From Trash to Treasure: Exploring how video games are moving from popular culture to cultural heritage

Lina Eklund
Uppsala University
Department of Informatics and Media
The HCI unit
Uppsala, Sweden
lina.eklund@im.uu.se

ABSTRACT

Video games are now recognized as an important part of our culture and history. However, this redefinition of the cultural value of video games has received scant academic attention.

In this paper I explore the transformation video games have, and are undergoing by: 1) drawing on the event of the first excavation searching for video game history in the Alamogordo Landfill in New Mexico and 2) interviews with collection and exhibition experts in charge of video games in two U.S. museums: MoMA, New York and MADE, Oakland.

Results explore how video games have gone from trash to treasure as exemplified by the excavation of the 1982 Atari game *E.T. The Extra-Terrestrial*. As video games enter museums they become valued using traditional western ideals on how cultural heritage is defined, based on ideals of age, materiality, monumentality, and aesthetics. Yet, the interactivity imperative of video games makes new evaluation structures relevant.

Keywords
Game preservation, museum, games as culture, exhibition, digital games, heritage studies

INTRODUCTION
In 1983 a massive crash of the video game industry in the U.S. spelled the end of the market leading company Atari. In, a now famous story, thousands of game cartridges of the by many voted, "Worst game in history" ("List of Video Games Notable of Negative Reception" 2021) , *E.T. the Extra-Terrestrial* (Atari 1982) were dumped into a desert landfill in Alamogordo, New Mexico (Guins 2009). In 2014, plans were made to excavate the dump site as part of filming for a documentary. Archeologists were involved, press invited, and history made (Ruggill et al. 2015).

This paper takes the dump and subsequent excavation of the Atari game *E.T. The Extra-Terrestrial* as a starting point for exploring the transformation that video games have recently gone through, and are still undergoing in popular consciousness. Research has increasingly shown that games are now evolving into recognized culture (Muriel and Crawford 2018), and even emergent heritage (Suominen et al. 2018) with their value projected into the future (Eklund et al. 2019). Research on game preservation is now a field driving to preserve video games for posteriority (Barwick, Dearnley, and Muir

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2011), and the Atari example is symbolic of this process, where these cartridges have changed drastically in value, both monetary and culturally.

The story of the *E.T.* burial and later attempt at excavation is familiar to those who know their game history. The unplayable *E.T.* game was so bad that it was trash, dumped in a hole in the desert to be forgotten. However, 30 years later, something profound had changed. This game had stopped being trash and was well on its way to become something else. Something sacred, to be exhibited in museums.

In this paper I explore the *E.T.* case and go on to analysing what happens with games as they are brought into the museum through interviews with collection and exhibition experts in charge of video games in two U.S. museums: the Museum of Modern Art (MoMA) in New York and the Museum for Art and Digital Entertainment (the MADE) in Oakland. I ask, what can attention to the *E.T.* burial and subsequent excavation and reclassification into museum artefact tell us of how games are valued today, and on what grounds games are re-classified as valuable?

Drawing on the work of cultural heritage scholar Laurajane Smith's (2006; 2020) work on what she calls "heritage-making" the analysis explore how video game's value has been transformed from trash to treasure, as exemplified by the Atari dig in Alamogordo, New Mexico. The paper argues that game's revaluation is done on the basis of traditional, and exclusive western ideals of what is valuable cultural heritage, instead of questioning the underlying principles and power structures on which heritage is often defined. Still, as video games must be played to be experienced they support a bridging between a focus on material and immaterial artefacts which allow, and in a way force, museums to stress new types of values for cultural heritage artefacts.

Video games as "culture"

In Huizinga's now classic work (1950) we are shown that play and games are inherent parts of human societies and essential for human cultural development. Video games today occupies an obvious place in our media lives through the spread of digital technology and looking at video games offers insights into the everyday structure of the social world along with the role of digital technology in contemporary life (Muriel and Crawford 2018). Video games are objects but also artefacts consisting of both material and immaterial parts. They come to be as they are played, a video game's code is in many ways passive until it is booted up and interacted with. Video games come to be in a intertwining through actions of players, interactions with hardware and software, player produced modifications which challenges the permanence of the object, as well as practices, cultures, designer intentions, emergent use practices, and much more in complex assemblages (Taylor 2009).

The subculture gaming once was has been taken over by mainstream culture (see Hebdige, 1979 on this transformations sub-cultures tend to go through) and exists as part of our general media landscape (Muriel and Crawford 2018). In 2011 the U.S Supreme court (Brown v. Entertainment Merchants Ass'n 2011) ruled that video games were to be protected by the first amendment, as they communicate ideas just like other media forms such as books, films, and music. The protection and preservation of video games arguably began in rouge archives, and amongst private collectors and enthusiast; who first voiced the value of games. Yet today, games are exhibited in museums (Nylund 2018; Suominen et al 2018; Prax et al 2019) and there are plenty of efforts to preserve games as important history (Sköld 2018). Research has increasingly voiced concern that society is already losing the history of video games as games from only a few years ago are already un-playable and lost (Lowood et al., 2009) and that it is urgent to start saving games now, as prices are increasing and availability reducing (Heinonen and Reunanen 2007). Some of the problems include bit-rot, when code is lost due to

decay of electromagnetic charge in computer storage (Hudgins 2011), migration of code to new storage mediums and file formats using emulators to run it (Winget 2011), and how to handle so called born-digital games, never stored on a physical media, but only distributed digitally, the code perhaps not even stored on local computers but distant servers. In many ways we see how the video game digital heritage is haunted by the same rhetoric of loss as other heritage discourses (see Cameron, 2008). Echoing how much of the early history of silent film was not preserved adequately and thus lost to future generations (Pierce 2013). Together all of this implies that video games have moved from a subcultural interest and are now recognized as culture and cultural heritage, worthy of conservation efforts, by a variety of heritage institutions and actors.

The social construction of video games as cultural heritage

It is far from obvious what is to be exhibited and preserved when it comes to video games (Prax, Eklund, and Sjöblom 2019). Cultural institutions such as museums and archives, gaming industry, and private individuals are today involved in a variety of activities aimed at preserving computer games for the future. While many official heritage intuitions work with games, there are also many so called rouge archives—preservations efforts initiated by individuals outside of traditional heritage institutions (Kosnik 2016). How preservation should be done, and why, however, there is far too little consensus around. Various strategies are in practice, such as very selective curation (Antonelli 2012) or saving everything so that later generations can decide what is important (e.g. the Internet archive, https://archive.org).

Culture is however more than material artefacts such as cartridges with game code, what UNSECO calls intangible cultural heritage (UNESCO 2003). Which can be seen as the rituals and practices that mean something to people in everyday life, video games included (Kurin 2004). The FARO convention (2005) partly reduces the importance of the separation between material and immaterial, by opening up the definition of cultural heritage in total as "a group of resources inherited from the past" (art. 2). This broad definition can include everything from national monuments, to rituals, traditions, nature, and more. Still, in practical video game preservation this move beyond the strict material focus can be seen, what has been called "the expanded notion of video games as archival objects" (Sköld 2018). In a review of the field Sköld (2018) highlights the increased focus to not only preserve the material of the game, but immaterial aspects as well, such as play, cultures, and emergent practices.

The process of reshaping the meaning and value of what video games means, is not a neutral one, but the process in turn changes what games are as their very meaning becomes translated in the process (Eklund et al. 2019). Through this work, what is actually to be considered worth preserving for the future is created and defined. In other words, what becomes cultural heritage is not something obvious and neutral but socially constructed, where what is ultimately understood as cultural heritage depends on selection, conflicts, and dilemmas (Lowenthal 2015).

Laurajane Smith's 2006 book *Uses of Heritage* in many ways marks the birth of the field of heritage studies. In it, she explicates cultural heritage as "not so much as a 'thing', but as a cultural and social process, which engages with acts of remembering that work to create ways to understand and engage with the present." (Smith 2006, p.4). A thought she returns to in her 2020 book *Emotional Heritage*, through the term heritage-making. In other words, cultural heritage as made. She explicates various ways of heritage-making, from the emotional engagement of visitors, through more politically powerful strategies by heritage professionals and organizations which makes up, what she names, "Western Authorized Heritage Discourse". Here the central characteristics of materiality, age, the aesthetically pleasing and/or the monumental jointly construct what can be seen as heritage (Smith 2006). The discourse upholds

power systems defining who can make definitions and what is authentic heritage, and cultural heritage professionals draw on these arguments to appear credible and gain legitimacy when defining cultural heritage, they and their likes have international authority to shape what is considered heritage (Smith 2020). Understanding the ways that culture is valued, upheld, and done as heritage will aid us in unpicking how *E.T. The Extra-Terrestrial* could go from being buried as valueless, to be exhibited in museums around the world.

Interviews

In addition to in-depth analysis of the Atari excavation in Alamogordo two interviews with cultural heritage professionals in a position in charge of curating games are drawn on in the analysis. One interview comes from a large, established art museum, MoMA, New York. The second is from a small, independent museum, the MADE, Oakland, California. The interviews are in no way meant to be representative of work with games in museums across the world but are meant to offer analytical depth and insight into the way that games are treated in the cultural domain of museum work. The cases are picked because they have contrasting characteristics such as size, institutional credibility, and focus. They are similar in that they both are physically located in the U.S and thus in the same cultural context as the excavation. They were both gathered in the research project, *Worlds of Video Games* (see Eklund et al. 2019 for more details on the project). The project also included interviews at the Swedish National Museum for Science and Technology, which are not included in this paper as they did not at that point have their own collection of games, but worked with borrowed temporary exhibits.

The interviews took place face-to-face in the case of the MADE, and through video link in the case of MoMA. The interviews lasted around an hour and informed consent was established as I discussed the nature of the research, their roles, the treatment of the data, and the rights of the informants. The interviews took place in 2015. The interviews were transcribed in full by hand. Cases where the museum professionals talked about the value of video games were picked out and compared for likenesses and differences. The presentation below focused on instances of change and strife in the stories concerned with the roles that games play in the museum.

EXCAVATING VIDEO GAMES

During the late 70s and early 80s, home video game consoles entered living rooms in many parts of the world. The Atari 2600 dominated in the U.S., with its microprocessor and design with games on cassette that could be easily changed. It is an era that shaped and defined the video game experience for many western players. At the time it seemed like Atari could only go up, win more markets, make and sell more games. Then in 1983, disaster struck and a massive video game crash occurred in the United States. The market, previously so hopeful suddenly seemed to lose interest in video games. Atari, which was completely market leading at this time, collapsed. The company went from market leading, producing well-known titles such as *Pong* (Atari 1972) to basically gone in a few years. In media, the video game medium was explained be "over", a temporary fly that had passed.

One of last games Atari released during this era was the 1982 *E.T. The Extra-Terrestrial*, a movie license video game version of the Steven Spielberg film released that same year. The game had to be out for the important Christmas market and was, to put it mildly, rushed in development. One man, Howard Scott Warshaw, a young game designer at Atari is supposed to have spent around five weeks making the game which was then printed in massive quantities. In the game, E.T. has to phone home, traveling

though the screens to find telephone pieces while various humans chase after him, such an FBI agent. A core game mechanic has E.T. repeatedly falling into holes, and having to escape. The game was hard and unfair with E.T. constantly falling into holes with no apparent logic behind it. *E.T. The Extra-Terrestrial* flopped hard, not selling in nearly the quantities that Atari had expected. People even started to return the game, saying it was unplayable.

Image 1: Screenshot from the game E.T. The Extra-Terrestrial, Atari 1982. Source: Wikipedia, Fair use.

As Atari was dismantled and sold off in small pieces there were masses of unsold copies, four million in some estimates (Guins 2009), of the *E.T.* game. These games had no market value in that they could not be sold and as legend later had it; were taken to the Alamogordo dump in New Mexico. They were then covered in concrete and buried under tons of other garbage.

The myth of the buried worst game in history spread from here. The writing and talking about the legendary *E.T.* game created a feedback loop that keep enhancing the Atari dump as a cultural myth (Dawes 2020). Legend had it that the games were dumped in the desert, sometimes at nighttime. The desert is a stereotypical dumping ground for things to hide away; a trope commonly used in media, in the Atari case, the desert became part of the myth (Dawes, 2020). However, in reality it was probably simply convenience that put the games there, as the warehouse was in El Paso, Texas, only a two hour drive from Alamogordo (Dawes 2020). Still, the story became a popular urban myth, and after the turn of the millennium, often discussed online. Many people wondered what had happened, and whether there was truth to the myth.

In 2014 an excavation of the site was announced. The Canadian media company Fuel Industries and Xbox Entertainment Studios, among others were attempting to dig up the games as part of the filming for a documentary, *Atari: Game Over* (2014) directed by Zak Penn. Penn, a game enthusiast who played Atarti games as a youth had a personal interest in finding out what really happened to Atari. Together with the New Mexico government they aimed to excavate the Atari dump in the Alamogordo landfill and film the process.

The whole video game world watched as the excavation in the Alamogordo landfill commenced in April 26, 2014. Much work had been done to attempt to pinpoint where in the large area the Atari dump had taken place. Press photography from the time had been studied and people working at that time interviewed. The film team had even invited a group of archeologists to take part, even if they did not have the opportunity to do a proper archeological investigation as the documentary needs came first (Ruggill et al. 2015). However, the presence of these archeologists, by being on site: “validated

the project and turned it from being just a media stunt into something imbued with historic and scientific meaning." (Reinhard, 2015, p 92). Moreover, hundreds of game enthusiasts had travelled from all over the U.S. to be there as the excavation took place (Ruggill et al. 2015). People who felt that this was an important moment that they wanted to be part of.

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Image 2: Atari E.T. Dig- Alamogordo, New Mexico.
CC BY 2.0, Taylorhatmaker, 14039327125.

In the end no massive concrete slab as in the legend was encountered and the dig was a success. In total 1300 game where excavated, the *E.T.* game among these but also many other Atari classics as well as unsold or returned hardware such as controllers. A few of the found games were donated to museums and others sold to raise money for a future museum in Alamogordo.

The excavation was a first to focus on video games. In their published notes from the event Ruggill, McAllister, Kocurek and Guins (2015) argue that the dig could not have taken place earlier as game scholars and enthusiasts would not have been able to organise something like that due, among other things, to the newness of the field. In 2009, five years before the dig Guins wrote, "The 4 million game cartridges are beyond our reach, but not beyond our memorialization of *E.T.* in its afterlife (2009, p 358). At that time, value was beginning to be ascribed to the game, yet actual excavation still seemed out of reach, impossible. In other words, before the point in time of the excavation, video games were not yet seen as valuable enough to warrant an expensive, and bureaucratically complicated event like this.

Image 3: The world's first videogame excavation in Alamogordo, New Mexico, 2014. CC-BY-2.0, Taylorhatmaker, 14039287425.

Atari's flop, *E.T. The Extra-Terrestrial*, sold for $39.95 in 1982, then sold for nothing for years and years, and after the excavation sold for $1535 on eBay (Kreps 2015). These copies are now displayed in museums all around the world. For example, the Smithsonian in the U.S. received a copy, stating that: "The cartridge is one of the defining artefacts of the crash and of the era." (Robarge, 2014, online).

The Atari example speaks to us about the socially constructed nature of heritage, that what makes heritage valuable are the activities and cultural processes performed on them (see Smith 2006; 2020). The documentary and presence of spectators further highlight the emotional investment in Atari, and in particular in the physical remnants of this era, by game enthusiasts and the way emotions like nostalgia are key to understanding heritage making (Smith 2020). Digging up the cartridges made them valuable, and the entire spectacle and the fact that the games were found, evidence of them having been buried in the first place changed the meaning of the game. The game could be played before the dig. Copies existed and the game could even be played on emulators. It was not lost. Still, the dig bestowed the game a new value and meaning.

E.T. the Extra-Terrestrial went from literal trash to treasure.

BRINGING VIDEO GAMES INTO MUSEUMS

In the Atari example, it is clear that video games have been reclassified into a part of culture worth protecting and saving. Something that should be put in archives and museums for access both now and in the future. I now turn to exploring the next step in this process, what happens with games as they are brought, reverently, into the museum. Or in other words, brought out of their metaphorical and actual dark holes and into the high-cultural spotlight.

MoMA and the MADE

The Museum of Art and Digital Entertainment, MADE (2010-), is a small, independent museum located in the centre of Oakland just outside of San Francisco, California. As you enter the museum you step into a sanctuary for video games and gaming hardware.

Shelf upon shelf of neatly stacked games line the walls, decorated with friendly signs asking, “Please don’t touch the collection”, immediately imparting a view of the objects displayed as “proper” museum artefacts; the “see don’t touch” imperative an echo of traditional museum ambience. Games are set up to be playable here and there and hardware displayed in cabinets. For the museum it is important that all games in the collection are playable upon request. The MADE is run by volunteer with a passion for games rather than being trained in heritage management.

The Museum of Modern Art, MoMA (1929-), New York is a large recognised cultural institution situated in midtown Manhattan in a large glass building. It made headlines in 2012 for including 14 video games in their permanent collection and exhibition. In the exhibit *Applied Design* MoMa display a few expertly curated and carefully selected games, placed on screens embedded in dark-painted walls, generic controllers trailing out of the wall to meet the eager hands of visitors. The museum is probably one of the most influential and well-known modern art museums in the world.

> MoMA–New York: Games really have established themselves as a huge part of our culture. And if you think about the Museum of Modern Art's core mission it is to reflect the art of our time. Digital artwork, video games have been around for over 40 years now. And they are such an enormous part of contemporary culture and contemporary creativity. So artists are using the language of video game, designers using the language of video games, architects are using video games, it influences so much of what we do and how we navigate our world. So it would be disingenuous to call yourself a museum that reflects the cultural output of the world and ignore this giant section of that cultural output.

In the interviews with the cultural heritage professionals video games were constantly positioned as treasures that were in dire need of protection. Video games were put in context of their age, positioned as old in the sense that they have been around for “long enough”. They emphasise that video games are no longer new and an integral part of cultural production with a monumental impact on contemporary life. Games are no longer seen as outside, but part of culture and the stuff that museums are made of.

The MADE museum exits as a direct consequence of a fear of losing the history, the cultural heritage, that video games now represent. The very origin of the museum is a set of old microchips found in a flea market in Oakland. This close to where Atari’s head office used to be located, the myth of its demise and what was lost as company assets were thrown away is indeed part of the museum’s existence today.

> MADE–Oakland: It's counterintuitive in this day and age where you can put a USB stick in your computer and copy everything and just have a duplicate in minutes, it's counterintuitive to think that we're losing data, but we are every single day. [NAME] was just telling me a story about when he was at Atari. And they were just throwing stuff in the dumpster. And they threw out the prototype for *The Pawn* [(Magnetic Scrolls 1986)] (…) Which he rescued to the creator, who donated it to the [Computer History] museum in San Jose. Yeah, so this one guy estimated it to $5 million. So this was thrown in their dumpster, because this kind of stuff isn't obviously worth something and too messy when it's fairly new. (…) I mean, that's why I founded this place, because I found some prototypes of games on bare chips at the flea market.

Atari is even brought up as a key example of lost heritage in the origin story of the museum. While the Alamogordo myth is not discussed, its legacy shapes current ideas about video games as valuable culture. The great loss of the Atari crash must not be

repeated. The MADE is uniquely situated close to Silicon Valley where many of the actual artefacts of the U.S. game history might indeed turn up at the local flea market.

While drawing on similar arguments for why games are valuable, the museums still utilize very different strategies for their preservation and exhibition of video games.

> MADE–Oakland: Today, that is absolutely fascinating that [The Legend of Zelda, Nintendo, 1986] was able to be saved in the amount of space on that cartridge with the amount of RAM and ROM and save space that it had. I mean, it just shows a level of crafting. And it's like looking at, like looking at a van Gogh painting and seeing the brushstrokes. Seeing that kind of behaviour in an old game and analysing it can show you the masterwork craft strokes.

In the MADE all games are valuable in their own right, because they are video games. Yet also because of the craftsmanship of their construction. The museum saves everything and never refuses a donation. Here everything is worth preserving. At the MADE they say that it is up to the people of the future to make decisions on what is valuable and interesting, and what is not. For now, they save everything and try to make games available for play on the original hardware, and using original controllers, see image 4.

Image 4: Interior, The MADE 2020. Photo by Julian Peña Rivas, used with permission.

MOMA on the other hand, work on the basis of careful selection. Indeed, they carefully curate which games they include, working closely with the developers to create custom licences so that they can overcome many of the problems normally associated with video game preservation such as how IP legislation limits the ability to migrate code in outdated hardware into new storage mediums. Here, not every game is considered to have the same value. Below MOMA talks about the process of introducing the first set of games into their collection:

> MoMA–New York: We knew that it would be controversial. We expected that. We didn't expect just how controversial it would be but we knew that it was something that was going to have some backlash. So we wanted to just make sure that we treated [games] in a very serious manner that this was not just the museum trying to be populist or the museum trying to appeal to a broad audience or, or doing something easy. But then instead, we approached this

> project with a real kind of heavily, very strong, rigorous, kind of critical approach that we didn't take any games we were very, very specific about which games we took in, which games we did not.

We can see how the museum was aware that the decision to include games would be controversial, would upset those not yet convinced that games have value. As described in the quote, they filtered games through the logic of an art and culture institution. They thus curated carefully, picking what they would include in their collection and making sure only some games were considered of enough value to be part of MOMA.

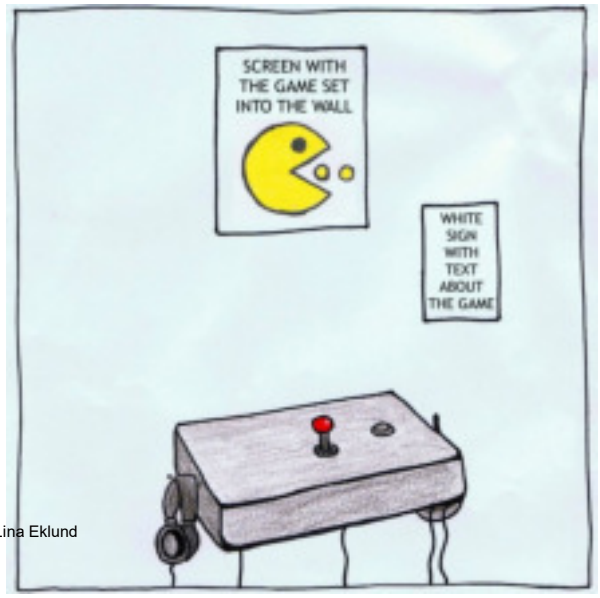

Image 5: Drawing representing how Pacman was exhibited at the MoMA in 2013.

> MoMA -New York: The way we displayed them was not just turning the galleries into a video arcade, but rather and I think that was another thing that was very important to video arcade is a very loud place, it's very chaotic. We instead wanted something a little more quiet and serious, so that people would take the game seriously instead of just thinking of it as a joke.

This reformulating what games is and how they are played continued in the exhibition where they transformed the games to fit the museum space and expectations of what a museum experience is supposed to be. A continuous process of reshaping, reformulating games to be valuable. As in image 5, games where stripped down, played with generic controllers and displayed in envi Chapter 11ronments where nothing would distract; drawing on ideas about how art is displayed; a far cry from the video game aesthetic many are used to and which dominate the MADE.

In both museums, playability is still important. Games are, when possible, displayed as playable. The material object is not what is displayed, or not the only thing at least, but the immaterial experience of playing. Of interacting with the software. Games then comes to be as both material and immaterial artefacts in the museum.

DISCUSSION

The dig in Alamogordo was far from an archaeological excavation. It was a carefully orchestrated event, made to look good for TV where the archaeologists took the form of stage-props (Ruggill et al. 2015). The outcome was a popular culture documentary,

an answer to the question about what happened to Atari. Additionally, we can assume that there were underlying economic incentives from sponsors *etcetera*. The entire event, however, has much to say about how we view video games. The excavation of game cartridges and subsequent acquiring of copies into heritage institutions highlights the journey of video games from trash or low status, popular culture to the status of cultural heritage with a place in highbrow cultural institutions like museums. It further shed light on the power material artefacts hold for emotional engagement in heritage.

This materiality exists in the form of hardware as well as code, in the case of *E.T. The Extra-terrestrial* stored on a cartridge. The *E.T.* games from the dig, booted up, even after years in the ground (Ruggill et al. 2015) so the excavation was done in time for the games to still be functional artefacts. At the same time, games come to be as they are played, emerging in the interaction between player(s) and game. We can look at the *E.T.* game cartridges, but that is not the same as looking at the game.

As games like *E.T.* are brought into museums, games' multiple domains of programing, visual art, auditory experiences, and the experiential medium that they are comes to the fore. In MoMA and The MADE games becomes treasure for various reasons, and can be called upon to play different roles depending on the institution in question. In MoMA games are art or design in a broad sense due to the experience and in exhibition they are stripped away of anything that could distract (see image 5), generic controllers are used for example. In the MADE the code is lifted up as the brushstrokes that brings together the experience, and games displayed as playable on original hardware. Here all games are deemed valuable at this moment in time. Games, as the jack of all trades or boundary objects, can serve various agendas as they are ultimately assemblages; a combination of an endless set of various puzzle pieces (See Taylor, 2009 on games as boundary objects and assemblages). As can be seen here, there are still far from set ideas exactly on what qualities games are valuable.

In the Western Authorized Heritage Discourse (Smith 2006), heritage is judged by trained heritage professionals and established organisations according to the characteristics of: 1, materiality, 2, age, 3, aesthetically pleasing and/or monumental (ibid.). Even though the UNESCO (2003; 2005) have attempted to open up heritage to include all sorts of immaterial practices, physical artefacts still become central in the heritage making process of video games. Video games' hardware have a materiality that comes to the fore in the Alamogordo dig and the code is central in preservation projects and in exhibition. In case of the dig, material in the form of archeological artifacts help to validate a form of culture which chiefly consist of born-digital artifacts and intangible player experiences.

In both the Atari case as well as in the two museums, games are discussed and framed as "old", having been around for a sufficient amount of time to reach a stage of nostalgia. Additionally, video games are ascribed value due to their aesthetical aspects, as seen above; the interactive, immersive experience where visuals, sound, and precisely crafted interactional affordances come together into one whole experience. Furthermore, video games are argued to be heritage, because of their monumental impact on the world.

Thus we can see how video games are transformed into treasure through arguments used in the heritage field which delimits what is to be considered heritage. However, MADE partly refuses the heritage discourse by arguing that all games are valuable and through this refusing to take authority on which games are worthy, and which are not. They operate from below, promoting a game enthusiast perspective. MOMA, as a high-brow cultural institution, is selective and make choices about which games are valuable, and which are not. MOMA's top-down perspective ascribe and draw more strongly on

the authorized heritage discourse in bestowing games value. The validation of video games, the heritage-making, is inherently connected to power structures in the heritage field and the logic of the collector market of games.

Still, in our two museums, similar arguments are leveraged to define games as stuff worthy of museums. In doing so, the grounds on which we define cultural heritage is not challenged, but adhered to (see Smith 2006). In this light, I argue that we can understand the struggles of MoMA where they had to make games fit into established ideas of what "art" is and how it should be displayed. At the MADE this is circumvented by preserving everything, a strategy mirrored in for example the ongoing work at the Internet Archive, which preserves everything, such as drivers for air condition units (pers. com. Jason Scott the Internet Archive 2015). The MADE is in many ways freer to move outside of the established ways of doing heritage, likely because they are not trained heritage professionals, but come to preservation and museum work as programmers and enthusiasts. Still, they are not just any enthusiasts. They have power in being a museum and as such they adapt to the established values on what ground we should define game's value.

Photography changed both what was considered art, and also other art forms such as painting in several ways, such as introducing photographs as study material, and democratising the portrait, making it available to lower social classes. Today games, as an interactive cultural form (or art some may say) combining code, game design, visual art, audible art, and more into complete aesthetical experiences has the potential to change the very criteria on which we define what is our shared cultural legacy. The fact that it is close to impossible to interact with the materiality of a born-digital game, and that a game only comes to be as it is played, forces us to decenter the importance of materiality in heritage-making. As Helen Stuckney formulates it in her PhD thesis on video games in the museum "The nature of software as mutable media, malleable in the hands on the new active audience challenges the object focus of the traditional museum" (Stuckney 2010, p. 8). Playability is key in understanding video games. Here the two museums represented in this study partly move beyond the Western Authorized Heritage Discourse because of the experiential nature of the play experience. Still, it is the game that is the focus, and not the extended notion of the game (see Sköld 2018) which includes all the things people do with video games and the culture which surrounds these artefacts. Here we can understand the struggle of MoMA, materiality has historically been the main focus of these types of institutions, but the nature of the artefacts means they have to move beyond this. Immateriality is inherent to games, so you cannot get away from it. Games then, has a power in themselves, necessitating new perspectives when it comes to the division of material and immaterial in cultural heritage work.

In the case of *E.T.,* its value as a material artefact is clear, in that people spent money on digging up cartridges from the desert, even when they could just play an emulated version on a modern computer. People, gamers, enthusiast, both organized the dig and came to watch it. *E.T.*s physical presence came to symbolize a whole era; to which many have strong emotional ties. The revaluation of *E.T.* began from below, from the game enthusiast's community, yet the authority of heritage organizations who took in copies of *E.T.* into their collections, and the archeologists present at the dig, are still key to understand the heritage-making of video games. The Authorised heritage discourse makes heritage seem constant, and objective. Yet, as can be seen in this case, the world, through the dig, reformulated what happened with Atari as a loss, when at the time the unsold *E.T.* games had a completely different meaning and value. This speaks to the way that heritage and cultural value is not permanent, or set. But social and negotiated, how emotions such as nostalgia and processes of identity are key in understanding how people negotiate and perform heritage (see Smith 2020).

FINAL WORDS

In this text I have argued that video game's revaluation is done partly on the basis of traditional, and exclusive ideals of what is valuable cultural heritage, instead of questioning the underlying principles and power structures on which heritage is often defined. The key question here is about power, who has power to define heritage. And subsequently, who does not? Still, as video games must be played to be experienced they support a bridging between a focus on material and immaterial artefacts which allow, and in a way force, museums to stress new types of values for cultural heritage artefacts.

I have explored how *E.T. The Extra-Terrestrial* has been revaluated. The game is a well-known U.S game based on a mainstream media success. Yet, what happens with games from other cultural contexts, representing minority groups and communities and their experiences? This text has no answer to that, but I would thus like to end this text with a challenge to the study of games to critique, explore, and further our understanding of video games as cultural heritage that allow us to move towards finding new ways of defining what is valuable culture, and what is not.

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