

Ana Gavrilović, KSA, Belgrade

LEVEL UP WITH ARCHAEOGAMING

Abstract: Digital spaces have occupied every domain of human life: no matter if you are working, communicating, learning, or just having fun, now you are (mostly) going to do it digitally. Triggered by the most famous archaeologist such as Indiana Jones and Lara Croft that yield from the creative industries and gained popularity throughout the Internet, scholars have begun to explore reciprocal effects between popular culture and its perception. Born out of it was – Archaeogaming focusing on (re)examining the relationship between the presentation and perception of archaeological field and research work, as well as ways of transferring knowledge about archeology and/or past to the general and non-professional public through creative industry products such as videogames, but also movies, series, comics, etc. Because of the immersive and highly engaging role anyone has while playing video games, they can be (ab)used for learning and I will tend to provide an overview of previous knowledge and research phenomena that have been processed in the framework of archaeogaming.

Keywords: archaeogaming, video games, archaeology, education, (re)interpreting past

INTRODUCTION

Living in the cyber-era of the 21st century made digital space recognized as a specific field of research in many aspects of human behavior including past and cultural heritage. Everyday consumption of information in various media forms made a massive impact on how we view, define, and behave both in the virtual and real worlds. Lots of scholars¹ have devoted their research time to exploring the relation(ship) between those arguing that digital worlds (even fictional) are based on the principles and elements of the real world and how much virtual worlds are inseparable from our reality. It became deadly obvious during the pandemic outbreak of Covid-19 when digital space became our one and only space for interaction and with it became our reality. In the domain of social sciences virtual worlds have been a discussion since the '80's but questions about how those spaces are utilized for exploring past and cultural heritage have been a hot topic over the last decade.

¹ Like Champion 2004; Champion 2011; Champion 2015; Copplestone 2014; Gardner 2012; Graham 2014; Meiers Emeri & Reinhard 2016; Mol 2014; Morgan 2009; Morgan 2016; Reinhard 2015 and many more.

Past and the future, as only sequences of time that are transformable, makes the ideal timeframe's for most, dare I say all, video games, and any/all other forms of popular culture. Constant human infatuation with the past combined with the immersive role in videogames makes archaeology and history passively and actively involved in the gaming industry and popular culture, which is evident in video games based on wars that are highly popular. The gaming industry in 2020. generated around \$155² billion in revenue and analytics predicts that the industry will generate more than \$260 billion in revenue by 2025 with approximately 2.77 billion people around the world playing video games.³ The aim of this paper is to present the basics of archaeogaming as a new field derived from the domain of public archaeology and popular culture. This fast-growing field already has, different schools of thought (Leiden and York) about the topic in question and will be discussed further on. Case studies that will be presented are a sample of my own choosing, based on previous gaming experience combined with the results from other scholars and the games in focus will be *Assassin's Creed* (Unity and Odessey), *World of Warcraft*, *Minecraft*, and *Diggy's adventure* but others will be mentioned and through them addressing the potential of video games in preservation and education of and about cultural heritage.

WHAT WAS AND WHAT IS ARCHAEOGAMING?

Even though this is a new field, there are two strong, different yet compatible streams of thinking about the concept of archaeology and video games. Both rooted in personal affection towards popular culture, but one of the first attempts, in this case, has been a survey conducted by students at Humboldt University in Berlin. Questioning how and to what extent the most famous archaeologists like Indiana Jones and Lara Croft contribute to (or/and harm) the idea of archaeology within the broad public.⁴ Even though characters like those depict archaeologists as pure adrenaline adventurers who are searching and collecting the most intriguing artifacts/relics, we cannot deny that these products of popular culture made many kids dream about becoming an archaeologist and many of them did. Topics like those that derived from the popular culture just made it more obvious how much archaeology and past narratives are incorporated in video games. In 2018, archaeogaming, was defined in Andrew Reinhard's book "Archaeogaming - An Introduction of archaeology in and of Videogames". The author himself says that it is not a handbook⁵ for the archaeological (frame)work with(in) videogames, but it was a first step in making deleie of this field. ⁶ And the general concept he presented is that games can be researched, in or extra game in the sense that synthetic worlds should be asserted as much as the material world is. Reinhard also divides this concept into five subjects:

² <https://www.statista.com/statistics/292056/video-game-market-value-worldwide/>, accessed on 28.02.2022.

³ Hanussek 2019a, 145.

⁴ Reinhard 2018, 13.

⁵ It should be noted that videogames in terms of research methodology are mostly based on autoethnographic experience since there is no other way, still.

⁶ Reinhard 2018, 2; Hanussek 2019a, 145.

- Archaeogaming as a study of game containers and their socio-cultural context. This truly aligns with the nature of the archaeological record: garbage. Since the dawn of time humans have made and depositing objects for us to find and research, some even (tens of) thousands of years and yet the question is why we have hesitated so long to research our present or near past in a way we methodologically research any settlement in prehistory. The “garbage project” Was one of the first attempts of this kind and gave Reinhard the idea to excavate one game burial site in Mexico. In 1983 the video game developer Atari allegedly disposed of millions of cartridges of the game *ET: The Extra-Terrestrial* because of the video game crash and economic crises in the videogame industry during the early 80s. And because this event was vaguely documented by a few Newspapers in 2014. Andrew Reinhard, Bill Caraher, and Richard Rothaus were called to co-supervise this dig in order “to help control the narrative or at least introduce an archaeological one”⁷ which implies the traditional framework consisting of formulating a strategy for research, collecting, and recording evidence, processing, and analyzing them with the last step – publication of results.⁸
- Archaeogaming as a study of archaeology within games focusing on games, game developers and players regarding both projection, and perception of archaeology.
- Archaeogaming as an application of archaeological methods to synthetic space - and to a conventional archaeologist may seem as a paradoxical approach as it treats each video game as both site and artefact.⁹ But this way of approach tries to plan projects, survey, excavate, document, analyze, and publish sites and objects from the in-game space in an archaeological nature and methodology.
- Archaeogaming as an approach for comprehending the influence of game design on its players and
- Archaeogaming as the archeology of game mechanics and the entanglement of the code with players.¹⁰

Another stream of thinking about video games and archaeology with the concept the Interactive past comes from the group of scholars from Leiden University that gathered under the name of VALUE (Videogames and Archaeology at Leiden University) Foundation.¹¹ Their goal is to transport the past into the present using this medium arguing that:” Participation and demonstration are such priceless ingredients of interpretation that we should diligently search for possibilities and never let slip a real opportunity for including them”.¹² Their work is primarily based on working with the public organizing workshops, seminars, and conferences, but mostly using other digital spaces like blogs, vlogs, and Twitch with enormous engagement on Twitter and Discord.

Video games could prove to be a fertile environment for archaeological theory testing, for instance into human interaction with space or exchange networks,¹³ but as

⁷ Reinhard 2018, 27.

⁸ Hanussek 2019a, 148.

⁹ Reinhard 2018, 3; Hanussek 2019a, 147.

¹⁰ Reinhard 2018, 3.

¹¹ Mol et. all 2017, 10.

¹² Tilden 1977, 76.

¹³ Mol 2014, 161.

much as the concept of archaeogaming seems exciting there is a long way to fully translate the archaeological methodology framework and adapt into synthetic worlds.¹⁴

STUDY CASES

It is important to note that while the vast majority of games are made with the sole purpose to have fun, others are made as learning tools for both formal and informal education. One of my personal favorites is *Making a Mummy*¹⁵ developed and released by the University of Chicago, with the intent to complete the process of mummifying a body hence learning about the immense importance of treating deceased ones in Egypt. Case studies have been chosen from the basket of conventional games (those made for fun) since they host more players and it makes it easier to test and explore how much effect popular culture does have when it comes the perception of archaeology and cultural heritage.

WORLD-CREATING GAMES

World-creating or spatial games such as *Minecraft*,¹⁶ that has been released in 2011. by Mojang Studio, have been used as tools in archaeological and heritage outreach across the globe. If you were/are a major fan of LEGO, then you are in for a treat. The possibility to create whatever you can imagine from pixelated blocks of varied materials is one of the reasons why this game had 141 million active players monthly.¹⁷ There are two basic modes of the game: survival where the player is thrown to a randomly generated map with a simple goal to survive, and creative where you have limitless access to any material in the game.

The VALUE group has explored the possibilities for archaeological reconstruction by running crowd-sourced events aimed at rebuilding the destroyed Temple of Bel in Palmyra, Syria.¹⁸ Another project by this group was called *RoMinecraft*¹⁹ with the intent to raise awareness of existing and/or lost Roman heritage sites in the Netherlands. As another, yet different interesting example I want to discuss and an interesting work that took place in 2020. with high school students from Belgrade (Serbia) Techno art school. Second-year students had an assignment to (re)create medieval Serbian monasteries and to make both a physical model and its version in the game (with the bonus of recreating the surrounding landscape in the game).²⁰ Based on their own engagement some have done highly deleted re-presentation of both inside and outside of these monuments

¹⁴ Hanussek 2019a, 152.

¹⁵ <http://oi-archive.uchicago.edu/OI/MUS/ED/mummy.html> assessed on 25.02.2022.

¹⁶ <https://www.minecraft.net/en-us> assessed on 28.02.2022.

¹⁷ <https://techacake.com/how-many-people-play-minecraft/> assessed on 28.02.2022.

¹⁸ Mol et al 2017, 8.

¹⁹ Politopoulos, Mol 2021, 88-89.

²⁰ Technoart Art History (*Tehnoart Istorija Umetnosti*), Facebook, assessed on 01.03.2022. <https://www.facebook.com/media/set/?set=a.1533135973520965&type=3>

throughout 10 projects.²¹ Also, these types of games where you can build the entire world have been used as platforms for experimental archaeology. Collen Morgan (2009) rebuilt Çatalhöyük in *Second life* to test the effects of smoke on living conditions through the reconstruction of numerous ovens found at the site.²² This could be a hint for both archaeologists and educators to further explore using these types of games when communicating cultural heritage as well as the nature of the archaeological record.

ASSASSIN'S CREED

The Assassin's Creed (AC) series is one of the most popular action-adventure stealth games with an open-world narrative made by Ubisoft. Since the first release in 2007 and with the latest main series *Valhalla* released in 2020, this franchise counts 21 games all placed at various times in the past (from the ancient Greece to the American revolution). Backstory revolves around two ancient secret societies, the Assassins and the Templars who fight for the ancient artifacts that can override free will to control the people. There is evident potential for exploring archaeogaming questions through AC and it would take years to game, think, and dig thru the series to write a comprehensive analysis. One of the main series that has been thoroughly examined is *AC Odessey* which takes you back to ancient Greece and the Peloponnesian war (431 to 422 BC) between Athens and Sparta. Using problematic historical sources²³ for game lore, architecture and many more things does not really align with what we know from the domain of archaeology and (art) history. Some even went a little further and explored a factual and statistical overview of minorities that were implied in the game design of the Spartan and Athenian armies.²⁴

On the other hand, *AC Unity* revealed another potential in archaeogaming – digital preservation and representation of cultural heritage. The time and place of the action and mission were set in the 15th century in Paris, France during the French revolution. After the devastating burning of the Notre Dame Cathedral in 2019, it has come to the attention that one of the rare, and surprisingly very historically accurate 3D²⁵ models of this monument exists in the previously mentioned game. Shortly after this tragedy, Ubisoft gave free access to the *AC Unity* that made a great gesture to all (heritage and people) abeling us to interact (in a third-person perspective) with the smallest details of the cathedral. This way those who have seen it in real life and those who did not get a chance still had the same opportunity (and amount of time) to explore and witness the greatness of this monument. Protection and management of cultural heritage in video games have yet to overcome difficulties such as ownership rights and many more explored through the work and papers of B. Hanussek.²⁶

²¹ Dečani, Studenica, Gornjak (Ždrelo), Ozren, Vojlovica, Gračanica, Banjska, Gradac, Sopoćani, Mileševa and Žiča.

²² Mol et. all 2017, 10.

²³ Šiletić 2021, 11-12.

²⁴ Hanussek 2019a, 150.

²⁵ Mochoki 2021, 12.

²⁶ Hanussek 2019b, 7-10.

WORLD OF WARCRAFT

One of the largest MMORP (Massively Multiplayer Online Role Play Games) – World of Warcraft (WoW) takes place in the virtual world *Azeroth*, and games of this type are based on endless (open-end) narratives that involve progressing through a series of small tasks. Players can develop their characters throughout (Developing professions, trade, etc.).²⁷The game was created in 2004. and in about every two years original creators of Blizzard Entertainment introduced new expansions to players and with them new opportunities, worlds, and stories. After some internal struggle within the company WoW has taken a downfall in many aspects in and out of the game, but primarily losing a large group of active players.

The whole concept of archaeology as a secondary profession in the game was introduced by the expansion *Cataclysm* (2010) to tell (hi)story about different races from conflicted tabors of Horde and Alliance. Primary professions consist of those that make you able to collect resources and those who transform those resources into objects, and as you have the option to make multiple characters, you have a chance to create economic independence by maximizing your skills at every profession. Collecting professions are very much related to archaeology and even game developers state that by developing archaeology, collecting professions can be developed as well. While hunting for resources it is possible that players often do not fully engage with the environment of given dig sites. Since primary professions bring more benefits to the player, archaeology can therefore be viewed as a casual hobby (unless you dig with a sustained goal). Other than the sense of self-achievement archaeology in WoW gives you an opportunity to work/dig for rare items that can increase your social status or wealth within the game and a background story about the world. In the last expansion, *Shadowlands* archaeology does not exist anymore and most players have noticed how much archaeology could have (and has in the past) helped to expand the game narrative and enrich the (hi)story of *Shadowlands*. There are a million miles' of lengthy discussions between players on the importance of archaeology in the game and advocating why is it needed and pressuring developers bring it back. This could be a special moment in the history of gaming culture where players could have an impact in the digital worlds, but this was all before Microsoft bought Activision Blizzard.

During my time in high school, I attended the archaeological seminar in the Petnica science center where one year I did my research on the topic of the popularization of archaeology (2015) through WoW (not even imagining that it is a brand-new field on the rise). Apart from spending time in the game and documenting various parts and aspects of in-game cultural heritage, there was also a questionnaire survey (distributed on social media and within my guild groups) that was answered by 117 players from around the world. The most important questions in the survey were whether respondents think that real-life archeology and WoW archeology have something in common. Having such a small sample it is no wonder why more than half of the respondents believe that real-life archeology and WoW have no similarities.

²⁷ Gavrilović 2015, 220; Maleginnaki, Daradoumis 2017, 6.

DISCUSSION AND CLOSURE

Even though it looks like archaeogaming is torn between the imaginary and the real (worlds and/or archaeology) some authors like Bartle,²⁸ define the virtual simply not only as imaginary, but a place where the imaginary satisfies reality. That makes virtual pasts compelling, authentic, and bearable, but their experience takes place outside the traditional frameworks that produce and popularize knowledge of the past.²⁹

Besides the big commercial games that were previously discussed, I want to shed light on those a bit smaller and more user-friendly to play. *Diggy's adventure*³⁰ was created by the Pixel Federation (from Slovakia) in 2012. started as a Facebook video game only, but over the years they have not only extended on multiple platforms but also reached over 43 million players. Playing an archaeologist (Diggy) and following his father, you get to dig thru different (un)existing cultures and past narratives like Egypt, Scandinavia, China, Atlantis, Greece, New World, and Terra while solving various quests and puzzles. For instance, Egypt has 230 sites and, as the rest, they are divided and incorporated into different lore story chapters named by Gods (Isis, Bastet, Ptah, Horus, Thoth, Hathor, Anubis, Sobek, Maahes and Set). Even though it might seem that this is an easy game the developers made some frustrating puzzles and so much content which all resulted in a way that many people play this game daily, but are still so far from its end (you need one year to finish one region). You can maximize the efficiency of your camp (which generates your energy and creates storage for it) and personalize it from various objects you can collect and buy in the game (Abu Simbel in your camp – not a problem). Completing sites and repeating a task a million times gives you fragments of “treasures” that will end up in your Parthenon, which makes like a little in-game museum³¹ for all your achievements throughout the world. Going into the details of this game is far beyond the scope of this paper, but with the growing field of archaeogaming hopefully, someone will dig thru all Diggies adventures, but for now, I want to discuss one interesting aspect of the game and the use of cultural heritage. Exploring locations in Egypt you can see that most of the tombs are modeled and designed according to the archaeological record which is the result of having a consultant from the domain of cultural heritage (which was disclosed to me during a FB chat with the developers).

Apotheon, a platform released in 2015 by AlienTrap, is set in mythological ancient Greece, borrowing the design from the black figure pottery style (seventh–fifth century B.C.E.). This creates the impression that one is playing a character as portrayed on an ancient Greek vase while moving through different mythological scenarios. Despite several chronological and/or mythological inaccuracies, the developers have created a beautiful setting based on ancient material culture, bringing the enjoyment of this style to a wider audience in a unique way. These last two examples are the true testament to how the past makes us feel comfortable in any space but maximizing the visual effect of cultural heritage while neglecting

²⁸ Bartle 2003, 630.

²⁹ Champion 2015, 112.

³⁰ https://diggyadventure.fandom.com/wiki/Introduction_to_Diggy accessed on 02.03.2022.

³¹ In game museums are a common thing even though not all museums have accepted the use of video games as a tool in communicating with the public.

it in the narrative part can reduce the transfer of knowledge from game to players. Still, no matter how many games can take from archaeology and history for the purpose of gameplay,³² disciplines as such can use this medium for upgrading public outreach practices.

Crucial to the popularization of archeology in this way is the need for experts – archaeologists, to gain a better understanding of how to create and mediate the virtual past, which would lead to improving communication and knowledge of the past through virtual media. Hence merging the gaming industry with heritage studies could serve the purpose of meaningful and engaged learning about the past within the broad public. There is a long way until we reach that golden point, but for now, we must settle for the big commercial games or individual projects/games focused on game-based learning principles. While the first one (including movies and (comic)books) has created a distorted image about the nature of archaeology as a discipline, it does reach a very wide range of people with billions interacting. Games that are made as tools for learning are not that fun, but bland and usually made for a specific group depending on language, availability of platforms, and many more aspects which make an actual difference on a smaller group of individuals.

This new field can be just the beginning in the way we communicate past with the public, creating a paradigm state where the transmission of knowledge will be oriented towards both the public and academia itself.

³² Politopoulos, Mol 2021, 90.

BIBLIOGRAPHY

- Bartle 2003** - A. Bartle, *Designing Virtual Worlds*, New Riders publishing 2003.
- Champion 2015** – E. Champion, *Critical Gaming: Interactive History and Virtual Heritage*, Routledge 2015.
- Gavrilović 2015** – Lj. Gavrilović, Zanati u percepciji idealne stvarnosti: proizvodnja u Azerotu, *Традиционална естетска култура: занати*, 219-230. Ниш: Центар за истраживања САНУ и Универзитет у Нишу, 2015.
- Hanussek 2019a** - B. Hanussek, Archaeogaming: Applying Terrestrial Methodology on the Synthetic Play Space. *MISSA XX 2019*, 144-156.
- Hanussek 2019b** - B. Hanussek, Conducting Archaeogaming & Protecting Digital Heritage: Does the Future for Archaeology Lie in The Immaterial. *ISTE OpenScience 2019*. <http://www.openscience.fr/Conducting-Archaeogaming-Protecting-Digital-Heritage-Does-the-Future-for>
- Malegiannaki, Daradoumis 2017** - I. Malegiannaki, T. Daradoumis, Analyzing the educational design, use and effect of spatial games for cultural heritage: a Literature Review. *Computers & Education*, vol. 108, 2017, 1-10. doi: 10.1016/j.compedu.2017.01.007.
- Mochoki 2021** - M. Mochocki, Heritage Sites and Video-Games: Questions of Authenticity and Immersion, *Games and culture* vol.0: 1–27, 2021.
- Mol 2014** - A. Mol, Play/things and the Origins of Online Networks: Virtual Material Culture in Multiplayer Games. *Archaeological Review from Cambridge* 29 (2014) 144–166.
- Mol et. all 2017** – A. Mol, C. Ariese- Vondemeulebroucke, K. Boom and A. Politopoulos, Tutorial: An introduction to archaeology, heritage and video games in *The Interactive Past Archaeology, Heritage & Videogames*, Mol A, Ariese-Vondemeulebroucke C, Boom K and Politopoulos A. (ed.), Leiden 2017, 7-19.
- Politopoulos, Mol 2021** – A. Politopoulos, A. Mol, Video Games as Concepts and Experiences of the Past. In: Champion, E. M. (ed.) *Virtual Heritage: A Guide*. Pp. 81–92. London, 2021. DOI: <https://doi.org/10.5334/bck.h>.
- Reinhard 2018** – A. Reinhard, *Archaeogaming: An introduction to Archaeology in and of Video Games*, Oxford 2018.
- Šiletić 2021** - L. Šiletić, Antičko nasleđe u modernim medijima na primjeru videoigre “Assassin’s Creed: Odyssey”, *neobjavljen master rad, Univerzitet u Zagrebu 2021*.
- Tilden 1977** – F. Tilden, *Interpreting Heritage* (3rd ed.). Chapel Hill: University of North Carolina Press, 1977.
- Web pages:
- Diggy’s adventure** - https://diggysadventure.fandom.com/wiki/Introduction_to_Diggy accessed on 02.03.2022.
- Technoart Art History** (original: *Tehnoart Istorija Umetnosti*) - Facebook, accessed on 01.03.2022. <https://www.facebook.com/media/set/?set=a.1533135973520965&type=3>
- Making a Mummy** - University of Chicago, <http://oi-archive.uchicago.edu/OI/MUS/ED/mummy.html> assessed on 25.02.2022.
- Minecraft** - <https://www.minecraft.net/en-us> assessed on 28.02.2022.
- Statista** - <https://www.statista.com/statistics/292056/video-game-market-value-worldwide/> accessed on 28. 02.2022.
- Techaceke** - <https://techacake.com/how-many-people-play-minecraft/> assessed on 28.02.2022.

Rezime:

LEVELOVANJE UZ ARHEOGEJMING

Ključne reči: Arheogaming, (Re)Interpretacija prošlosti, edukacija, video igre

Arheogejming se, u svojim disciplinarnim počecima, fokusirao na (pre)ispitivanje odnosa između prikazivanja i percepcije arheološkog terenskog i istraživačkog rada, kao i načine prenosa znanja o arheologiji i/ili prošlosti, široj i ne-stručnoj javnosti kroz produkte kreativnih industrija kao što su video-igre, ali i filmovi, serije, stripovi itd. Fokus na video igrama istaknut je iz razloga što one poseduju najveći potencijal za interaktivnost čime omogućavaju lakše usvajanje znanja. Kroz već oformljenje različite škole mišljenja (Laiden i York) unutar ovog polja definisani su neki od potencijala i poteškoća korišćenja video-igara; koncept interaktivne prošlosti koji dolazi iz prve škole mišljenja fokusira se na poboljšavanje odnosa sa širom javnošću kroz ovaj medium, dok je druga struja više orijentisana ka teorijskim aspektima samih video-igara i digitalnih prostora u širem smislu. Kroz primere popularnih igara kao što su *Assassin's Creed (Unity i Odessey)*, *World of Warcraft*, *Minecraft* nastojali smo da prikazemo pozitivne i negativne rezultate koje video igre mogu imati na širu svest o prošlosti i kulturnom nasleđu, kao i da li i kako mogu biti korišćeni kao prostori za (re)prezentaciju i edukaciju. Ipak, smatramo da u domenima ovog polja treba posvetiti pažnju i onim igrama koje su manje kompleksne, a igraju se preko mobilnih telefona i/ili Facebook-a kao što je igra razvijena u našem neposrednom okruženju tj. u Slovačkoj, *Diggy's adventure*.

Ova nova oblast može biti samo početak u načinu na koji komuniciramo prošlost, stvarajući promenu u paradigmi u kojoj će prenošenje znanja biti orijentisano ka široj javnosti, ali i samoj akademskoj zajednici.