Interpreting *Dwarf Fortress*: Finitude, Absurdity, and Narrative

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Abstract: *This paper interprets the influential colony management simulator 'Dwarf Fortress' existentially, in terms of finitude, absurdity, and narrative. It applies Aarseth/Möring's proposed method of game interpretation, adopting their definition of 'cybermedia' as a generalized game ontology, then providing a specialized ontology of 'Dwarf Fortress' which describes its genre and salient gameplay features, incorporating Ian Bogost's concept of 'procedural rhetoric'. It then gives an existentialist interpretation of 'Dwarf Fortress' which centres on 'finitude', 'absurdity', and 'narrative', showing that 'Dwarf Fortress' is a game about the existential tensions involved in being human. We live knowing our lives and civilizations are finite, that there are radical limits on what we can know and do. There is no meaning inherent in the world, or in history, so it is up to us to create our own, and one of our most powerful ways of doing this is narrative.*

Keywords: Dwarf Fortress / Interpretation / Existentialism / Philosophy / Narrative

> The struggle itself toward the heights is enough to fill a man's heart.
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> - Albert Camus, *The Myth of Sisyphus*[1]

> Losing is fun!
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> - *Dwarf Fortress*[2]

On December 6th 2022, one of the most remarkable, influential, and notoriously inscrutable computer games of the 21st century was released on Steam, having been in continuous development since 2002. Tarn and Zach Adams' *Dwarf Fortress* is famed for being one of the most complex and detailed computer game simulations and has substantially influenced game design since its initial release, as freeware, in 2006. It has long been praised by game developers

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[1] Camus, A. *The Myth of Sisyphus*. Penguin Books. Middlesex. 1979. p. 111

[2] *Dwarf Fortress*. Created by Tarn and Zach Adams. Developed by Bay 12 Games. Published by Bay 12 Games and Kitfox Games. First public release 2006, Steam release 2022.

for its innovations in procedural generation, its depth, complexity, scale, and for blazing the trail for many other games. A recent article in *PC Gamer* collected many such responses, out of which a *Caves of Qud* developer surely speaks for many: "*Dwarf Fortress* is the most intricate simulation game ever made and one of the biggest influences on me […] Simulation depth, design tone, visual style. All extremely foundational for the genre. All imprinted on me and hundreds of other games"[3] which happen to include *Minecraft*, the best-selling computer game of all time, and *Terraria*, the tenth best-selling. *Dwarf Fortress* is even featured in New York's Museum of Modern Art.

But despite its considerable influence, *Dwarf Fortress* has not achieved mainstream popularity, a fact owing not only to its complexity, but the sheer difficulty involved even in learning how to play it, navigating its menu systems, numerous keyboard commands, many interweaving parts, and ASCII graphics. Many people give up on *Dwarf Fortress* quite quickly. The Steam version, however, is much more accessible to new players, featuring graphics, a tutorial, and expanded 'help' menus. Already, this seems to have assured that it will reach a wider audience: it immediately overtook *Call of Duty: Modern Warfare 2* to become the top-selling game on the platform and has since sold over 500,000 copies in total. Now, more people can experience what inspired so many game developers and garnered so much obsessive devotion from its fans over the years.

At this critical juncture in the history of a cultural artefact, it is fitting that game scholars pose interpretive questions of it anew. What is *Dwarf Fortress* about? What valid interpretations can

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[3] 'Tons of Game Developers are Praising *Dwarf Fortress* Today in Celebration of its Steam Launch.' Wes Fenlon. *PC Gamer*. September 6th, 2022. https://www.pcgamer.com/tons-of-game-developers-are-praising-dwarf-fortress-today-in-celebration-of-its-steam-launch/

we give of it? For a game famed for being difficult to understand and which never plays the same way twice, these are difficult questions. However, I contend that that there are distinct themes to be discerned from the general experience of playing *Dwarf Fortres*s, and they respond to the central question in existentialist philosophy: what does it mean to be human? My approach will involve applying the method of game interpretation suggested in Aarseth/Möring's *The Game Itself*. This will require making explicit the interpretation's underlying ontology, crafting a specialized sub-ontology of the specific game(s) to be analysed, then giving an interpretation grounded on this ontology, primarily drawn from playing the game itself. I will then draw on existentialist philosophy and characterize the themes of *Dwarf Fortress* in terms of 'finitude', 'absurdity', and 'narrative'. *Dwarf Fortress* can be interpreted as a game about three aspects of humanity's existential tensions which render our existence difficult and uncanny, but which must be confronted if we are to have full, happy, meaningful lives. These are, firstly, *finitude*: the fact that our existence in this world and our attempts to make sense of it have radical limits beyond our control, including our mortality. Second, what Camus called the '*absurd*' nature of our situation: the fact that we are creatures which desire meaning and order but live in a chaotic, meaningless world, and so we must create and decide our own meaning. Thirdly, how one of our most powerful tools for doing so is producing *narrative* and in so doing "personify random events so that they feel significant rather than a matter of chance."[4] *Dwarf Fortress*' importance for gaming extends beyond its influence on game design: it is revelatory of the existential drama of the human condition, our struggle to be civilized "in a world that is indifferent to our sufferings and deaf to our protests"[5] and be creatures of meaning in a meaningless world.

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[4] Jackson, G. 'Finding Myths and Meaning in the Lo-Fi World of Dwarf Fortress.' *The Washington Post.* December 6th, 2022. https://www.washingtonpost.com/video-games/reviews/dwarf-fortress-review/

[5] Simpson, D. *Internet Encyclopedia of Philosophy*. 'Albert Camus.' (IEP Camus in text) Accessed 26th October 2021. https://iep.utm.edu/camus/

Preliminary Remarks: Ontology and Interpretation

Before proceeding to my interpretation, I must clarify how I understand the task of interpreting computer games and lay out my approach. In *The Game Itself*, Aarseth and Möring make several prescriptions for interpreting computer games which seem to me entirely fair and reasonable. They take as foundational that "every game interpretation rests in a particular game ontology"[6], a prior understanding of the nature of the object of interpretation which guides the interpretation, which can be explicit or implicit, or well or poorly formed. Interpreting computer games, they argue, should involve making explicit the ontology upon which the interpretation rests, then specifying the ontology of the specific game(s) to be analysed as a subcategory of that ontology. This lays out a solid theoretical context in which the following interpretation can make sense, but the interpretation itself must be grounded in and derived from playing the actual game, respecting "the primacy of the praxis of gameplay as an interpretive process." (Aarseth/Möring 2020, n.p.) Their method rightly leaves open the possibility of multiple valid interpretations of a particular game.[7]

They also point out that the computer game interpreter should recognise the heterogeneity of the category of 'games' and the impossibility of an adequate formal definition of it, as Wittgenstein famously articulated in the *Philosophical Investigations*. There, he argued that

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[6] Aarseth, E and Möring, S. *The Game Itself: Towards a Hermeneutics of Computer Games*. In International Conference on the Foundations of Digital Games. September 15–18, 2020. Bugibba, Malta. ACM, New York, NY, USA. 8 pages. https://doi.org/10.1145/3402942. 3402978. N.p.

[7] For example, a completely different but perhaps also valid interpretation of *Dwarf Fortress* to mine is given in Fordyce, who interprets it as a 'laboratory' space in which players can conduct experiments about alternative economies. (Fordyce, R. 'Dwarf Fortress: Laboratory and Homestead.' *Games and Culture*. Vol. 13, Issue 1. January 2018.)

there are no commonalities between all things that we call games, only "a complicated network of similarities overlapping and criss-crossing: similarities in the large and the small"[8] - which also applies to the subcategory of 'computer games'. Accordingly, the interpreter should resist making general claims that would cover all (computer) games because, as Aarseth/Calleja put it, "the category of activities and objects that are productively called games evolves and expands in ways that no static, essentialist definition can ever hope to cover."[9] Any attempt at an essential definition "misses the point because such models unintentionally make all games alike, which they are not." (Aarseth/Möring 2020, n.p.) Instead, Aarseth/Möring suggest operating on a case-by-case basis, using specific ontologies for specific purposes, and concentrating on understanding 'the game itself' in its particularity. As they put it, "there is no universal gameplay that pertains to every kind of game, and there is no hermeneutic method of game analysis as such; only game-specific or genre-specific." (Aarseth/Möring 2020, n.p.)

I plan to adopt the approach suggested in Aarseth/Möring, whose underlying ontology operates at the level of a 'super-category' which abstracts above the category of 'computer games' but, unlike this category, can be defined. They accept Wittgenstein's position that a category which only includes 'games', and by extension 'computer games', cannot be formally defined. But by abstracting they hope to be able to catch various phenomena in the definition-net, of which computer games are only one. (Social media, for instance, would also be included.) Their assumed ontology was outlined earlier by Aarseth/Calleja and construes computer games belonging to the category of "cybermedia." (Aarseth/Calleja 2015, n.p.) An in-depth discussion

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[8] Wittgenstein, L. *Philosophical Investigations*. Trans. G. E. M. Anscombe, P. M. S. Hacker and Joachim Schulte. Wiley-Blackwell. Oxford. 2009. p. 36

[9] Aarseth, E. and Calleja, G. *The Word Game: The Ontology of an Indefinable Object*. International Conference on the Foundations of Digital Games. 2015. p. 5

of this concept is beyond the scope of this paper, but the ontology of games it allows for will be sufficient for our purposes. Cybermedia is understood as "a four-dimensional field" (Aarseth/Möring 2020, n.p.) composed of the following elements, where the text in brackets indicates how these elements manifest specifically in computer games:

1) *Mental activity* (the player and her community)
2) *A semiotic system* (the audio-visual or tactile communicative aspects)
3) *A mechanical system* (influencing the game state)
4) *Materiality* (the physical environment in which the game is embedded, including the players' bodies). (Aarseth/Möring 2020, n.p.)

This more abstract ontology still tells us something useful about the artefacts we are discussing, but without being specific enough to risk making erroneous generalized claims about the structure or content of particular computer games themselves. What we have instead are more abstract ontological claims about a category of phenomena to which games belong that we can use to base a more specialized ontology of a particular type of computer game upon.[10] Cybermedia is mediated by materiality, both in the technological instruments involved and of the bodies and physical environments of the people engaged with this media. Cybermedia engages the mental activity of players and contains the potential for social communities to coalesce around them. Cybermedia involves mechanical systems which produce effects on those that engage with them, which underwrite 'surface' systems of signification that people observe, engage with, and interpret, which are not limited to written and spoken words. This is also true of computer games, as they are a subcategory of cybermedia. Now we can move on to the more specialized game ontology that captures the game I will be working with. This will involve describing its genre and central gameplay features present in every playthrough.

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[10] It should be noted that Aarseth, with Grabarczyk, also developed a twelve-point ontological model for games in *An Ontological Meta-Model for Game Research*. But for our purposes, the cybermedia model will suffice.

<u>Introducing *Dwarf Fortress*</u>

Dwarf Fortress is a 'colony management simulator': it strives to give a realistic representation of the construction and management of a society. It is not a simulation of a particular phenomenon or career (like *Flight Simulator*), but the simulation of a world, its inhabitants, and its history. The player is inserted into this history, given control of some of its inhabitants and tasked with managing their lives. *Dwarf Fortress* contains one of the most sophisticated simulations in computer game history, such that calling it 'complex' has become a cliché. It is difficult to find any journalistic article, review or research article which does not call it complex, and it is often cited as "perhaps the most complex video game ever made."[11] This is not without good reason: it is deliberately, massively complex in the simulation of the game world and its history, and encountering this complexity is a fundamental aspect of the experience. As one of its creators, Tarn Adams, has written, "*Dwarf Fortress* is a game built on simulation"[12], and any description which does not highlight the complexity of this simulation is lacking. A strive for a comprehensive, realistic simulation of a world is an important part of *Dwarf Fortress*' design philosophy. Adams said in 2016 that, by their estimations, they were 42% of the way towards "simulating the narratively interesting parts of existence."[13]

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[11] Weiner, J. 'Where Do Dwarf-Eating Carp Come From?' *The New York Times*. July 21st, 2011. Accessed December 13th 2022. https://www.nytimes.com/2011/07/24/magazine/the-brilliance-of-dwarf-fortress.html

[12] Adams, T. 'Simulation Principles from Dwarf Fortress' in *Game AI Pro 2: Collected Wisdom of Game AI Professionals*. Ed. Rabin, S. CRC Press. New York. 2015. pp. 519-521 p. 519.

[13] Adams, T. interviewed by Fenlon, W. 'Dwarf Fortress Creator on How He's 42% Towards Simulating Existence.' *PC Gamer*. March 31st, 2016. Accessed December 13th, 2022. https://www.pcgamer.com/dwarf-fortress-creator-on-how-hes-42-towards-simulating-existence/#page-1

As a computer game and example of cybermedia, colony management simulators consist in the fourfold interaction of the elements discussed previously: the mental activity of the player and the game's community, the game's semiotic and mechanical systems, and materiality. In colony management sims, these systems combine to produce an experience of *omniscience* in the player, in which the information about the game world is made available in fine-grained detail for the player to pore over and make informed decisions. The player is placed in the role of an omniscient manager, not present in the world itself, but in control of a considerable amount of what happens in it. Their mental activity is spent on *managing* the colony, taking care of the various aspects of its lives, and attending to its needs. This is how the player's action is driven along in the game: they never quite have enough of everything, always have more things to attend to or think about, their people always need something, or have some kind of problem that the player must manage.

The experience of colony sims varies between many factors, such as where the developers decide to introduce complexity, the types of information it makes available to the player, the game's objective(s), etc. *Against the Storm*[14], for instance, requires you to balance many interlocking and moving parts, all whilst managing the game's apocalyptic rain and storms, which can have devastating effects on your colony. While the game includes several complex mechanical systems to balance, including the 'resolve' and happiness of your colonists, there is not much detailed simulation of the colonists' inner lives, their feelings, thoughts (etc.) – this is not where the emphasis of the game's complexity lies. Compare this with *Dwarf Fortress*, where complexity is present in almost every aspect of the game, with every character's

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[14] *Against the Storm*. Eremite Games/Hooded Horse. 2021.

thoughts, needs, body parts, and personalities are simulated in great detail. Everyone is constantly having a stream of thoughts that the player must be wary of if they want to know how to take care of them.

Importantly, too, is that *Dwarf Fortress* is a colony management simulator with no predefined goal, endpoint, or win condition – it is up to the player to decide how to play and what goals they set themselves. The player begins with seven dwarves, free to proceed as they please and, because there is no win condition, every playthrough will eventually end in disaster, meaning the death of your citizens or the abandonment of the fortress. Part of the charm of playing *Dwarf Fortress* surely is building the fortress, organizing it, taking on administrative duties, observing its everyday minutiae, encountering the seemingly boundless emergent possibilities in the world, the relations between its inhabitants and the different civilizations, and getting to know the individual personalities of the dwarves. But part of the fun is also discovering how your lovingly crafted civilization meets its doom, what forces of history, natural, supernatural, or political, will get you in the end. Hence the well-known slogan of the *Dwarf Fortress* community: 'losing is fun!'

The player's first task is choosing parameters according to which the game engine will procedurally generate the world, including how many beasts and other civilizations there are and how much time elapsed in the world before the player starts playing. Each world is constructed according to immensely detailed simulations of geology, hydrogeology, meteorology, and biogeography which generate decades of weather systems, water movement, the evolution of land and the development of flora and fauna. Along with this, a full history of the civilizations of the world and the lives of their citizens are generated, including dwarves,

elves, goblins, and other in-game races. Every person is simulated right down to their vital organs and body parts, which can all be damaged or removed. None of them have health points, but instead die when their bodies fail them. Every person has a complex inner life, with emotions, needs, desires, preferences, personality traits and so on. *Dwarf Fortress* simulates a natural world and its social history, racking up millions of events in the process. Only then does the player begin their campaign, by choosing a place on the map to make their fortress.

It is up to the player how they proceed in building and running the fortress, deciding what to prioritize, how to produce food and drink, generally how to provide for their citizens and build a thriving culture. The player will find themselves organizing labour and assigning dwarves to administrative duties and social roles, including sheriffs, militia captains, managers, and brokers. The player's dwarves all have needs, which the player must choose how (or if) to meet. Perhaps to do their job, one of them needs an office, a bedroom, *and* a dining room. Others may be bored, or feel they are not spending enough time with their family. Some may feel their creative needs are not being met, sad that they lack certain possessions, etc. It is, I imagine, simply impossible to meet everyone's needs all the time. But if the fortress is run well enough, has food, drink, relatively happy and healthy dwarves, other dwarves will migrate there, placing increased demands on resources. Upon reaching fifty citizens, the dwarves will elect a mayor, and then the demands really start flying in. Certain groups will unionize and make petitions, for a new guildhall, temple, etc. The balancing act of managing the fortress and satisfying the needs of your population grows ever more intricate the deeper into the game you get. But this is also, as Boluk and LeMieux illustrate nicely, where *Dwarf Fortress* starts to become more unpredictable and exciting.

> As the game grows in complexity, the truly autonomous nature of the dwarves intensifies, as what could be called a "dwarven culture" begins to spontaneously

emerge. While a couple holes in the ground are adequate to suit the needs of seven dwarves, seventy dwarves will not peacefully coexist without organized labour, social hierarchy, clean living conditions, and a constant flow of alcohol. Even with barracks, kitchens, workshops, and stockpiles in constant upkeep, there is always the possibility of a single disgruntled dwarf setting off a chain reaction of violence or "tantrum spiral"—their fragile psyches only rivalled by the fragility of their civilization.[15]

All of which contributes to a deep, richly satisfying gameplay experience not without a certain level of stress. There is always more to do, discover, manage, something missing, something you've forgotten, something that could possibly spell the end of your carefully crafted community. As Jeffrey Parkin put it, "when it's at its best, *Dwarf Fortress* is barely contained chaos"[16], keeping the player constantly on a fine line between prosperity and disaster.

Amidst this procedurally generated, barely managed chaos, some of the more unexpected and wonderful aspects of the *Dwarf Fortress* experience emerge. Your dwarves will frequently act in ways that defy expectation and inspire curiosity. One of my dwarves went on a violent rampage after I gave them a job that they were very good at but apparently did not enjoy. They then came back as an equally violent ghost, attacking their fellow dwarves because I had forgotten to put them to rest. Another time, I ordered a worker to build ten statues. They built nine finely crafted statues of grand figures from dwarven history, and one of an alpaca. I still have no idea why. But I suspect that somewhere in this dwarf's past, there is a deeper reason. Or maybe they just liked alpacas. Another dwarf made an engraving of the previous sheriff being fired from his job. Maybe there was some bad blood between them? These gaps in the

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[15] Boluk, S. and LeMieux, P. 'Dwarven Epitaphs: Procedural Histories in Dwarf Fortress' in *Comparative Textual Media*. Hayles, K. N. and Pressman, J. (Eds.) University of Minnesota Press. Minneapolis/London. 2013. p. 129

[16] Parkin, J. 'Dwarf Fortress is Indescribable – But Let Me Try.' *Polygon*. December 5th, 2022. Accessed December 13th, 2022. https://www.polygon.com/guides/23486243/dwarf-fortress-steam-release-explained-simulator-losing-is-fun

information provided by the game are the lifeblood of the game's legendary capacity for stimulating narrative sense-making from players, narrative often spoke of as 'emerging' as much from the player as the game. As Tarn Adams explains,

> When we talk about emergent narrative, we're referring to these kinds of stories, imagined and possibly retold by players recounting their experiences in a game, often adding details not present in the game itself, coherent and interesting beyond a simple recounting of the playthrough, but also not entering the more purely creative realm of fan fiction.[17]

Dwarf Fortress provides many details about the world, its inhabitants, their personalities, and actions. But it can only account for so much, and players often seem to find themselves filling in the blanks, tying everything together by producing and sharing narratives about them. Here, 'narrative' can be a written or spoken story in the traditional sense, or understood more broadly, in the sense Jean-Francois Lyotard did, as a vehicle for a "kind of knowledge"[18] distinct from 'scientific' knowledge.

For Lyotard, science is composed entirely of 'denotative statements' which, "to the exclusion of all other statements, denote or describe objects and may be declared true or false." (Lyotard 1984, 18) Scientific knowledge consists of such statements subject to two conditions: 1) the object(s) in question must be able to be subjected to controlled, repeated observation under certain conditions, and 2) the statements made about them must conform to "the language judged relevant by the experts." (Lyotard 1984, 18) Lyotard's point is that

> what is meant by the term *knowledge* is not only a set of denotative statements, far from it. It also includes notions of 'know-how,' 'knowing how to live,' 'how to listen', etc. Knowledge, then, is a question of competence […] extending to the determination and

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[17] Adams, T. 'Emergent Narrative in Dwarf Fortress' in *Procedural Storytelling in Game Design*. Ed. Short, T. X. and Adams, T. CRC Press. New York. 2019. p. 149

[18] Lyotard, J-F. *The Postmodern Condition: A Report on Knowledge*. Trans. Geoff Bennington and Brian Massumi. Manchester University Press. Manchester, UK. 1984. p. 7

application of criteria of efficiency (technical qualification), of justice and/or happiness (ethical wisdom), of the beauty of a sound or colour (auditory and visual sensibility), etc. (Lyotard 1984, 18)

'Knowledge' extends beyond technical scientific statements about the behaviour of objects. While knowing how the physical world works is important, we also want to know how to live in it, how to judge good from evil, administer justice, be happy, appreciate beauty and generally understand ourselves and our lives. Lyotard points out that perhaps the most powerful way humans have of coming to this type of knowledge is by tying various events, objects, and phenomena together into coherent *narratives*, understood broadly as stories or accounts of things that make sense of them and deliver lessons or messages about what it is to be human. Narratives have the capacity to give us "positive or negative *educations* (*Bildungen*)" (Lyotard 1984, 20) by interrogating the success or failures of their 'characters', thereby legitimizing or criticising the phenomena of human life. Angélique du Toit characterises Lyotard's understanding of narrative well by calling it "the vehicle through which we come to understand the world and ourselves."[19] Narratives in Lyotard's sense can take countless forms, from oral stories to novels to plays, to social media posts, newspaper articles, humanities essays, and stand-up comedy. Through narratives, people make sense of their lives and their worlds, tying the events that happen in them together, assigning them meaning, or explaining them according to some kind of rationale - historical, ethical, economic, scientific, philosophical, etc.

Players of *Dwarf Fortress* are constantly making narrative sense of their experiences in the game and the rich, funny, poignant, and downright strange situations that emerge in it, and it is difficult not to get drawn into this process. Part of what makes this process so significant in-

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[19] Sim, S. (Ed.) *The Lyotard Dictionary*. Entry on 'Narrative'. Angélique du Toit. Edinburgh University Press. Edinburgh. 2011. p. 149

game is the fact that every civilization, no matter how long-lasting, prosperous, or strong, will fall. Something will get you eventually, whether it's starvation, war, the colony's delicate mental state collapsing, or countless other possibilities. You can spend dozens of in-game years looking after the same group of dwarves, getting to know them, seeing them have children who then grow up and have children of their own, the myths and events they engrave on walls, the pleasure they take in each other's company, in music, in worship. You see their struggles, and even though you cannot help them all, you try to leave as much of a mark as possible, ensuring they live the longest, happiest most fulfilling lives possible. (Or you play the game a completely different way because the game doesn't force you to be *good* to them.) But however you play, eventually all your citizens will be lost to the annals of history, never to return and, because of the game's highly complex procedural generation, never to be replicated. This was your civilization, and their attempt at carving out a life in a world that was always going to outlast them.

This should serve as an indication of what kind of game *Dwarf Fortress* is, its gameplay structure, some of the most salient features of the experience, and some of the themes I will develop further in what follows. To complete my specified ontology of *Dwarf Fortress*, I would only add that it is capable of what Ian Bogost calls 'procedural rhetoric', meaning

> the art of persuasion through rule-based representations and interactions rather than the spoken word, writing, images, or moving pictures. […] In addition to becoming instrumental tools for institutional goals, videogames can also disrupt and change fundamental attitudes and beliefs about the world, leading to potentially significant long-term social change.[20]

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[20] Bogost, I. *Persuasive Games: The Expressive Power of Videogames*. The MIT Press. Massachusetts. 2007. p. ix

Bogost focusses on how procedural rhetoric can be (and is) used to convince people of certain things in the realms of politics, advertising, and learning. But the capacities of procedural rhetoric, I claim, extend beyond (or perhaps below) these types of issues into the philosophical and existential realm. Through interacting with carefully constructed, interlocking mechanical systems, players can encounter existential issues at the core of human life. In what follows, I will show how *Dwarf Fortress* accomplishes this type of procedural rhetoric through, as Nguyen put it, an "engagement with human practicality – with our ability to decide and to do."[21]

Finitude

My experience of playing *Dwarf Fortress* has left me with the impression that, firstly, it is a game about a feature of the human condition that, following Nietzsche's proclamation of the 'death of God', existentialist philosophers have called '*finitude*'. Finitude means that our existence has limits and boundaries which shape the choices we make and what we can do - we are not 'infinite'. But finitude's meaning is not exhausted in our mortality, which means just that we die. As Sartre puts it, "finitude is an ontological structure"[22], meaning a fundamental component of the structure of human existence, which very much shapes us while we are still alive. Mortality is what makes our existence finite in temporal terms because it prevents us from living forever, but this is only part of human finitude. Our freedom, for example, is limited – we can only make certain choices in certain situations, and certain things we are not capable of at all. Every choice we make forecloses other choices, so "every choice is a choice of finitude." (Sartre 1943, 495) We are constrained by our bodies, their capabilities,

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[21] Nguyen, C. T. *Games: Agency as Art*. Oxford University Press. Oxford. 2020. p. 4
[22] Sartre, J-P. *Being and Nothingness*. Trans. Hazel E. Barnes. Washington Square Press. New York/London/Toronto/Sydney. 1943. p. 546

and idiosyncrasies – what one body may be capable of, another may not. Our ability to reason and make sense of the world is limited – we are only capable of experiencing a small fragment of reality, and there is more to know than we could possibly discover. There is only so much we can know about other people, their thoughts, secrets, and desires. Your perspective on the world is bounded by your upbringing, the part of the world, social class, gender, and race you are born into. To be human is to be bounded by these limits, to exist in the condition of finitude.

Finitude accounts for why human existence can be strange, difficult, and sometimes troubling. Coming to terms with it is a lifelong process that we can either 'authentically' face up to or remain in 'bad faith' and flee from, as Sartre phrased it, following Heidegger's distinction between 'authenticity' and 'inauthenticity'. But despite the difficulty finitude conveys on our existence, it is also what makes our type of existence possible at all, and what accounts for the more straightforwardly 'positive' aspects of being human. If we were able to live forever, things would lose their meaning, or at least have a very different one. A wonderful experience would not be as wonderful if you could keep experiencing it forever. As Heidegger points out, death is "non-relational"[23], meaning that it individualizes us. I cannot face up to my death 'in relation to' anybody else, it is entirely my own, the thing that sets limits to my existence and allows me to comprehend it, in total, as an individual. Death, for Heidegger, is what holds the key to our authentically seizing hold of our possibilities as free agents and deciding for ourselves what kind of people we want to be. Finitude sets limits on us, but it is only within these limits that we can exist as free, conscious human beings, partake in the more wondrous aspects of life and marvel at the universe and our place in it.

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[23] Heidegger, M. *Being and Time*. Trans. John Macquarrie and Edward Robinson. Blackwell. London. 1962. p. 302

Dwarf Fortress allows for more freedom and contains more possibilities than most other games, but in organizing the fortress and providing for its people, you forcefully encounter finitude by encountering your limits as a player. You cannot help everyone, provide for everyone, or meet everyone's needs, all the time. Your survival is dependent on the will of nature and history. You can only make progress so fast, within the limits of what your citizens' capabilities are. You can never do enough and cannot please everyone. There will always be something else to build, attacks to repel, problems to solve, unhappy dwarves you cannot appease. You will have to make decisions and in doing so foreclose alternative courses of action. While the game gives you a lot of information about your dwarves and their mental states, it is still impossible to know everything about them, and why they do what they do. The experience of these components reflects the finitude of human existence, of freedom, of knowledge, etc. Finitude is also reflected, perhaps more obviously, in the fact that your dwarves are mortal. All attempts to prolong their lives will eventually end in failure, and knowing there is no win condition proves hugely consequential in your decision-making processes. Knowing there are no checkpoints and poor decisions can spell irrevocable disaster produces such compelling results in gameplay because it accurately reflects human finitude. You only get one life, be careful how you use it.

Finitude is not only an individual phenomenon – it is true of civilization in general. Our attempts to survive, thrive, and build civilizations will all end at some point, as many such attempts have already. Discovering how your civilizations end is part of what makes *Dwarf Fortress* so compelling and is revelatory of the fact of the human condition that even the greatest, strongest civilizations are finite and our attempts to dominate or domesticate the natural world are doomed to fail.

Absurdity

So far, so morbid. Human existence is finite, we cannot know everything, everyone dies eventually and the human race's attempts at civilization will all inevitably be lost to the sands of time. So what's the point of living? Albert Camus begins his *Myth of Sisyphus* with similar concerns: "judging whether life is or is not worth living amounts to answering the fundamental question of philosophy." (Camus 1979, 11) For Camus, this question should vex us. In the light of finitude, can there be a deeper meaning to human suffering, or our struggle for civilization? Is there some kind of order behind the maelstrom of history, or is it all chaos, with no discernible point? Camus ultimately answered that life is worth living, but strongly rejected the idea that history is ordered, or that there is any pre-given meaning to life. There is no God, no divine plan, everything bad does not happen for a reason, and there is no deeper meaning, order, or pattern to be found in the world. "This world in itself is not reasonable […] [but] irrational" (Camus 1979, 26), it "has no meaning" (Camus 1979, 16) in the sense that it does not submit to our attempts to rationalize it, and our efforts to discern meaning and order inherent in it will always be frustrated. But it is equally true for Camus that we cannot stop trying to do this, which renders our existence 'absurd'.

To be human is to experience the absurd

> confrontation of the irrational and the wild longing for clarity whose call echoes in the human heart. […] The absurd is born of this confrontation between the human need and the unreasonable silence of the world. (Camus 1979, 26, 31-32)

We exist "in a world that is indifferent to our sufferings and deaf to our protests" (Simpson, IEP), which resists our attempts to rationalize and find meaning in it – *and yet we cannot stop trying*. Camus therefore famously compares the human condition to that of Sisyphus, condemned by the Gods to the equally absurd task of pushing a boulder up a hill and having it

roll down again and again for eternity. Camus concludes, however, "that one must imagine Sisyphus happy" because "the struggle itself towards the heights is enough to fill a man's heart." (Camus 1979, 111) We may not be able to discover an 'ultimate meaning' to reality, explain everything, or discern order in a chaotic history, but this means we are free to create and decide our own meaning. Far from being a cause for despair, this should give us joy, for "it makes of fate a human matter" (Camus 1979, 110), and "life can be lived all the better if it has no meaning." (Camus 1979, 53) With no pre-given meaning in the world, we are free to partake in those most human tasks: struggling to comprehend our absurd situation, rebelling defiantly against the meaninglessness of the world, and deciding what is meaningful, valuable, true, beautiful, and moral for ourselves without answering to a higher authority. This struggle is enough to fill our hearts and make life worth living.

Finding meaning in a meaningless world is for Camus the struggle that defines us. It is a struggle we cannot win, but the struggle is enough to make life meaningful – is this not the existential significance of *Dwarf Fortress*' slogan, 'losing is fun'? There is no win condition, no final stamp of approval that confirms that you have played the game correctly and well, legitimizing all your actions up to this point and thereby assigning them a meaning. But as Camus argues, we do not get one from the world either. If we were somehow able to discover innate order and meaning in the world, or history, we would no longer bear the responsibility of creating and deciding our own meaning, or this responsibility would be seriously diminished because there would already be meaning in the world for us to use to explain it. Being able to 'win' *Dwarf Fortress* would be akin to discovering meaning in the world – it would confer a ready-made meaning to your actions and decisions which would explain or legitimize them. But the world offers no such easy solutions, and neither does *Dwarf Fortress* which, by omitting a win condition, puts the onus on the player to decide how to play, and set meaningful

goals for themselves. You cannot 'win' because every attempt will eventually end in the failure to prolong the life of your civilization. But this does not mean that the attempts have no meaning in them, the point is that it is up to the player to give them meaning. Camus points out that we cannot wait for the world to provide us with meaning because we will wait forever, so we must decide it for ourselves. *Dwarf Fortress*' lack of win condition is one of the key mechanics and design choices for allowing the player's being able to experience what Camus called the absurd.

The other most important one is the procedural generation of the game world and its history. This world itself is not absurd, and neither is it absurd for the characters. But the immensely detailed way *Dwarf Fortress* constructs a world and simulates its history, coupled with its deliberate lack of win condition, set the stage for the player to be able to encounter the absurdity Camus spoke of in a powerful way. This is because the game creates the impression of meaning where there is none and thereby stimulates the player to assign meaning to and make connections between the events themselves. The game simulates millions of events that represent the histories of entire civilizations, their people, politics, conflicts, sufferings, triumphs, etc. But there is no ultimate principle or force behind each history, no pre-given meaning. They are randomly generated; each history is different and could have unfolded differently. It is not as though these histories were progressing towards a definite, pre-defined end according to a plan or principle that would be able to make sense of every event that occurred. Different civilizations could have triumphed or fallen, different people could have lived or died, had different personalities, and better or worse luck. Each history is contingent, just as ours is, and cannot be explained due to some deeper meaning inherent in the events that unfolded in it, to a pattern lying behind the process waiting to be discovered. Trying to discern

the innate driving forces or deeper meanings in a history in *Dwarf Fortress* is just as futile as Camus argued it is to do in our actual history.

And yet, we cannot stop trying. The world is randomly generated, and the player knows this. There is no inherent, pre-given meaning. But the player cannot help but assign meaning where none exists. This parallels with the confrontation at the heart of human life that Camus spoke of, namely the tension between our innate impulse to look for meaning, and the meaningless world. This confrontation is precisely what Camus called the absurd, and *Dwarf Fortress* simulates the experience of this confrontation in the player's meaningful interaction with a randomly generated history. Players of *Dwarf Fortress* know that its histories are procedurally generated without any pre-defined endpoint or plan, and yet are constantly assigning meaning to events that could be coincidences, reading patterns in the chaos, and filling in the gaps. Gita Jackson illustrates this well when talking about the engravings the dwarves come up with:

> In one of my playthroughs, two were illustrations of battles where dwarves had killed elves. These were engraved after the elves dared to tell us how many trees we could cut down every year. Although it's probably a coincidence, I like to think my dwarves took it personally. (Jackson 2022)

Out of millions of simulated events produced randomly according to certain parameters, players will find meaning in them - patterns, processes, explanations, ways of understanding and interpreting that are not actually present in the game or the events themselves. What is probably a coincidence becomes your people 'taking it personally'. This impulse to meaning making could plausibly be understood as a way of coping with the game's complexity and having to process the abject chaos you have the daunting task of managing. Mentally filling in the blanks and assigning meaning to unexplained events is a way of helping us to keep track of what is happening, while also making the experience more meaningful and engaging. It is

simply more interesting, fun, more *human* to think the dwarves took it personally and decided to channel this frustration into artistic expression, rather than thinking of it as merely the product of random, computer-generated chance. These kinds of mental additions to the game's procedurally generated histories help the player engage with the game more deeply and identify with the characters in it more.

Camus argued in the face of our absurd situation, and the meaninglessness of the world, we must proliferate meaning where none exists. Rather than despairing and resigning ourselves to nihilism or suicide, we must defiantly create our own meaning where none is given to us, taking it upon ourselves to make our existence richer, happier, more interesting, more meaningful. But the question remains: *how* do we create meaning? While there are surely many answers to this question, one of the most powerful we have is *narrative*.

Narrative

One way to respond to our 'absurd' situation and the world's un-reasonable silence is the creation of *narrative* in both the familiar sense and Lyotard's broader sense that I discussed earlier, as a vehicle for human sense-making and understanding. Telling stories, tying disparate events together, uniting them under common themes, giving them structure, allows us to *make sense* of them, to give them meaning. Human beings have done this since time immemorial: every culture has stories, myths, legends which act, per Bouchard, as social "vehicles" for "messages" about "values, beliefs, aspirations, goals, ideals, predispositions, or attitudes."[24] From creation myths to parables to *Crime and Punishment* to tales told to friends over drinks,

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[24] Bouchard, G. *Social Myths and Collective Imaginaries*. Toronto University Pres. Toronto. 2017. p. 23

narratives allow humans to make sense of their lives, cope with the difficulties of living and come to terms with life's absurdity. In this sense, this paper is a narrative which gives an existentialist interpretation of a video game, and history is a narrative of human past. However, my thoughts which add details to or make up explanations of unexplained events in *Dwarf Fortress*, or tie them together in my mind, are also narratives which allow me to come to a certain understanding of them. Narratives in both senses are one of our most powerful tools for creating meaning and coping with being human[25], a fact which *Dwarf Fortress* taps into by stimulating the human capacity for producing narrative. But how does it do this?

A problem in narrative theory, as Marie-Laure Ryan explains, is that some initially plausible definitions of narrative – such as a "text able to evoke a certain type of image in the mind of the recipient"[26] – do not sufficiently distinguish narrative from the events of life itself. Countless potential occurrences in everyday life are capable of evoking images and stories in our minds, or inspiring us to fashion an account that would tie certain events together. They can also possess other narrative-like properties, such as drama, suspense, comedy, character development, etc. But a definition of narrative that makes it indistinguishable from everyday life is a poor one. Ryan therefore makes the helpful distinction between '*being a narrative*' and '*possessing narrativity*', the latter meaning "being able to inspire a narrative response, whether or not the text, if there was one, was intended to be processed that way, and whether or not an author designs the stimuli." (Ryan, in Ryan/Herman/Jahn 2005, 347)

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[25] This is true of art in general, of music, painting, and so on. Narrative is only a part of art, but since developing this point adequately would be beyond what I can accomplish here, I will focus on narrative, which *Dwarf Fortress* seems to highlight particularly.

[26] Ryan, L-M. 'Narrative'. In *Routledge Encyclopedia of Narrative Theory*. Herman, D. Jahn, M. and Ryan, L-M. (Eds.) Routledge. London/New York. 2005. pp. 344-348. p. 347

Dwarf Fortress is not a narrative in the normal sense, but neither does it contain or produce narratives directly. Rather, *Dwarf Fortress* produces complex simulations of things which *possess narrativity* insofar as they represent important potential constituents of narratives which correspond to Aarseth's four 'dimensions' of 'the ludo-narrative design space': *world*, *agents*, *objects*, and *events*.[27] Every *Dwarf Fortress* world and history is populated with thousands of agents, objects and events, all available for players to make narratives out of, to tie together into stories or accounts that assign them meanings. These narratives are not innate in the game but become constituted as such by the player's engaging with the randomly generated world.

Dwarf Fortress uses its mechanics to highlight the importance of narrative and reveal it as an important response to the absurdity of human life. After encountering finitude and absurdity, the player encounters narrative as a potential, powerful response to the existential tensions these things bring to our life. As Camus tells us, where there is no eternal truth, innate meaning, or order to the world, we must make our own. One way we do this is through constructing narrative out of things in life that possess narrativity. Jackson hits the nail on the head here:

> *Dwarf Fortress* is a storytelling engine as much as it is a game, spitting out associations and facts and details that you can shape into a coherent and specific narrative. This is also what we do to our own lives, personifying random events so that they feel significant rather than a matter of chance. Life isn't usually a satisfying narrative. It isn't so much that *Dwarf Fortress* is a perfect simulacrum of life, but that it shines a bright light on the human tendency to look for meaning in everything. I care about my dwarves because the stories I make up about their lives are also the ones I make up about my own. (Jackson 2022)

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[27] Aarseth, E. *A Narrative Theory of Games*. Proceedings of the International Conference on the Foundations of Digital Games. May 2012. pp. 129-133. p. 130

Dwarf Fortress enacts the process of narrative sense-making by stimulating the player to engage in it, and it appears this was part of the creators' initial intention. Tarn Adams spoke in an interview about how *Dwarf Fortress* grew out of he and his brother writing stories, describing the resulting game almost as a writing prompt: "your own mind is a story-building engine, and we can help that. […] [*Dwarf Fortress* is] really a sort of collaboration with the player to produce a bunch of stories."[28] *Dwarf Fortress* inspires players to engage in narrative sense-making, a practise as old as humanity itself and one of our key methods for dealing with the existential tensions that characterize our being.

Adams' vision of *Dwarf Fortress* as a collaboration between players and game to produce stories has played out in remarkable fashion in the *Dwarf Fortress* fan community, which *constantly* produces and shares stories about in-game events. Such posts abound in various online hubs for discussing the game, including its Reddit page, the Bay 12 Games forums, and two websites dedicated solely to *Dwarf Fortress* stories. (Links in bibliography.) There is even, as a recent article in *PC Gamer* points out,

> a subset of *Dwarf Fortress* players who don't really *play Dwarf Fortress*. […] They read. They are archaeologists who use *Dwarf Fortress*'s procedural generation systems to create a hundred or thousand or 10, 000 years of simulated history and then pore over the stories that come from it.[29]

Dwarf Fortress' fan community thrives on these kinds of player-constructed narratives, either those unearthed in the game's procedurally generated histories, or those like Jackson's which

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[28] Morley, G. 'Dwarf Fortress' Steam Version Immediately Punched Me in the Gut: What the Storied Simulation Game Shares with the Craft of Fiction.' *Polygon*. December 5th, 2022. Accessed December 16th, 2022. https://www.polygon.com/reviews/23490038/dwarf-fortress-steam-review-release-date-pc

[29] Fenlon, W. *Future Dwarf Fortress 'Creative Mode' Will Let You Sculpt Whole Worlds, Dream Up Homemade Gods*. December 15th, 2022. *PC Gamer*. Accessed December 16th, 2022.

assign meaning to events and fill in the gaps in the simulation. It is arguably this narrative aspect, along with the simulation's complexity, that captures fans' imaginations the most. The game is intentionally designed to encourage the generation and sharing of narratives, and this is a defining aspect of the community that has coalesced around *Dwarf Fortress*, so much so that the construction and sharing of narratives about events that happen in the game has practically become a mechanic of the game itself. This is arguably where *Dwarf Fortress* is at its most subversive as a form of cybermedia, in that the narratives that arise from it can only do so through a remarkable interaction of cybermedia's four components: the mental activity of the player/community, its semiotic systems, mechanics, and the materiality of the player and their environment. The blurring of the lines between these aspects in a narrative-generating process is perhaps not unique to *Dwarf Fortress*, but few games (if any) have achieved it with such comprehensive success.

Conclusion

It is not hyperbole to say that *Dwarf Fortress* is one of the most important computer games ever made. Its immensely complex simulation and capacity for stimulating the generation of narrative have exerted considerable influence on game developers. Its recent overhauled Steam release has improved its accessibility and ensured its reaching a wider audience. As it enters this new stage in its history, I have endeavoured to interpret the salient themes of this bewildering cultural artifact. Based upon an application of Aarseth/Möring's theoretical prescriptions for game interpretation, I have interpreted *Dwarf Fortress* as a game about three significant moments in the existential tensions at the heart of humanity, which I characterized in terms of 'finitude', 'absurdity', and 'narrative'. *Dwarf Fortress* confronts us first with the fact that our existence is finite: we can only know so much, do so much, live for so long, only

be so free, and all our civilizations will eventually crumble. This leads to a crisis of meaning that for Camus renders our existence 'absurd': we are creatures that desire meaning and order, but live in a meaningless world, and yet cannot stop trying to make sense of it. We have seen that *Dwarf Fortress* is a game that prompts the player to make meaning and order out of randomly generated events which possess no inherent order or meaning. To make the gameplay experience more engaging, we fill in the blanks of the simulation, make up added details and explanations for events that lack explanation and assign meaning to them, thereby making our engagement with the game world deeper. I then moved to arguing that *Dwarf Fortress* is a game about one of the most powerful human tools for creating meaning and coping with the difficulties of being a creature of meaning in a meaningless world: narrative. Every culture throughout history has proliferated narratives as an attempt to make sense of their situation and communicate messages about morality, truth, life (etc.), and *Dwarf Fortress* gives expression to this process by being, as its creators put it, 'a collaboration between game and player to produce stories' by stimulating players to produce narratives about their experiences.

Perhaps part of the reason for *Dwarf Fortress*' longevity, influence, and capacity for capturing the imagination is that it is a game about what it means to be human. Our lives, cultures, and humanity itself will end at some point and be lost forever. We cannot know everything we would like to or do everything we would like to. We look to the world for answers, to tell us how to live, give reasons for our sufferings - but the world remains silent. So we must take it upon ourselves to decide these issues, create meaning where there is none, make the best of our situation and cope with its existential tensions. Since time immemorial, human beings have done this through narrative: stories, myths, written, spoken, and thought accounts of the phenomena of life that make sense of them, discerning patterns where none are pre-given so that everything does not seem the result of random chance. I hope to have made the case that

Dwarf Fortress is a game about these core aspects of being human, and that my contribution will stimulate further interpretations of this significant cultural artefact.

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