for or against specific installations of historic games.

The sentiments expressed in the quotes above are based on the commonsense understanding that history is about ‘the way it really was’, and that keeping and being able to experience games in the future as they were experienced in the past is the aim of games collecting and preservation. Considering *where* such sentiments about ‘the original experience’ are expressed and *by whom* is worthwhile. Often, they appear in popular writing about games history, in journalistic pieces or enthusiasts’ forums, rather than in the writing of scholars or critical game historians. It is interesting – and telling – to me that this discussion took place on a list dedicated to game preservation with a significant cohort of academics.¹ This is significant because the people involved are amongst those who best understand the issues facing the born digital – that hardware and software are deteriorating, and that such “authentic” presentations of games on original hardware are expected to soon be impossible. The very gentle responses the discussion elicited from scholars is recognition both of the importance of having varied voices in the debate about preserving elements of games history, and the particular kind of knowledge that game aficionados bring. For a long time, digital games were (and to an extent continue to be) overlooked by many collecting institutions. In the absence of such ‘official’ attention, it is the efforts of game collectors and fans that have ensured that information, hardware and software from the early years of digital gaming still exists. The efforts of game collectors and fans deserve recognition and respect. As amateur archivists, their efforts have been longstanding and often visionary. Yet what is especially curious to me – and requires some explanation – is the fact that these contributors, who well understand the issues, seem the most unwilling to accept the ‘inevitable’, that games will not continue to work in their ‘original’ form into the future. It is as if they are caught in denial. Why is this?

Game collectors and fans have a strong investment in game history, and their relation and connection to games can be emotional and nostalgic. Some may be keen to utilise the object’s ability to act as a trigger to memory (games are here, perhaps, the contemporary madeleine). Many could accurately be described, I think, as game lovers in that they love games in the way that art lovers love art. Walter Benjamin – himself a passionate collector – contrasts the art lover with the critic in “One Way Street” as follows:

...the paid reviewer, manipulating paintings in the dealer's exhibition room, knows more important if not better things about them than the art lover viewing them in the gallery window. The warmth of the subject is communicated to him, stirs sentient springs (Benjamin 1997, 89-90).

Games, it is clear, stir the emotions and arouse the senses of game lovers. They are not only fond of these objects and experiences, some are in a sense *devoted* to them, and so cannot bring themselves to fully contemplate their passing. For such individuals, the game they played thirty years ago is the original, and to play vintage games now is to experience something of their aura. The game lover probably sees games as possessing a kind of organic unity, an inseparability of hardware and software, even if they sometimes also show a certain pragmatism – parts do need to be swapped out and vintage titles renovated – that sets games apart from traditional, one-off art objects. But akin to venerated art objects, they are valued in their entirety, and so not easily reduced to components. Essentially, the argument is that a changed display² or the absence of artwork affects the experience and enjoyment of the game, and so it's just not the same as the original experience. The argument is remarkably adaptable: everything is valued, nothing can be changed, otherwise the experience is changed and so not authentic.

Original, adj. 5a. Created, composed, or done by a person directly; produced first-hand; not imitated or copied from another. (OED)

That early digital games should have acquired such a 'cult' value is, of course, deeply ironic, given that games were objects of mass production. According to Benjamin's 75 plus year old analysis, the artwork or image that is reproduced is supposed to lose its aura (Benjamin, 1992a). Yet, as I've observed elsewhere, with the passage of time games begin to acquire some of the qualities associated with singular works of art (Swalwell, 2007, pp. 263-4). Collectors value original materials, and with time comes a scarcity of working examples, which raises the value of individual pieces. Furthermore, aging hardware (and software) begins – somewhat perversely – to take on individual qualities, related to a particular material object's history of care and/or abuse. Some items of hardware will cease working long before others, whilst the conditions in which software is stored will likely affect the rate of a media carrier's deterioration. Such factors might be thought of as part of an object's provenance. There are comparisons that can be made to the patina that art objects such as paintings and sculpture take on. Similarly, there are parallels to be drawn to debates in Art History and Conservation about returning an artwork to its original condition, such as controversy over the restoration of the Sistine Chapel and whether the most recent restoration was even necessary. It is the point at which these comparisons cease to hold which is of most interest. One of the qualities that set early digital games apart from a Michelangelo ceiling is that the game is likely to become unappreciable beyond its box or container without attention from preservationists, and to deteriorate in a far shorter time period than the fresco.

In the next section, I ask what the game lover's dedication to – and insistence upon – the original experience means for critical historical games research, collecting, preservation and presentation?

MOVING ON FROM 'THE ORIGINAL EXPERIENCE'

There are a number of problems with the game lover's privileging of the 'original experience', which scholars of history and others are well aware of. First, this discourse on experience denies the discursive status of experience. As Joan Scott argues regarding the role of experience in writing history,

When experience is taken as the origin of knowledge, the vision of the individual subject (the person who had the experience or the historian who recounts it) becomes the bedrock of evidence on which explanation is built. Questions about the constructed nature of experience, about how subjects are constituted as different in the first place, about how one's vision is structured – about language (or discourse) and history – are left aside. The evidence of experience then becomes evidence for the fact of difference, rather than a way of exploring how difference is established, how it operates, how and in what ways it constitutes subjects who see and act in the world...

...The project of making experience visible precludes analysis of the workings of this system and of its historicity; instead, it reproduces its terms. (Joan Scott 1991, 777, 779)

A second, related problem with this ideal of re-experiencing the past through the original game is, put simply, that 'we' have changed. Even if it is possible to play a game on original hardware now, the player is not the same player who confronted this game in decades gone by. Today's player is accustomed to objects on the screen responding to their input in a way the first time player was not, for instance. At some level, vintage game aficionados know this. Their purism is probably motivated by quite benevolent attitudes: their wanting others to be able to have the same joy and pleasure that they had, and to be able to appreciate and value the game in the way they do.

Their generosity notwithstanding, the game lover's attitudes to history and experience as I've sketched these will tend to be at odds with scholars of history and others (curators, researchers, etc) who take a more critical view. Depending on their philosophy of history, a scholar might say that the historical import of games has very little to do with 'the way it really was', and an as yet unpublished companion paper takes up this thread in relation to the writing of games history (Swalwell). There are many lenses through which games are viewed as significant, for example, the shift to more participatory media in attention economies, the silicon chip and the rise of information technology as an industry, etc. Whilst the play experience might be of paramount importance to game lovers, the experience that players had when games were new will only be of minor importance to some researchers.

In a similar way, cultural institutions which are – or which become – interested in games will bring their own motivations, foci and criteria. Some museums will collect comprehensively; others will be selective, as with any other collection. Differing criteria will mean that some are interested in games as designed objects (eg. Museum of Modern Art), whilst others have a national focus (eg. the New Zealand Film Archive), and some will be dedicated games museums (eg. Berlin Computerspiele Museum, the Strong Museum of Play), though whether even these will have a completionist approach remains to be seen. And conceivably other institutions will have even more specialist foci, whether genre- or brand-based, or something else. The field has yet to fully develop its collections policy and strategies, but it is unlikely that replicating the "original

experience” will loom as large within institutional contexts as it currently does for game lovers.

Preservation and ‘degrees of fidelity’

There are a number of preservation challenges associated with digital games which make the game lover’s vision of playing games impossible to achieve, especially within an exhibiting institution. Perhaps the biggest challenge is that digital games are expected to stop working. If games are to continue working, then active interventions are required to get software off degrading media carriers and find alternative environments in which games can be run, given that hardware is also expected to break down and degrade (Rothenberg, 1995). Games require attention and this attention is going to change the experience of playing the game. Preservation strategies differ, and preservationists strive to ensure that their work delivers an experience that is as faithful as possible. Nevertheless, some changes are unavoidable when software is preserved and – as is typical – emulated. There will be degrees of fidelity.

The media arts preservation community has been discussing these issues for some time, partly via the concept of variable media. Back in 2004, Jon Ippolito observed:

I think we have to fight the fantasy that we will be able to have everything; that we will have the original experience, the original cultural context, the original equipment. We have to choose for each thing what we are most interested in. Different people and different institutions may make different choices. (Variable Media Network, 2004)

Games are not likely to remain playable in their original forms in the future. The experience of gameplay will not – and cannot – be as it was. Game lovers’ valuing of *everything* is not something that many institutions can aspire to. As Ippolito suggests, this is a fantasy. Choices must be made.

Future Presentation / Exhibition

It is time to move on from the discourses of the original and originality which are privileged in game lover’s views. There is a need to liberate thought from this paradigm and ask different questions. One question that I am interested in asking concerns how games and game culture might be exhibited for contemporary and especially future audiences. Such conceptual questioning is underway in some quarters, but there is a need to push our thinking about the significance of the artefacts we are preserving much further. This may, in turn, inform collecting.

To date, there has been a fixation on collecting and preserving the game itself, sometimes at the expense of other artefacts in game history. However, researchers and curious future audiences will need more than a game if they are to discern its significance and make sense of it. I use the broad term “games and game culture” to recognise that games are not the only items that are likely to be of interest and so they are not the only artefacts collecting and exhibiting institutions will want to consider for acquisition. As far as target game culture materials are concerned, current and future collections and exhibitions might contain a range of primary and secondary sources. I would expect these might include: oral histories with creators; game design documents/scripts/pitches; source code; magazine articles/reviews; associated ephemera items; consumer products; other traces such as photographs; correspondence; advertising; box art; and point of sale materials (flyers); video documentation of gameplay; and evidence of a specific game

title's reception (online forums, a range of user-generated content such as machinima and fan fiction, recorded gameplay footage, speedruns, etc). Alongside such materials, the Museum of the future might also make original hardware available on which a game title was played. We can hope that this might be in working condition,³ but the likelihood grows that visitors and researchers will have to play titles on current generation hardware the more temporally distant the release date.

Cultural institutions are already exhibiting 1980s digital games on contemporary hardware. Figure 1 provides an image from the ACMI Games Lab exhibition, "Hits of the 80s: Aussie games that rocked the world" (2006). In this exhibition, emulated versions of Beam Software game titles were displayed alongside ones running on original hardware, displayed on LCD screens, and using new controllers. The LCD screens were used partly for budget reasons, because of the fixed furniture of the Games Lab, and also due to hardware instabilities (a number of CRT screens blew up as the exhibition was being prepared) (Helen Stuckey, private communication). The inclusion of newer components suggests that current generation hardware can introduce interesting effects. The LCD screen here is incongruous, yet it gives rise to what I would term a 'productive incongruity' given that it has a Commodore 64 keyboard plugged into it, emphasising the dated hardware and the challenges of presenting early games as playable.

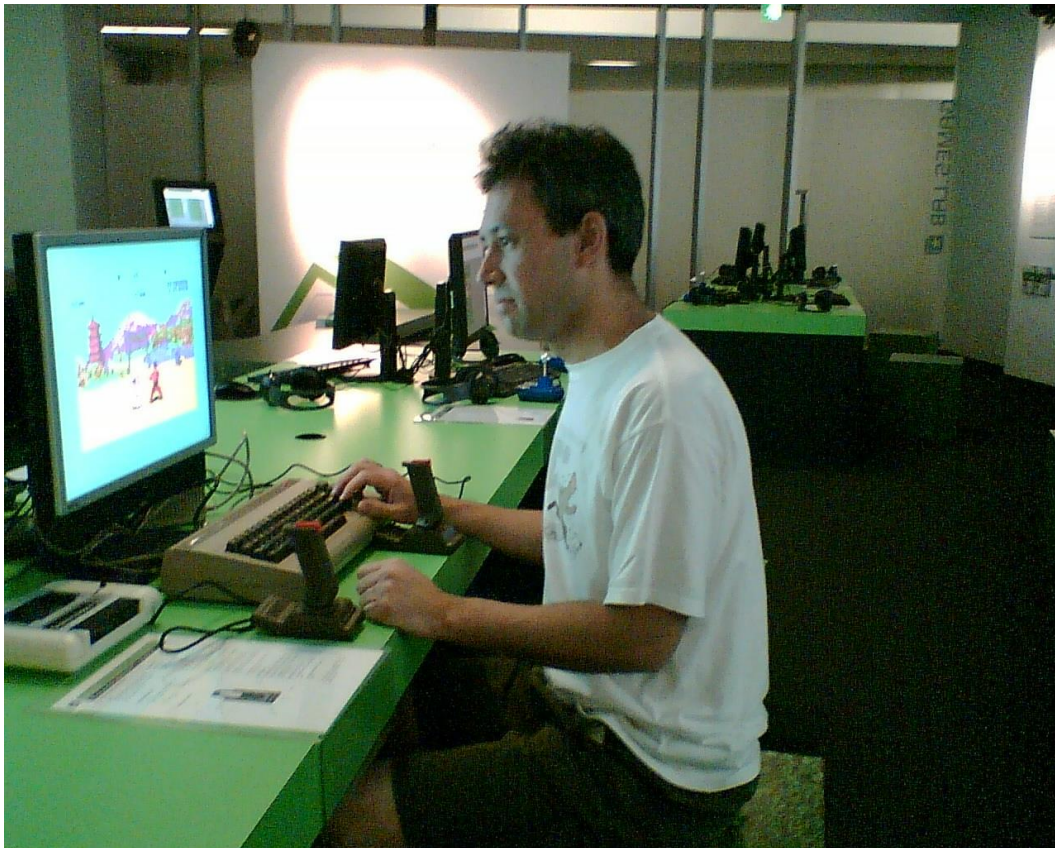


Figure 1: Daniel Bowen playing "The Way of the Exploding Fist", in the exhibition "Hits of the 80s:

Aussie games that rocked the world”, at Games Lab, Australian Centre for the Moving Image, 2006-7.

In the current “Applied Design” (2013) exhibition at the Museum of Modern Art, fourteen video games are shown as part of MoMA’s wider design collection. In the gallery, the games are installed on screens set into the wall, with a simple generic controller or joystick and headphones. In her recent TED talk, curator Paola Antonelli spoke of how MoMA wanted to focus on these game titles as instances of interaction design. They were not interested in the sticky carpets of arcades of yesteryear, or nostalgia, nor the hardware fetishism that is sometimes associated with games. As Antonelli explained:

We don’t want to show the videogames with the paraphernalia – no arcade nostalgia. If anything, we want to show the code.... You see them here displayed alongside other examples of design... But there’s no paraphernalia and no nostalgia. Only the screen, and a little shelf with a controller – the controllers are, of course, part of the experience so you cannot do away with it. But, interestingly, this choice was not condemned too vehemently by gamers. I was afraid that they would kill us, but instead they understood, especially when I told them that I was trying to apply the same stratagem that Philip Johnson applied in 1934 when he wanted to make people understand the importance of design. And he took propeller blades and pieces of machinery and in the MoMA galleries he put them on white pedestals against white walls, as if they were Brâncuși sculptures. He created this strange distance, this shock, that made people realise how gorgeous formally and also important functionally design pieces were. (Antonelli, 2013)

Exhibitions of the future

The exhibitions mentioned thus far – “Applied Design” and even “Hits of the 80s” – are relatively recent. The oldest game title in MoMA’s show is “Pacman” from 1980: thirty-three years since its release is still within living memory. Thinking beyond current audiences, how might one assemble an exhibition of 1980s games and gaming culture in the future, for audiences who have no memory of this era? It is helpful to look to adjacent fields such as media and net art preservation. Whilst the elapsed time is sometimes shorter, these fields have been considering related questions for some time due to the particularly rapid pace with which the internet, for example, has changed. Even relatively recent net artworks exist in very different contexts to when they were made. Net art preservationists have thus had to face hard issues. As Anne Laforet explains, one issue concerns,

...works that are ‘parasitic’ to other websites, such as pieces using data from search engines, or which visualize differently other websites, such as alternative browsers[. Should it be exhibited with the websites and technologies available at the moment of its creation or with the tools and content at the moment of its actualization(s)? Both are possible but have different meanings. (Laforet, 2007)

The rapidly changing context for net art has pushed preservationists to consider the moment when museums will be forced to show ‘broken’ works of digital art. Laforet

anticipates this will happen before long and, reprising a 1996 OLATS study, she proposes the model of the Archaeological Museum as helpful in thinking about how this might be done. As she writes,

Archaeology proceeds by fragments, assembling objects of different status and in different states which make sense when put together. It knows how to deal with voids, gaps, missing parts, and through a re-contextualization, how to propose a plausible state of what the original situation could be, while maintaining open alternative hypotheses.

The status of what is displayed and shown is significantly different in an archaeological museum (compared to an art museum): visitors are aware that what they are seeing and experiencing is reconstructed, they do not expect to see an object that is identical to what it was when it was made (Laforet, 2007).

Laforet's explication of the Archaeological Museum is helpful for thinking about the presentation of games in ways that move beyond attempts to replicate "the original experience" and the foundations on which it is premised.

Presenting a range of materials as elements in an exhibition gives visitors the opportunity to configure a range of sources to piece together what it might have been like to design, play, and otherwise encounter the games of the 1980s. The inclusion of documentation alongside game titles themselves is already happening in exhibition design. For instance, in the "Game Masters" (2012) exhibition, visitors are able to watch interviews with creators, view design sketches, documents, merchandise, and a host of other materials, as well as play games on original hardware. Including documentation and other significant materials permits a reconstruction so that even where a game or games no longer function(s), their significance can be explored. Sometimes, documentation will bring a work 'to life', such as video documentation of gameplay. Static documentary materials can also be interesting and meaningful to visitors, and this goes for everyday objects as well as more important ones, both of which Laforet notes archaeological museums house.⁴ It can, for instance, be difficult to appreciate how revolutionary technical innovations were when they were new. Sketches of artwork on graph paper for a 1980s computer game conveys information about creating graphics for 8 bit games in a way that playing the game does not, as per the example in Figure 2. Similarly, surviving documentation such as letters of rejection from publishers provide audiences with a context for the hobbyist's quest to develop their own game.

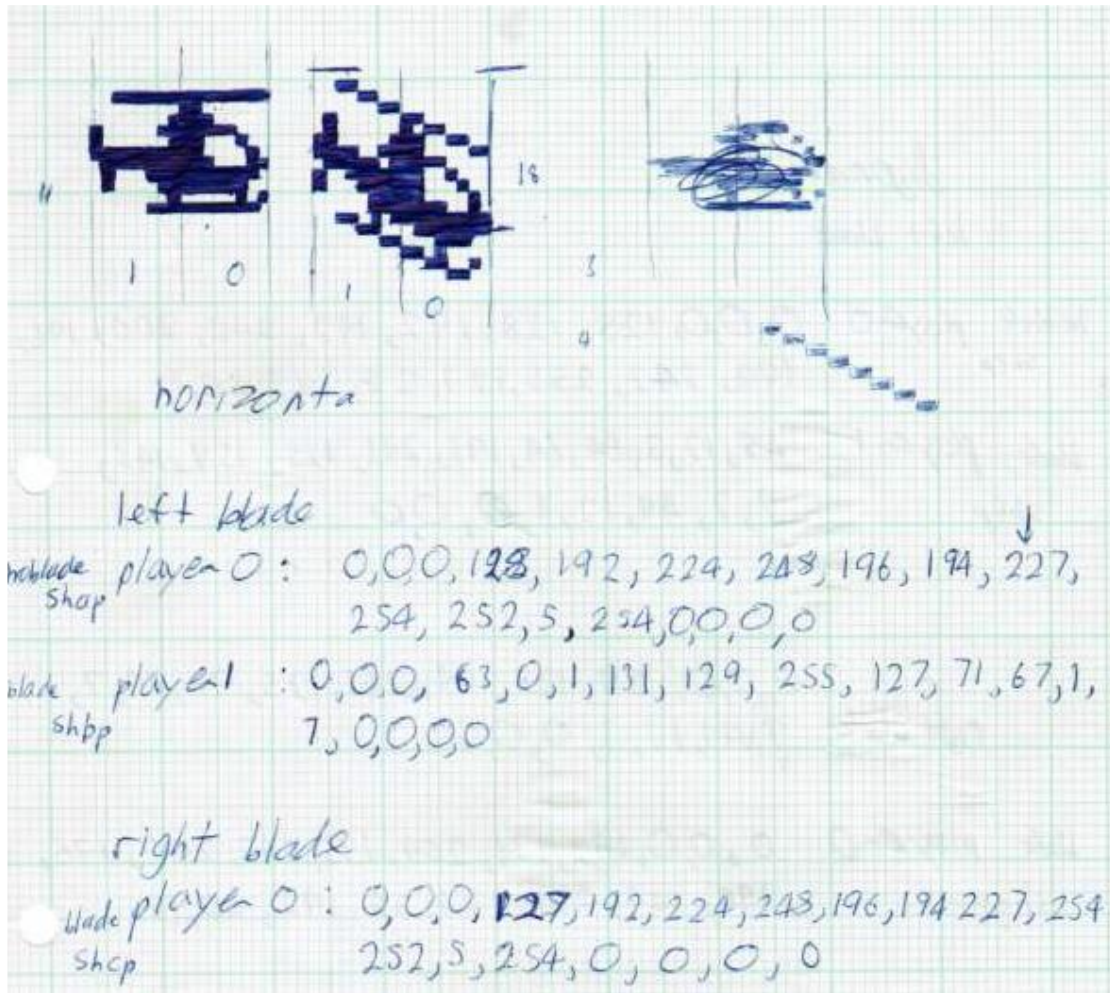


Figure 2: An example of the working sketches for “Hot Copter”, a game by Andrew Bradfield and Harvey Kong Tin for the Atari 800 computer, published as “Hawk Quest” (1989).

CONCLUSION

Collectors and game preservationists often evidence a strong commitment to ‘the original experience’. Such a commitment relies on a view of history as ‘how it really was’, and of preservation as the means to relive past experiences, sharing these with others. For some, this is possibly the *raison d’être* of game preservation. Whilst honouring game lovers for their foresight in collecting games and game cultural artefacts, I have argued that the appeal to ‘the original experience’ is problematic, and does not sit easily alongside more critical historical and scholarly perspectives. The game lover’s perspectives can receive their due amongst private collections, but can hamper more critical thinking about games history, preservation and presentation. I argue that this is necessary to build a strong foundation for the future appreciation of game history.

Whilst game preservationists do their very best to preserve digital games and their traces, it will increasingly be necessary for historic games exhibitions to change the ways in which games are exhibited and also to display more than just the games themselves. This is already happening, and I find Antonelli's reporting of gamers' responses to the way that games are exhibited in "Applied Design" promising.

In our discussions of game history, collecting, and presentation, we need to think more like archaeologists (or net preservationists) than game lovers, anticipating that the history of games will need to be built up from a range of sources. Embracing the notion that fragments of games history can also offer meaningful encounters will, I expect, be a part of this and would mark a maturation of the field. Collecting based on such thinking will make it possible for future curators to (continue to) assemble exhibitions which provide audiences with opportunities to have a "unique experience with the past" (Benjamin, 1992b).

ENDNOTES

¹ The discussion took place on the game_preservation list in July 2012. The full discussion can be read at the list archives, which are accessible at http://six.pairlist.net/mailman/listinfo/game_preservation.

² Jason Scott has blogged about the work some are doing introducing artifacts into the onscreen display, calling it "geekery" and recognising it's peripheral to some. Scott writes:

In all this, it's the not wanting to lose something than many don't even notice is lost that's the critical move. It's sometimes a bit too OCD and always a little annoying if it's not that important to you, but realizing what, exactly, has changed for software makes bringing it back that much more likely. It's a respect for the past beyond the idea of it. It's messy and weird and geeky but that's just the way I like it. (Jason Scott, 2012)

³ Some institutions already collect and exhibit games as static material artefacts. Some exhibits in the "Museogames" (2010) exhibition at Musée des Arts et Métiers were shown in glass cases. Melbourne Museum's Apple collection is another example of a non-functional collection. It contains many game titles, but these are not accessible to play.

⁴ Nor does the archaeological museum have an issue with an artefact being significant for both aesthetic and cultural reasons. It can be exposited through both narratives of use and artistic appreciation.

BIBLIOGRAPHY

Antonelli, P. (2013). Why I brought Pac-Man to MoMA. New York: TED.com.
Retrieved from
http://www.ted.com/talks/paola_antonelli_why_i_brought_pacman_to_moma.html

Benjamin, W. (1992a). The Work of Art in the Age of Mechanical Reproduction. In H. Arendt (Ed.), *Illuminations* (pp. 219–253). London: Fontana.

-
- Benjamin, W. (1992b). Theses on the Philosophy of History. In H. Arendt (Ed.), *Illuminations* (pp. 245–255). London: Fontana.
- Benjamin, W. (1997). One Way Street. *One Way Street and Other Writings* (pp. 45–104). London, New York: Verso.
- Laforet, A. (2007). Models of preservation for net art in museums. *Freeside Europe Online Academic Journal*.
- Rothenberg, J. (1995). Ensuring the Longevity of Digital Information. *Scientific American*, 272(1), 42–7. Retrieved from www.clir.org/pubs/archives/ensuring.pdf
- Scott, Jason. (2012). What a Wonder is a Terrible Monitor. *ASCII*. Retrieved May 7, 2013, from <http://ascii.textfiles.com/archives/3786>
- Scott, Joan. (1991). The Evidence of Experience. *Critical Inquiry*, 17.
- Stuckey, H., & Swalwell, M. (n.d.). Retro-Computing Community Sites and the Museum. In H. Agius & M. Angelides (Eds.), *Handbook of Digital Games*. IEEE.
- Swalwell, M. (2007). The Remembering and the Forgetting of Early Digital Games: From Novelty to Detritus and Back Again. *Journal of Visual Culture*, 6(2), 255–273. doi:10.1177/1470412907078568
- Swalwell, M. (2013). Turning Historical Fragments into a “unique experience with the past”: Reflections on conducting, “writing”, and experiencing games history.
- Variable Media Network. (2004). Echoes of Art: Emulation As a Preservation Strategy (Complete Transcript). New York: Guggenheim Museum. Retrieved from http://www.variablemedia.net/e/echoes/morn_text.htm#contemp
- Williams, R. (1983). *Keywords: A Vocabulary of Culture and Society* (revised ed.). London: Flamingo/Fontana.