An Approach to the Ethics of Archaeogaming

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Video games are one of the latest incarnations of humanity’s long history of creating virtual worlds. Whether the virtual worlds are the Caves of Lascaux or the play-world of Hadrian’s Villa, one of our defining traits is its ability to construct worlds removed from the everyday. What is perhaps unique about contemporary virtual worlds is their accessibility: the virtual world I create can be shared with you; both of us can enjoy/explore/engage with that virtual world together; we can be changed by that virtual world. Andrew Reinhard (2018, 2013) has outlined the many different ways archaeology can be understood in relation to video games under the rubric ‘archaeogaming’; the *SAA Archaeological Record* devoted two issues to archaeogaming in 2016 and 2017 (16.5, 17.2). Meghan Dennis has listed the many ethical issues that may emerge in the archaeological study of video games, drawing particular attention to the parallels with ethnographic work (Dennis, 2016; aspects of Dennis' PhD work on the ethics of archaeogaming may be found at [http://archaeoethics.com/](http://archaeoethics.com/)). In this contribution, I want to think about the *procedural* aspects of video games - the algorithmic recipes that create content in the game world, and which govern one's interaction with that world - via an autoethnography of play, to explore some of the ethical dimensions.

Archaeology and video games share a number of affinities, not least of which is that they are both procedurally generated. Just as games use algorithmic procedures to set up the world and to govern the range of interactions within that world, that is to say, the ways of knowing how the
world works, there is a procedural method for field archaeology. Follow the method, follow the procedures, and you will have correctly excavated the site/surveyed the landscape/recorded the standing remains/and so on, and will have a system for understanding the possible meanings of that material. These procedures contain within them various ways of looking at the world, and emphasize certain kinds of values over others, which is why it is possible to have for instance a marxist archaeology, or a gendered archaeology.

Dennis states that video games 'are viable spaces in which to study material culture, recognizing that created cultures are the inherited product of cultural influences from within our own "real" world.' (2016, p. 29). The starting point for Dennis' ethics of video games is with the people who make games, and the people who create games. We have to approach and treat these communities in the same way we would any community in whose territory or on whose culture we wish to work. When we are immersed in a game, and participating in its world, we have to make ethical and moral decisions about how we shall behave, both towards the other humans in the game, and towards the other non-human actors. The decision is not trivial, for the game reacts to our decisions and will have an impact on how we experience that world.

The starting point in a discussion of the digital ethics within video games insofar as they intersect with archaeological ethics is often the depiction of ‘looting’ as a game mechanic. Looting happens in a variety of games as a way of enabling the player to improve his or her character’s abilities by the performance of an otherwise meaningless task in the game environment, typically by destroying some in-game asset. In games that explicitly frame their narrative in a way that intersects with cultural heritage, this looting is demonstrably archaeological looting, in that the objects collected represent the actual material culture of an in-game culture (or more commonly,
uses a ‘real-world’ object as the model for the in-game object). Will we play as archaeologists, and so decline to loot? If so, parts of the game will remain locked to us. If we choose to loot, do we 'condone the practice overall? Is it a tacit encouragement to loot outside of the in-game scenario? Is it, even, perhaps a violation of the ethical codes of professional archaeological societies?’ (Dennis 2016, p. 31). Ian Bogost (2007) teaches us that to perform the actions in a game is to perform the procedural rhetoric of the game. That is to say, we internalize the ways the world is represented to us in the game in order to play well. Games that use a looting mechanic thus teach the public to devalue and destroy information. I know of no study that draws a direct connection between looting in a game and a player going out to an archaeological site and digging something up but the effect of this performance of the game mechanic is likely more subtle. Mike Caulfield, writing about political polarization as it plays out across social media, draws on Baudrillard’s thoughts on the hyperreal, where information itself is experience. Caulfield argues in the context of the digital data that surrounds us that ‘digital experience frames non-digital experience’ (Caulfield 2018), that what we encounter in terms of information becomes our experience and so is more meaningful than mere beliefs or knowledge. By this light, to be exposed to looting as an unremarkable but necessary action in a game would become the experience of looting in the real-world for the player even if the player has never physically looted anything. Looting is nothing to be bothered about, in their experience.

Let us change perspective for a moment, and consider this looting mechanic in its context within the game, and in relationship to the player's own ability to make choices there. In what follows, I am influenced by the work of Miguel Sicart (2009), who draws attention to two extremely important aspects that seem obvious but are actually rather subtle:
1 - that the player is an ethical agent in the world

2 - that the game is both a designed object and a player experience in this world, and hence ethical.

In which case, ‘the experience of a computer game is the experience of a moral object by an ethical subject’ (p. 5). For Sicart, the player is an ethical creature and can make moral judgements about the experience within which they are immersed (p. 11). While a game that depicts unlawful acts - like looting - under a virtues-ethics perspective would be unethical, Sicart reminds us that this does not take into account the player-agent’s ability, within the game, to reflect on this or indeed, to play in a manner that subverts it. A game that permits looting but also allows for such an act to have meaningful game play consequences (whether negative or positive) for the player to act upon would be ethical, per Sicart (p. 160). A game that permits looting, but has no meaningful consequences, is unethical (p. 159). Sicart uses the example of Bioshock (2k Games, 2007) and the Little Sisters characters. Bioshock takes place in an alternative 1960, where an underwater city called ‘Rapture’, created by a business tycoon to be a utopia in the 1940s, has entered a deadly decline. This apocalypse was precipitated by the discovery of a genetic material called ‘ADAM’, which could create superhuman powers in those who ingested it. ADAM is cultivated from a kind of sea-slug, which must be incubated in a human host. These hosts are orphaned girls called ‘Little Sisters’. The player-protagonist needs this material to survive the game. But how to obtain it?
Kill the Little Sister, and the player collects a certain amount of ADAM from the corpse (n.b. a looting mechanic); let the Little Sister live, and the Little Sister gives the player very nearly the same amount of ADAM anyway. There is no in-game consequence, and for Sicart, this means that the game design is being unethical (p. 160). Another example that is perhaps a bit more archaeological can be drawn from any of the recent editions of the Lara Croft / Tomb Raider franchise. In my own playing of *Rise of the Tomb Raider* (Square Enix, 2016), the looting has no particularly meaningful effect on game play at all. Some 'relics' will reveal more of the back-story, and some will upgrade a particular 'skill' that Lara can use, but again there is no meaningful in-game consequence. ‘A good computer game is that which fosters virtuous players, a game designed to create player-subjects who can understand and develop their ethical values, and where those values can be reflected.’ (Sicart 2009, p. 126). A game that features looting as a mechanic, from an archaeological perspective therefore, would be ethical if the consequences of that decision to loot gave the player a meaningful opportunity to decide whether or not to do so. It need not explicitly make the equation that *looting = bad*; but the consequences have to be meaningful within the ludic narrative of the game so that the player can reflect on those consequences.

The second part of Sicart’s ethics is drawn from informational ethics (as he interprets the body of work of Floridi and Sanders, who are philosophers and ethicists with the Information Ethics Group at the University of Oxford). In this perspective, beings are data entities. Not all beings are biological. The materiality of a pawn in a game of chess is not what is important; rather its importance lies within its relational situation on the board and the contingent interplay of that situation within the rules for movement for pawns (Sicart 2009, p. 246, citing Floridi 2003). Data entities make meaning, or have meaning, in terms of their relationships with other
data entities. Thus, data entities exist in an ecology of relationships - what Floridi calls the Infosphere. The practical import of this is to extend agency to the game, or to objects within the game, and to situate them at the same level as the player agent. What constitutes an ‘agent’ in this perspective depends on how the Infosphere is abstracted (Sicart 2009, p. 128–130; see also Morgan 2009 where she argues that non-player characters are non-human manifestations of a network of computation).

Sicart writes,

‘Information ethics describes a moral universe in which not only is no being alone, but every being is indeed morally related to other beings, because in their well-being is connected the welfare of the whole system. Agents are systems that affect larger systems with their actions, affecting themselves as well, since other systems are procedurally and informationally related to them… Information ethics considers moral actions an information process’. (2009, p. 130). (emphasis in the original).

The point of considering the ethics of games from this information ethics perspective is to explore an issue - like looting, for instance - and to situate it within the the web of interrelated elements and agents to develop a weighted network. The formal tools of network analysis provide a method for mapping out such a network, and to analyze how information could flow over a network where the connections between nodes in the network have different weights (or strengths or flow). While Sicart here does not mean an actual formal network-analytic approach to measuring things like a node’s position to influence disparate parts within such a representation (he is more metaphorical than formal here), we could in fact do so. Mapping the Infosphere as a network, and analyzing it with the formal methods of network analysis could be a way of
operationalizing our ethical analysis of games. The locus of ethical responsibility within a game (whether it is with the player, the designers, the labor system, the market, the player community structure, the non-player characters, or what have you) could be read from this weighted network.

Let us return for a moment to the moral agency of the player. Sicart points out games and their narrative layer, their ludic layer, can be damaging to a player’s virtue when the player is not sufficiently mature (2009 p. 201). That is to say, if we play games for which our own moral compass is not yet completely formed or developed, then these games can be a source of harm for the player, outside of the game. The ethical obligation in this perspective would rest on the game designer to create games where the ethical choices in the game have meaningful consequences. Then we as ethical agents ourselves can play the game to explore and probe the limits of our own ethical understandings (p. 205). For archaeology, this means that our codes of archaeological ethics can be operationalized within the processes of a game, made real and consequent, and testable in the sense that a player can begin to explore the consequences. Are our archaeological ethics deontological, rule-bound and duty-bound, and not necessarily meaningful for us as individual archaeologists? In which case, how do these intersect with the ethics of games as Sicart imagines them? A game could be a safe space to explore this contrast.

This I think is one of the main avenues for exploration in the nascent area of archaeogaming. We should actually be making games that embody our codes of archaeological ethics (see for instance the work of Copplestone, 2017, who argues that we need to do this in co-operation with professional game designers). On the other hand when we play games as archaeologists (when we are consciously thinking as an archaeologists and using the morals and ethics of our profes-
sion) we should therefore be reflecting on what the game as a designed space is doing to how we think about the world.

A Playthrough of *Minecraft* as an Archaeologist

In what follows, I recount a playthrough (that is, a telling of one experience in the game) of *Minecraft* (Mojang, 2011), where I am trying to behave as ‘archaeologically’ and ethically as I can. *Minecraft* is a game where the universe is generated procedurally from rules that determine the formation of the landscape. The game starts, and a world replete with resources unfolds before the player. While the player is in a game, their actions affect the game into the future (dig a hole, and it will still be there the next time you play in that world). Gameplay involves building (much like with LEGO blocks), combining blocks of different kinds to make new materials and tools, and building shelters to ward off the monsters that emerge in the night. If players harvest a tree for the wood, that tree is destroyed; if they dig the ground for stone, a pit remains. The game also has a ‘creative mode’ where the monsters are turned off and all materials are available without first having to be crafted from simpler materials. The ostensible aim of the game is survival, but exploration and creativity are major motivations for game play (especially when not playing in survival mode).

After describing the playthrough, I follow up with some more questions about where an ethically informed ‘archaeogaming’ might usefully proceed. When I write about video games, I am the player-subject I know best. What is the web of weighted relationships in the games that I play most often? Are they ethical games? Am I an ethical player?

Roger Travis has argued that the playing of video games bears deep affinities to epic oral tradition, that through play and reporting on what happened, we enter into a bardic mode of mak-
ing meaning from the set pieces and action of games (Travis 2013). Note that this is very similar to how Sicart defines the ethical player: one who has a mature reflection on the nature of the game; the moral presence of a player matters (Sicart 2009, 201–2). For Travis, how those set pieces are encountered, in what order, and in what circumstances, are defined by the game’s mechanics and story - that is, its rules. The rules of a game encode the worldview of the game’s designers. You’re good at the game? You’re performing the worldview of the game’s creators (note again the way Bioshock plays with this at the end of that game). What’s interesting is the way the player’s moral compass, and her agency in the game intersects with those rules, and merges with the player’s own story, the story the player tells to make sense of the action within the world.

Play is the act of discovery. The story we tell about that play sits at the intersection between the player’s own agency, and the god-like agency of the game’s creators to specify the rules. What happens at this intersection is emergent, and if we examine that point, we will understand something of what it means to explore a game ethically; and to see that some ethical points of view are hard-coded and cannot be challenged.

Imagine then that Minecraft is a real place. After all, if I tell you that the ‘seed’ (the starting value from which the computer's random number generator will generate all subsequent calculations are made) I used in Minecraft version 1.64 was Double Village with default biomes, you can pass that same information to your copy of the game, and it will generate the exact same place that I visit, a parallel world in a multiverse that has suffered my interventions, but as of yet, not yours (see the end of this section for detailed instructions on how to visit the ‘Double Village’ world). What story shall you tell? Here is mine, where I have played as an archaeologist. (I ini-
tially told it in a series of tweets posted to my blog (https://electricarchaeology.ca/2015/03/24/somewhere-in-the-desert-a-temple/), and so added another layer of performance to the game).

The texts all say the same thing. Set the portal to ‘Double Village’ and soon you’ll find the exotic and lost desert villages. I put on the archaeotrancerebretron, grabbed my kit bag, and gritted my teeth. My companions all had theirs on too. We stepped into the charmed circle...

...desert sand gives way to a compacted sedimentary stone. Is it natural? Or is it built? I had to stop myself & remember my training.

...The next day we found the village. Much of it was above ground, including what looks to be the tower of a temple. We arrived on what appeared to be a market day. The locals go about their business, unconcerned about the ruined temple in their midst. No one stops us; but no one helps us either. Our ways are as alien to them as theirs to us; so long as they don't get in way of Scientific Exploration!

I allowed myself some poetic license, describing my transition from this world to the world of Minecraft. The ‘Double Village’ seed is well known to players of Minecraft as a way of generating a particular world where one of the villages is placed not precisely on the surface, but someway below - a glitch, in fact (player communities keep lists of interesting seeds, and a few minutes searching the web will produce lists of seeds for the game’s every version and platform). I generated this world, entered it, and found the village with its dominating temple (see Fig. 1, an
in-game view of the village). I considered the temple, and began trying to record stratigraphically what I observed while I dug (Fig. 2). The different kinds of blocks do help differentiate context – sand fill is quite different from the sandstone blocks the temple was built with. Unfortunately, sandstone is also part of the geology of Minecraft, and typically happens around 3 or 4 blocks down from the surface in this biome. It became difficult to figure out where the temple ended and the local geology began. Since the temple is of a common ‘type’ in Minecraft (while the environment is procedurally generated and varied, the generated architecture conforms to a limited number of ideal-types), and I was already familiar with it, I could just dig to exhume what I already believed to be there already: my ideas about the architecture of the place dictated what I would find. The act of excavation creates the archaeology in more ways than one, it seems.

As I dug, the sand shifted underneath me & I stumbled into the tower, breaking part of its friable decoration. "What do you see?" ".... beautiful things!" I replied

Shortly thereafter, an armed skeleton began firing arrows at me. But – in this world with no ‘rules’, no overarching ‘story’, deciding to go on an archaeological expedition forces a story on us. Temples in Minecraft invariable contain ‘loot’, with booby-traps and revenants protecting it. Here, the influence of pulp fiction (and in particular, Indiana Jones) is clearly evident (the archaeologist-as-tomb-raider trope litters video games, e.g., Reinhard and Meyers 2015, Meyers 2011, Breger 2008). The rules of interaction force me - an archaeologist trying to perform a facsimile of reasonable archaeological investigation - into the trope whether I liked it or not. Killing the skeleton and looting the temple makes no meaningful difference in the story of the
game, insofar as it gave me new materials to work with and to construct my own story. Given the Indiana Jones vibe, the moral action here is to kill the skeleton and obtain the material. After all, as Jones shouts at his nemesis at the start of *Raiders of the Lost Ark*, “it belongs in a museum!”

It’s impossible, without seriously modifying the game, to excavate in anything other than a brute-force manner. While the non-player characters (NPCs) will gather ‘round to watch me work, they communicate with each other in unintelligible murmurs. As night falls, they respond to their own instincts and return to the village. They are Other. The information ethics that Sicart describes means that their agency within the game is as important as my own, and yet, my interaction with the NPCs, and the crude excavation tools that *Minecraft* gives me, pushes me towards a 19th century frame of mind, a colonialist discourse of ignoring as less important anyone who doesn’t look like me (one wonders at the consequence of this in other games, and in the wider demographics of game players). The archaeologist-as-better-class-of-looter trope seems to emerge naturally out of my interaction with the game mechanics.

*Truly surprising. As night fell, gunshots rang out over this sleepy village on the desert’s edge. We set out to investigate. The villagers were congregated in a single home, discussing amongst themselves. 'Let us in!' we cried. We forced the door. Their conversation and shouts stopped. We all stared. The door was broken.*

The NPCs, responding to their own desires and needs, gather together inside a building to protect themselves against the game’s monsters, which come out at night and against whom they have no other defence. My desire to wander amongst them and my clumsiness at working the
controls meant that I broke down the door. My decision to intrude - an ethical decision - has meaningful consequences for the other data entities in this game.

'Back, men, to the camp!' And we abandoned them to their fate.

From above, I watched the zombies and creepers and who knows what else hunt each NPC down and kill them.

Throughout the night, we heard their cries. Part of the men wanted to go help, the others huddled together in fear. As the sun rose upon my reentry to the village, I found no traces. It was as if the villagers had never existed.

My one attempt to engage the locals led to their annihilation. I invite the reader to play Minecraft, seed a world with ‘Double Village’, and compare their experience to my own, and reflect on the ethical aspect of playing-while-being an archaeologist.

The ‘Double Village’ seed works only with version 1.6.4 of the game. The player can select this version of the game from the Minecraft Launcher. Select ‘single player’ > ‘create new world’ > ‘more world options’ and enter the words ‘Double Village’ (without the quotes) in the ‘Seed for the World Generator’ box. Both words must be capitalized. Do not change any other settings. Select ‘create new world’. The player will be spawned (i.e., started at) a point a few simulated metres away from the desert village described above. Collections of interesting seeds can be found easily enough by searching online for ‘minecraft seeds’. Note that seeds are depen-
dent on a particular version of *Minecraft* - Double Village produces nothing of interest in version 1.7, for instance. Since *Minecraft* is procedurally generated, the string of characters used as a seed becomes the starting point for the random calculations used to generate the world. Hence ‘seeds’ become key to creating replicable experiences in an otherwise uniquely created world.

**Provocations START**

I will close with a list of provocations on the ethics of video games constructed or explored by archaeologists, couched in the in-game experience. I will offer no answers, but rather try to frame what I see as some of the more provocative ideas that are emerging around the idea of archaeogaming. If there is anything that truly defines archaeogaming, then it must be the act of playing where the player’s ethical being is situated in the professional ethics of archaeology. Games do not have ‘ethics’ on their own, but their ethical nature emerges at the intersection of play and design. I expect to be wrong, to be challenged, and to be overcome. This, too, is in the nature of playing games: games challenge us, and provoke us, because they enhance or alter our abilities to inhabit another space, which is all the more reason to consider them ethically.

**Provocation 1: Video games are built environments and thereby invite archaeological study.**

*In which case professional archaeological ethics should apply.*

If video games are built places, and we are *thinking like an archaeologist* (as per Sicart’s ethically-informed player), then we have to treat them as we would any other site. Given that games are a designed experience and that they are part of an informational ethics, we also have to treat other data entities with the respect that our archaeological ethics accord them. How did my play described above conform to accepted ethical practice? How did it break it? What are the implications? Every play through is unique, but the *starting conditions* can be replicated, which
opens up the possibility for lab-based experimental and computational archaeology in this context.

**Provocation 2: Games about the past/material culture exist in the world and draw their associations from the past and material culture of this world and so are entangled in the ethics of this world.**

When a game draws on the artwork or the cultural heritage of a people in the ‘real-world’, there is an ethical obligation to consider how this material is being used, and the affordances this material has within the game. An example of where the material culture and intangible culture of a people was considered and integrated in a collaborative manner from the outset is in the game *Never Alone* (CITC, 2017). Such productive collaborations remain rare unfortunately. More common is the use of indigenous peoples' material culture as ciphers for a looting mechanic (see for instance the ‘arte-factual’ series of blog posts by ‘Kelly M’, [https://tombraiderhorizons.com/category/arte-factual/](https://tombraiderhorizons.com/category/arte-factual/)). In which case, the designers have an ethical obligation to consider how their instantiation of a looting mechanic has meaningful consequences in the game and for the people whose real world material culture is now being looted - digitally - again. I invite the reader to consider the outputs of the 2018 Symposium for Indigenous New Media, held as part of the Digital Humanities Summer Institute at the University of Victoria, Canada ([https://indigenousnewmedia.wordpress.com/](https://indigenousnewmedia.wordpress.com/)) and David Gaertner’s compilation document from the Symposium on Best Practices for Approaching Indigenous New Media ([https://novelalliances.com/2018/11/26/best-practices-for-approaching-indigenous-new-media/](https://novelalliances.com/2018/11/26/best-practices-for-approaching-indigenous-new-media/)).

**Provocation 3: the ethics of making games are the ethics of labour, and power, and control.**
The components that go into our consumer electronics that make game playing possible are at the end of a long chain of exploitation, social and environmental damage (see for instance Crawford and Joler 2018). One need only think about the illegal and dangerous mining of rare earths in central Africa, the profits from which continue to support and prolong civil war and violence. Archaeologically, we can think of so-called ‘subsistence’ looting in war-torn or unstable nations, whose activities are at the ill-paid sharp end of a network of middlemen ending in the comfortable salons of New York or London - and we are reminded of the ‘gold farmers’ of massively multi-player online games (low-paid individuals who ‘grind’ player-characters through repetitive tasks so that the player-character can be re-sold as a high-status or high-powered avatar to a Western customer). Closer to home (as I write as a white, middle-aged Canadian, academic male comfortably ensconced in an ivory tower), labour laws permit exemption to the number of hours of work per week in the special case of ‘information work’ (Ontario, 2014). If you make video games in Ontario, you can be made to work as many hours in a day as your employer desires. Given this, should we, as ethically informed archaeologists, make games or play games at all? Do we play games that are made only under equitable labour laws? Do we play games made by teams that are unbalanced in their demographic make up? How do these conditions of exploitation and control of workers and resources square with our ethical codes of practice?

**Provocation 4: Performance and adherence to the rules of the game are an act of submission**

Urrichio (2005) and Bogost (2007) convincingly argue that the mechanics and rules of a game can be thought of as the historiography of the game, the argument itself about the past that gets performed by playing a game. If we play games *not* as ethically informed archaeologists, if
we do not write about games or critique games from an archaeological perspective, we are submitting to the power of the game publisher and the game maker to set the terms of reference about the past. That is, we might be complicit in glamorizing looting, and of validating pseudo-histories, false-histories, and the agendas contained therein.

**My final provocation: Ultimately, the ethics of archaeogaming are the ethics of digital public archaeology.**

To conclude, the *most* ethical act we can perform as archaeologists confronting video games is to mod (modify) them. Modding is an act of resistance. Very few of us have the skills, time, or safety to build and release a game from scratch. But we can use the tools of the commercial games themselves to literally reprogram their message (see for instance Majewski 2017), to add that ethical dimension of meaningful consequences, to confront games not just as designed objects but rather as a shared experience that can be ameliorated. The locus for this resistance is in the fan forums. We *can* and *must* be active in fan forums, Reddit threads, Twitch streams, YouTube ‘let’s play’ videos, blogs, journals, conferences, and teaching.

**References**


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**Captions:**

Figure 1: An in-game view of the first village encountered in the world generated in *Minecraft* 1.6.4 using the Double Village seed.

Figure 2: An in-game view of the buried temple in the first village encountered in the world generated in *Minecraft* 1.6.4 using the Double Village seed. In this view, excavation has commenced in a section against the temple tower wall.

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