

Metaphysics and Metaethics in the Design of Strategy Video Games

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Federico Campagna

ABSTRACT

Over the past fifty years, the video games industry has grown to become today's largest cultural industry worldwide. Research on video games has also gained significant academic status, with an ever-increasing number of dedicated studies and university courses. However, despite this rapid expansion, the video game industry appears to be suffering from a decreasing rate of innovation, while academic research on video games continues to present a number of evident gaps. My research addresses a gap in the existing literature on the conjuncture between philosophy and video game design, by analysing the impact that the metaphysical and metaethical decisions taken by designers have on the creation of a video game-world. On the basis of this analysis, I delineate a method that can be used to innovate the design of video game-worlds through the adoption of a philosophical outlook. I also present an example of this method at work, in the form of a prototype for a video game, *Lamassu*, which I developed in collaboration with designer Jelena Viskovic.

Three main questions establish the starting points for my research:

- Is it possible – and how so – to read the design of a video game-world through the lens of the philosophical discipline?
- Is it possible – and how so – to innovate the design of a video game-world, by manipulating the philosophical parameters of its conceptual structure?
- What method might allow for a fruitful integration of philosophy and video game design?

To address these questions, I select as my field of research the genre of strategy video games, specifically 4x games, due to the complexity and transparency of the conceptual architecture sustaining their game-worlds. Equally, for philosophy, I select the branches of metaphysics and metaethics, which epitomise the entire philosophical discipline due to their conceptual and functional primacy within it.

My interdisciplinarity research adopts a plurality of mixed methods. These are as follows: an analysis of the literature in both philosophy and video game studies; a meta-analysis of the methods adopted in my research; first-hand philosophical analysis of the game-world of my case study, *Total*

War: Rome 2 (The Creative Assembly, 2013); in-depth qualitative interviews with seven professionals in the field of video game design; a reflexive reassessment of my research method; the collaborative creation, with designer Jelena Viskovic, of the prototype *Lamassu*. The use of different methods corresponds to the narrative unfolding of my research, which is centred on a continuous re-assessment of my methodology.

My findings confirm that it is possible to delineate a specific methodology to analyse the philosophical structures that are implicit in a video game-world. The definition of a tested, replicable method constitutes the main contribution to knowledge offered by my thesis. Furthermore, my findings confirm that it is possible to create significantly different video game-worlds by intervening on the metaphysical and metaethical parameters that are implicit within their structure. The prototype for a video game, *Lamassu* (with its accompanying text), provides a practical example of the impact of a philosophical re-design of video game-worlds.

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS

INTRODUCTION

CHAPTER 1: THE CONTEXT

1.1 Strategy Video Games

- 1.1.1 The market of video games
- 1.1.2 'Strategy' video games
- 1.1.3 The philosophical transparency of strategy video games

1.2 Terminology

- 1.2.1 Philosophy
- 1.2.2 Video game
- 1.2.3 Design
- 1.2.4 Summary

1.3 Literature Review

- 1.3.1 Narratology, ludology, fictionalism, motivationalism
- 1.3.2 The case for philosophy
- 1.3.3 The ontological status of video game-worlds
- 1.3.4 This thesis's take on the ontology of video game-worlds
- 1.3.5 Summary

CHAPTER 2: OBJECTIVES AND METHODOLOGY

2.1 Objectives

- 2.1.1 Academic /ontological Objectives
- 2.1.2 Industrial /innovation Objectives
- 2.1.3 Social /accountability Objectives

2.2 Methodology

- 2.2.1 A research across disciplines
- 2.2.2 A 'problematic' approach
 - o Step 1: Locating the project
 - o Step 2: Case study
 - o Step 3: Testing
 - o Step 4: Universalising the methodology
- 2.2.3 The unfolding of my research: a step-by-step methodological overview.
- 2.2.4 A 'disruptive' methodology
- 2.2.5 Summary

CHAPTER 3: THE METAPHYSICS OF *TOTAL WAR: ROME 2*

3.1 *Total War: Rome 2* (TW:R2)

3.2 What Is Metaphysics?

3.3 The Ontology of TW:R2

- 3.3.1 Introduction

- 3.3.2 Reading TW:R2's ontology
- 3.3.3 Alternative scenarios on ontology in TW:R2

3.4 The Metaphysics of TW:R2

- 3.4.1 Universals
 - 3.4.1.1 Introduction
 - 3.4.1.2 Universals in TW:R2
 - 3.4.1.3 Alternative scenarios on universals in TW:R2
- 3.4.2 Concrete particulars
 - 3.4.2.1 Introduction
 - 3.4.2.2 Concrete particulars in TW:R2
 - 3.4.2.3 Alternative scenarios on concrete particulars in TW:R2
- 3.4.3 Possible worlds
 - 3.4.3.1 Introduction
 - 3.4.3.2 Possible worlds in TW:R2
 - 3.4.3.3 Alternative scenarios on possible worlds in TW:R2
- 3.4.4 Time
 - 3.4.4.1 Introduction
 - 3.4.4.2 Time in TW:R2
 - 3.4.4.3 Alternative scenarios on time in TW:R2

3.5 Summary

CHAPTER 4: THE METAETHICS OF TOTAL WAR: ROME 2

4.1 What Is Metaethics?

- 4.1.1 Introduction
- 4.1.2 A brief history of metaethics
- 4.1.3 The main positions in metaethics

4.2 The Metaethics of TW:R2

- 4.2.1 Reading TW:R2's metaethics
- 4.2.2 Alternative scenarios on metaethics in TW:R2

4.3 Summary and Initial Conclusions

CHAPTER 5: INTERVIEWS

5.1 Introduction

5.2 The Problem of Innovation

- 5.2.1 The state of the field
- 5.2.2 How do you tackle the problem of innovation in your own work?
- 5.2.3 Analysis

5.3 How to Build A Digital Game-World

- 5.3.1 Analysis

5.4 Confronting Perspectives – Visual Analysis and Metaphysical Language

- 5.4.1 Visual analysis
- 5.4.2 Metaphysical language

- 5.4.3 Analysis

5.5 A Place for Philosophy in Video Game Design

- 5.5.1 Does a philosophical approach to videogame design make sense to you? Does it sound useful?
- 5.5.2 A philosophical consultant?
- 5.5.3 How to present philosophy to videogame designers?
- 5.5.4 Analysis

CHAPTER 6: CONCLUSIONS

6.1 Assessing My Methodology

6.2 Assessing My Objectives

6.3 Contributions to Knowledge

6.4 What Comes Next: *Lamassu*

REFERENCE LIST

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INTRODUCTION

The research presented in this thesis derives from my long-standing interest in philosophy's role as a tool for the analysis and for the creation of navigable patterns of meaning – from the micro-architecture of linguistic utterances,¹ to that large landscapes of sense which goes under the name of 'reality'.² Philosophy addresses that uncanny phenomenon, according to which reality is intelligible to us as if it had been designed according to a rational plan, while at the same time emerging in wildly different forms depending on the perspective through which it is observed (or summoned). The philosophical debate over whether reality possesses implicit intelligible qualities, or if it is rather a subjective or conventional construct, has remained alive since the early disputes between philosophers and sophists in ancient Greece.³ In exploring this problem as part of my own philosophical work, I was struck by the especially fertile conditions that are offered to this line of enquiry by the relatively recent invention of video game-worlds. A video game-world is a "philosophical tool",⁴ in that it makes immediately apparent the connection between its experienceable landscape, and the conceptual structures that sustain and give shape to it. It is both an intelligible realm, susceptible to philosophical analysis, and a space whose very foundations can be reinvented through means of philosophical imagination.⁵ While non-ludic digital spaces (like those offered by work programs such as *Microsoft Excel*) tend to hide their status as 'worlds', video games make no secret of their being *cosmoi*, that is, worlds endowed with a 'beautiful order' that, I propose, can be philosophically analysed and reinvented. To the extent that the linguistic commands of programming create an experienceable reality, designers of digital worlds are bound

¹ As they are typically investigated by 'analytic' philosophy. See for example the work of Ludwig Wittgenstein, Bertrand Russell, Gottlob Frege and G. E. Moore, among others.

² As they are typically investigated by so-called 'continental' philosophy, from Immanuel Kant's transcendental idealism, through Friedrich Nietzsche's perspectivism, to Edmund Husserl's phenomenology, Martin Heidegger's existentialism, all the way to the latest investigations of philosophical cosmology pursued by thinkers like Eduardo Viveiros de Castros.

³ See this polemic unfolding in Plato's dialogues, especially in *Sophist*, *Gorgias* and *Protagoras*. For a recent analysis of the complex relationship between Plato and the sophists, see D. C. Corey, *The Sophists in Plato's Dialogues*, Albany, N.Y., SUNY, 2016.

⁴ S. Gualeni, *Virtual Worlds as Philosophical Tools: How to Philosophize with a Digital Hammer*, Basingstoke, Palgrave MacMillan, 2015.

⁵ And vice versa, philosophical ideas can be purposefully made apparent through the medium of video games, as discussed by Ian Bogost in reference to metaphysics; see I. Bogost, 'The Metaphysics Videogame: part 1 and 2', *Ian Bogost*, [website], 24 and 28 July 2009. http://bogost.com/writing/blog/the_metaphysics_videogame_1/ and http://bogost.com/writing/blog/the_metaphysics_videogame_2/, (accessed 12 November 2020).

to incorporate within their practice the same processes that characterize the philosophical analysis, and transformation, of the architecture of reality.

This link of familiarity between philosophy and the design of video game-worlds, however, remains still largely neglected in terms of its public acknowledgment. Typically, video games are assigned to a hybrid position between the realms of entertainment, of commerce, and of S.T.E.M. disciplines – thus implicitly denying their relation to the serious, unprofitable and supposedly impractical discipline of philosophy.⁶ In the academic field of video game studies, too, video game-worlds are rarely deemed worthy of a philosophical analysis (and reinvention) that might exceed their value as cultural artefacts and their impact on individuals and society.⁷ Conversely, this thesis treats video game-worlds as fully ‘real’ entities, whose very existence is both analysable philosophically in its own right (aside from considerations on their impact to human subjectivities and society), and susceptible to reinvention through a manipulation of their conceptual architecture.⁸ In so doing, I tackle a gap in the existing academic literature in the field of game design, while also addressing the potential for innovation that can be fostered by an integration of properly philosophical methods in the design of video game-worlds. These two operations (one aimed at academia, the other at the industry) constitute the immediate goals of my thesis – yet they don’t exhaust the contribution to knowledge offered my research.

The ultimate aim of my research, and its essential contribution to knowledge, is to offer a working, replicable method with which a video game-world (as exemplified by my case study, *Total War: Rome 2*, and by my prototype, *Lamassu*) can be effectively read and reinvented through the application of a philosophical lens to the conceptual structure of its cosmology.

To substantiate my contribution, I centre my research on the relationship between the genre of strategy video games (selected on the basis of its exceptional transparency to philosophical analysis)⁹ and the branches of metaphysics and metaethics (selected on the basis of their foundational position within the philosophical discipline).¹⁰

⁶ See *intra*, 1.1.1.

⁷ See *intra*, 1.3.

⁸ See *intra*, 1.3.4.

⁹ See *intra*, 1.1.2.

¹⁰ See *intra*, 1.2.1.

In Chapter 1, I locate my research both in the context of the video game industry (particularly, in reference to the problem of product innovation), and within its academic milieu (addressing specifically an existing gap in the literature on the conjuncture between philosophy and video game design and studies).

In Chapter 2, I outline the objectives and methodology of my research, and I offer a first, step-by-step formulation of a method to integrate philosophy in the design and in the study of video game-worlds. This method is here presented as an initial hypothesis, whose steps I universalize by addressing them to any interested researcher.

In Chapters 3 and 4, I apply my method to my case study, the 4x strategy video game *Total War: Rome 2* (TW:R2). In these two central chapters, I present a reading of the metaphysical and metaethical structures of the game-world of TW:R2, as well as a detailed description of how this game-world would be affected by the modification of these philosophical parameters.

In Chapter 5, I test my initial findings through in-depth interviews with seven professionals in the field of video game design (two CEOs of video game companies, the design director of a video game company, independent video game designers, video game artists, and a video game scholar).

In Chapter 6, at the light of the interviews, I re-asses the method that I had first sketch in chapter 2 and implemented in Chapters 3 and 4. The resulting, updated version of my method constitutes the main contribution to knowledge offered by my thesis.

The prototype for a speculative video game, *Lamassu*, (developed in collaboration with designer Jelena Viskovic) is presented alongside the thesis, but it is an integral part to it. *Lamassu* provides a practical example of how my contribution to knowledge can be translated in the design of radically different video game-worlds.

The narrative development of the various stages of my research constitutes a crucial aspect of my work, in that it makes apparent the process of learning and constant correction that characterises any interdisciplinary encounter between two specialists (such as a philosopher and a video game designer) who are, at least initially, ‘foreign’ to each other’s field.¹¹

¹¹ See *intra*, 2.2.1.

CHAPTER 1

THE CONTEXT

Chapter 1 presents the context in which my research takes place. A brief overview of the state of the video games market is presented alongside an introduction to the genre of strategy video games, an expanded glossary of the main terms used in this work ('game', 'design', 'strategy', 'philosophy'), and an extensive literature review. The literature review privileges an examination of the latest debates on the relationship between philosophy and video game design, with particular reference to the ontology of video game-worlds. The examination of the relevant literature in the field also offers an opportunity to delineate the angle of my research, and its main areas of overlap with, and difference to, the main approaches that are present in the field.

1.1 STRATEGY VIDEO GAMES

1.1.1 The market of video games

In the course of this thesis, video games and video game-worlds are discussed primarily as ‘entities’: objects that exist legitimately in their own right, and that are as deserving of serious philosophical analysis, as any ‘real’ object in the so-called ‘real’ world. As well as being philosophical entities, however, video games are also powerful cultural artefacts, standing at the forefront of the contemporary cultural discourse. Video games are also subject to the hegemonic mindset of our time, according to which an artefact – regardless of its cultural qualities – is defined to a great extent in terms of its value as a commodity. Thus, while most of this thesis is dedicated to metaphysical and metaethical analysis of video game-worlds, it would be disingenuous to proceed without taking account, at least in the form of an overview, of the main economic dimensions of the object of my research.

A distinctive character of the video game industry is the rapidity of its pace of growth, and the size which it has achieved in the few decades since its first proper establishment in the 1970s. In 2004, the global yearly turnover of the video game industry was US \$ 25.4 billion a year: only fifteen years later, in 2019, it had reached the staggering total of US \$ 152.1 billion.¹² (*see table 1*)

These figures can be better appreciated in comparison to the global revenues of more traditional cultural industries, such as music (US \$ 53.7 billion in 2018¹³), film (US \$ 41 billion in 2018¹⁴), and publishing (US \$ 122 billion in 2018¹⁵).

This exponential growth has coincided with an expansion of video games across all digital platforms, from consoles to laptops, tablets and mobile devices. Together with their movement across platforms, video games have also exceeded their original location in the field of pure entertainment.

¹² B. Sinclair, ‘Gaming Will Hit \$91.5 Trillion This Year’, *Gamesindustry.biz* [website], 22 April 2015, <http://www.gamesindustry.biz/articles/2015-04-22-gaming-will-hit-usd91-5-billion-this-year-newzoo> , (accessed 12 August 2020).

¹³ A. Watson, ‘Music industry revenue worldwide from 2012 to 2023’, *Statista* [website], 3 December 2019, <https://www.statista.com/statistics/259979/global-music-industry-revenue/> , (accessed 12 August 2020).

¹⁴ Dave McNary, ‘2018 Worldwide Box Office Hits Record as Disney Dominates’, *Variety* [website], 2 January 2019, <https://variety.com/2019/film/news/box-office-record-disney-dominates-1203098075/> , (accessed 12 August 2020).

¹⁵ A. Watson, ‘Book publishing revenue worldwide in 2018 and 2023’, *Statista* [website], 9 December 2019, <https://www.statista.com/statistics/307299/global-book-publishing-revenue/> , (accessed 12 August 2020).

The phenomenon of ‘gamification’ (a term coined in 2001 by programmer Nick Pelling to describe the application of game-design elements and principles within non-game contexts)¹⁶ has connected this industry with fields as disparate as education, charity fundraising, political propaganda, human resource management and so on. At the same time, the phenomenon of ‘digital convergence’ has brought previously distinct technologies into a state of close proximity with each other – to the point that the industries of information technology, telecommunication, consumer electronics and entertainment (where video games are usually classified) are increasingly defined as one single conglomerate, under the acronym ITTCE.

Against the common dismissal of video games as childish entertainment, statistics show that the average age of the contemporary American gamer is 33 years old, with 79% of gamers over 18 years of age.¹⁷ As German philosopher Eugen Fink once remarked, “In the end it is not at all true that it is the child who predominantly plays. Perhaps the adult plays just as much, only differently, more secretly, in a more masked manner.”¹⁸ Likewise, despite the common stereotype of the male gamer, 46% of all gamers are women, with an average age of 34.¹⁹ (see tables 2 and 3)

Such a broad reach of video games allows for a renewed understanding of this medium, also in terms of its potential application beyond the sphere of entertainment. In this thesis, I claim that video games deserve to be treated by scholars and designer with the same playful seriousness with which they are treated by their players.

¹⁶ A. Marczewski, *Gamification: A Simple Introduction*, London, Amazon Media EU, 2012, p. 3. For an analysis of the gamification, or ‘ludification’, of contemporary culture, see V. Frissen et al. (eds.), *Playful Identities. The Ludification of Digital Media Cultures*, Amsterdam, Amsterdam University Press, 2015. See also S. Deterding et al., ‘From Game Design Elements to Gamefulness: Defining Gamification’, *Proceedings of the 15th International Academic MindTrek Conference* [website], 2011, <https://dl.acm.org/doi/10.1145/2181037.2181040> (accessed 12 August 2020)

¹⁷ Entertainment Software Association, *Essential Facts About the Computer and Video Game Industry 2019* [website], <https://www.theesa.com/esa-research/2019-essential-facts-about-the-computer-and-video-game-industry/>, (accessed 12 August 2020). Data refer to the American market.

¹⁸ E. Fink, ‘Oasis of Happiness’, in *Play as Symbol of the World and Other Writings*, trans. I. A. Moore and C. Turner, Bloomington: Indiana University Press, 2016, p.18.

¹⁹ Entertainment Software Association, *Essential Facts About the Computer and Video Game Industry 2019* [website], <https://www.theesa.com/esa-research/2019-essential-facts-about-the-computer-and-video-game-industry/>, (accessed 12 August 2020). Data refer to the American market.

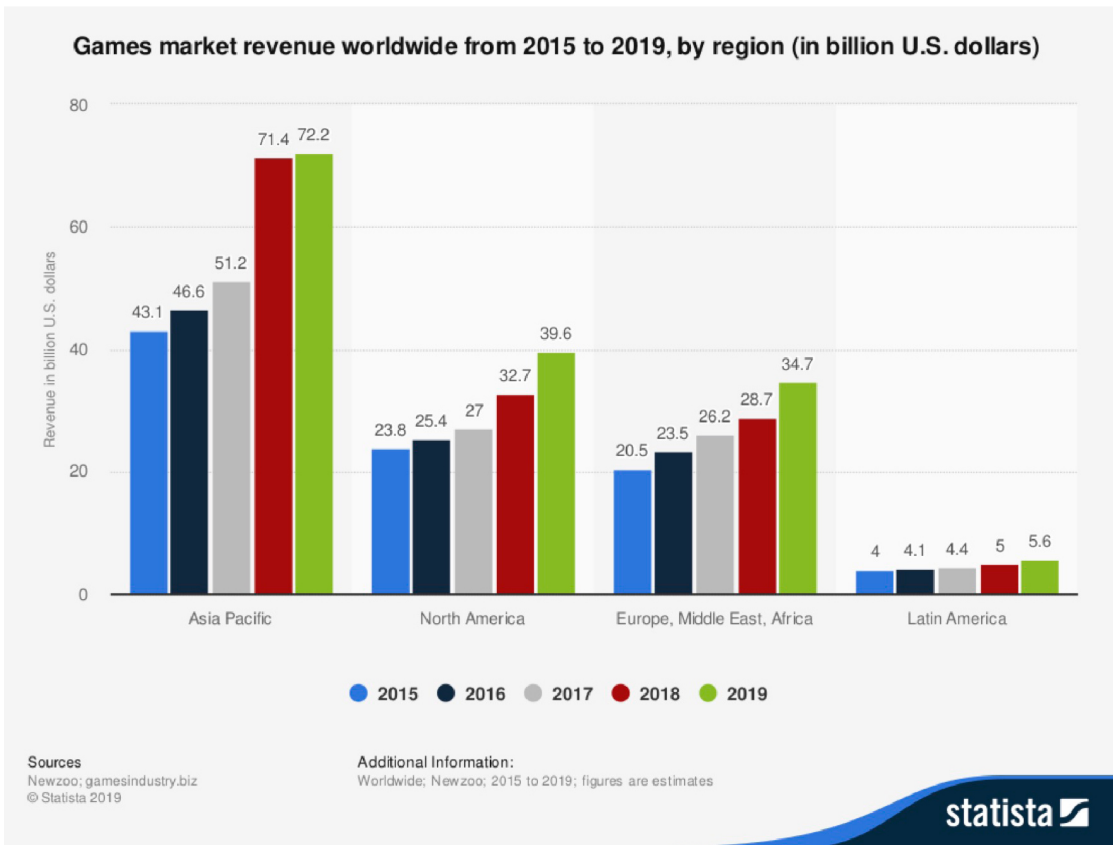


Table 1, Graphic elaboration: Statista, 2019. Sources: Newzoo; Gamesindustry.biz, 2019.

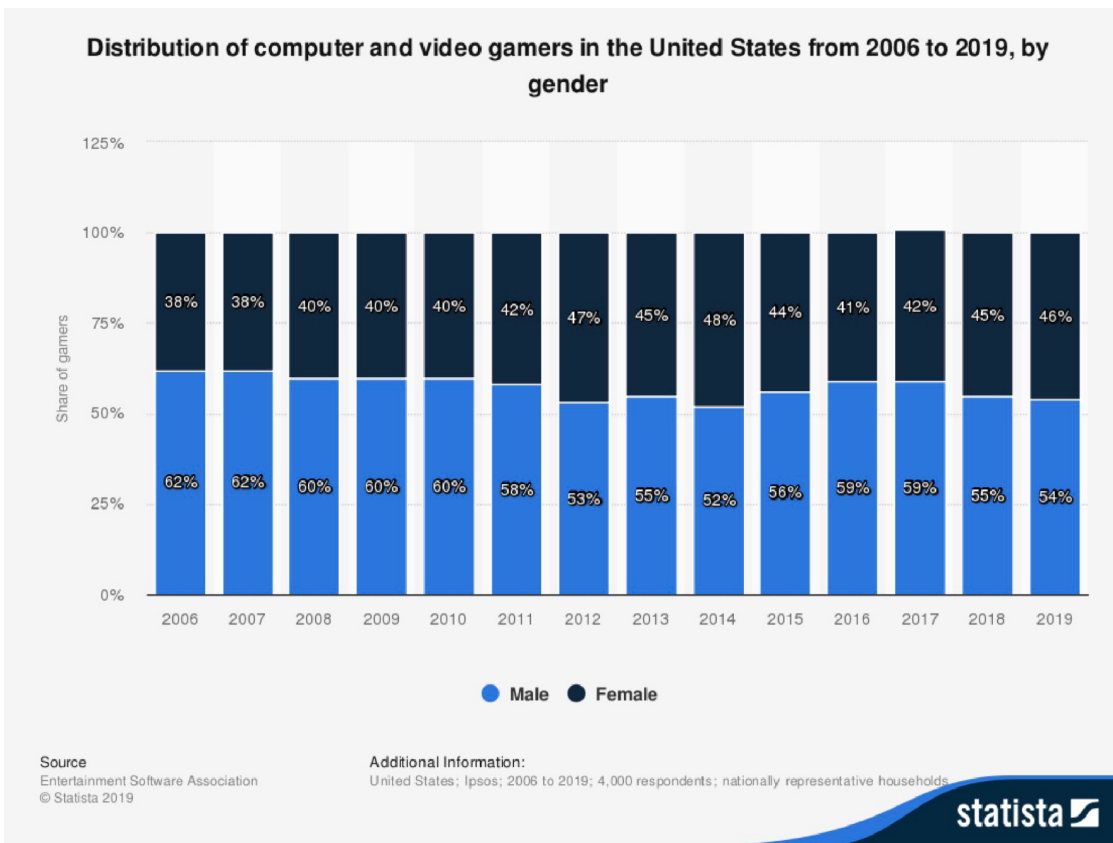


Table 2, Graphic elaboration: Statista, 2019. Source: Entertainment Software Association, 2019

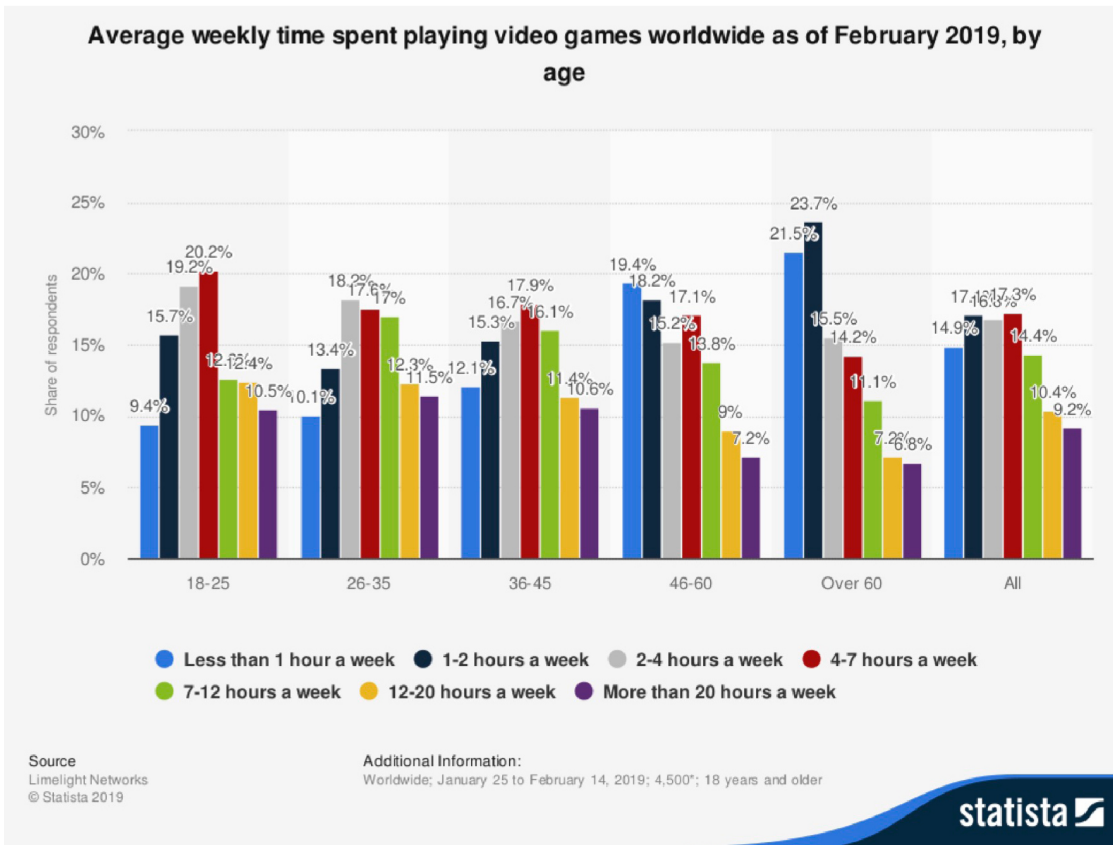


Table 3, Graphic elaboration: Statista, 2019. Source: Limelight Networks, 2019.

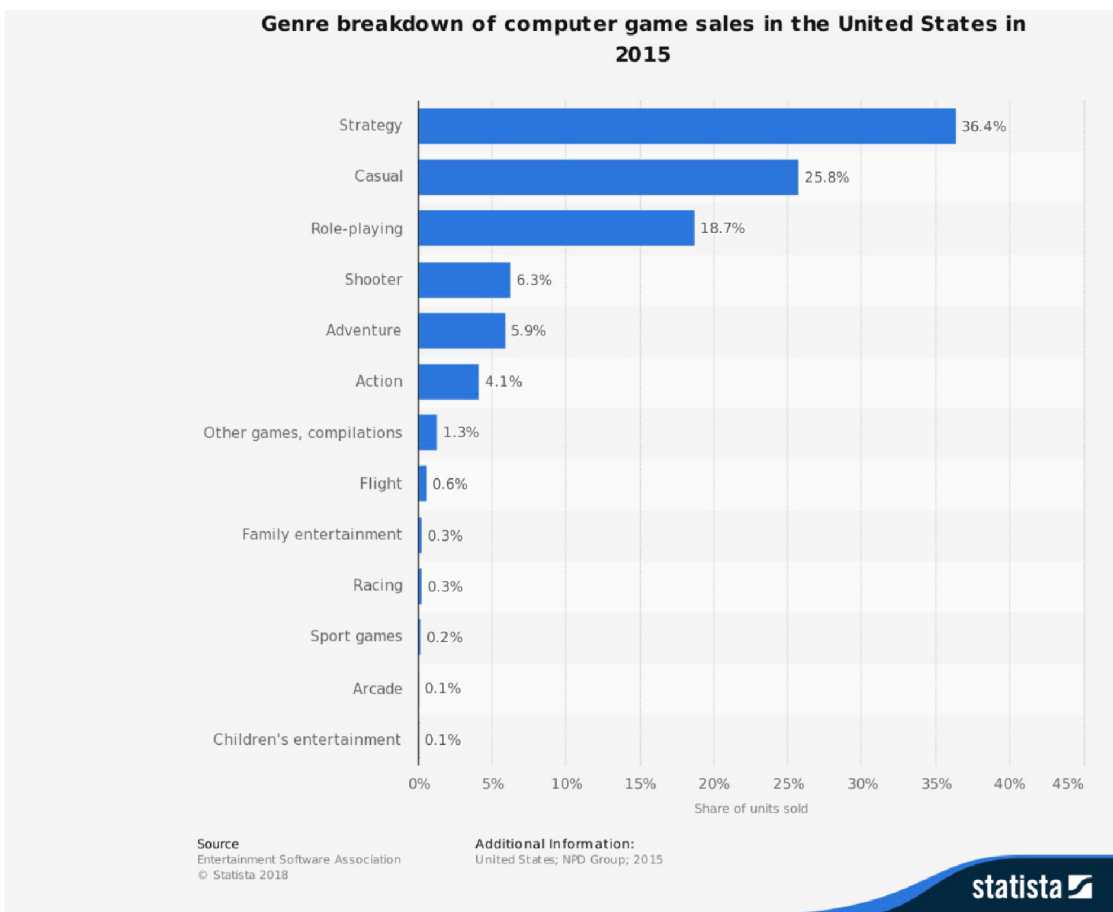


Table 4, Graphic elaboration: Statista, 2018. Source: Entertainment Software Association, 2018.

1.1.2 'Strategy' video games

Having briefly sketched the economic context of the general object of my research, video games, it is time to begin approaching the specific sub-set on which I focus.

My thesis explores the role of philosophy in the design of video game-worlds, through an analysis of its application to the genre of strategy video games – of which the 4x video game *Total War: Rome 2* (TW:R2), acts as my case study. Thus, from the onset of this thesis it, is necessary to clarify what exactly constitutes a 'strategy video game' (beginning with the meaning of the term 'strategy'), and what are the peculiarities of this genre that make it an ideal candidate for philosophical investigation.

As suggested by its etymology (from the Greek *strategia*, 'the art of leading troops in war'), the notion of strategy typically involves an element of conflict. Despite its military origin, however, its field of application far exceeds the art of war. This is due, in part, to the lack of autonomy of the field of war – as per Von Clausewitz's notorious claim that "war is the continuation of politics by other means"²⁰. But another, more convincing reason for the spread of the term 'strategy', can be traced to its appropriation by fields as varied as business, communication, marketing, sports – all the way to video games. As noted by war historian Lawrence Freedman, in his monumental history of the notion of strategy:

References to business strategy were rare before 1960. They started to take off during the 1970s and by 2000 became more frequent than references to military strategy. It is through the literature on management and business that the use of the word has spread.²¹

In the course of its long history, the term strategy has carried several meanings, all revolving around the idea of a rational and careful management of resources in view of specific aims, usually within the context of a hostile confrontation. Such meanings have not only been embodied by productive or military activities, but they have also been formalised in an abstract form in the field of games. A crystalline expression of strategic thinking can be found in traditional table-top games like Chess

²⁰ C. von Clausewitz, *On War*, trans. M. E. Howard and P. Paret, Princeton, NJ, Princeton University Press, 1984, p. 87.

²¹ L. Freedman, *Strategy: A History*, Oxford, Oxford University Press, 2013, p. xiii.

and Go, where strategy constitutes the essence of the game. More recently, strategy has found a rich expression – albeit not always ‘pure’ – also in the realm of video games.

As noted by Rollings and Adams:

Strategy is the mental act of planning... Chance and missing information interfere with strategy. Chess is the classic strategy game because it contains no element of chance and offers complete information to both players... Pure strategy games favour the player with a certain type of talent, and they appeal most to the kinds of people who have that talent. Because computer games are usually aimed at a broader audience, relatively few offer pure strategy games. They tend to include elements of chance and missing information.²²

Strategic thinking has been a prominent feature in video games since the creation of this medium. Already in 1972, the first commercial home video game console Magnavox Odyssey offered the strategy video game *Invasion*, which transposed in the digital realm some of the main features of the table-top game *Risk*.

Despite the impressive development of this genre throughout the years, its settings have remained largely the same to this day. Strategy video game take place predominantly in historical scenarios, which can be either authentic – as in the pioneering *Computer Bismark*²³ – or uchronic, or speculatively projected into an imaginary future.

The creation of richer and more complex scenarios also counts as a constant trend, which has found its clearest expression in the sub-genre known as 4X (‘explore, expand, exploit, exterminate’). 4X games – such as my case study, TW:R2²⁴ – emphasize the economic, technological and diplomatic aspects of gameplay. Their origin can be traced to the simultaneous releases in 1983 of *Reaching for The Stars*²⁵ and of *Nobunaga’s Ambition*.²⁶ Following the 1991 launch of Sid Meier’s *Civilisation*²⁷

²² A. Rollings and E. Adams, *Andrew Rollings and Ernest Adams on Game Design*, Indianapolis, IN, New Riders, 2003, p.232.

²³ Strategic Simulations, *Computer Bismarck* [video game], 1980.

²⁴ See *intra*, Chapters 3 and 4.

²⁵ Strategy Studies Group, *Reaching for the Stars* [video game], 1983.

²⁶ Koei Tecmo Holdings, *Nobunaga’s Ambition* [video game], 1983.

²⁷ MicroProse, *Civilisation* [video game series], launched 1990.

series, and of other early successes such as *Masters of Orion*²⁸ and *Space Empires*,²⁹ the sub-genre of 4X games has acquired a special prominence among strategy video games.

Early 4X games used to allow only turn-based gameplay, and to this day most of main strategy video games are still primarily turn-based – like *Civilization VI*³⁰, *Burned Land*³¹, *Old World*³², to name but a few. Since the 1992 release of *Dune II*,³³ however, also real-time gameplay has become a common feature in the field³⁴ – as in the series *Age of Empires*,³⁵ *Europa Universalis*,³⁶ *Crusader Kings*,³⁷ and *Sins of a Solar Empire*.³⁸ An array of different combinations of real-time and turn-based gameplay has become an increasingly common in 4X games – as in *Frozen Synapse*,³⁹ *Sword of the Stars*,⁴⁰ and in the successful series *Total War*.⁴¹

In recent years, the field of strategy video games has witnessed a notable expansion of independent productions, although this quantitative growth has not yet been matched by comparable qualitative innovations. Looking at the future of the field, an interesting avenue of development seems to be offered by free software releases – somewhat akin to fanfiction in literature – such as *FreeCiv*, *FreeCol*, *FreeOrion*, which allow users to intervene directly on the code of the game and to modify it.

In terms of their presence within the market, strategy video games are especially notable within the segment of games designed for computers (i.e. platforms not primarily built for gaming). While the strategy genre accounts for only 3.7% of the total sales of games designed for consoles (i.e.

²⁸ MicroProse, *Masters of Orion* [video game], 1993.

²⁹ Malfador Machinations, *Space Empires* [video game], 1993.

³⁰ Firaxis Games, *Civilization VI* [video game], 2016.

³¹ Koya Game, *Burned Land* [video game], 2019.

³² Mohawk Games, *Old World* [video game], 2020.

³³ Westwood Studio, *Dune II* [video game], 1992.

³⁴ The diction ‘real time strategy game’ was coined in the early 1990s by producer Brett Sperry to market his video game *Dune II*. See O. J. Ayangbekun, I. O. Akinde, ‘Development of a Real-Time Strategy Game’, *Asian Journal of Computer and Information Systems*, vol 2, no. 4, August 2014, pp. 78-89.

³⁵ Ensemble Studios, *Age of Empires* [video game series], launched 1997.

³⁶ Paradox Interactive, *Europa Universalis* [video game series], launched 2000.

³⁷ Paradox Interactive, *Crusader Kings* [video game series], launched 2004.

³⁸ Ironclad Games, *Sins of A Solar Empire* [video game series], launched 2008.

³⁹ Mode 7, *Frozen Synapse* [video game], 2011.

⁴⁰ Kerberos Productions, *Sword of the Stars* [video game], 2006.

⁴¹ The Creative Assembly, *Total War* [video game series], launched 2000. For an indication of its commercial success, see *List of Best-Selling Video Game Franchises* [website], http://en.wikipedia.org/wiki/List_of_best-selling_video_game_franchises, (accessed 12 August 2020).

platforms primarily built for gaming), the percentages are almost reversed in reference to games played on computers – where the strategy genre occupies the top of the list.⁴² (see Table 4)

1.1.3 The philosophical transparency of strategy video games

In the context of this thesis, the term ‘strategy’ is used to indicate a genre of video games – with particular reference to 4X games. At the same time, however, the general notion of ‘strategy’ can equally apply to the process of video game design itself, and especially to the process of creating game-worlds. Video game design, too, has to do with the implementation of a selection of choices in conditions of scarcity (in terms of resources, time, etc.) and within the constraints imposed by the available technological media. The genre of ‘strategy’ video games offers a clear view of the strategic choices taken by video game designers, which are embodied in the conceptual architecture sustaining the game-world.

Due to the transparent relationship between the strategic choices operated by the designers, and the conceptual architecture of a strategy video game as experienced by the player, games from this particular genre lend themselves well to a philosophical analysis of the settings that give shape and delimit their game-worlds.

Indeed, any video game can be read metaphysically in reference to its conceptual architecture, precisely on the basis of its being a ‘game’:

The distinction between game and play can be paralleled to that drawn by [Roger] Caillois between *ludus*, as a structured, rule-bound activity, and *paidia*, as a free play or “uncontrolled fantasy” ... For an activity of play to achieve the status of a ‘game’, what is required is precisely

⁴² Entertainment Software Association, *Essential Facts About the Computer and Video Game Industry 2019* [website], <https://www.theesa.com/esa-research/2019-essential-facts-about-the-computer-and-video-game-industry/>, (accessed 12 August 2020). Data refer to the American market. I am retaining here the traditional division between video game genres for the sake of simplicity, while also acknowledging that such categorization has recently been challenged – see T. H. Apperley, ‘Genre and Game Studies: Towards A Critical Approach to Video Game Genres’, *Simulation & Gaming*, vol. 37, no. 1, March 2006, pp. 6-23.

that delimitation into a clear, ordered form that also allows it to achieve the formal unity required of the aesthetic object.⁴³

Nonetheless, not all video games are equally 'open' to be read from a conceptual angle. If subjected to a philosophical investigation of their conceptual architecture, certain genres result more-or-less transparent and more-or-less promising than others. For example, existing sports games dedicated to football or to car racing, with their limited set of entities and interactions, tend to offer a meagre landscape for metaphysical analysis. Immersive action-adventure games like the series *Grand Theft Auto*⁴⁴, on the other hand, tend to veil their metaphysical structures under a thick layer of narrative and of derivative representation of the 'real world'.

Conversely, strategy video games offer a complex array of elements, presented in a fashion that is immediately susceptible to a fundamental philosophical analysis. Due to the prominence of the 'strategic' element, which requires the player to navigate among the constitutive elements of the game-world as if through a neatly arranged catalogue, games in this genre present transparently the items and structures that define its fundamental architecture.

Mixing government simulation with strategy and real-time battles, a 4X strategy video game like *TW:R2* provides furthermore a compellingly rich number of entities and dimensions that can be investigated philosophically. Since the present research aims to suggest a method to read video games metaphysically and metaethically, *TW:R2* (or any equivalent type of game) lends itself well to being analysed in this context.

The potential of strategy video games for philosophical investigation, however, is not limited to the scope of the present research. Video games (and strategy video games in particular) have recently been recognised also as important assets within the field of education. In 2002, Mark Griffiths claimed that "video and computer-based games may possess advantages not present in other learning strategies," such as the possibility of "experiment[ing] with problem-solving in a relative safe environment."⁴⁵ Ten years later, the research report *A Literature Review of Gaming in*

⁴³ D. Vella, *The Ludic Subject and the Ludic Self: Analyzing the 'I-in-the-Gameworld'*, Phd thesis, Copenhagen, IT University, 2015, pp. 53-54. For the reference to Caillois, see R. Caillois, *Man, Play and Games*, trans. M. Barash, Chicago, IL, University of Illinois Press, 2001, p. 13.

⁴⁴ Rockstar Games, *Grand Theft Auto* [video game series], launched 1997.

⁴⁵ M. Griffiths, 'The Educational benefits of videogames', *Education and Health*, vol. 20, no. 3, 2002, pp. 47-51 50.

Education, confirmed that this potential had already begun to be actualised, as “several commercial and custom-made video games have been used in classrooms across the world to enhance students’ learning experience.”⁴⁶ As confirmed by Matthew Barr’s 2017 empirical study, “playing commercial video games can have a positive effect on communication ability, adaptability and resourcefulness in adult learners.”⁴⁷ Equally, game-design can be adopted in a learning environment, since, as suggested by Sylvester Arnab, “designing and creating games and game-like systems, as an activity on the edge of diverse disciplines, is a fertile ground to cultivate creative and innovative mind-sets.”⁴⁸

As claimed by video game designer and philosopher Stefano Gualeni, video games – understood as procedural metaphors and interactive poetic allegories that function as heuristic models – have also the potential of disclosing philosophical systems in a way that is both comprehensive and apprehensible with relative ease.

Virtual worlds have the power to disrupt and change fundamental attitudes and beliefs about the world and can thus be used persuasively in the pursuit of institutional as well as artistic, philosophical, critical, and personal goals.... [They materialize] their messages, ideologies, and worldviews by making them objectively accessible to their players by means of aesthetic stimuli and feedback devices.⁴⁹

An early example of this philosophical function of games can be found in the tradition of Tarot cards, as they were initially used in Italy and France during the Late Middle Ages.

[Tarot cards] should be thought of as an improving and educational game... [The order of the cards] reproduces the order assigned by theology to the Universe. Placed edge to edge, they form, as it were, a symbolic ladder leading from Heaven to the earth... This card game sums up the speculations of St. John Climacus, of Dante, and of St. Thomas Aquinas... There is no doubt that it was played seriously. ... We may apply to it the words which Nicholas of Cusa

⁴⁶ K. L. McClarty et al., ‘A Literature Review of Gaming in Education: Research Report’, *Pearson’s Research Report*, London, Pearson Education, June 2012, https://images.pearsonassessments.com/images/tmrs/Lit_Review_of_Gaming_in_Education.pdf, (accessed 12 August 2020).

⁴⁷ M. Barr, ‘Video Games Can Develop Graduate Skills in Higher Education Students: A Randomised Trial’, *Computers & Education Journal*, vol. 113, October 2017, pp. 86-97: 96.

⁴⁸ S. Arnab, *Game Science in Hybrid Learning Spaces*, Oxon and New York, Routledge, 2020, p. xix.

⁴⁹ S. Gualeni, *op. cit.*, 2015, pp. 133 and 138.

wrote of a similar game, a “geographical globe game,” which he uses as an illustration for his philosophical thought: “This game is played, not in a childish way, but as the Holy Wisdom played it for God at the Beginning of the world.”⁵⁰

The strategic quality of these early educational games has remained unaltered also in contemporary “serious games” (as per Clark Abt’ definition).⁵¹ Among the many types of games that have been tested within an educational context, strategy video games have enjoyed an especially strong reputation in terms of their potential educational benefits.⁵²

As claimed by Will Wright, creator of the city-building, strategy series *SimCity*: “by now, the generation that grew up with *SimCity*... is in architecture school, and... their urban sensibilities have already been irrevocably impacted because of that.”⁵³

Even though my thesis does not investigate the potential of strategy video games as tools to teach philosophy, this possibility has been explored by several theorists in the field of video game studies, and it is currently among the best explored perspectives on the conjunction between philosophy and video game design.⁵⁴

⁵⁰ J. Seznec, *The Survival of the Pagan Gods: the Mythological Thought and Its Place in Renaissance Humanism and Art*, Princeton, N.J., Princeton University Press, 1972, pp. 139-140.

⁵¹ C. C. Abt, *Serious Games*, New York, N.Y., Viking Press, 1970.

⁵² M. De Aguilera and A. Mendiz, ‘Video Games and Education: (Education in the Face of a “Parallel School”)', *Computers in Entertainment*, vol. 1, no. 1, 2003, p. 1. ; see also A. Mitchell and C. Savill-Smith, ‘Considering the use of strategy games and twitch games’, in *The Use of Computer and Video Games for Learning: A Review of the Literature*, London, Learning and Skills Development Agency, 2004, pp. 30-31.

⁵³ W. Wright, *Keynote Address at the ACADIA conference 2014*, cited in A. Taylor-Hochberg, ‘The theory of everything in sandbox city: Will Wright’s keynote at ACADIA 2014’, *Architect* [website], 4th November 2014, <https://architect.com/features/article/112824468/the-theory-of-everything-in-sandbox-city-will-wright-s-keynote-at-acadia-2014> , (accessed 12 August 2020).

⁵⁴ See *intra*, 1.3.2.

1.2 TERMINOLOGY

In the previous section, I located the main object of my research – strategy video games – within their economic and cultural context. In this section, I proceed suggesting a definition of the terms ‘philosophy’, ‘video games’ and ‘design’, as I employ them in my research. An enquiry into the relationship between seemingly distant fields must always begin with a clear and comprehensive definition of the elements taken into account. Following the injunction issued by the inventor of the dialectical method:

First, you must know the truth concerning everything you are speaking or writing about; you must learn how to define each thing in itself; and, having defined it, you must know how to divide it into kinds until you reach something indivisible.⁵⁵

1.2.1 Philosophy

The sheer amount of works and discussions produced in over 2,500 years has contributed to both clarify the definition of philosophy, and to open it up to criticism and to reinvention. The definition of philosophy has varied widely across the centuries, from Socrates’ notorious description (via Plato) of philosophy as a ‘loving’ tension towards wisdom,⁵⁶ to Aristotle’s characterisation of philosophy as the autotelic activity through which humans engage to free themselves from ignorance;⁵⁷ to Thomas Aquinas’ understanding of philosophy as a propaedeutic path to faith;⁵⁸ to Montaigne’s idea of philosophy as “the art which teaches us how to live”;⁵⁹ to Schopenhauer’s definition of philosophy as the act of abstractly reflecting through concepts the entire essence of the world;⁶⁰

⁵⁵ Plato, ‘Phaedrus’, 277b, in *Complete Works*, trans. A. Nehamas and P. Woodruff, ed. J. M. Cooper, Indianapolis, IN, Hackett, 1997, p. 554.

⁵⁶ Plato, *Symposium*, 210a-212c.

⁵⁷ Aristotle, *Metaphysics*, trans. H. Lawson-Tancred, London, Penguin, 1998, alpha, 2, 982b, pp. 8-9.

⁵⁸ St. T. Aquinas, *Summa Theologica*, trans. The Fathers of the English Dominican Province, London, R. & t. Washbourne, 1911, I, 1.1, obj. 2, p. 2.

⁵⁹ M. de Montaigne, *Essays*, trans. J. M. Cohen, London, Penguin, 1993, p. 183.

⁶⁰ A. Schopenhauer, *On The Fourfold Root of the Principle of Sufficient Reason*, trans. K. Hillebrand, New York, N.Y., Cosimo Classics, 2007, p. 152.

and so on in a seemingly unending chain. Indeed, the very activity of philosophising implies a constant re-definition of what is to be understood by the term 'philosophy'.

For the purpose of my research, I adopt a two-part definition of philosophy – respectively, in reference to its productions, and to its scope.

To describe philosophy in terms of its workings and of its productions, I rely on Gilles Deleuze and Felix Guattari's definition: philosophy is "the art of forming, inventing and fabricating concepts."⁶¹ However succinct, this characterisation outlines an aspect of philosophy which is crucial to its interaction with the field of video game design. Since video game design has to do with the construction of universes that function on the basis of commands, which are structured in the shape of an overarching conceptual architecture, then understanding philosophy as the "the art of forming, inventing and fabricating concepts" offers a good grasp of its potential to analyse and to transform the fundamental structure of video game-worlds.

On the other hand, to describe philosophy in reference to its scope, I adopt the definition suggested by the Italian philosopher Emanuele Severino – an important point of reference to my research, whose thought will be discussed at greater length in the next chapter. In the first volume of his history of Western philosophy, Severino distinguishes between the different forms of knowledge that are offered by mythology and by philosophy. Myths present a picture of reality as a tapestry of specific, individual figures: heroes, monsters, gods, are individual items, floating in an as-yet-undiscovered Whole. Conversely, philosophy concerns itself with the Totality of the existent and with its composition as a Whole.

With the birth of philosophy, for the first time thought [is able to traverse reality] while not getting distracted by the infinite richness of things: to turn towards the Totality means running to the final horizon, beyond which there is nothing, while at the same time being able to observe the gathering-together of different and antithetic things... in a supreme unity. ... When the first Greek thinkers turn towards the Whole, it is because an unconfutable truth is

⁶¹ G. Deleuze and F. Guattari, *What is Philosophy?*, trans. H. Tomlinson and G. Burchell, New York, N.Y., Columbia University Press, 1994, p.2.

not such relatively to this or that particular dimension of reality, but relatively to the extreme border of the Whole. This means that the Whole is the content of any unconfutable truth.⁶²

Since its origin, Severino continues, philosophy has observed the Whole of reality in order to discover the connections between its parts. In so doing, it has observed a hierarchical relationship between the origin – the matrix – of things, and their particular appearance. And indeed, the matrix is the Whole, where all the destinies of each part of reality are always-already included and resolved.

The things that come to be, don't originate from a dimension that is beyond the Whole and, when they die, they don't end beyond the extreme borders of the Whole. ... All things are inhabitants of the Whole, not only in the sense that they are located within it, but in the stronger sense that the origin from which they come, and the final approach which they reach by going away, are both included in the Whole.⁶³

In the case of video game-worlds, philosophy's project to take account of the Totality of the Whole, as well as of its inner relations, finds especially fertile ground. This is due to an essential aspect of video game-worlds: their transparent intelligibility. Philosophy has always found it necessary to investigate to what extent reality can be deemed 'intelligible', as a preliminary step to assess whether its intellectual tools might be able to grasp it. Hence, for example, the importance of religion for the birth of medieval Scholastic rationalism, or of Theism for the Enlightenment: by assuming a rationality innate to reality – as in the Panlogism proclaimed by Hegel – philosophy becomes able to truly map the things which it investigates. The intentional production of a video game-world and of the conceptual elements that compose its landscape, by the hands of a group of designers following the rationality that is implicit to linguistic operations (including software), makes it possible to claim beyond doubt that this preliminary condition is satisfied.⁶⁴ The video game-world is an intelligible world, and thus philosophy can operate on it to its fullest extent. And

⁶² E. Severino, *La Filosofia dai Greci al Nostro Tempo: La Filosofia Antica e Medioevale*, Milano, Rizzoli, 2004, pp. 21-23 – my translation.

⁶³ *Ibid.*, pp. 28-29 – my translation.

⁶⁴ see Gualeni's remark on the essential intelligibility of video game-worlds, considered as simulations: "From adopting the concept of a world as a context characterized by the persistently intelligible qualities of the beings that participate in it, as well as their interrelationships, it follows that, to function as a simulation, a behavior-based world needs to be intelligible... The persistence of its phenomenology and the intelligibility of the causal, spatial, and temporal relationships among beings in simulated worlds are precisely the qualities that allow them to be engaged as worlds according to a phenomenological understanding of the term. Hence, simulations can generally be described as intelligible and persistent, designed interactive ways to disclose complex source systems through less complex, technically mediated ones." Gualeni, *op. cit.*, 2015, pp. 49-50.

simultaneously, no discipline can have a more legitimate ambition than philosophy to investigate the Totality of a such an intelligible Whole.

In my research, I follow the traditional categorisation of philosophy's main branches, selecting in particular two as a testing ground for my exploration of the relationship between philosophy and video game design. I have chosen metaphysics and metaethics as exemplary of philosophy tout-court, on the basis of Aristotle's classic distinction of the sciences (*epistemai*). In various sections of his work,⁶⁵ Aristotle suggests a division of the branches of learning on the basis of their specific aims and scope. According to Aristotle, there are three types of sciences: theoretical (seeking knowledge for its own sake), practical (concerning conduct and goodness in action, both for the individual and at the level of society), and productive (aimed at creating useful or beautiful objects).

- Prominent within the theoretical sciences are metaphysics (or 'first philosophy') and physics (or 'natural philosophy'), as well as mathematics. It is worth noting that for Aristotle all theoretical sciences, including physics, have a conceptual approach, observing reality as if it was an architectural puzzle to be decoded, understood and appreciated. My decision to focus on metaphysics reflects Aristotle's belief in the intelligibility of the universe, which I apply to the unquestionable intelligibility of a digital game-world.
- Practical sciences include both politics and ethics, since for Aristotle politics cannot be understood separately from ethics, of which it is the practical realisation. In accordance with the logical precedence of ethics over politics, I have decided to focus on metaethics as the exemplary, 'practical' angle through which it is possible investigate the 'life' of the populations within the game and the motivational basis of their actions. I have chosen metaethics (a discourse around the nature of the very notions of 'good' and 'bad') rather than normative ethics (a series of claims about specific forms of 'good' and 'bad'), again because of the conceptual primacy of the former over the latter.⁶⁶

⁶⁵ See, for example: *De Caelo* [On the Heavens] 298a27–32, *De Anima* [On the Soul] 403a27–b2; *Metaphysics* 1025b25, 1026a18–19, 1064a16–19, b1–3; *Nicomachean Ethics* 1139a26–28, 1141b29–32, *Topics* 145a15–16; *Physics*. 192b8–12.

⁶⁶ See *intra*, 4.1.

- Productive sciences encompass practices aimed at the production of artefacts of any kind. Although this category of sciences does not comprise philosophy, it does apply to the practice of design, including of course video game design.

Aristotle's tripartition of sciences provides a solid and comprehensive conceptual framework, within which it is possible to understand and to structure the relationship between philosophy (exemplified by the 'theoretical science' of metaphysics and the 'practical science' of metaethics) and video game design (as a type of 'productive science').

My choice to symbolise the whole of philosophy through the classic categories of metaphysics and metaethics is motivated also by another set of reasons, concerning the frequent (mis)understanding of the philosophical discipline in the field of video game design. There is no shortage of misuses of the term 'philosophy' in articles, blogs, websites and podcasts dedicated to video game design – where, in most cases, it is employed to signify somebody's general 'opinion',⁶⁷ or the 'way'⁶⁸ in which something is done or planned. Although the definition of philosophy which I have borrowed from Deleuze and Guattari allows for a certain amount of freedom, it is necessary to remember that not every form of mental process or opinion is immediately and automatically philosophical.

My adoption of the traditional categories of metaphysics and metaethics counts as a homage to the so-called philosophical 'canon'. Despite the many – often sharply on-point – criticisms waged on the canon in recent decades, my decision to remain mostly (although, admittedly, not always) within its bounds should be interpreted as an invitation for video game designers to engage with philosophy as one would with a millennia-old discipline: starting with the canon (or, with one of its possible canons, since the 'canon' itself is always subject to reinvention by those who appeal to it), before venturing into a daring deconstruction of the philosophical tradition.

It might be objected that my decision to present philosophy primarily (though not only) in its 'Western' declination cuts out of the picture venerable philosophical traditions such as those

⁶⁷ See for example how renowned game designer Warren Spector unproblematically equates the 'strong opinions' which he has developed over his long career as a video game designer, with his own 'philosophy' – in W. Spector, 'A Philosophy of Game Design', *Sweden Game Conference 2016 (SGC16)* [online video], 22nd December 2016, <https://www.youtube.com/watch?v=LszwbjHSnMA> .

⁶⁸ See for example this misuse of the term in the work of video game bloggers such as Josh Bycer, editor and founder of the website Game-Wisdom – in J. Bycer, *A Critical Thought on the Philosophy of Game Design* [online video], 1st August 2017 <https://www.youtube.com/watch?v=cE5jUK5cQP8> .

developed in the Indian subcontinent, in China, in the non-Western parts of the Islamic world and in Africa. As noted by a growing number of scholars, it is increasingly important to ‘decolonise’ the history of philosophy, and to broaden its academic horizon beyond the realm of Western references. This operation of decolonisation has not only the potential to enrich philosophical discussions worldwide, but it is endowed with great political significance. This is testified, for example, by the convergence between the political field of ‘subaltern studies’ in historiography and the recent presentations of Indian philosophy by Indian scholars,⁶⁹ and by the notion of ‘postcoloniality’ and the latest innovations in African philosophy.⁷⁰

[What is] at stake here [is] a respect for the complexity and motives and cultures of subaltern agents; the complicit role of the intellectual in the power politics and crises of the postcolonial state; the role of criticism in the politics of knowledge; and the conflicts among cosmopolitan, nationalist, and indigenous forms of knowledge.⁷¹

The postcolonial and subaltern critique of the Western philosophical canon are indeed important and long-overdue interventions in the field, and the case they put forward is both philosophically powerful and politically urgent. And it is not at all my intention to advocate any non-existing

⁶⁹ See in particular the critique of Western metaphysics offered by Gayatri Spivak – one of the main voices in subaltern studies – in G. Spivak, *A Critique of Postcolonial Reason: Toward a History of the Vanishing Present*, Harvard, MA, Harvard University Press, 1999. Among many other important contemporary Indian philosophers in the field of postcolonial and subaltern studies, see in particular Bhabha’s call for a post-identitarian, hybrid understanding of culture, as developed in H. K. Bhabha, *The Location of Culture*, Oxon and New York, Routledge, 2004. See also the critique of the universalism advocated to itself by the ancient Western canon developed by French-Algerian philosopher and literary criticist Amar Acheraiou, in A. Acheraiou, *Rethinking Postcolonialism: Colonialist Discourse in Modern Literature and the Legacy of Classical Writers*, Basingstoke and New York, Palgrave, 2008. For a multi-vocal overview of recent interventions on necessary reform in academic philosophy (and more generally, in higher education), as interpreted through a subaltern and postcolonial perspective, see G. K. Bhambra et al. (eds.), *Decolonising the University*, London, Pluto Press, 2018.

⁷⁰ See in particular the classic and as-yet-unsurpassed critique of the relationship between the universal aspirations of ‘white’ culture and the oppression of colonial subjects in F. Fanon, *Black Skins, White Masks*, London, Penguin, 2020. For a proposal to combine Western and African philosophy in a post-colonial context, see K. Wiredu, *Philosophy and African Culture*, Cambridge, Cambridge University Press, 1980, and his discussion of philosophical universalism and localism in K. Wiredu, *Cultural Universals and Particulars: An African Perspective*, Bloomington and Indianapolis, Indiana University Press, 1997. For an overview of the nascent field of ‘Africana’ philosophy – intended as a meta-philosophical umbrella-concept, which covers the contemporary philosophizing of African philosophers and of philosophers of African descent – see L. Gordon, *An introduction to Africana Philosophy*, Cambridge, Cambridge University Press, 2008. For a meta-analysis of the category of African philosophy, see I. Karp and D. A. Masolo (eds.), *African Philosophy as Cultural Inquiry*, Bloomington and Indianapolis, Indiana University Press, 2000.

⁷¹ I. Karp and D. A. Masolo (eds.), *African Philosophy as Cultural Inquiry*, Bloomington and Indianapolis, Indiana University Press, 2000, p. 3. For an overview of African and African American epistemology, in the light of postcolonial thinking, see P. H. Coetzee and A. P. J. Roux (ed.), *The African Philosophy Reader*, London and New York, Routledge, 2003. For a brief but comprehensive critique of the Western notion of ‘rationality’, as read through the lens of African philosophy, see B. Hallen, *A Short History of African Philosophy*, Bloomington, Indiana University Press, 2002, (especially pp. 19-49).

superiority of the Western canon over other philosophical traditions – as, I believe, is testified also by my extensive use of Islamic and Hindu sources in my recent academic publications.⁷²

My privileging the Western philosophical tradition in this work should be understood purely in relation to the context where my research takes place: The Royal College of Art, in London, with the support of the London Doctoral Design Centre. Researching from one of the capitals of the so-called ‘West’, I have chosen to adapt my range of references to the tradition that is closest to, and most immediately recognised by, the institutions to which I am currently affiliated. Far from suggesting that the combination between philosophy and video game design and studies should limit itself to the Western canon, I have adopted it here as a reference that might be sufficiently ‘familiar’ and accessible to my immediate institutional interlocutors – so that my research might encourage more work in this field, which will hopefully include the vast and rich philosophical traditions of other parts of the world.

Even with this aim in mind, I could not refrain from using a number of non-Western sources, such as Ibn Sina (Avicenna), Suhrawardi, Mulla Sadra and Ibn Tufayl (a paradoxical case of a geographical ‘Westerner’, due to his Andalusian origin, who is not usually included in the ‘Western’ canon only because of his religion). Their impact on the development of Western metaphysics, and their contribution to solving some of the ‘wicked problems’⁷³ which I encountered in my research, was simply too great to neglect.

Furthermore, it can be convincingly argued that using ancient Greek philosophy (a crucial point of reference for my research) does not constitute a reference to the ‘Western’ world, since the very notion of ‘West’ is anachronistic and inapplicable to the context of ancient Greece.⁷⁴ If one wished to retain the supposed ‘Western-ness’ of ancient Greek philosophy (or of Mediterranean philosophy

⁷² See my two latest academic monographs, F. Campagna, *Technic and Magic: The Reconstruction of Reality*, London, Bloomsbury, 2018 (where Persian theologians/philosophers Suhrawardi and Mulla Sadra, and Indian theologian/philosopher Adi Shankara provide the main frame of reference for the entire volume); and F. Campagna, *Prophetic Culture: Recreation for Adolescents*, London, Bloomsbury, 2021 (where my main theoretical proposal is framed in reference to the theology/philosophy of Ismaili Shiism, particularly its angelology; to ancient Hindu theory of theatre, as exposed by Bharata Muni, Dhanamjaya and Viśvanātha Kavirāja; and to the Amerindian cosmologies from the Amazon forest, as presented by Eduardo Viveiros de Castro).

⁷³ See *intra*, 2.2.2.

⁷⁴ See for example the argument developed by Kojin Karatani, in K. Karatani, *Isonomia and the Origins of Philosophy*, trans. J. A. Murphy, Durham and London, Duke University Press, 2017. See also the classic, and controversial, thesis exposed in M. Bernal, *Black Athena: The Afroasiatic Roots of Classical Civilization*, 3 vols., London, Vintage, 1987 (following volumes: 1991, 2006).

more generally), one would have to add the enormous *caveat* that such ‘Westernness’ refers, not to its original status, but to its later adoption and reinterpretation by authors from the world of (Northern) European and (North) American modernity. In this sense, the supposed ‘Westernness’ of the canon of philosophy, as it is adopted in this thesis, should be considered more in terms of its practical apprehension by contemporary (North)Western institutions – such as those where I, a Mediterranean subject, currently find myself to work – rather than in the essence of the philosophy itself.

1.2.2 Video game

Notoriously difficult in reference to philosophy, the issue of definition is complex also in the case of video game design. In the course of their still brief history, video games have been described with a number of different terms. In his book *Video Gamers*,⁷⁵ Garry Crawford offers a detailed review of the existing terminology in the field. He starts with the term ‘video game’, which he employs in his own research due to its popularity.

The most commonly used term, both outside and within the academia, is ‘video games’... It is primarily for this reason that this book adopts the term ‘video games’.⁷⁶

Then he enumerates a number of other terms that are also commonly employed, both in academia and in the industry:

‘Computer games’ is sometimes used instead of, or interchangeably with, ‘video games’... Some academics drop all prefixes... The game industry tends to use its own terms and phrases, but, again, with no universal definition or term dominating... In recent years, the term ‘digital games’ has been offered by some in academia as an alternative... However, this is just as problematic as any other term, since many non-computational games could equally be described as digital.⁷⁷

⁷⁵ G. Crawford, *Video Gamers*, London and New York, Routledge, 2012.

⁷⁶ *Ibid.*, p. 3.

⁷⁷ *Ibid.*, pp. 3-4.

Crawford's decision to privilege the diction 'video game' over 'videogame' still retains its validity today – as it is confirmed by the Corpus of Contemporary American English, where the term 'video game' is recorded to have a frequency of use of 5,194 instances, against the 554 that are recorded for 'videogame'.⁷⁸

Following Crawford, I also use in my research the term 'video game' on the basis of its popularity both outside and within academia – thus revealing the present study's ambition to draw a connection between philosophy and video game design, which might go beyond the field of specialist academic research and affect also the notion of video games as industrial products.

Aside from the terminological question, however, it is important to clarify also what I intend by 'video game' in the context of my research. To this aim, I employ a self-declaredly "short and simple definition of what a video game is":

A videogame is a *game* which we *play* thanks to an *audiovisual apparatus* and which can be based on a *story*.⁷⁹

This succinct definition, though useful precisely thanks to its brevity, requires some further clarification in reference to its use of the term 'play'. As Eugen Fink observed:

Play is a phenomenon of life that everyone is acquainted with first-hand... Thus, we are not dealing with an object of research that must be first discovered and laid bare.⁸⁰

The apparent simplicity of play, however, should not make us forget its centrality to the human experience of life-in-the-world.

⁷⁸ *Corpus of Contemporary American English (COCA)*, [website], <https://www.english-corpora.org/coca/>. Data refer to my consultation, on 3rd April 2020.

⁷⁹ N. Esposito, 'A Short and Simple Definition of What a Videogame Is', *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play.*, 2005, <https://www.utc.fr/~nesposit/publications/esposito2005definition.pdf>, (accessed 12 August 2020).

⁸⁰ E. Fink, *op. cit.*, 2016, p. 15.

Play belongs essentially to the ontological constitution of human existence; it is an existential, fundamental phenomenon... The human being is essentially a mortal being, essentially a worker, essentially a fighter, essentially a lover and—essentially a player.⁸¹

Although it is at the heart of a human's deepest engagement with their life and with the world, the activity of play should be distinguished from all other forms of human endeavours. As observed by cultural historian and early ludologist Johan Huizinga:

Play is a free activity standing quite consciously outside 'ordinary' life as being 'not serious,' but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner.⁸²

The apparent closeness of play onto itself, as it transpires from Huizinga's definition, can be complemented by surrealist philosopher Roger Caillois's contextualisation of play's architecture of rules at the light of the 'mystery' and 'freedom' at its heart.

One plays only if and when one wishes to. In this sense, play is free activity. It is also uncertain activity. Doubt must remain until the end... In a card game, when the outcome is no longer in doubt, play stops and the players lay down their hands... The game consists of the need to find or continue at once a response *which is free within the limits set by the rules*.⁸³

The seemingly paradoxical relationship between freedom and constraints, which characterizes the activity of play, can be approached through the notion of 'freedom' suggested by French philosopher Michel Foucault in the later part of his work⁸⁴. This connection between the essence of gameplay and Foucault's thought has been recently highlighted by Stefano Gualeni and Daniel Vella – and it can be adopted also in the context of this research work.

⁸¹ *Ibid.*, p. 18.

⁸² J. Huizinga, *Homo Ludens: A Study of the Play-Element in Culture*, Boston, MA, Beacon Press, 1955, p.13.

⁸³ R. Caillois, *op. cit.*, 2001, pp. 7-8.

⁸⁴ See M. Foucault, 'The Subject and Power', in H.L. Dreyfus and P. Rabinow (eds.), *Michel Foucault: Beyond Structuralism and Hermeneutics*, Chicago, IL, University of Chicago Press, 1982, pp. 208-226; and M. Foucault, *Technologies of the Self: A Seminar with Michel Foucault*, ed. L.H. Martin et al., London, Tavistock Publications, 1988.

In Foucault's later work, individual human beings are not considered 'free' when they move beyond the controlling reach of power. Rather, they are engaged in the critical activity of shaping themselves in relation to their current situations. ... Constraints and limitations are not obstacles to existential freedom but constitute its necessary preconditions.⁸⁵

Although Foucault's notion of freedom is developed by Gualeni and Vella in reference to the potential for players to use video game-worlds as "technologies of the self", its value within my thesis resides in its placing 'constraints' as conceptually prior to the 'freedom' of gameplay. It is possible to understand the 'free' activity of gameplay as dependent on the philosophical 'constraints' that are embedded within its fundamental architecture. This conceptual primacy of the 'constraint' is consistent with my focus on the philosophical (specifically metaphysical and metaethical) architecture of video game-worlds, which I consider autonomously from subsequent ludic interactions.

This combination of constraints and freedom is further analysed in my thesis, in reference to the innate malleability of game-worlds (a trait which distinguishes them from the so-called 'real' world). The rules of play delimit the specific field of a certain game – yet these rules should not be seen as immutable dogmas. Eugen Fink observes:

Playing is not limitlessly free. One cannot play at all without something binding being determined and adopted. And yet... even in the middle of a game we can change the rules with our fellow-players' consent; but then it is precisely the changed rule that counts and that binds the flow of the reciprocal activities.⁸⁶

Such malleability of a play-world constitutes both the object and the ground upon which my research takes place – as it I make explicit in the sections dedicated to the alternative game-worlds that could emerge from the adoption, in the design process, of different philosophical parameters.⁸⁷ Following Fink's characterisation of play, my research explores the multi-dimensionality afforded by play, via the mediation of a play-thing such as a video game-world:

⁸⁵ S. Gualeni and D. Vella, *Virtual Existentialism: Meaning and Subjectivity in Virtual Worlds*, London: Palgrave Macmillan, 2020, p. 18.

⁸⁶ E. Fink, *op. cit.*, p. 23.

⁸⁷ See *intra*, 3.4.1.3, 3.4.2.3, 3.4.3.3., 3.4.4.3, 4.2.2.

Observed from the perspective of the one who is not playing, [the plaything] is obviously a part, a thing of the simply actual world. ... But, seen from the perspective of a playing girl, a doll is a child, and the girl is its mother. At the same time, it is in no way the case that the little girl actually believes that the doll is a living child... The playing child lives in two dimensions. The plaything... is a thing within simple actuality and at the same time has another, mysterious "reality"... Each plaything is a proxy for all things in general. In the plaything, the whole is concentrated in a single thing. Every instance of play is an attempt on the part of life, a vital experiment.⁸⁸

The combination of these different definitions of 'philosophy', 'video game' and 'play' offers a holistic vision which includes the structure provided by a conceptual, rule-based architecture, the freedom offered by narrative, and the openness and malleability that characterise both the activities of play and of philosophy.

1.2.3 Design

To conclude this section on terminology, it is necessary to outline what is understood, within this thesis, by the term 'design', as it is applied to the production of video games. Indeed, defining the term design in abstract might prove a task worthy of a thesis in itself. The state of the debate on this issue is well exemplified by complementing a recently suggested, highly formalised definition of design...

(noun) a specification of an object, manifested by an agent, intended to accomplish goals, in a particular environment, using a set of primitive components, satisfying a set of requirements, subject to constraints;

(verb, transitive) to create a design, in an environment (where the designer operates).⁸⁹

...with an equally recent denunciation of the persisting muddiness of the term:

⁸⁸ *Ibid.*, p. 24.

⁸⁹ P. Ralph, and Y. Wand, 'A proposal for a formal definition of the design concept', in K. Lyytinen et al. (eds.), *Design Requirements Engineering: A Ten-Year Perspective*, New York, N.Y., Springer, 2009, p. 108.

As a word, [design] is full of incongruities, has innumerable manifestations, and lacks boundaries that give clarity and definition. ... A substantial body of people exist who know something about design, or are interested in it, but little agreement will probably exist about exactly what is understood by the term.⁹⁰

In the interest of expanding the investigation on the notion of design beyond the mere formalisation of the term, or its misuses in contemporary parlance, it would be possible to trace its origins to the ancient philosophical/theological debate – at least from the time of Socrates’ ‘design argument’ as proof of the existence of God (an argument that found important developments in Medieval Scholastic philosophy). Similarly, in early modern philosophy, an eclectic philosopher such as Thomas Browne put forward an argument of the ‘artificiality’ of God’s creation, on the basis of which it is possible to understand the world itself as a product of design – and, consequently, to consider design as the quintessential art and science of the world.

There was never any thing ugly or mis-shapen, but the Chaos; wherein notwithstanding, to speake strictly, there was no deformity, because no forme; nor was it yet impregnate by the voyce of God: Now nature is not at variance with art, nor art with nature, they being both the servants of his providence: Art is the perfection of Nature: Were the world now as it was the sixth day, there were yet a Chaos: Nature hath made one world, and Art another. In briefe, all things are artificiall, for Nature is the Art of God.⁹¹

For the purpose of my research, however, it makes sense to seek a definition of design that is meaningful both to the field of philosophy, and to the theoretical praxis of contemporary designers. This can be achieved through a combination of different characterisations of the term, deriving from both fields and assembled along their lines of mutual complementation.

First, I suggest adopting the technical definition of the object of design that was proposed by E. Stolterman:

⁹⁰ J. Heskett, *Design: A Very Short Introduction*, Oxford, Oxford University Press, 2002, pp.1-2

⁹¹ T. Browne, *Religio Medici*, 1, 16, in T. Browne, *Religio Medici and Urne-Buriall*, New York, N.Y., NYRB, 2012, p.20.

In contrast with the scientific focus on the universal and the existing, design deals with the *specific, intentional and nonexistent*.⁹²

Having to do with ‘the specific, intentional and nonexistent’, the activity of design can be located in close proximity to the work of narrative invention – where a narrator conveys a specific story, which is intentionally created *ex nihilo*.⁹³ This notion rests, in turn, on the interpretation of ‘design’ that was provided by economist, psychologist and political scientist Herbert Simon. In his 1968 volume *The Sciences of the Artificial*, Simons presents design as a central element to any practice aiming to intervene intentionally and creatively on the world. Seen as the bridge connecting the ‘inner’ and ‘outer’ aspects of experience, design is defined by Simon as the activity that deals with the ‘artificial’ aspects of the world (where, from a phenomenological perspective, the ‘world’ as such is constituted precisely by the intentional activity of consciousness). Within Simon’s perspective, design ceases to be merely a specialized field of knowledge, but it becomes a crucial link that allows any form of ‘scientific’ knowledge to effectively relate to the world.

Everyone designs who devises courses of action aimed at changing existing situations into preferred ones... Design, so construed, is... the principal mark that distinguishes the professions from the sciences. [...] The artificial world is centred precisely on this interface between the inner and outer environments; it is concerned with attaining goals by adapting the former to the latter. The proper study of those who are concerned with the artificial is the way in which that adaptation of means to environments is brought about – and central to that is the process of design itself.⁹⁴

Since the present thesis deals with the ‘artificial’ world of video games, Simon’s interpretation can be adopted as an expansion and a deepening of the definition of design provided by Stolterman.

Secondly, design can be defined through a radical interpretation of its aims and ambitions, as seen through the ‘speculative’ lens suggested by designers Anthony Dunne and Fiona Raby:

⁹² E. Stolterman, ‘The Nature of Design Practice and Implications for Interaction Design Research’, *International Journal of Design*, vol. 2, no. 1, 2008, p. 59.

⁹³ Without entering the debate on the extent to which a narrative is truly created *ex nihilo* by its author (as traditionally claimed), or it is simply recomposed on the basis of pre-existing materials, it is worth noting how a strand of contemporary literary critics has increasingly championed this latter interpretation – to the point of suggesting ‘uncreativity’ as the most authentic form of literary authorship. See K. Goldsmiths, *Uncreative Writing: Managing Language in the Digital Age*, New York, N.Y., Columbia University Press, 2011.

⁹⁴ H. Simon, *The Sciences of the Artificial*, Cambridge, MA, The MIT Press, 1996, pp. 111-112.

When people think of design, most believe it is about problem solving... But it is becoming increasingly clear that many of the challenges we face today are unfixable and that the only way to overcome them is by changing our values, beliefs, attitudes, and behaviours... There are other possibilities for design: one is to use design as a means of speculating how things could be—speculative design. This form of design thrives on imagination and aims to open up new perspectives [and] to create spaces for discussion and debate about alternative ways of being, and to inspire and encourage people’s imaginations to flow freely. Design speculations can act as a catalyst for collectively redefining our relationship to reality.⁹⁵

As it appears most evidently in the central chapters of this thesis, my research embraces Dunne and Raby’s call for a fluid understanding of ‘reality’, as the outcome of imposing a certain epistemological filter to the pre-real substratum of ‘mere existence’.⁹⁶ Dunne and Raby’s approach immediately places the designer in the same field as the philosopher, and particularly the metaphysician (whose fundamental question is, always, “what is reality?”).

To a certain extent, however, ‘design’ – as it is understood in my research – can also be assimilated to the notion of ‘discursive design’ presented by Bruche and Stephanie Tharp. Discursive design is an anthropological modulation of design, whereby designed objects are investigated at the level of the fundamental assumptions that lead their creators to bring them to light.

Discursive designers challenge their audience to take an investigative, anthropological gaze...: to appraise the artifact as the deliberate consequence of some set of sociocultural values and to ask what it means or says about culture that this product exists or could exist. ... Artifacts are understood to reveal generally implicit... values, attitudes, behavioral expectations, and beliefs. [Discursive designers] create functional artifacts not for their utility but for what they

⁹⁵ A. Dunne and F. Raby, *Speculative Everything: Design, fiction, and social dreaming*, Cambridge, MA, MIT Press, 2013, p. 2.

⁹⁶ For a detailed philosophical discussion of this topic, see my books, F. Campagna, *op. cit.*, 2018, and F. Campagna, *op. cit.*, 2021. This concept can be immediately grasped also through Wallace Stevens’ poem, *The Man with the Blue Guitar*: ““They said, ‘You have a blue guitar / You do not play things as they are.’ / The man replied, ‘Things as they are / Are changed upon the blue guitar.’ / And they said then, ‘But play, you must, / A tune beyond us, yet ourselves, / A tune upon the blue guitar / Of things exactly as they are.’ / I cannot bring a world quite round, / Although I patch it as I can. / I sing a hero’s head, large eye / And bearded bronze, but not a man, / Although I patch him as I can / And reach through him almost to man. / If to serenade almost to man / Is to miss, by that, things as they are, / Say that it is the serenade / Of a man with a blue guitar.” W. Stevens, *The Man with the Blue Guitar*, in *Wallace Stevens*, ed. J. Burnside, London, Faber and Faber, 2008, p. 28.

can convey. Discursive designs can either perform the way a looking glass does—better magnifying, reflecting, and revealing aspects of culture for its audience—or they can act like a fun-house mirror—intentionally distorting in order to emphasize, propose, speculate, instigate, or criticize.⁹⁷

In Tharp & Tharp’s analysis, discursive design is presented as an umbrella-concept, covering all forms of critical design (including speculative design). Less broadly, this thesis adopts a ‘discursive’ position towards design, inasmuch as it aims both to “perform the way a looking glass does”, magnifying and revealing the philosophical architecture of video game-worlds, and to “act like a fun-house mirror”, intentionally distorting such architecture in order to speculate about alternative solutions (and thus, also about possible, alternative game-worlds).

Finally, in the context of this thesis, these two general characterisations of ‘design’ should be inserted within the boundaries of the sub-field of video game design. In this regard, I adopt two different definitions of design – one covering the essence of the practice, the other mapping its practical implementation in the design of video game-worlds.

On the one hand, it is possible to observe design’s essence at the fundamental level of that ‘projectuality’, which existentialist philosophers identify as the essential trait of the human condition.

Design is one of the basic characteristics of what it is to be human, and an essential determinant of the quality of human life... Design, stripped to its essence, can be defined as the human capacity to shape and make our environment in ways without precedent in nature, to serve our needs and give meaning to our lives.⁹⁸

As emphasised by Heskett, design practice is very close to that activity of ‘world-ing’, which endows each subject with a ‘world’, to the extent that they are able to re-arrange the avalanche of raw perceptions investing them, on the basis of certain hypotheses about the innate structure reality.⁹⁹

⁹⁷ B. Tharp and S. Tharp, *Discursive Design: Critical, Speculative, and Alternative Things*, Cambridge, MA, The MIT Press, 2018.

⁹⁸ J. Heskett, *op. cit.*, 2002, pp. 2 and 5.

⁹⁹ ‘Worlding’ is a fairly recent addition to the philosophical vocabulary, whose origin can be traced to Martin Heidegger’s *Being and Time*. According to Heidegger, ‘worlding’, as a generative process of world-creation, is consubstantial to the way in which a human consciousness (*Dasein*, ‘being-there’) exists in a ‘world’ that, to a certain

In this sense, the creation of video game-worlds on the basis of metaphysical and metaethical parameters – as it is investigated by this thesis – counts as an embodiment of the very essence of design.

On the other hand, it is possible to concretise this abstract characterisation of design in more practical terms. To this aim, I adopt the textbook definition offered in Ernst Adams' *The Fundamentals of Game Design*. Adams' definition has the advantage of clearly outlining a number of practical aspects of the process of video game design, which offer themselves to further expansion through the use of philosophical tools.

Game design is the process of:

- Imagining a game
- Defining the way it works
- Describing the elements that make up the game (conceptual, functional, artistic and others)
- Transmitting information about the game to the team who will build it
- Refining and tuning the game during the development and testing.

A game designer's job includes all these tasks.¹⁰⁰

The combination of these definitions shows the tight connection that exists between the "craft"¹⁰¹ of video game design and that of philosophy, while maintaining a distinction between the two fields of activity. My thesis places a particular emphasis on the relationship between philosophy's activity of invention and fabrication, and design's focus on the "intentional and the nonexisting", as well as on the shared "speculative" attitude of both philosophy and design.

extent, is of their own making. Heidegger doesn't offer an exhaustive definition of the process of worlding, since "the world presences by worlding. That means: the world's worlding cannot be explained by anything else nor can it be fathomed through anything else. This impossibility does not lie in the inability of our human thinking to explain and fathom in this way. Rather, the inexplicable and unfathomable character of the world's worlding lies in this, that causes and grounds remain unsuitable for the world's worlding. As soon as human cognition here calls for an explanation, it fails to transcend the world's nature, and falls short of it." M. Heidegger, 'The Thing', in M. Heidegger, *Poetry, Language, Thought*, translated by H. Hofstadter, New York, NY, Harper and Row, 1971, pp. 179-180.

¹⁰⁰ E. Adams, *Fundamentals of Game Design: Third Edition*, Indianapolis, IN, New Riders, 2014, p.31.

¹⁰¹ "Game design is a craft." J. Bycer, 'A Philosophical Look at the Art of Game Design', *Gamasutra*, [website], 8th February 2017, https://www.gamasutra.com/blogs/JoshBycer/20170802/302915/A_Philosophical_Look_at_the_Art_of_Game_Design.php, (accessed 12 August 2020).

1.2.4 Summary

To conclude this introductory part to the first chapter, I would like to offer a brief summary of the ground that has been covered so far.

Firstly, I presented the traits that make video games (and the strategy genre in particular) a worthy object of investigation – especially in the context of a philosophical-yet-interdisciplinary research.

These can be summarised as follows:

- Video games have now become one of the largest cultural industries worldwide.
- They have proved to be capable of reaching a wide demographics.
- Through the process of ‘gamification’, the logic of video games is currently entering and modifying several forms of cultural, economic and social production – not least, the realm of education.
- The fact that the field of video game studies (and design) is just a few decades old, signals the possibility of refining and expanding the breadth and depth of its assessment in scholarly terms.
- Due to their very structure – where the functioning of inner rules is made immediately apparent – strategy video games lend themselves as an especially apt object for an interdisciplinary research on the relationship between philosophy and video game design and studies.

Subsequently, I attempted to define of the main key-terms of my research – ‘philosophy’, ‘video game’, and ‘design’ – in order to clarify the sense in which they should be intended in the context of this thesis. It is now possible to suggest a synthetic combination of their respective definitions, in such a way as to capture in one glimpse the aim and scope of this thesis. The present work analyses the relationship between philosophy’s formation, invention and fabrication of concepts, and design’s intentional formalisation and implementation of solutions, in reference to the creation of that fundamental architecture of conceptual rules, within which, as in a Whole, the narrative freedom of play is able to unfold – with particular reference to the way in which this is achieved in a digital environment, and specifically in the genre of strategy video games.

1.3 LITERATURE REVIEW

In this section, I present an overview of the main arguments and trends in the existing literature around video game studies and design. I begin by looking at the *vexata quaestio* on whether video games should be considered primarily as ludic or narrative artefacts – and how such dichotomy might be overcome. I continue by exploring existing literature on the opportunity of developing a further perspective on video games – namely, a philosophical perspective. I conclude this section by focusing on the debate around the ontological status of video game-worlds, which constitutes a crucial premise to the philosophical work that I develop later in my thesis.

1.3.1 Narratology, ludology, fictionalism, motivationalism

The problem of defining what exactly is a video game exceeds mere terminology, having significant repercussions on the approach that is adopted towards this medium both by academia and by the industry. As Grant Tavinor pointed out,

Dealing with the definitional issue in a forthright and clear manner at the outset has the potential to add significant clarity to what can at times be a very murky debate.¹⁰²

While it might be convenient for the marketing departments of digital and entertainment companies to promote certain products unproblematically as ‘video games’ (trusting that the tacit acknowledgement between sellers, distributors and consumers actually thrives on a certain level of definitory ambiguity), the same cannot be said for the field of academic research.

Considering that the video game market has existed for less than 40 years in its mature form, there is already a remarkable amount of studies and, inevitably, of academic disagreement on how best to conceptualise video games – that is, on what are the essential properties of a video game as such. The interactive nature of video games allows also for a further expansion of the possible approaches

¹⁰² G. Tavinor, *The Art of Videogames*, Chichester, Wiley-Blackwell, 2009, p. 16.

to the subject, depending on whether the researcher focuses more on the innate qualities of the software and of its design, or on its relationship with the final user. In the context of my research – which focuses on the potential of inserting philosophical methods in the design process of a video game – I concentrate decisively on the former approach, thus considering a video game as ‘it is in itself’, while exploring only marginally its relations to the experience of the gamer.

With specific regard to this problem, two main academic approaches have established *ab origine* the debate around what is essentially a video game: ‘narratology’ and ‘ludology’

The narratological approach applies to video games many of the lessons of structuralism, particularly the theories of Vladimir Propp, Roland Barthes and Claude Levi-Strauss. The narratological position has been defined most visibly by Janet Murray, in her book *Hamlet on the Holodeck*¹⁰³. According to Murray, we should understand video games primarily as media belonging to the field of literature. The fundamental structure of a videogame, says Murray, is narrative. By drawing an analogy with T.S. Eliot’s idea of the ‘objective correlative’ as a method for the production of emotions, Murray calls for the development of a new narrative art that might be able to employ the themes of literature in the digital field.

Murray’s views have been reinforced by Barry Atkins, in his book *More Than A Game*¹⁰⁴. Atkins wishes to reclaim both the seriousness of video games, and their suitability to be analysed through new and specific methods of literary criticism as enhanced literary forms:

This new mode of computer-based storytelling seems to me to be both amenable to contemporary literary-critical practice and related practices deployed within cultural studies, and to demand a somewhat different critical approach.¹⁰⁵

Following on this narratological approach, Atkins delineates his vision of the future development of video games:

¹⁰³ J. Murray, *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*, New York, N.Y., The Free Press, 1997.

¹⁰⁴ B. Atkins, *More Than a Game: The Computer Game as Fictional Form*, Manchester, Manchester University Press, 2003.

¹⁰⁵ *Ibid.*, p.7.

It would not take too much of a leap of the imagination to see the computer game develop into something like a new form of soap opera or action movie. One day, perhaps, the computer game will even produce its *À la Recherche du Temps Perdu* or its *Ulysses*, its *Casablanca* or its *Citizen Kane*.¹⁰⁶

An often-mentioned problematic aspect of the narratological approach is its reduction of a game to a textual structure. As noted by video game scholar Carlos Magno Camargos Mendonça, this tendency rests on an underlying assumption on the ‘fictional’ nature of a game-world:

Narratologists seem to operate, in their analysis, based upon the metaphor of the “world as text”. They regard video games as virtual realities, taking the term “virtual” in the sense of “false” or “double”, in which it bears an affinity with the concept of fiction, and are interested in the strategies through which the text/game produces this world in the reader/player’s imagination. Thus, they tend to favour effects such as immersion, [...which] presupposes a kind of illusionistic realism.¹⁰⁷

As I discuss at greater length later in this chapter, the ‘fictional’ approach of narratology is at odds with my ‘realist’ approach on the ontology of video game-worlds.

On the other side of this traditional divide, we find the ‘ludological’ approach – following Gonzalo Frasca’s definition.¹⁰⁸ Thinkers in this line insist on the irreducibility of video games to narrative structures, while focusing instead on their character as games. According to ‘ludologist’ scholar and designer Jesper Juul:

the computer game is simply not a narrative medium... The computer game and the narrative share some traits - both are temporal, for example - but apart from that they are radically different.¹⁰⁹

¹⁰⁶ *Ibid.*, p. 24.

¹⁰⁷ C. M. Camargos Mendonça, ‘Game As Text As Game’, *Comunicação e Sociedade*, vol. 27, 2015, pp. 256-257.

¹⁰⁸ G. Frasca, ‘Ludology Meets Narratology: Similitude and Differences Between (Video)Games and Narrative’, *Ludology.org* [blog], 1999, <http://www.ludology.org/articles/ludology.htm>, (accessed 12 August 2020).

¹⁰⁹ J. Juul, *A Clash Between Game and Narrative*. MA thesis, Institute of Nordic Language and Literature, University of Copenhagen, 1999, p. 1, www.jesperjuul.net/thesis/, (accessed 12 August 2020).

In his opening article for the first issue of the *Game Studies* journal, Juul adds that the ludic aspect of games disrupts the relation between a story and its reader, which is the basic requirement of any narrative:

the player inhabits a twilight zone where he/she is both an empirical subject outside the game and undertakes a role inside the game¹¹⁰.

Such distinction between the two categories is also confirmed by self-confessed “moderate”¹¹¹ ludologist Espen Aarseth, when he writes:

to claim that there is no difference between games and narratives is to ignore essential qualities of both categories.¹¹²

And, as a rejoinder to narratologists, Aarseth adds: “games seldom, if at all, contain good stories”.¹¹³

Scholars who focus on the ludic quality of video games, often expand their realm of references to those branches of philosophy that deal specifically with the ‘existential’ relationship between a subject, their life and their world – as it is the case, for example, with Aarseth’s student Daniel Vella, whose recent work is dedicated to an ‘existential’ philosophical reading of video games.¹¹⁴

In between the narratological and ludological positions (although not always in a space of neutrality), we find thinkers such as Henry Jenkins. In his article *Game Design as Narrative Architecture*,¹¹⁵ Jenkins characterises video games as forms of ‘enacted narrative’, thus expanding the range of games-as-narratives beyond the narrow constraints of pure storytelling. Central to video games, argues Jenkins, is the notion of spatiality: video games enable “players to move

¹¹⁰ J. Juul, ‘Games Telling Stories? A Brief Note on Games And Narratives’, *Game Studies*, vol. 1, no. 1, 2001, pp. 1-12, <http://www.gamestudies.org/0101/juul-gts/>, (accessed 12 August 2020).

¹¹¹ E. Aarseth, ‘Ludology’, in M.J.P. Wolf and B. Perron (eds.), *The Routledge Companion to Video Game Studies*, New York and London, Routledge, 2014, pp. 185-189: 187.

¹¹² E. Aarseth, *Cybertext: Perspectives on Ergodic Literature*, Baltimore, MD, The Johns Hopkins University Press, 1997, p. 5.

¹¹³ E. Aarseth, ‘Genre trouble: narrativism and the art of simulation’, in N. Wardrip-Fruin and P. Harrigan (eds.), *First person: new media as story, performance, and game*, Cambridge, MA, The MIT Press, 2004, pp. 45-55.

¹¹⁴ See S. Gualeni and D. Vella, *op. cit.*, 2020; and D. Vella, *The Ludic Subject and the Ludic Self: Analyzing the ‘I-in-the-Gameworld’*, [PhD thesis], Copenhagen: Center for Computer Games Research, IT University of Copenhagen, 2015.

¹¹⁵ H. Jenkins, ‘Game Design as Narrative Architecture’, in N. Wardrip-Fruin and P. Harrigan (eds.), *First Person: New Media as Story, Performance, and Game*, Cambridge, MA, The MIT Press, 2004. pp. 118-30.

through narratively compelling spaces”.¹¹⁶ By focusing on the interactive aspect of video game narrative, Jenkins attempts to throw a bridge over the divide between the strictly narratological and ludological approaches – while not abolishing the conceptual distance between the two.

Jenkins’ retention of the divide between the two fields has been recently challenged by Espen Aarseth himself. In his article *A Narrative Theory of Games*¹¹⁷ – seemingly overcoming is earlier ‘ludologism’ – Aarseth both reclaims the relevance of narrative theory to understand video games, and states that it is time to overcome the fictitious divide between narratology and ludology, in order to integrate the two approaches.

Anyone who echoes Jenkins’ misleading nomenclature of “ludologists” vs “narratologists” simply has not read the literature itself.¹¹⁸

In a symbolic gesture of closure of the arch of ludology – and thus implicitly also of that of its nemesis, narratology – Aarseth notes how:

Ludology is not a discipline. It is not even a paradigm, but mostly a reaction to bad scholarship and a critique of untenable positions, as well as a critical response to the aesthetic problems of game/narrative hybrids of the 1990s. As the former, it is still relevant... , but as the latter it has been overtaken by the game designers’ considerable ludo-narrative advances over the last decade.¹¹⁹

Indeed, the historical predominance of this dichotomy doesn’t exhaust the range of possible approaches to the problem of what is a video game, and how one should go about designing it. Other currents have recently entered the debate – among them, two in particular have gained significant weight in the field of video game studies. We could define them as ‘fictionalism’ and ‘motivationalism’.

¹¹⁶ H. Jenkins, *op. cit.*, 2004. p. 120.

¹¹⁷ E. Aarseth, ‘A Narrative Theory of Games’, *FDG’s 12 Proceedings of the International Conference on the Foundations of Digital Games*, Raleigh, NC, USA, May 29 - June 01, 2012, pp. 129-133.

¹¹⁸ E. Aarseth, *op. cit.*, 2012, p. 130.

¹¹⁹ E. Aarseth, *op. cit.*, 2014, pp. 188-189.

The former approach considers video games as ‘interactive fictions’. In his book *The Art of Videogames*¹²⁰, Grant Tavinor claims that:

Despite some of the noted resistance to the term [i.e., to both terms, ‘interactive’ and ‘fiction’], I believe that videogames are, at least in part, interactive fictions.¹²¹

This definition stresses the fact that video games, regardless of whether or not they involve narrative structures, typically rely on visual representations with fictive content. As noted by John Richard Sageng, in his review of this current:

This position should be distinguished from the narratological conception, since “telling a story” is a different category from “being fictional”. It is possible to make visual representations of fictional objects without telling a story, and it is possible to tell a story without being fictional.¹²²

The latter approach to understanding the nature of video games – what I called ‘motivationalism’ – endorses what Sageng defines as a “motivational conception.”

In this view, the central role of the game is to provide what game developer Sid Meier calls a “series of interesting choices” within the constraints of the game world, often through the design of experiences, emotions and knowledge supporting these choices.¹²³

According to ‘motivationalist’ video game scholar Petri Lankoski, video games should be understood primarily through the lens of the motivational emotions that are produced by the kind of goals suggested to the player:

While it is not my intention to provide the definition for computer games, some consideration of this is needed to argue why goals are important when discussing computer games. [...] I propose that to understand why games are engaging, we must understand how goals, events,

¹²⁰ G. Tavinor, *op. cit.*, 2009.

¹²¹ *Ibid.*, p. 53.

¹²² J. R. Sageng, H. Fossheim, and T. M. Larsen (eds.), *The Philosophy of Computer Games*, New York, N.Y., Springer, 2012, p. 5.

¹²³ *Ibid.*, p. 6.

sounds, and graphics in games and affects are connected and how the different emotion mechanisms interoperate.¹²⁴

Although the above-mentioned approaches cover a large part of existing literature on video game studies, they prove only partly satisfactory in the context of my research on the architectural role of philosophy (specifically, of metaphysics and metaethics) in the design of strategy video games.

Narratology's notion of 'game-as-text' appears to endorse an ontologically 'fictional' understanding of video games, which risks depriving the game-world of any real substance. Conversely, as it is discussed in the following pages, the present research endorses a notion of the game-world as fully ontologically real – that is, as real as anything in our so-called 'real' world. Without anticipating what will be examined later, this approach doesn't conflict with the perception of the gamer (since playing necessarily suspends fictionality, while engaging the subject in actions that are, at least temporarily, fully real), while at the same time it allows video game designers and scholars to engage with really existing 'stuff', rather than with mere narrative constructs.¹²⁵

On the other hand, ludology and motivationalism focus specifically on the interaction between gamer and game, while the present study concentrates on the internal architecture of a game-world as it is originally produced by video game designers. Differently from the interactive approach of ludologists and motivationalists, my philosophical approach considers the 'stuff' of a game-world (including its internal processes and structures) as sufficiently real and existing in itself – and thus worthy of analysis – regardless of the interactive involvement of human players.

1.3.2 The case for philosophy

In recent years, there has been a growing interest in scholarly positions that might be able to establish new centres of gravity for the analysis of video games. Notably, this has been the case with the belated arrival of philosophy as a serious method for investigating video games.

¹²⁴ P. Lankoski, 'Computer Games and Emotions', in J. R. Sageng, H. Fossheim, and T. M. Larsen (eds.), *op. cit.*, 2012, p. 40.

¹²⁵ See *intra*, 1.3.4.

A case for the development of a philosophical approach to video game design has been eloquently put forward by game researcher Lars Konzack. In his essay *Philosophical Game Design*,¹²⁶ Konzack begins by calling for a more daring understanding of video games' potential:

The challenge of future video games is to design games that go beyond mere entertainment... Video games are able to present worlds and ideas to us in a new way.¹²⁷

Then he proceeds encouraging video game designers to expand the scope of their approach to the practice of video game design:

Game designers need to think of each element of gameplay and each mechanical feature as a part of a consequential philosophical system, a coherent cosmology. They should not think in terms of 'this feature would be cool to have', but instead, 'this mechanical feature supports the philosophy of the game.' Game design should... ask how to express and present philosophical ideas in a game system. Only through such an initiative will it be possible for video games to grow and prosper.¹²⁸

Subsequently, Konzack opens to what we could call a 'unity-in-plurality' (*al-wahda fi l-kathra*, to borrow a technical term from 17th century Persian philosopher Mulla Sadra)¹²⁹ of philosophies in video game design:

A game's philosophy may be the philosophy of the game designer, but it might also be a philosophical experiment. There may be multiple philosophies in the game. Still, they should relate to one another, evolve from one another.¹³⁰

Finally, he brings forth a claim which is central also to my research: that philosophy is always-already present within game design, regardless of whether or not the designer might be conscious of it.

¹²⁶ L. Konzack, 'Philosophical Game Design', in B. Perron and M. J. P. Wolf (eds.), *The Video Game Theory Reader 2*, London and New York, Routledge, 2009, p. 33-44.

¹²⁷ *Ibid.*, p. 33.

¹²⁸ *Ibid.*, p. 33.

¹²⁹ I. Kalin, *Mulla Sadra*, Oxford, Oxford University Press, 2014, p. 72, p. 86, p. 100.

¹³⁰ *Ibid.*, p. 34.

Even if a game designer does not intentionally control and design the philosophy behind the game, one will exist anyway ... That's why it is important that game designers consciously establish rational relations to this aspect of the game.¹³¹

It is worth quoting another short passage from Konzack's essay, where he states another element that is key also to my research: namely, the importance of inserting metaphysics in the process of video game design.

The game designer needs to know more than the craft of game mechanics; the game designer needs to know the history of ideas, and how to present metaphysical ideas, turning them into consistent game constructions through the creative process.¹³²

Despite his initial intentions, however, Konzack prefers to dedicate the rest of his essay to examining the political and societal implications of video game design, rather than to explore the metaphysics of video game-world-making.

The tendency to understand video games as means to tackle 'real-world' problems finds an echo in the work of philosophers and video game scholars Jon Cogburn and Mark Silcox. In their book *Philosophy Through Video Games*,¹³³ Cogburn and Silcox make the case for using video games to engage with philosophical issues such as theodicy, ethics, personal identity, mind/body dualism, aesthetics, etc.

In placing video games in the service of furthering philosophical investigation, the two authors also gear their work towards an analysis of the experience of gaming from the perspective of the gamer. The series of questions that feature in the preface to their book can be understood as a general frame to their work:

Why do players identify so closely with the protagonists of multi-player Role Playing Games? Is it rational for them to do so? ...What (if anything) might be morally wrong with playing violent video games? How close does the expert at world-building games like *Black and White*,

¹³¹ *Ibid.*, p. 34.

¹³² *Ibid.*, p. 34.

¹³³ J. Cogburn and M. Silcox, *Philosophy Through Video Games*, London and New York, Routledge, 2009.

Rome: Total War and *Civilization* really come to “Playing God”? What does the phenomenon of interactivity tell us more generally about the aesthetic experiences that are part of shared humanity and the good life?¹³⁴.

Differently from my research – which is focused on the conceptual architecture underlying the design structures internal to the game – Cogburn and Silcox’s examination of the connection between philosophy and video games is entirely centred on the position of the gamer, on the gaming experience and on the urgency to tackle the ‘real’ problems experience by the gamer in their ‘real’ world.

This line of inquiry has been developed in a more ‘popular’ direction by Jordan Erica Webber and Daniel Griliopoulos, in their 2017 volume *Ten Things Video Games Can Teach Us: (about life, philosophy and everything)*. After presenting their book as a self-help resource, akin to “easily digestible ‘philosophies of everyday life’... like *How Proust Can Change Your Life* and the *Tao of Pooh*,”¹³⁵ the two authors explain their work as an attempt to explain “useful” philosophical ideas through video games.

Some games... provide superb examples of the merits and flaws of particular philosophies. ... This book explores and eulogises those games that teach you the lessons that should improve your life.¹³⁶

Like Cogburn and Silcox, Webber and Gillopoulos focus their attention on the ‘real’ world of the player, while presenting video games as mere allegories of philosophical ideas. Within this perspective, video games are ontologically ‘weak’ artefacts, whose value and existence depend on their supposed ‘usefulness’ to the existential experience of the player.

A similar focus on the relevance of philosophy for video-gamers (rather than for video game designers) is adopted in the series of books edited by Luke Cuddy. Starting with the 2008 volume *The Legend of Zelda and Philosophy*,¹³⁷ Cuddy has edited a number of titles on the relationship

¹³⁴ *Ibid.*, p. ix.

¹³⁵ J. E. Webber and D. Griliopoulos, *Ten Things Video Games Can Teach Us: (about life, philosophy and everything)*, London, Robinson, 2017, pp. xviii-xix.

¹³⁶ *Ibid.*, p. xx.

¹³⁷ L. Cuddy (ed.), *The Legend of Zelda and Philosophy: I Link Therefore I Am*, Chicago, Open Court Publishing, 2008.

between philosophy and videogames such as *World of Warcraft*,¹³⁸ *Halo*,¹³⁹ and *Bioshock*.¹⁴⁰ Revealingly published as part of Open Court's 'Popular Culture and Philosophy' series (until 2014) and of Blackwell's 'Philosophy and Pop Culture' series (from 2015), these volumes gather contributions by philosophers who are also enthusiastic video game players. The primary aim of this series is to help gamers to expand both their experience of gaming and their understanding of philosophy's potential in everyday life. This series' focus on the relationship between game and gamer, and on the 'cultural' value of video games, is also reflected in its privileging the aesthetic, ethical and political value of video games, over any other angle of analysis.

Such 'cultural' approach to video games (and the consequent interpretation of their essential status as inextricably dependent on their fruition) can also be found in the work of Alexander Galloway. In his book *Gaming: Essays On Algorithmic Culture*, Galloway opens by quoting Deleuze and Guattari's definition of philosophy (incidentally, the same definition that I have adopted), but then he rapidly proceeds to reaffirming the 'cultural' (i.e. user-dependent) status of video games and of their worlds:

A video game is a cultural object, bound by history and materiality, consisting of an electronic computational device and a game simulated in software.¹⁴¹

Far rarer are the books that focus specifically on the relationship between philosophical techniques and video game design. Especially notable, in this sense, is the seminal work promoted by Richard Sangen, whose 2012 volume *The Philosophy of Computer Games*¹⁴² (co-edited with Fossheim and Larse) constitutes at present the most comprehensive book-length investigation of the relationship between video game design and a representative range of the branches of philosophy.¹⁴³

¹³⁸ L. Cuddy and J. Nordlinger (eds.), *World of Warcraft and Philosophy: Wrath of the Philosopher King*, Chicago, IL, Open Court Publishing, 2009.

¹³⁹ L. Cuddy (ed.), *Halo and Philosophy: Intellect Evolved*, Chicago, IL, Open Court Publishing, 2011.

¹⁴⁰ L. Cuddy (ed.), *Bioshock and Philosophy: Irrational Game, Rational Book*, Chichester, Wiley Blackwell, 2015.

¹⁴¹ A. Galloway, *Gaming: Essays On Algorithmic Culture*, Minneapolis, MN: University of Minnesota Press, 2006, p. 1.

¹⁴² J. R. Sageng, H. Fossheim, and T. M. Larsen (eds.), *op. cit.*, 2012.

¹⁴³ Although large sections of the books (such as Part 1 on 'Players and Play', and Part 2 on 'Ethics and Play') are, once again, concerned primarily with the interaction between game and gamer rather than with the internal architecture of the game as read philosophically (which is mainly discussed in the last part of the book, Part 3 on 'Games and Gameworlds').

In the introduction to their volume, the editors argue for the importance of developing a philosophy of video games:

There are two main reasons why a philosophy of computer games is called for. First, given the emergence of academic research on computer games, there is a need for critical examination and clarification of the basic concepts on which this research typically relies... This need is all the more pressing since much research on computer games is highly interdisciplinary, and thus in need of a well worked-out conceptual framework... Second, computer games present a context in which many of the questions from traditional philosophy may be pursued in novel ways... thus furthering philosophy itself.¹⁴⁴

Since the editor's perspective is close to that adopted in my thesis, it might be worth to briefly clarify the points of similarity and distance between the two approaches. While I share the editors' goal to develop academic research, my research focuses on the contribution offered by philosophical techniques to video game designers – rather than on video games' potential to contribute to philosophy. In order to fully exploit video games' beneficial impact on philosophy, it is necessary to first show the inner familiarity that always-already exists between this medium and philosophy. Thus, exploring the philosophical foundations of video game design – as I attempt to do in my thesis – can be considered the initial, propaedeutic stage of a mature relationship between these two seemingly distant realms. By making apparent the philosophical nature of the architecture sustaining video game-worlds, it might be possible to establish a mutually beneficial conversation between the disciplines of philosophy and of video game design – rather than prematurely betting on their reciprocal understanding in the absence of a clear analysis of their deep bonds of kinship.

Sageng, Fossheim and Larsen's wish to "clarify and critically evaluate the basic concepts of computer games research, employing philosophical resources", animates also the proposal for an application of ethics to the study of video games, which was developed by Mary Flanagan, Jonathan Belman, Helen Nissenbaum and Jim Diamond in their 2007 paper *A Method for Discovering Values in Digital Games*¹⁴⁵ (later expanded by Flanagan and Nissenbaum in their 2014 book *Values at Play in Digital Games*).¹⁴⁶ Their paper presents the aims and method of the authors' *Value at Play* (VAP) project:

¹⁴⁴ Ibid., pp. 2-3.

¹⁴⁵ M. Flanagan et al., 'A Method for Discovering Values in Digital Games', *Situated Play: DIGRA '07 - Proceedings of the 2007 DiGRA International Conference*, vol. 4, Tokyo, The University of Tokyo, 2007, pp. 752-760.

¹⁴⁶ M. Flanagan and H. Nissenbaum, *Values at Play in Digital Games*, Cambridge, MA, The MIT Press, 2014.

VAP's principals and affiliates include game designers, educators, philosophers, artists, and social scientists collectively working towards a systematic methodology for embedding positive social values in games. The VAP methodology consists of three stages: discovery, translation and verification. First, designers *discover* the values relevant to their project, and decide which values should be integrated into the design. Then, they *translate* those values into concrete design features. Finally, they systematically *verify* that those values have indeed been embedded in the game.¹⁴⁷

VAP project is essentially a philosophical project aimed at investigating the role of ethics (understood philosophically) within video game design. To pursue their aim, the authors have developed an interactive method, based on the use of 'value cards':

In Values Card exercises, participants draw a card from the deck, and discuss the value it represents in the context of their prior play experiences. For example, if the *environmentalism* card is drawn, participants would think of examples they might recall involving the value.¹⁴⁸

While Flanagan et al.'s innovation goals overlap significantly with those of my research (the authors write: "we seek to study existing work, learn from these examples, and provide tools so designers may help offer alternatives that challenge the dominant paradigms of game design"),¹⁴⁹ certain aspects of our respective methodologies greatly differ. As opposed to the 'top-down' methodology that I adopt in the current research (that is, applying to video game design the conceptual categories that have been developed by the philosophical tradition), the VAP's approach is 'bottom-up', in that it aims to extract directly from the designers the values that they wish to insert within their video games. Also, while Flanagan et al. privilege the non-specialist vocabulary of 'values', as they are immediately perceived by the designers, my research dissects the digital world of a video game through the specialist categories developed by the philosophical tradition. For example, in reference to ethics, I focus on meta-ethics (i.e. what are the conditions that determine the emergence of value-systems) rather than on normative ethics (i.e. specific ethical values), on the basis of the philosophical and conceptual primacy of the former over the latter.

¹⁴⁷ M. Flanagan et al., *op. cit.*, 2007, p. 753.

¹⁴⁸ *Ibid.*, p. 753.

¹⁴⁹ *Ibid.*, p. 753.

Due to its ‘fundamental’ approach to the philosophical essence of video game-worlds, my research can be positioned alongside a number of recent interventions on the basic philosophical status of video game-worlds, considered in themselves as (more or less) autonomous entities. In the next section, I provide an overview of the existing debates on this topic and a general reconnaissance of the main voices and positions in this field of inquiry.

1.3.3 The ontological status of video game-worlds

Although video games scholars have been investigating the ontological status of video games at least since Heim’s 1993 book *The Metaphysics of Virtual Reality*,¹⁵⁰ it is only recently that this approach has started to gain momentum. To gain a fairly comprehensive overview of the debate on the ontological status of video game-worlds, it is possible to systematise the existing positions along a spectrum of attributions of lesser-to-greater reality to them.

On the side of ‘lesser reality’, an important position has been articulated by Jesper Juul, according to whom video games should be understood as ‘half-real’ entities: they are essentially sets of rules in fictional worlds, which gain reality only from their interaction with players in the ‘real’ world as it is traditionally understood (i.e. the world where video gamers live).¹⁵¹ According to Juul:

video games are real in that they consist of real rules with which players actually interact, and in that winning or losing a game is a real event. However, when winning a game by slaying a dragon, the dragon is not a real dragon but a fictional one. To play a video game is therefore to interact with real rules while imagining a fictional world, and a video game is a set of rules as well as a fictional world.¹⁵²

Similarly, semiotician Patrick Coppock argues for a conditional ontological reality of videogames – depending on their embodiment of aspects from three types of cultural units: tangible, intangible

¹⁵⁰ M. Heim, *The Metaphysics of Virtual Reality*, Oxford, Oxford University Press, 1993.

¹⁵¹ J. Juul, *Half-Real: Video Games Between Real Rules and Fictional World*, Cambridge, MA, The MIT Press, 2005, p. 41.

¹⁵² *Ibid.*, p. 1.

and mediated culture artefacts. Although ‘fully real’, their reality depends on their relationship with the world outside the screen as mediated by the experience of the video game player:

If we are willing to accept that playing computer games is a real-world activity with potential real-life consequences for players, [...] then why can we not simply say that the fictional worlds generated by these advanced technological artefacts... are real too, since they clearly constitute an integral part of our everyday experience of the larger cultural reality we live in and are part of?¹⁵³

Espen Aarseth articulates a more complex notion, according to which video games are endowed with a unique ontological status, due to their belonging to the category of ‘simulations’. In his contribution to the 1994 edited volume *Hyper/Text/Theory*¹⁵⁴, Aarseth observes how cybertextuality...

has an element that is not found in fiction and that necessitates an ontological category of its own, which might as well be called simulation. ... Simulations are somewhere in between reality and fiction: they are not obliged to represent reality, but they have an empirical logic of their own, and therefore should not be called fictions.¹⁵⁵

Looking at video game-worlds through the notion of ‘simulation’, scholar and designer Gonzalo Frasca argues for a common level of reality between non-digital and digital worlds. Focusing on behaviour by agents in both systems, Frasca succinctly defines the distinction between the two in relative terms:

to simulate is to model a (source) system through a different system which maintains to somebody some of the behaviours of the original system.¹⁵⁶

¹⁵³ P. Coppock, ‘Are Computer Games Real?’, in J. R. Sageng, H. Fossheim, and T. M. Larsen (eds.), *op. cit.*, 2012, p. 260.

¹⁵⁴ G. P. Landow (ed.), *Hyper/Text/Theory*, Baltimore, MD, The Johns Hopkins University Press, 1994.

¹⁵⁵ Wardrip-Fruin, N., and Montfort N. (eds.), *The New Media Reader*, Cambridge, MA, The MIT Press, 2003, p. 777.

¹⁵⁶ G. Frasca, ‘Simulation versus Narrative: Introduction to Ludology’, 2003, p. 2, http://ludology.org/articles/VGT_final.pdf, (accessed on 12 August 2020).

Frasca's ontological claim has been echoed by video game designers Katie Salen and Eric Zimmerman, according to whom "a simulation is a procedural representation of aspects of 'reality'".¹⁵⁷

Celebrated video game scholar Ian Bogost has further expanded such reading of video game-worlds as procedural simulations.¹⁵⁸ According to Bogost, it is possible to understand ludic, digital simulations, in terms of their ability to embody 'meaning' in the form of 'unit operations'. Bogost suggests understanding the essential nature of video games (and thus, of video game-worlds) as "a type of configurative or procedural artefact, one built up from units of tightly encapsulated meaning."¹⁵⁹

Such characterisation of video games as *loci* where meaning is expressed, places them close to other forms of cultural production...

any medium—poetic, literary, cinematic, computational—can be read as a configurative system, an arrangement of discrete, interlocking units of expressive meaning. I call these general instances of procedural expression *unit operations*.¹⁶⁰

...while they are set apart from other media by their procedural nature – consisting in their "ability to capture experience as systems of interrelated actions."¹⁶¹

My research shares Bogost' notion of video games (and of their worlds) as systems that can be read procedurally in reference to the 'unit operations' of meaning performed by each of their components. On the basis of such interpretation, it becomes possible to establish a connection between the procedural units composing video game-worlds, and the (not less procedural) units that compose philosophical systems such as metaphysics and metaethics. To quote Bogost, whose words about video games could seamlessly be applied to defining of the elements of a philosophical system:

¹⁵⁷ K. Salen and E. Zimmerman, *Rules of Play: Game Design Fundamentals*, Cambridge, MA, The MIT Press, 2003, p. 423.
¹⁵⁸

¹⁵⁹ I. Bogost, *Unit Operations: An Approach to Videogame Criticism*, Cambridge, MA, MIT Press, 2006, p. xii.

¹⁶⁰ *Ibid.*, p. ix.

¹⁶¹ J. Murray, *op. cit.*, 1997, p. 274, cited in I. Bogost, *op. cit.*, 2006, p. 46.

I am calling unit operations: an understanding, largely arbitrary, certainly contingent, of a particular situation, compacted and taken as a whole.¹⁶²

Like the procedural units of video games, also the composing blocks of philosophical systems have the ability to inform and shape the actions that are performed – typically by humans – on the basis of the frame of sense which they provide:

In system analysis, an operation is a basic process that takes one or more inputs and performs a transformation on it. An operation is the means by which something executes some purposeful action.¹⁶³

Differently from Bogost, however, my research doesn't consider video game-worlds in terms of what "they do" within a social context.¹⁶⁴ Rather, I treat video game worlds as entities that exist in and of themselves – and consequently, that can be analysed through a philosophical category such as metaphysics. Said otherwise, I propose to understand the 'stimulatory' aspect of video games only as a relative and taxonomical category: video games are things that can be placed in the category of 'simulations', if considered in reference to their relationship of similarity-yet-difference towards other things that belong to the so-called 'real' world – but the two groups of things, video game-worlds and the so-called 'real' world, have equal ontological legitimacy and weight.

More recently, Stefano Gualeni has developed the notion of simulation within the framework of a sophisticated take on phenomenology. According to Gualeni:

the virtual worlds that can be experienced through the mediation of computers must also effectively be considered as worlds.¹⁶⁵

Gualeni rejects the demotion of video games to purely fictional artefacts characterised by a dream-like ontological status.

¹⁶² I. Bogost, *op. cit.*, p. 13.

¹⁶³ *Ibid.*, p.7.

¹⁶⁴ See I. Bogost, *How To Do Things With Video Games*, Minneapolis and London, University of Minnesota Press, 2011.

¹⁶⁵ Gualeni, *op. cit.*, 2015, p. 46.

[There is] a clear distinction between the experiences of virtual worlds and those of dreams or hallucinations. The virtual worlds of simulations and videogames are recognized as worlds precisely because they can be accessed and returned to at will, and because they emerge in ways that are repeatable and relatively stable in their mechanical and aesthetic aspects.¹⁶⁶

Coherently with his (post)phenomenological and existentialist approach to video games, Gualeni has developed an ontology of video games which is inextricably connected to the perceptive structures of human players. When talking of video game-worlds as 'worlds', Gualeni explains:

For Heidegger, a world is always a world for someone (something capable of perceiving it, relating to it, and acting within it). ... [Likewise, I utilize] the term 'world' to indicate the way reality is disclosed to the sensory, cognitive, and operational equipment of a certain being.¹⁶⁷

Thus, Gualeni's analysis articulates an understanding of video games that is centred on the notion of 'gameplay', rather than on video game worlds as ontologically autonomous entities. As described by video game scholar Kristine Jørgensen:

gameplay is not a feature designed into the game alone, but an emergent aspect of interaction between the game system and the player's strategies and problem-solving processes. In short, gameplay is how the game is played, delimited by the game rules, and defined by the dynamic relationship that comes into being when the player interacts with these rules.¹⁶⁸

Similarly to Jørgensen, and in the same (post)phenomenological tradition as Gualeni, video game scholar Olli Tapio Leino presents the ontological status of video games as inextricably connected to the activity of gameplay:

I articulate the computer game as a technological artefact which makes players responsible, in an existentialist sense, for the freedom it endows them with. From this analysis gameplay

¹⁶⁶ *Ibid.*, p. 6.

¹⁶⁷ *Ibid.*, pp. 53-54.

¹⁶⁸ K. Jørgensen, 'Audio and Gameplay: an Analysis of Pvp Battlegrounds in World of Warcraft', *Game Studies*, vol. 8, no. 2, 2008, pp. 1-19, <http://gamestudies.org/0802/articles/jorgensen>, (accessed 12 August 2020).

appears as a self- sustaining activity in which at stake is the continuation of the activity itself. This risk is what distinguishes gameplay from freeform play.¹⁶⁹

Similarly, media theorist Seth Giddings reclaims the legitimate status of games as ‘real’ worlds, but at the same time he also adds a *caveat* on their reality being just “enough” – that is, not autonomous and complete, but somewhat dependent on external factors, and namely on player’s interactions. In his presentation of the ontology of game-worlds, Giddings emphasises the multiplicity that lies at their heart (in a fashion that is not dissimilar from the spirit of this thesis, where such multiplicities are explored factually and counterfactually through the language of metaphysics and metaethics):

Games and play are at once material and imaginary. They are real – but they trouble commonsense notions of reality; they offer multiple realities of fantasy, performance and intense experience. The ‘gameworlds’... open up in fields, parks, streets, at home indoors, as well as in computer-generated space... [Also] media worlds are playworlds... Viewers and readers cross a border into a fictional world and in so doing adopt a playful willingness to accept the characters, action and events as a kind of reality, and similarly to regard the evident artifice of genre conventions, narrative structure, spatial and temporal ellipses, etc., as real, or as *real enough* to warrant imaginative engagement and sustained attention.¹⁷⁰

Such a phenomenological perspective on video game-worlds has recently been developed, towards a greater attribution of ‘reality’ to video game worlds, by Daniel Vella. According to Vella:

Ludic actions must be characterized as actions first... Ludic action [should not] be understood as ‘fictional,’ or, in some other sense, ‘not real.’ Quite the opposite: ...such an action is, first and foremost, a *real* action oriented towards a *real* object and governed by a *real* teleology. ... What is needed, then, is an ontology of the sphere of action contained by the play-frame, and, linked to this, a phenomenology of this same sphere of action as it appears to the player in the act of playing. ... I argue that such a formulation can be identified in the notion of the sphere of play as a ‘world’.¹⁷¹

¹⁶⁹ O. T. Leino, ‘Untangling Gameplay: An Account of Experience, Activity and Materiality Within Computer Game Play’, in J. R. Sageng, H. Fossheim, and T. M. Larsen (eds.), *op. cit.*, 2012, pp. 57-75: 59.

¹⁷⁰ S. Giddings, *Gameworlds: Virtual Media and Children’s Everyday Play*, London: Bloomsbury, 2014, pp. 3-4.

¹⁷¹ D. Vella, *op. cit.*, 2015, pp. 50-51.

Vella opposes an understanding of the (video) game-world as derivatively real, and thus ontologically dependent on – and inferior to – the supposedly ‘real’ world where the player resides.

This investigation [takes] a stand in opposition to the idea, expressed by Kristine Jørgensen, that games can be “understood as subsets of the real world, delimited by a conceptual and elastic boundary that defines what should be understood as part of the game and not” – a point echoed by Leino’s argument that the term gameworld is best understood “a signifying shorthand [...] for a subset of the actual world.”

Faithful to his phenomenological perspective, however, Vella establishes the legitimate ontological status of the video game-world, by adopting similar categories to those that endow the ‘real’ world with the status of reality, only inasmuch as it is filtered through the world-giving agency of humans.

A ‘game,’ in experiential terms for the player, constitutes a discrete *lifeworld* in miniature – ‘world’ being understood here in the phenomenological sense as lived-world, that is, a world as it appears to a subject through her existential practice. ... The establishment of the gameworld as a distinct ontic and experiential domain is inseparable from the establishment of the ludic subject as the ‘I’ identified by the player in relation to this domain...¹⁷²

Nonetheless, Vella suggests a more autonomous understanding of game-worlds as proper, autonomous worlds in their own right – and thus, in so doing, he performs a movement towards their study through the lens of metaphysics.

It is certainly possible for me... to think to myself, “What a wonderful world” – which implies an intentional act which intends the world (as object) for me, as a distinct thing which has the quality of being wonderful. ... But an objective grasp of the world does not stop at merely attributing this or that quality to it. Rather, what it represents is the possibility to move into the register of ontology. Taken to the extreme, it results in the positing of a cosmos – which, traced to its ancient Greek root as κόσμος, refers to “a complete, integrated system of

¹⁷² *Ibid.*, p. 56.

phenomena governed by some coherent scheme of rules” (Nash 1987, 8). ... Cosmos, then, emerges in a transcendental leap from the experiential lifeworld in which it is rooted.¹⁷³

This passage towards metaphysics – and towards a more extreme ontological position – is intensified in the work of “ludic realist”¹⁷⁴ video game scholar John Richard Sageng, who has argued for the full and autonomous reality of video games and video game worlds.

In his presentation at the 2nd PCG Conference in Reggio Emilia, Italy, titled *The Reality of Game Objects*, Sageng argues that “entities in computer games are independent objects,”¹⁷⁵ not to be mistaken for simulations or representations. They exist in their own right, like, for traditional ‘realist’ philosophers, concepts and universal entities exist in their own right, despite not being immediately identifiable as specific ‘concrete particulars’.

In his address, a decade later, to the Philosophy of Computer Games Conference 2017, titled *The Ontological Status of Game Ecologies*, Sageng expands this view in reference to the motivational structures underlying and enhancing gameplay – which he defines as the ‘conative ecology’ of a video game. According to Sageng:

the core ecological structures in games are based on real properties, [which are] imposed by cognitive mechanisms [in order to] project intersubjective reasons for action that normally support social ontologies¹⁷⁶.

On the basis of the reconnaissance of the main voices in the academic debate on the ontological status of video games, in the next section I will present the particular stance that I take in reference to this problem. In particular, I will concentrate on the ‘world’ of a video game – since, from a fully

¹⁷³ *Ibid.*, pp. 97-98. For the reference to Nash, see C. Nash, *World-Games: The Tradition of Anti-Realist Revolt*, London: Methuen, 1987, p. 8.

¹⁷⁴ J. R. Sageng, ‘John R. Sageng’, *Game Philosophy Network*, [website], <http://gamephilosophy.org/members/johnsageng/>, (accessed 12 August 2020)

¹⁷⁵ J. R. Sageng, ‘The Reality of Computer Game Objects’, *The Philosophy of Computer Games: An Interdisciplinary Conference*, University of Modena and Reggio Emilia, 25-27 January 2007, [http://gamephilosophy.org/download/philosophy of computer games conference 2007/Sageng SlidesPCG2007.pdf](http://gamephilosophy.org/download/philosophy%20of%20computer%20games%20conference%202007/Sageng%20SlidesPCG2007.pdf), (accessed 12 August 2020).

¹⁷⁶ J. R. Sageng, ‘The Ontological Status of Game Ecologies’, *Philosophy of Computer Games Conference 2017 (POCG2017)*, Krakow, Jagiellonian University, 28th November-1st December 2017, <https://www.youtube.com/watch?v=uhTwUEgP21c>, (accessed 12 August 2020).

'realist' position, as I adopt, in which a video game is a fully existing metaphysical entity, the video game and its video game-world ultimately coincide.

1.3.4 This thesis' take on the ontology of video game-worlds

In the previous section, I summarised the philosophical debate on video game-worlds, with particular reference to the question of their ontological status. This is not only a key issue in the field of video game studies, but it is also a crucial element within this thesis. Indeed, the modalities of scholarly interaction with a video game-world (as with the entities that populate it and the fundamental structures that define it) depend on the assessment of the greater or lesser reality that should be assigned to it. If, for example, a video game is a barely real 'fiction', then it makes most sense to engage with it through the angle of literary criticism. By the same token, if a video game-world is essentially a half-real cultural artefact on the global market, then it can be best analysed through the angle offered by the economic discipline, or through sociology and cultural studies.

Even if we consider a video game-world as a suitable object for philosophical investigation, the specific assessment of its ontological status selects in advance which philosophical approach might be best suited to analyse it. If, for example, we consider the ontological status of a video game-world as dependent on its interaction with human players, then it makes sense to observe it *sub specie humanitatis*, that is, from a phenomenological angle. Conversely, as it the case in this thesis, if one wishes to consider a video game-world through the angle of metaphysics – that is, so to say, *sub specie aeternitatis* – it becomes necessary to ground such a position on the basis of a notion of the ontological status of video game-worlds as autonomous and 'fully real' entities.

With respect to the main scholarly positions in the field of video game studies, my notion of the ontological status of video game worlds sits between those suggested by Sageng, and by Gualeni and Vella. On the one hand, it is hard to refute Gualeni's (post)phenomenological approach, and his (Heideggerian) distinction between the different ontological levels of being. Indeed, inasmuch as a video game world is analysed by a human agent, it shall disclose its reality only through the frame of a human phenomenology. For this reason, my philosophical analysis of the video game-world of TW:R2 is deployed expressly from a human perspective. I am not going to observe the metaphysical status of video game objects from their own point of perspective (an attempt which would require

a complete revolution of the traditional categories of metaphysics, tainted as they are by their human origin, and which would of course be beyond the means of this, human, researcher). As observed by Gualeni:

“Every metaphysical question can be asked only in such a way that the questioner as such is present together with the question” (Heidegger, 2008, 93). In this sense, the questions concerning digital technology must be understood as having been asked and explored in ways that are unavoidably historical and human.¹⁷⁷ [...] Any pretense of experiencing or understanding alien phenomenologies... appears to be motivated by a form of anthropocentrism that is more naïve and arrogant than the correlationalistic one condemned by object-oriented philosophy.¹⁷⁸

On the other hand, however, I retain Sageng’s claim of a full autonomous existence of video game-worlds and of the entities that populate them. Even though their full reality might not be ‘open’ to us (to borrow a metaphor shared by Heidegger, Rilke and Agamben), it is important to maintain a ‘reminder’ (here meant partly as a response to metaphysics’ ‘oblivion of Being’, as it was denounced by Heidegger) of the absolute reality with which video game worlds, too, are endowed.

To substantiate this point, my ontological position with regard to the reality of video game objects draws from the ontological system established by Italian philosopher Emanuele Severino.

Ever since his 1969 essay *Returning to Parmenides*, included in his 1972 monograph *The Essence of Nihilism*,¹⁷⁹ Severino has reclaimed the validity of the intuitions of pre-Socratic philosopher Parmenides of Elea. According to Parmenides, the principle of existence cannot be mixed with or tainted by that of non-existence: existence alone is that of which we can talk and think, while non-existence merely ‘is not’.

I will tell you... the only ways of enquiry that are to be thought of. The one, that [it] is and that it is impossible for [it] not to be, is the path of Persuasion (for she attends upon Truth); the other, that [it] is not and that it is needful that [it] not be, that I declare to you in an altogether

¹⁷⁷ Gualeni, *op. cit.*, 2015, p. 164.

¹⁷⁸ *Ibid.*, p. 85.

¹⁷⁹ E. Severino, *The Essence of Nihilism*, London and New York, Verso, 2016, pp. 35-84.

indiscernible track: for you could not know what is not – that cannot be done – nor indicate it.¹⁸⁰

Through a sophisticated application of Aristotle's principle of non-contradiction to the issue of existence and non-existence, Severino develops a radical critique of Western philosophy, which he deems guilty of having endorsed an understanding of existents as essentially 'nothing'.

According to Severino, the peculiar relationship established by the Western mind towards the world and towards each existent can be described as a self-contradictory form of "supreme Folly".

Western thought finds it natural to state that there is a time when entities are not-yet, and a time when entities are no-longer... [But] believing that this specific form has once been nothing and will become again nothing means believing that there exists a time when this entity, insofar as it is an entity, is nothingness. That is, it means to state that such an entity, insofar as it is an entity, is nothingness, absolutely nothingness... For the West, the notion that 'becoming' is a passage from being to non-being serves as the original and supreme evidence, dominating any other evidence... What for the West is supreme "evidence" is, in truth, supreme Folly.¹⁸¹

Such "supreme Folly" constitutes the essence of Nihilism, which is, according to Severino, the particular mode of existence promoted by Western, anti-Parmenidean philosophy:

The 'essence of nihilism'... asserts – implicitly, at the unconscious level – the being-nothing of that which is – explicitly – recognised as an entity, that is, as not-nothing. If nihilism were to become transparent to itself, it would see itself as operating an identification of the entity, inasmuch as it is an entity, with nothingness.¹⁸²

This nihilist approach to existence is not just a matter of abstract speculation, but it conditions the entire mode of operation of the Western mind and of Western societies:

¹⁸⁰ Parmenides of Elea, *Fragment 291*, in G. S. Kirk et al. (eds. and trans.), *The Presocratic Philosophers*, second edition, Cambridge, Cambridge University Press, 2005, p. 245.

¹⁸¹ E. Severino, *Immortalità e Destino*, Milano, Rizzoli, 2008, pp. 182-190 – my translation.

¹⁸² E. Severino, *La Strada: la follia e la gioia*, Milano: Rizzoli, 2008, p. 76 – my translation.

Extreme folly is not only a 'thought', but it is altogether a form of action and of life; to live in relation to things as if they were nothing, to act in compliance with the persuasion that not-nothingness is in fact nothing.¹⁸³

Conversely, Severino claims, for each existent, an existence that isn't just full and absolute, but also eternal.

Non-Folly is the manifestation of the necessity that an entity is, in fact, an entity... Non-Folly is the manifestation of the impossibility that an entity insofar as it is an entity – that is, that every entity – is not; it is the manifestation of the eternity of every entity. Eternal is every entity; therefore, every state of the world, of consciousness and of affectivity is eternal. Eternal is the past and the future, as is the present. The infinite entities not manifesting themselves are eternal, too... Non-Folly is the negation of nihilism.¹⁸⁴

Severino extends the quality of eternal existence not only to 'being' in general, but also to all individual 'beings', both material and immaterial.

Outside of folly, destiny opens itself always-already: the staying of things, the impossibility of them not-being; that is, their being, all of them, eternal. If folly is thinking that things come from nothingness and return to nothingness – and living and acting on the basis of such persuasion – then non-folly, the *health* that opens itself up always already beyond the borders of folly, is the gaze of destiny seeing the eternity of every thing.¹⁸⁵

As noted by Italian philosopher Nicoletta Cusano:

When it is thought that something, before coming into existence, was nothing, and that after its existence it will return to nothingness, the thing is essentially conceived as separate (and separable) from its ties with being. And yet, thus separated, the thing becomes... a logical absurdity, a contradiction, because while it is thought as being 'nothing', it is still being thought as something, that is, as 'not-nothing'. No one prior to Severino had ever reflected on

¹⁸³ *Ibid.*, p. 72 – my translation.

¹⁸⁴ E. Severino, *Immortalità e Destino*, Milano: Rizzoli, 2008, p. 191 – my translation.

¹⁸⁵ E. Severino, *La Strada: la follia e la gioia*, Milano: Rizzoli, 2008, p. 86 – my translation.

this decisive aspect: if the thing is thought to be separable from its being, the thing becomes unthinkable... [Conversely,] Severino argues that every existent is eternal. That any existent as such is eternal; not just the privileged entities that, from Plato to Hegel, have been asserted in the course of the history of philosophy. Every entity, every instant, all that is not nothing, “is”.¹⁸⁶

Within Severino’s perspective, anything that exists – regardless of the way in which it exists – exists absolutely, eternally and on an equal level to any other being. Observed through Severino’s ontology, there cannot be such things as unreal, ‘half real’, or derivatively real entities: anything that exists (including video game-worlds) does so absolutely.

Adopting this stance allows for the full deployment of philosophy’s tools to analyse the objects, structures and process that exist in a video game-world – while remaining mindful, as Gualeni suggests, that the fullness of their reality remains always partly shielded by the very phenomenological apparatus through which we humans can apprehend them.

In order to account also for the inescapable ‘humanness’ of the philosophical gaze, I qualify the ontological status of video game-worlds as fully real *cosmoi*. To paraphrase German philosopher Kurt Reizler, a video game-world is a *cosmos* in its own right – with its own inner rules, boundaries, and autonomous ontological status. When commenting on the game of chess, Reizler notes how:

[the queen] is an entity in the game defined by the movements the game allows her. The game is the context within which the queen is what she is. This context is not the context of... ordinary life. The game is a little cosmos of its own.¹⁸⁷

As observed by Eugen Fink, a play-world embodies and makes manifest the same ‘cosmic’ activity that makes any ‘world’ a ‘world’ as such.

Playing is finite creativity within the magical dimension of appearance... In the magical, playworldly mirroring, the individual thing (the plaything, for instance) ... becomes a symbol.

¹⁸⁶ N. Cusano, *Introduzione*, in E. Severino, *Nihilism and Destiny*, edited by N. Cusano, trans. K. W. Molin, Mimesis International, 2016, pp. 8-10.

¹⁸⁷ K. Reizler, ‘Play and Seriousness’, *The Journal of Philosophy*, vol. 38, no. 19, 1941, pp. 505-517: 505.

It represents. Human play is (even if we no longer know it) the symbolic activity of bringing the sense of the world and life to presence.¹⁸⁸

Such sense-giving quality of play adds a further dimension to video game-worlds. Whereas the rigid logical unfolding of Severino's thought suffices to take account of their ontological status, the 'cosmic' quality of their metaphysical setup requires that the language of philosophy is expanded towards the field of literature – precisely, of philosophical literature.

The possibility of using literature to investigate metaphysical problems has been explored since the beginning of the discipline – let us just remember the use of myths in Plato's dialogues – and it can boast a large number of examples (from Ibn Tufayl's 12th century novel *Ḥayy ibn Yaqzān*,¹⁸⁹ through Thomas More's *Utopia*,¹⁹⁰ to Nietzsche's *Thus Spoke Zarathustra*,¹⁹¹ to contemporary 'theory fiction' such as Simon Sellars' *Applied Ballardianism*¹⁹² and Ted Chiang's *Stories of your Life and Others*,¹⁹³ which are developed around the lines of enquiry suggested by Thomas Pavel,¹⁹⁴ Lubomír Doležel¹⁹⁵ and Marie Laure Ryan,¹⁹⁶ among others). According to Italian philosopher Giorgio Colli,¹⁹⁷ such proximity between literature and philosophy dates back to the Socratic origin of the discipline as *philo-sophia* (as opposed to the pure *sophia*, 'wisdom', of earlier thinkers, like Heraclitus), and it derived from the secularization of the quest for wisdom, away from the ecstatic knowledge that was typical of the earlier, sapiential tradition. According to Colli, philosophy emerged immediately as literature, inasmuch as its intent was that to educate through means of logical and rhetorical persuasion (in a manner not dissimilar to Ian Bogost's understanding of video games as "persuasive" interactive systems).¹⁹⁸

¹⁸⁸ E. Fink, *op. cit.*, 2016, pp. 29-30.

¹⁸⁹ I. Tufayl, *Ḥayy Ibn Yaqzan: A Philosophical Tale*, trans. L. E. Goodman, Chicago, IL, University of Chicago Press, 2003.

¹⁹⁰ T. More, *Utopia*, trans. D. Baker-Smith, London, Penguin, 2012.

¹⁹¹ F. Nietzsche, *Thus Spoke Zarathustra: A Book for Everyone and Nobody*, trans. G. Parkes, Oxford, Oxford University Press, 2008.

¹⁹² S. Sellars, *Applied Ballardianism: Memoir from a Parallel Universe*, Falmouth, Urbanomic, 2018.

¹⁹³ T. Chiang, *Stories of Your Life and Others*, Basingstoke and Oxford: Picador, 2015.

¹⁹⁴ T. G. Pavel, *Fictional Worlds*, Cambridge, MA, Harvard University Press, 1989.

¹⁹⁵ L. Doležel, *Heterocosmica: Fiction and Possible Worlds*, Baltimore and London, The Johns Hopkins University Press, 2000.

¹⁹⁶ M. L. Ryan, *Possible Worlds, Artificial Intelligence, and Narrative Theory*, Bloomington, IN, Indiana University Press, 1992; see also the recent edited collection A. Bell and M. L. Ryan (eds.), *Possible Worlds Theory and Contemporary Narratology*, Lincoln, NE, University of Nebraska Press, 2019.

¹⁹⁷ See G. Colli, *La Nascita della Filosofia*, Milano, Adelphi, 1975.

¹⁹⁸ See I. Bogost, *Persuasive Games: The Expressive Power of Videogames*, Cambridge, MA, The MIT Press, 2007.

Resting on this characterisation of philosophy as a peculiar form of literary inquiry, I am going to complement the scholarly take suggested by Sageng and Gualeni, and the ontological take proposed by Severino, with the cosmic/literary approach championed by Argentinean writer Jorge Luis Borges.

In the story *Tlön, Uqbar, Orbis Tertius*,¹⁹⁹ Borges recounts his (imaginary) quest for information on Tlön – a planet that uncannily resembles the digital game-world of a contemporary video game.

Who are the inventors of Tlön? ... It is conjectured that this brave new world is the work of a secret society of astronomers, biologists, engineers, metaphysicians, poets, chemists, algebraists, moralists, painters, geometers... directed by an obscure man of genius. Individuals mastering these diverse disciplines are abundant, but not so those capable of inventiveness and less so those capable of subordinating that inventiveness to a rigorous and systematic plan... At first it was believed that Tlön was a mere chaos, and irresponsible license of the imagination; now it is known that is a cosmos and that the intimate laws which govern it have been formulated, at least provisionally.²⁰⁰

In a similar fashion to Borges' Tlön, I also suggest considering the digital game-world of a video game as an apparent chaos, which is in fact structured by a strong philosophical architecture, and as the product of the collaborative effort of experts from different fields. Borges presents Tlön as a *cosmos* that can be entirely read philosophically, precisely because its fundamental architecture is already, almost 'naturally', philosophical. For example:

Hume noted for all time that Berkeley's arguments did not admit the slightest refutation, nor did they cause the slightest conviction. This *dictum* is entirely correct in its application to the earth, but entirely false in Tlön. The nations of this planet are congenitally idealist. Their language and the derivations of their language – religion, letters, metaphysics – all presuppose idealism.²⁰¹

¹⁹⁹ J. L. Borges, 'Tlön Uqbar, Orbis Tertius', in *Labyrinths: Selected Stories & Other Writings*, trans. J. E. Irby, London, Penguin, 2000, p. 27-43.

²⁰⁰ *Ibid.*, p. 32.

²⁰¹ *Ibid.*, p. 32.

With an uncanny similarity to the 'procedural/operational' world of a video game (as Ian Bogost describes it),²⁰² Tlön's population understands their world as a series of acts and processes rather than as a set of static entities:

The world for them is not a concourse of objects in space; it is a heterogeneous series of independent acts. It is successive and temporal, not spatial. There are no nouns in Tlön's conjectural *Ursprache*, from which the "present" languages and the dialects are derived: there are impersonal verbs, modified by monosyllabic suffixes (or prefixes) with an adverbial value. For example: there is no word corresponding to the word "moon," but there is a verb which in English would be "to moon" or "to moonate."²⁰³

It is worth noting one more similarity between Borges' vision and that which informs the present research, with particular reference to the creative, and almost poetic, quality of fundamental philosophical branches such as metaphysics and metaethics :

The metaphysicians of Tlön do not seek for the truth or even for verisimilitude, but rather for the astounding. They judge that metaphysics is a branch of fantastic literature. They know that a system is nothing more than the subordination of all aspects of the universe to any one such aspect.²⁰⁴

It would be difficult to explain with greater precision and evocative force my understanding of the role and scope of philosophy in video game design (and particularly of metaphysics and metaethics). Differently from other cases of fantastic cosmogonies – such as Italo Calvino's celebrated *Invisible Cities*,²⁰⁵ each of which is structured around one, specific idea – Borges' Tlön is the explicit incarnation of a complex and variable philosophical system, and it exemplifies with great precision the peculiar methodology of what we could call a 'philosophical cosmogony' (i.e. the creation of a world through the adoption of philosophical assumptions as its constituent elements, and thus the manipulation of such elements as immediately productive of changes within such world).

²⁰² See I. Bogost, *op. cit.*, 2006.

²⁰³ J. L. Borges, *op. cit.*, p. 32

²⁰⁴ J. L. Borges, *op. cit.*, p. 34

²⁰⁵ I. Calvino, *Invisible Cities*, trans. W. Weaver, London, Vintage, 1997.

To conclude this section by returning to the field of video game studies, it is possible to compare my understanding of the video game-world as a *cosmos* (etymologically, the ‘beautiful’ composition of reality into the ‘order’ of a ‘world’), with what Gualeni defines as the ‘environment’ provided by a video game. According to Gualeni:

Virtual environments like the operating theatre of a surgical simulation or a text editor are defined by their possibility to be experientially engaged by its users as worlds... An environment is a particular kind of object, whereas a world is a particular kind of relationship. To clarify with an example: a level in a digital game is a virtual environment, and it is our interacting with it that makes it emerge in our experience as a virtual world.²⁰⁶

Seen through this distinction, the conceptual architecture sustaining a video game-world should fall under the label of ‘environment’, rather than ‘world’: it constitutes the settings where a player will subsequently experience their own, ludic and existential ‘world’.

Nonetheless, I have decided to retain the term ‘world’ to define the object of my investigation, due to the plurality of meanings that can be assigned to this term. Firstly, a world can be understood as a complete, ordered and intelligible set of entities:

‘World’ generally indicates two interrelated things. First, a ‘world’ is a set composed of beings that are understood together with all their properties and mutual relationships. More specifically, a ‘world’ describes that set as experienced by one of the beings involved in it.²⁰⁷

Consequently, it is possible to retain the notion of a video game-world as a ‘world’, inasmuch as it manifests itself to the video game designer (i.e. to its creator) as an intelligible “set composed of beings that are understood together with all their (detectable) properties and mutual relationships.”

Secondly, by the term ‘world’ it is possible to understand also the ‘ground’, or ‘horizon’, against which entities live, act and possibly experience each other. Following Gualeni:

²⁰⁶ S. Gualeni and D. Vella, *op. cit.*, 2020, p. xxvii.

²⁰⁷ S. Gualeni, *op. cit.*, 2015, pp. xxvii and 6.

In its second meaning, a 'world' indicates the horizon (or ground) against which every object is experienced and understood.²⁰⁸

My approach considers the game-world as a philosophically structured 'world-ground' – a 'cosmic environment' – rather than as an experientially constructed 'world'. For this reason, I keep my perspective as free as possible from questions concerning playfulness, narration, and in general from the aspect of interactivity, focusing instead on the inner architecture of the video game-world. By reaffirming the ontological autonomy of the video game-world, I aim to allow enough space for the disciplines of metaphysics and metaethics to truly bear fruit as a method to read, think and eventually reinvent digital game-worlds.

1.3.5 Summary

Before moving on to the next chapter, it is worth recapitulating the main topics discussed so far – with the aim of making emerge more clearly the scope of the present research.

I began this chapter by presenting a general overview on the video game market, emphasising in particular its strength, reach and potential for development. Then, I singled out the genre of strategy video games, of which I have highlighted the relevance and 'openness' to philosophical enquiry. After a necessary clarification of the three main terms that are adopted throughout my thesis ('philosophy', 'video game', 'design'), I proceeded with a further overview on the main debates and positions in the field of video game studies.

I presented the approaches of narratology, ludology, fictionalism, motivationalism and finally, more extensively, the 'philosophical' approach to the analysis of video games and video game worlds. I began this latter presentation by reviewing a series of recent calls for a deeper and more fruitful connection between philosophy and video game studies/design – while also pointing out the differences between the method they suggest, and my own (which is specifically aimed at video game designers and scholars, rather than at players). Subsequently, I focused on one aspect of the

²⁰⁸ S. Gualeni and D. Vella, *op. cit.*, 2020, p. xxvii.

recent debate on philosophy and video games, which is immediately relevant to the scope of my thesis: the ontological status of video game worlds.

In this regard, I have located my position between those suggested by video game scholars Gualeni and Sageng: I consider a video game-world as an ontologically autonomous entity, which is explorable by researchers, however, only within the limits of human cognition. I have established the philosophical foundations of my position in the thought of Emanuele Severino, whose Parmenidean take on the eternity and equal existence of every 'being' offers a solid ontological ground for the unfolding of a metaphysical and metaethical analysis of video game-worlds. Finally, I have complemented the approaches of video game studies (Gualeni and Sageng) and of ontological enquiry (Severino), with the 'cosmic' and literary take offered by Jorge Luis Borges in the story *Tlön, Uqbar, Orbis Tertius*. In the concluding pages of the chapter, I have clarified my use of the term 'world', as considered through a metaphysical (rather than phenomenological) angle.

The intricate distinctions presented so far, however, might risk hiding the overall impact of applying a philosophical approach to video game design and studies. As the 'discipline of disciplines',²⁰⁹ philosophy has the potential to traverse the existing debates on the nature of video games, at the same time overcoming the specificity of each approach and connecting them within a larger framework. In its insistence on the 'correct' or 'most opportune' way to form and structure concepts, philosophy always privileges a methodological approach to its object. As I shall discuss in the next chapter, this trait of philosophical enquiry makes it possible to envisage a number of ambitious objectives for a research on the philosophical dimension of video game-worlds. As well as my objectives, the next chapter will also outline the methodology of my research. The specific composition of mixed methods that I shall present in the next few pages will constitute the first, hypothetical form of what will later become – in Chapter 6 – the main contribution to knowledge offered by my thesis.

²⁰⁹ D. F. M. Strauss, *Philosophy: Discipline of the disciplines*, Grand Rapids, MI, Paideia Press, 2009.

CHAPTER 2

OBJECTIVES AND METHODOLOGY

In this chapter, I outline the objectives and methodology of my research. Due to its position across different fields, and to the variety of its objectives, I begin by framing my work within a classification of the objectives of interdisciplinary research. Having outlined what my research does (i.e. intervening on academic debates, as well as on the processes of industrial innovation), I also declare what exceeds its scope (i.e. intervening at the level of social accountability), detailing the reasons behind my decision. After a discussion of my 'problematic' approach to the role of philosophy within the design process, this chapter ends with a section on the methods that I adopt throughout my research. Coherently with the interdisciplinary nature of my work, this is a composite methodology, spanning from an extensive use of literature, to first-hand experimentation, to a collaboration with professionals from the video game industry, to the creation of a 'proof of concept' prototype.

2.1 OBJECTIVES

My research spans across the fields of video game design, video game studies, and philosophy – with an eye to the impact that this connection might have both for academia and for the video games industry.

In order to present coherently its many-fold objectives, I employ the categorisation suggested by Barry, Born and Weszkalnys in the article *Logics of Interdisciplinarity*.²¹⁰ The authors “identify three distinctive *logics* or rationales that motivate interdisciplinary research, which [they] term the logics of accountability, innovation and ontology.”²¹¹ These logics are understood in terms of their impact and fields of reference:

In writing of the logic of accountability we refer to a range of ways in which scientific research is increasingly expected to be accountable to society. By the logic of innovation, we refer to a spectrum of arguments about how scientific research can be expected to contribute to industrial innovation and economic growth.²¹²

Differently from these first two logics, the third logic of ontology “may be manifest... in intentions to re-conceive both the object(s) of research and the relations between research subjects and objects.”²¹³ To better explain the peculiarity of the ontological logic (and thus, of ‘ontological’ research objectives), the authors use as an example...

...some art-science initiatives [whose goal] is not so much to render art or science more accountable, but to challenge and transform existing ways of thinking about the nature of art and science, as well as the relations between artists and scientists and their objects and publics.²¹⁴

²¹⁰ A. Barry, G. Born and G. Weszkalnys, ‘Logics of Interdisciplinarity’, *Economy and Society*, vol. 37, no. 1, February 2008, pp. 20-49.

²¹¹ *Ibid.*, p. 22.

²¹² *Ibid.*, p. 24.

²¹³ *Ibid.*, p. 25.

²¹⁴ *Ibid.*, p 25.

In the next three sub-section, I shall outline the main objectives of the present interdisciplinary research along Barry, Born and Weszkalnys' three logics – while also complementing their definitions with parallel qualities that resound more clearly with the scope of my work. I assimilate the ontological logic to academic objectives; the logic of innovation to industrial objectives; and the logic of accountability to social objectives. In presenting the objectives of this research, I will also clarify what exceeds the scope of the present work: my research concentrates specifically on ontological and innovation objectives, while not developing (at least, not at present) the accountability side of its possible outcome.

2.1.1 Academic / ontological objectives

Objectives in this category can be considered as academic, since they contribute to expanding the scope of existing research in a field of studies. They can be also considered as ontological, inasmuch as they challenge and expand the notion of what kind of 'really existing stuff' is available to be researched.

One of the objectives of my research is to expand the field of literature on the role of philosophy in video game design. As discussed in the literature review, existing scholarship has so far neglected to offer a systematic analysis of the fundamental architecture of a digital game-world, as observed in itself and in the terms of canonical philosophical language. The present research attempts to do so in reference to the fields of metaphysics and metaethics, following Aristotle's traditional division of philosophy into 'theoretical' (metaphysics) and 'practical' (ethics, politics) disciplines – where ethics (and even more so, metaethics) already encompasses the fundamentals of politics.

I pursue this academic objective through two successive steps. First, I analyse the existing metaphysical and metaethical architecture of my case study, the 4x strategy video game *Total War 2: Rome 2* (TW:R2).²¹⁵ Subsequently, I sketch a series of alternative scenarios that could emerge from the adoption by the designers of fundamentally different philosophical positions. This process requires that the technical language of philosophy is modulated so to make its contents more

²¹⁵ See *intra*, 1.1.2, for the reasons behind my decision to select this kind of game as my case study.

accessible, while not compromising its intellectual rigour. I pursue this linguistic goal by adopting a ‘problematic’ approach to my analysis of video game-world, as detailed later in this chapter.

In terms of its ontological objectives, my research proposes an alternative understanding of what kind of ‘stuff’ constitutes and populate a video game-world. I suggest considering a video game, understood as a real world in its own right, not only as a set of narrative/ludic/motivational/fictional rules, but most importantly as an architecture of philosophical choices, which are operated (wittingly or unwittingly) by the video game designer. In the course of this research, I consider such architecture of philosophical choices – what could be also called a ‘cluster of philosophical alternatives’ – as my indirect definition of what a video game-world fundamentally is in itself (without, of course, excluding other possible definitions).

2.1.2 Industrial / Innovation objectives

Another set of goals of this research has to do with the possibility of fostering innovation in the video game industry. Through a fundamental rethinking of how it is possible to read, conceptualise and structure the architecture of a video game-world, I wish to offer a new set of tools to video game designers and producers. This objective addresses the growing concern, among both scholars and professionals, that the video game industry might have entered a path of repetition and of modest incremental innovation.²¹⁶

As remarked by celebrated video game designer Warren Spector:

If you look at mainstream AAA games today, you see games that look and feel like each other or like other games. Sometimes you see games that feel like old games, except with prettier pictures... Even some of the best-selling video games today are re-makes of other games. This is just not good enough. We [video game designers] are too young a medium to assume that we know everything and that we have gone as far as we need to go.²¹⁷

²¹⁶ This was confirmed during the interviews that I conducted with professionals in the field of video game design. See *intra*, 5.2.

²¹⁷ W. Spector, ‘A Philosophy of Game Design’, *Sweden Game Conference 2016 (SGC16)* [online video], 2016, <https://www.youtube.com/watch?v=LszwbjHSnMA>, (accessed 12 August 2020)

Spector's denunciation of a lack of innovation in the AAA video game industry is echoed by video game developer Josh Snyder:

The industry is dangerously close to entering into an uncontrollable tailspin, filled with monotone games that recycle last generation's ideas but at a higher resolution.²¹⁸

While Snyder points his finger at the unwillingness of the industry to pursue ground-breaking technological innovation, however, the present study suggests that the lack of innovation in the industry has deeper roots – stretching into the territory of how video games are fundamentally conceptualised at the level of their philosophical architecture.

As argued by video game designer Keith Burgun: “One of the most damaging effects of the isolationism of the digital-game industry is duplication”²¹⁹ – that is, the repetition of the same kind of games, along a line of superficial incremental innovation (typically concerning aesthetics, playability and technology) rather than ground-breaking innovation in the architecture of the game-worlds. This lack of fundamental innovation is also felt by professional the industry:

the lead designer at Nintendo, Shigeru Miyamoto, has been quoted in saying that he personally found the fifth and sixth generations to be “very sad times”. Correctly, he pointed out that the games were becoming more and more about technology, and he said that he “didn't know who was designing his games anymore.”²²⁰

Despite this awareness, however, Burgun observes that:

there is a tremendous amount of resistance towards progress in the world of game design theory. The discussion has essentially remained the same for the last ten years, and the things that have changed it were not sound observations, but software making millions of dollars.²²¹

²¹⁸ J. Snyder, 'A Lack of Innovation', Theory of Gaming, [website] 13 June 2014, <http://www.theoryofgaming.com/lack-innovation/> (accessed 12 August 2020).

²¹⁹ K. Burgun, *Game Design Theory: A New Philosophy for Understanding Games*, Boca Raton, FL, CRC Press, 2012, p. 53.

²²⁰ *Ibid.*, p. 85.

²²¹ *Ibid.*, p. 152.

My thesis claims that a philosophical interpretation of the architecture of video game-worlds – especially if complemented by an education of video game designers to philosophy’s methods and language – can contribute to igniting a rethinking of the theory and practice of video game design. Through this approach, it is possible to address the issue of ‘repetition’ by intervening directly on their philosophical architecture of new game-worlds – for example, by modifying their underlying metaphysics or metaethical assumptions.

My addresses in particular the possibility of innovating both the ‘natural’ architecture of the video game-world (metaphysics), and the notion of ‘good’ and ‘bad’ that structures the behaviours of the ‘populations living within the game-world’ (metaethics). Of course, metaphysics and metaethics do not exhaust the range of philosophical structures innervating a video game-world. However, as discussed above, by experimenting with two of the most fundamental branches of philosophy, I suggest a general line of work that might equally include other branches of the discipline.

One of my goals is to provide a working method though which designers and producers in the industry could include philosophy within their *modus operandi*, and as part of their general attempt to produce ground-breaking innovation. This aspect can be considered also in reference to the framework provided by the process of ‘Transformation Design’ (although separately from the social criticism that typically characterises it). The present research shares the same goal as ‘Transformation Design’...

Transformation design is focused beyond incremental change towards... paradigmatic change, meaning a change in the core assumptions and world-view of an organisation or community.²²²

...and its same scope:

The challenge is not how to design a response to a current issue, but how to design a means of continually responding, adapting and innovating. Transformation design seeks to leave

²²² D. Sangiorgi and K. Scott, ‘Conducting design research in and for a complex world’, in P. A. Rodgers and J. Yee, *The Routledge Companion to Design Research*, London and New York, Routledge, 2018, p. 122.

behind not only the shape of a new solution, but the tools, skills and organisational capacity for ongoing change.²²³

2.1.3 Social / accountability objective

According to Barry, Born and Weszkalnys' classification, this third type of objective concerns the impact of research activity on society's wellbeing. As already briefly stated, my research does not presently have social/accountability objectives. This is not to say that I don't consider these as important goals – quite the opposite. The metaphysical and metaethical design of video game-world truly has the potential to transform the existential experience of gamers – and as such it should be seriously considered also in terms of its ethical and political implications. As claimed by Gualeni:

virtual worlds [are] capable both of mediating philosophical thought and of experientially fragmenting and augmenting the ways in which people can think, perceive, and operate, expanding the boundaries beyond the mere “actual” and extending into what is virtually “possible.” [...] The virtual worlds disclosed by digital simulations and videogames [are] coessential to the development of augmented forms of human cognition, perception and agency.²²⁴

A number of recent publications have focused on the political dimensions disclosed by video games and on their potential for social re-imagination. Their overall approach is well encapsulated by Jon Bailes' introductory statement to his book *Ideology and the Virtual City: Videogames, Power Fantasies and Neoliberalism*.

This book is about some of the deeply entrenched ideas in modern societies, and how they may make it more difficult to properly confront widespread social problems such as poverty, oppression and environmental decline. It is also about videogames, and how they function as modern cultural expressions that represent different responses to and interpretations of those ideas.²²⁵

²²³ C. Burns et al., *RED Paper 02: Transformation Design*, London, Design council, 2006, p. 21.

²²⁴ S. Gualeni, *op. cit.*, 2015, pp. 3 and 106.

²²⁵ J. Bailes, *Ideology and the Virtual City: Videogames, Power Fantasies And Neoliberalism*, Alresford, John Hunt Publishing, 2019.

Their call to open up video game studies to the philosophical richness of critical theory is summarised by Alfie Bown's presentation of his book *The Playstation Dreamworld*:

There are three arguments that run throughout [this] book. First... that the world of videogames can only be fully understood via the analysis of French psychoanalyst Jacques Lacan... Second... that any potential attempt at subversion needs to work inside this dreamspace – a powerful force in constructing our dreams and desires... Finally, the book attempts to show the subversive potential of videogaming by revealing how dialectically ideological and disruptive the enjoyment of videogames can be.²²⁶

My reluctance to include social/accountability objectives originates from the specific scope of my research. I focus on the structures and architectures structuring a video game-world, rather than on those of the so-called 'real' world. If I had to consider the interactions between such game-worlds and the 'real' world in which gamers live, another whole thesis would have become necessary. Before attempting to investigate how the philosophical choices of video game design might impact the life of a person or of a society, I would have to produce an ontological/metaphysical analysis and an ethical analysis of the 'real' world and of the subjects who populate it, alongside a strict phenomenological analysis of the interaction between humans and world(s). Then, and only then, I might be to develop a serious analysis of the (existential, cognitive, etc.) experience of video game players.

Gualeni and Vella have recently investigated the interaction between these complex aspects, which they have applied to the existential potential of video game-worlds, as read within the framework offered by the notion of 'multistability' (originally suggested by Don Ihde).²²⁷

Multistability indicates the inherent possibility of every technology to be repurposed and used in unanticipated ways. [This quality] is what makes it possible for a technology to acquire new meanings, functions, and effects within a social context... The multistability of technologies that disclose virtual worlds guarantees that the latter do not exclusively produce expected

²²⁶ A. Bown, *The Playstation Dreamworld*, Cambridge, Polity, 2018.

²²⁷ D. Ihde, *Technology and the Lifeworld: From Garden to Earth*, Bloomington, IN, Indiana University Press, 1990.

(and presumably socially positive) effects, but also invite the emergence of unanticipated functions and implications.²²⁸

On the basis of a ‘multistable’ understanding of digital technology, Gualeni and Vella have explored a series of existential strategies enacted by video game players, which harbour the potential for significant social transformations.

We claim that, in virtual worlds, human beings can reflect on their values and beliefs, take on new subjectivities, explore previously unexperienced ways of being, and take reflective stances towards their existence and their subjectivity in the actual world.²²⁹

Philosophically solid contributions such as those by Gualeni and Vella – as well as by other thinkers in the fields of philosophy of technology and science and technology studies²³⁰ – in part relieve me of the duty of tackling this important issue from a philosophical angle.

I will not engage with the social/accountability aspects of my research work, precisely because I acknowledge the commitment and the intensity that are required by any serious consideration of the social consequence of one’s activity. Such a limitation to my research should be also considered in the context of an analysis of game-worlds: as with the process of playing, the constraints imposed by the boundaries of the playfield are precisely what allows for a meaningful activity within its contours.

²²⁸ S. Gualeni and D. Vella, *op. cit.*, 2020, pp. xxv and 114.

²²⁹ *Ibid.*, p. xix.

²³⁰ See, among others: P. P. Verbeek, *What Things Do: Philosophical Reflections on Technology, Agency, and Design*, University Park, PA: Penn state University Press, 2005; A. Feenberg, ‘Critical Theory of Technology: An Overview’, *Tailoring Biotechnologies*, vol. 1, no. 1, 2005, pp. 47-64; W. E. Bijker et al., *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*, Cambridge, MA, The MIT Press, 2012.

2.2 METHODOLOGY

In this section, I present the main methods that I adopt in the course of my research. I begin with a methodological note on the interdisciplinary nature of the present work and on the relationship between its three composing souls. This can be summarised in the following three characterisations of my research:

- It is internally structured according to the categories of contemporary philosophy;
- it is composed as one unitary object according to the perspective of video game design;
- it is located as a piece of academic research within the field of video game studies.

I continue by exploring the ‘problematic’ approach of my research, with reference also to the issue of ‘wicked problems’. The last (and main) part of this section is dedicated to a detailed, step-by-step overview of the mixed methods used in the unfolding of my research.

2.2.1 A research across disciplines

My research sits between three disciplines: video game studies, philosophy and video game design. The combination of philosophy and design presents a series of especially interesting challenges, since these two disciplines are endowed with seemingly opposite traits: the former, (in)famous for its abstract approach, the latter renowned for its emphasis on practice – understood in itself as a form of theorizing. The first methodological challenge facing my research concerns the co-existence between these different epistemological attitudes: how to find a method of research that might be able to bring together philosophy and video game design, without losing the specificity of either approach?

Such a challenge is not novel to either realm. In the field of philosophy, it has been famously tackled by Marxist thinkers, starting with Marx himself, who theorise the process of ‘praxis’ as a combination of a speculative approach, with the production of concrete results at the level of the

‘real’ world²³¹. More recently, design has tackled this same issue by theorising the notion of a ‘trans-domain’ between disciplines. An outline of this tension towards the creation of a trans-domain can be found in design theorist Wolfgang Jonas’ remarks on the overlapping between design and ‘science’ (i.e. so-called ‘hard science’).

Scientific and designerly research may converge towards a new trans-domain. This does not mean that two original components merge into one and then disappear. Rather, a new intellectual mind-set and communicative space emerges, which allows a multitude of approaches in the ‘beauty of the grey’. [...] The provisional character of the trans-domain allows for a multitude of alternative approaches providing life-world perspectives, including the preservation of traditional disciplines and their interaction.²³²

In line with Jonas’ proposal, my research maintains the distinction between traditional disciplines, while striving to find a common ground where their approaches might engage in a productive dialogue. To this aim, I distinguish between the present research project, considered in its entirety, and the specific approaches that are employed in the various steps of my research.

Following the suggestion issued by cybernetician and designer Ranulph Glanville, my thesis gives an overall prominence to the method of design – to the point of implicitly sharing Glanville’s notion of scientific (or, in this case, philosophical) research as a sub-branch of design research.²³³ While a ‘design’ project in its totality, however, my research is internally structured according to the methods of the philosophical discipline. In other words, while the general frame of this project belongs to the field of design, the specific articulations that take place within it are investigated through the methods of philosophy – namely, of metaphysics and metaethics.

Finally, the combination between these two approaches is dialectically overcome by locating the present research work within the current debates in video game studies – where the distance between design and philosophy is somehow bridged by an overarching focus on the hybrid ‘object’ of the video game-world.

²³¹ For a comprehensive discussion of the developments of the notion of praxis in Marxist philosophy, see in particular A. Feenberg, *The Philosophy of Praxis: Marx, Lukács and the Frankfurt School*, London and New York, Verso, 2014.

²³² W. Jonas, ‘A Cybernetic Model of Design Research’, in P. A. Rodgers and J. Yee (eds.), *op. cit.*, 2018, p. 34.

²³³ See R. Glanville, ‘Why Design Research?’, in R. Jacques and A. Powell (eds.), *Design: Science, Method*, Guildford, Westbury House, 1980, pp. 86-94.

This combination of different approaches is rendered necessary by the manifold objectives of my research: in order to present my (academic/ontological) analysis as applicable to (industrial) innovation in the process of video game design, it was opportune to conceive the entire project as a design project *per se*. This is particularly evident in the section where I discuss and test my findings with professional in the field of video game design: in the context of my thesis, it is design that ‘seals’ the work of the philosopher, just as it is the work of the philosopher that internally structures the process of design.

At the same time, however, my research has to be theoretically rigorous, both in its conceptualisation of video game-worlds as philosophical entities, and in its development of a precise and in-depth philosophical analysis of my case study. This necessity is accounted for by the strong emphasis that I place on text-based research and on an abstract speculative approach, which is typical of philosophical work.

2.2.2 A ‘problematic’ approach

My thesis investigates the digital game-world of strategy video games as an architectural assemblage of philosophical entities. Such philosophical entities are identified through a ‘problematic’ approach – each of them consisting in the answer to a specific philosophical question – and their combination defines the structuring principles of a particular game-world.

Such ‘problematic’ approach, according to which we can understand each element in a video game-world as an answer to a philosophical question, is in line both with the philosophical tradition and with the general approach of design. Philosophically, the ‘problematic’ approach runs uninterruptedly from the ancient tradition of ‘natural philosophy’ (which understood the world as the material exemplification of an underlying conceptual architecture), through Socrates’ tireless questioning, the later developments of this attitude in Hellenistic and Late-Ancient philosophy (whose focus on the ‘problem’ of being alive anticipates many aspects of modern existentialism),²³⁴

²³⁴ A fascinating and exhaustive examination of this aspect of Hellenistic and Late-Ancient philosophy has been investigated by French philosopher Pierre Hadot – see P. Hadot, *Philosophy as a Way of Life: Spiritual Exercises from Socrates to Foucault*, trans. M. Chase, Oxford, Wiley-Blackwell, 1995 – and by British historian of philosophy Anthony Arthur Long, see A. A. Long, *Greek Models of Mind and Self*, Harvard, MA, Harvard University Press, 2015.

Hegel's panlogism (where reality itself is decipherable as the correct rational answer to implicit philosophical questions), all the way to the contemporary 'phenomenological' approach (according to which, the world is understandable only through the filter of our experiential categories, and in the framework of our problematic 'project' of being alive in the world).

Applied to video game design, such a 'problematic' approach presents each element in a video game-world as the outcome of a decision operated by the team of video game designers – and thus, fundamentally, as the answer to a question that the designers asked themselves, and which they translated into the game-world that they created.

Of course, not all questions find an easy answer, and not all answers can be easily assigned to a specific question. Here we find an interesting similarity between the concept of a 'wicked problem',²³⁵ often adopted within design practice, and the philosophical concept of the 'hyperobject' developed by the American philosopher Timothy Morton.²³⁶ As summed up by design researchers Harold Nelson and Erik Stoltermann:

Tame problems are appropriate for simple or trivial concerns, but more important or significant issues are better characterized, according to [Horst] Rittel, as *wicked problems*.... [Their main characteristics are: they] cannot be exhaustively formulated; every formulation is a statement of a solution; no stopping rule; no true or false; no exhaustive list of operations; many explanations for the same problem; every problem is a symptom of another problem; no immediate or ultimate test; one-shot solutions; every problem is essentially unique; problem solver has no right or wrong.²³⁷

If we interpret entities in digital game-worlds as answers to (philosophical/design) questions, then it is possible to translate the design dimension of a 'wicked problem' to an ontological plane – that

²³⁵ On the issue of wicked problems in design theory and practice, see: Sweeting, B., 'Wicked problems in design and ethics', in P. H. Jones and K. Kijima (eds.), *Systemic design: Theory, methods, and practice*, Tokyo, Springer Japan, 2019, pp. 119-143. Buchanan, R., 'Wicked Problems in Design Thinking', *Design issues*, vol. 8, no. 2, Spring 1992, pp. 5–21. Melles, G., S. Holmlid and M. Arvola, (2013). 'Operationalizing Wicked Problem Solving to Create Desirable Futures', *Wicked Problems in Socio-Ecological Systems Conference*, UC Berkeley, CA, October 2013.

²³⁶ T. Morton, *Hyperobjects: Philosophy and Ecology After the End of the World*, Minneapolis and London, Minnesota University Press, 2013.

²³⁷ H. G. Nelson and E. Stoltermann, *The Design Way: Intentional Change in an Unpredictable World*, Cambridge, MA, MIT Press 2014, p. 16.

is, to the level of ‘wicked entities’. Timothy Morton has singled out a comparable set of entities in what he defines as ‘hyperobjects’.

The term hyperobjects [refers] to things that are massively distributed in time and space relative to humans... Hyperobjects are “hyper” in relation to some other entity... They are *viscous*, which means that they “stick” to beings that are involved with them. They are *nonlocal*; in other words, any “local manifestation” of a hyperobject is not directly the hyperobject. They involve profoundly different temporalities than the human-scale ones we are used to... And they exhibit their effects *interobjectively*; that is, they can be detected in a space that consists of interrelationships between aesthetic properties of objects.²³⁸

A philosophical analysis of video game-worlds is susceptible to encounter entities that can be understood as hyperobjects (or as ‘wicked entities’) in relation to specific points of view. For example, from a human perspective, the temporal and spatial co-existence of different saved games within a single video game has hyperobjective qualities; equally, from the perspective of the ‘populations living within the game’, the commands originating from the gamer have hyperobjective qualities. Such wicked entities, as they are encountered within a digital world-game, demand that the research deploy a range of different conceptual tools to deal with them, even testing the boundaries of the fields of design and of philosophy as they are traditionally understood.²³⁹

2.2.3 The unfolding of my research: a step-by-step methodological overview

Due to my adoption of a combination of mixed methods,²⁴⁰ it might be useful to list all the different approaches that I employ in the various steps of my research.

- Step 1 – locating the project

²³⁸ T. Morton, *op. cit.*, 2013, p. 1.

²³⁹ Interestingly, to tackle the problems offered by hyperobjects, Morton often adopts conceptual tools from Buddhism or from the esoteric tradition of magic. See T. Morton, M. Boon, and E. Cazdyn, *Nothing: Three Inquiries in Buddhism*, Chicago, IL, University of Chicago Press, 2015; and T. Morton, *Realist Magic: Objects, Ontology, Causality*, London, Open Humanities Press, 2013.

²⁴⁰ See C. Robson and K. Mc Cartan, *Real World Research*, Chichester, John Wiley & Sons, 2016, pp. 174-186.

The first step of this research has to do with its 'ontological/academic' aim to re-conceptualise video games and video game-worlds as philosophical architectures. This objective is pursued neither within the boundaries of design, nor in those of philosophy, but in the overarching realm of video game studies. For this reason, I begin by looking at text-based resources, in order to assess the state of the debate in video game studies and to identify the *doléances* and suggestions issued by scholars in the field. This initial location of my research within the field of video game studies accounts only for one aspect of my overall project – which is, ultimately, a design project on the potential of inserting the language and mindset of philosophy within the field of video game studies.

- Step 2 – case study

The second step of my research consists in outlining my method for reading video game-worlds through a philosophical (namely, metaphysical and metaethical) angle, and in an 'experimental' application of my method to a specific case study – the 4X strategy video game *Total War: Rome 2*.

Since this part is especially complex and articulated, it might be worth going through the various methods that are adopted in its course, as if moving through a series of individual sub-steps. In outlining the moments of my research, I am going to adopt a 'universalist' approach, that is, I will discuss each sub-step as they could be replicated by other researchers. For this reason, as the reader will notice, I will switch from the first person ('I'), to the universal third person of 'the researcher'. This stylistic choice is consistent with my attempt to produce a replicable method, of which my thesis constitutes only one instantiation.

For the sake of the simplicity of my exposition, I will detail this process in reference to metaphysics only, but the same process applies also to metaethics (as to any other branch in the philosophical discipline).

A preliminary sub-step comprises the study of the different schools of thought that have emerged in the history of the discipline of metaphysics. This sub-step is not only intended to familiarise the researcher with this branch of philosophy: more importantly, the researcher has to acquire its conceptual structure in such a way as to be able to use it to read a video game-world *impromptu*. To do so, their study has to be complemented by a categorisation of the different schools of

metaphysical thought, first on the basis of their main problematic areas (e.g. ontology, universals, particulars, time, modality, etc.), then on the basis of the different solutions proposed for each area. Ultimately, the researcher has to produce (at least for themselves) a ‘matrix’ encompassing all the main metaphysical views on how the fundamental elements of the world can take place within reality. The research has to conclude this preliminary work by carefully ‘translating’ the vocabulary of metaphysics into a language that is both accurate and accessible to non-specialists of philosophy – according to the ‘problematic’ approach outlined above.

After this preliminary study, the researcher has to select the video game that they wish to analyse. I chose the 4X strategy video game TW:R2, due to its balanced combination of complexity and of transparency to philosophical analysis.²⁴¹ Similarly, the research has to select their case study on the basis of an assessment of the richness of its world, and of its openness to the lines of philosophical investigation that the researcher wishes to pursue.

The second sub-step begins with a detailed mapping of all that the researcher encounters in their chosen video game-world. This entails making long lists of all that the researcher can see on the screen, including the various menus and options. In so doing, the researcher begins to map the ‘stuff’ composing the video game-world. Such lists should be as accurate as possible, even though the initial level of detail is eventually lost in later re-arrangements.

The third sub-step consists in filtering this list through the matrix of traditional metaphysical categories.²⁴² For example: which elements belong to the set of entities defined as ‘qualities’ or ‘particulars’ by metaphysics? Which belong to the metaphysical area of ‘time’ or of ‘possible worlds’? This arrangement proceeds by trial and error: a number of entities might appear to belong to more than one category, while others might frustrate any attempt to reduce them to any category. The researcher should rely on their decision, as well as on observation: assigning an entity to one metaphysical category, rather than to another, is in itself a metaphysical decision from which the research should not shy away in the name of an impossible ‘objectivity’.²⁴³

²⁴¹ For a discussion of this quality of 4x games, see the previous section: “Strategy’ video Games’, *intra.*, 1.1.2.

²⁴² For a complete list, please see *intra.* introduction to 3.4.

²⁴³ For a comprehensive critical history of the notion of ‘objectivity’, see L. J. Daston, *Objectivity*, New York, NY, Zone Books, 2010.

Having arranged the elements of the video game in a metaphysical system, the researcher can move to the fourth sub-step in this section of their work: metaphysical analysis proper. On the basis of the elements identified and categorised so far, the research is able to determine what kind of metaphysical outlook has been implicitly adopted by the video game designers in reference to each element. This analysis is not limited to reading each part of the game, but – importantly – it requires that the researcher combines all the different elements which they have analysed, into an overall metaphysical picture. The metaphysical setting of a game has to be internally consistent: ultimately, each metaphysical position determines the possibility/impossibility to adopt a range of other positions in other metaphysical areas. At this stage, the researcher aims to understand the overall metaphysical *Weltanschauung* of their chosen video game-world – that ‘cluster of metaphysical alternatives’ that constitutes the conceptual architecture (and, I argue, the essence) of the video game-world.

The fifth sub-step leads the researcher towards a greater involvement of their imaginative powers. The task at hand is to consider in what way the video game-world would have been different, if its designers had operated different metaphysical choices. This speculative exercise is not purely arbitrary. The alternative metaphysical options are those that the researchers listed in the preliminary stages of their work – minus the ones that were actually implemented by the video game designers. As it is immediately apparent, different metaphysical settings give rise to entirely different video games, not just in terms of the invisible structures sustaining their world, but also in reference to range of actions that become possible within it.

- Step 3 – testing

Once the work on the case study is concluded, the following step entails testing the results with a group of professional video game designers. This passage refers to the ‘innovation’ objectives of the research, and it requires a different set of methods from those employed thus far. When discussing their findings with video game designers, the researcher has to combine several distinct approaches, such as interviews, conversations, joint speculation and visual analysis.

This collaboration with video game designers proceeds along a number of sub-steps:

Firstly, the researcher has to select video game designers (or video games professionals more broadly) who accept to taking part to the project. In my own experience, this has proved a challenge in itself, perhaps due to a silent form of suspicion or of disinterest that video game designers harbour towards abstract ‘theoreticians’ coming from a ‘dusty’ discipline such as philosophy. Institutional affiliations and personal connections, based on shared intellectual projects, have proved especially useful in my case – a reminder that certain forms of innovation might be best pursued starting from a small ‘vanguard’ of like-minded individuals.²⁴⁴

Once the researcher has gathered a group of interested counterparts, they can start discussing the scope of their collaboration, focusing on the potential contribution of this research to their design practice. This conversational beginning eventually develops into an interview, aimed at shedding light on two main elements: firstly, the video game designers’ *modus operandi* when they conceptualise a video game-world; secondly, their way of handling of issues typically belonging to the field of metaphysics. This initial interview serves a double function. On the one hand, it starts to create a shared intellectual platform between an academic researcher (especially, as in my case, if the researcher has little practice with design) and a professional video game designer (especially in the case they have a general interest in philosophy, but little theoretical knowledge of it). On the other hand, it helps making apparent to both parties in which areas video game design and philosophical research might overlap.

This first stage of the interview can be structured on the basis of an approach akin to what was known in the 1960s and 1970s as ‘worker inquiry’,²⁴⁵ which later morphed into ‘militant research’.²⁴⁶ Developed in Italy by intellectuals belonging to the area of *Quaderni Rossi* and *Potere Operaio*,

²⁴⁴ My ‘vanguardist’ approach to sampling differs from that suggested by Colin Robson and Kieran Mc Cartan, who warns of the risks of self-selection. The reason for this difference is that, while Robson and Cartan’s methodological suggestions aim primarily at gathering ‘information’, my method is more oriented towards establishing a collaboration and gaining ‘advice’. See C. Robson and K. Mc Cartan, *Real World Research*, Chichester, John Wiley & Sons, 2016, pp. 243-283.

²⁴⁵ See in particular Renato Panzieri’s take on the topic, in R. Panzieri, *Spontaneità e organizzazione: gli anni dei “Quaderni Rossi” 1959-1964*, Pisa, BFS Edizioni, 1994. – a crucial essay on militant research, taken from Panzieri’s book, is available in English at this link <http://www.generation-online.org/t/tpanzieri.htm> (accessed 12 August 2020). Among the (very few) resources available in English on the topic, an interesting overview of ‘militant inquiry’ can be found at these links: <https://thecomune.wordpress.com/2011/05/16/the-workers%E2%80%99-inquiry-what%E2%80%99s-the-point/> and <http://eipcp.net/transversal/0406/malo/en> The only book-length exploration of the topic (as far as I’m aware) is the monographic issue J. Figiel, S. Shukaitis and A. Walker (eds.), ‘The Politics of Workers’ Inquiry’, *Ephemera*, Vol. 14, No. 3, 2014, pp.307-314.

²⁴⁶ A useful overview of contemporary practices of Militant research is Bookchin, N. et al., *The Militant Research Handbook*, New York, N.Y., New York University, 2013, produced by New York University and the International Association for Visual Culture – online at this link: http://www.visualculturenow.org/wp-content/uploads/2013/09/MRH_Web.pdf

‘worker inquiry’ was a way to connect political philosophers and factory workers, so that each party would learn and benefit from the other. The learning process was particularly important for the philosophers, most of whom came from the autonomous Marxist tradition, as they were trying to learn the needs of factory workers and their autonomous forms of conceptualising their own position. In exchange, militant researchers would offer new intellectual tools that might improve their working conditions of their counterparts – in that case, particularly in terms of the revolutionary potential of their social class.

Although the political angle of worker inquiry and militant research is absent from my research, the same way of learning while teaching – like an “ignorant schoolmaster”²⁴⁷ – is present in both instances, together with the willingness on the side of the philosopher to adapt their framework to the needs of a counterpart who is steeped in a specific set of practices. Such an encounter between ‘strangers’ constitutes a crucial element of any meeting between specialists from different fields.

The interview continues with an exercise of visual analysis. In my own research, I showed my interlocutors a series of screenshots from my case-study, TW:R2. I asked them to tell me what they saw, to list the different elements that compose that world, and to group them in conceptual categories. This exercise provides the researcher with a clearer idea of the conceptual process behind the design of a video game-world, particularly of those aspects that are also the object of a metaphysical analysis. The researcher proceeds by offering to the designer an alternative, philosophical reading of the same elements and categories – thus making apparent the differences and similarities between their respective approaches. This map of ‘distances and proximities’ constitutes the main data set gathered at this stage, and it serves as a useful basis to refine the method of philosophical analysis/rethinking of a video game-world.

The following sub-step consists in an exercise of speculative planning, which mirrors the speculative part of the own work on the case study.²⁴⁸ The researcher asks their interlocutors to tell them how they would normally go about thinking alternative ways in which a video game-world could be planned and designed – in my case, I started from the structure already in place within TW:R2. After their initial response, the researcher asks them to try again on the basis of the categories of

²⁴⁷ I owe this diction from Jacques Ranciere, who in turn used it to recount the story of the 19th century radical pedagogist Jacques Jacotot, see J. Ranciere, *The Ignorant Schoolmaster: five lessons in intellectual emancipation*, trans. K. Ross, Stanford, CA, Stanford University Press, 1991.

²⁴⁸ See *intra*, 2.2.3, step 2.5.

metaphysical analysis (which they have explain in as approachable and clear a language as it is possible).

All the information provided should be recorded,²⁴⁹ including whether the video game designers deem it sensible or useful to imagine re-structuring a video game-world by intervening on their underlying metaphysics. The researcher responds to the contribution of the video game designers by presenting the way in which they themselves have envisaged alternative scenarios, based on their own philosophical work on the video game-world in question. Video game designers are asked to assess the researcher's suggestions and to identify strengths and criticalities within them. The main information gathered at this stage concerns the comments and suggestions that could improve the researcher's overall approach to their stated objectives.

Finally, this encounter with video game designers ends with two open questions: what do you think philosophy could contribute to video game design – if anything at all? How do you think it should do it? In my case, the answers that I obtained to these last two question have lead me to creating a 'proof of concept' prototype of a speculative video game, *Lamassu*, where my ideas would be experienceable in a direct and ludic form.²⁵⁰

- Step 4 – universalising the methodology

In this conclusive section, the researcher summarises and combines all the elements that they have gathered so far. To do so, it is advisable to employ once again the method of philosophy – since, as it was noted by Severino, philosophy is precisely that epistemological attitude which allows to identify a Whole where there seem to be only fragments of information.

The aim of this fourth step is to formulate a possible 'universal' method, which other researchers and designers might use to further this line of enquiry, or to actualise it potential for innovation. The process of universalization attempts to find a set of elements that are shared by a number of individual practices and theories, and that emerge as the core (or, technically, the 'essence') of the

²⁴⁹ I conducted my interviews via video-call, I recorded the video (having obtained permission from my interviewees), I transcribed the full audio and I kept both the video and the text file.

²⁵⁰ For my prototype *Lamassu* and its accompanying text, see the *Appendix* to this thesis.

object composed by their union. In the case of my research, it means to identify a possible methodological thread, uniting the elements from the first part (focused on video game studies), to those in the second (focused on philosophy) and in the third part of my thesis (focused on video game design).

This final section necessarily carries a normative quality. However, such normativity should not be considered a claim for the unchallengeable status of one's findings. Like any method, also the one presented in this thesis has to withstand the test of repeated use, and it is constitutively opened to be criticised, modified and overcome by future research or sustained practice. I have included a first instance of this process of continuous re-thinking, by dedicating the final chapter to re-assessing and updating my methodological suggestion. Furthermore, by co-creating with video game designer Jelena Viskovic the video game prototype *Lamassu*, I have made available an interactive tool where my 'universal' method can be seen immediately at work, in the hope that its (inevitable) shortcomings might be better identified, corrected and finally overcome by future researchers in my same line of inquiry.

2.2.4 A 'disruptive' methodology

My work aims to offer the conceptual and methodological equipment of philosophy to academic video game scholars (ontological/academic objective) and to video game designers (innovation/industrial objective). In presenting the contribution of a philosophical method to both fields, I have adopted the language and the conceptual framework of philosophy, rather than filtering it through the languages and conceptual frameworks of video game studies and of design.

This methodological choice reflects a desire to put philosophy at the service of the video game world, both in its academic and in its industrial branches. The 'disruptive' insertion of an 'alien' methodology within a pre-existing field – with its own vocabulary, standards, practices and methodology – amounts to a transgression of such existing structures. Yet, such an 'alien' transgression can prove instrumental to fostering a degree of innovation that is not merely incremental on the paradigms already in place.

According to philosopher of science Paul Feyerabend, new theories that have led to fundamental scientific innovation, have most often developed out of a transgression of the existing and accepted methodologies in a certain field:

Science is an essentially anarchic enterprise: theoretical anarchism is more... likely to encourage progress than its law-and-order alternatives. [...] This is shown both by an examination of historical episodes and by an abstract analysis of the relation between idea and action. [...] The consistency condition which demands that new hypotheses agree with accepted theories is unreasonable because it preserves the older theory, and not the better theory. Hypotheses contradicting well-confirmed theories give evidence that cannot be obtained in any other way.²⁵¹

Although my research falls short of advocating Feyerabend's methodological anarchism, it is centred on a similar conviction that elements of 'alienness' (in his case, theoretical, in my case, methodological) can prove crucial to the progress of a certain field. Consistently with this position, I have adopted a philosophical method and outlook to examine the design of a strategy video game-world, in the context of a work which is primarily aimed at video game scholars and designers (rather than at philosophers).

Although the existing 'law-and-order' of the field of video game studies/design is transgressed by the present research, my work would be incomplete if it didn't include the experience and working methods of professionals who design video game-worlds. The interviews, conversations and collaborative exercises that I have conducted explore the main areas of concern and practice, as experienced first-hand by professionals in this field. These collaborations constitute a moment of reflection on the potential of adding philosophy to basic toolkit of a video game designer, and on the adjustments to the philosophical method that are necessary to address existing concerns by professionals in the field.

2.2.5 Summary

²⁵¹ P. Feyerabend, *Against Method*, London and New York, Verso 2010, p. xxix, also p.1 and p. 17.

Before proceeding to the next chapter – where I begin my analysis proper – it might be useful to recapitulate what has been discussed so far.

At the beginning of my thesis, after a general overview of the market of video games, I selected the genre of strategy video games as the specific object of my research. This choice was motivated by the peculiarities of the genre, whose transparent conceptual structures naturally lend themselves to a philosophical examination. Then, I proceeded to clarify my use of terminology, with particular reference to the terms ‘philosophy’, ‘video game’ and ‘design’.

Later in the same chapter, I provided a general overview of the main currents in the existing literature on video game studies. I placed my position in relation to these currents by outlining the differences with each one, with particular emphasis on the ontology of game-worlds (which I take as fully real) and on the focus of the investigation (in my case, the internal architecture of the game-world, rather than the interaction between game and gamer).

In the second chapter, I presented of the objectives of my research, identifying two sets of objectives that I pursue (academic/ontological, and industrial/innovation) and one set with which my research does not presently engage (social/accountability). Finally, I outlined the methodology of my research, both in its overarching structure (my work is internally structured according to the rules of philosophy; it is composed as one whole object according to the perspective of video game design; it is located as a piece of academic research within the field of video game studies), and in each step of its process.

TABLE 5
METHODOLOGY

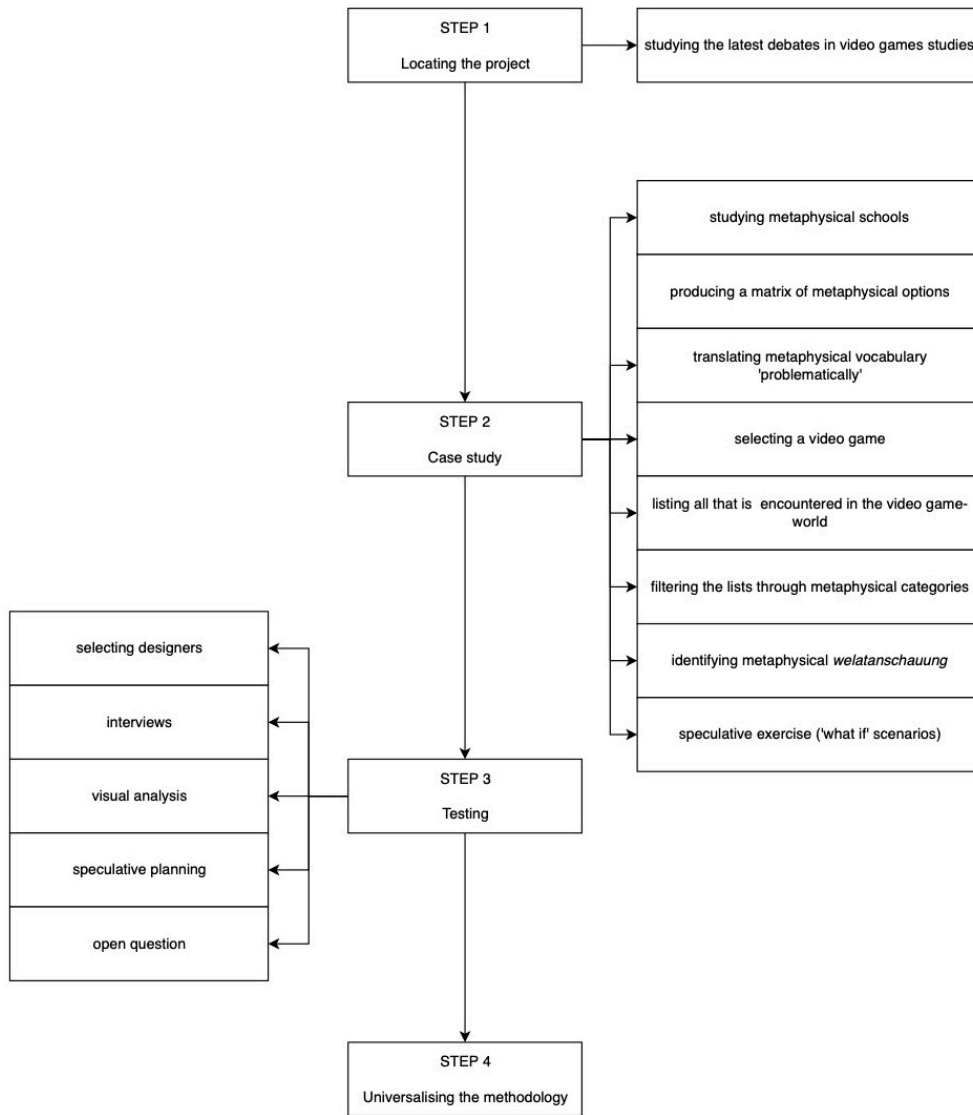


Diagram 1

CHAPTER 3

THE METAPHYSICS OF TOTAL WAR: ROME 2

In this chapter I present a crucial part of my research. I apply – to my knowledge, for the first time yet – a rigorous philosophical reading (factual and counterfactual) of the metaphysical structures underlying a strategy video game. I begin by clarifying the meaning of ‘metaphysics’, the scope of this branch of philosophy, the main questions that it tackles and its main internal sub-branches (observed and translated through a ‘problematic’ angle). I proceed by applying the specific questions of each part of metaphysics in the context of a detailed analysis of the metaphysical position endorsed (wittingly or unwittingly) by the designers of my case study, *Total War: Rome 2* (TW:R2). I conclude by investigating what the world-game of TW:R2 would have been like, had the designers adopted different metaphysical positions. In doing so, I test a representative set of metaphysical options developed through the centuries by legions of philosophers, and for each of them I attempt to visualise what would be the immediate consequences at the level of the constitution of the game-world.

This chapter aims to answer two of my research questions. Firstly, whether it is possible to read a video game metaphysically. Secondly, whether it is possible to envisage radically different game-world, and thus radically different video games, through imaginative metaphysical speculation (and the use of ‘what if’ scenarios).

Although I confine my analysis to the most traditional categories of metaphysics, and to an eminently mainstream video game such as TW:R2, the method that I utilise can be easily modified to analyse different video games, and to focus on of other forms of metaphysical thinking.

3.1 TOTAL WAR: ROME 2

Total War: Rome 2 is a 4X strategy video game developed by The Creative Assembly and distributed by Sega. It is a blend of turn-based, empire-building strategy and real-time, detailed battles with hundreds of troops. It was first released in September 2013 as the eighth, standalone game in the Total War series, and as the direct successor to the critically acclaimed and commercially successful 2004 game *Rome: Total War*. Upon release, TW:R2 enjoyed positive reviews by critics and it exceeded the commercial results of all previous games in the series.²⁵²

The game takes place in classical antiquity, with the main campaign stretching from 272 BC (when the Roman Republic first established its dominion over the Italian peninsula), to 3 AD (during Augustus' empire). The game map stretches from Bactria (Afghanistan) to Lusitania (Portugal), and from Garamantia (Sahara Desert) to Caledonia (Scotland). This large world is divided into 173 regions, grouped into 53 main provinces. The game hosts 117 different factions (of which 8 are playable in the basic edition of the game) from 10 main cultural groups (Hellenic, Latin, Punic, Celtic, Germanic, Desert Nomadic, Iberian, Tribal Nomadic, Balkan and Eastern), each with their unique traits and characters. Factions compete for power on several levels: economic, cultural, diplomatic, technological and military. Alongside external competition, each faction also faces internal strife, with different 'families' contending for political power through their leaders and representatives.

The basic elements that make up the game-world of TW:R2, as they can be deduced through observation and first-hand play, can be grouped in the following categories:

- Geography: provinces, regions, cities, minor settlements, location-specific resources, terrain features. (*figure 1*)
- Economy: buildings within cities and settlements, monetary wealth, tradable resources, trade routes. (*figure 2*)

²⁵² See J. Benson, 'Total War: Rome II trumps Shogun II's peak number of players three times over', 3 September 2013, in *PCGamesN* [website], <https://www.pcgamesn.com/totalwar/total-war-rome-ii-trumps-shogun-ii-s-peak-number-players-three-times-over>, (accessed 12 August 2020); 'Total War: Rome II', in *SteamCharts: An ongoing analysis of Steam's concurrent players* [website], <http://steamcharts.com/app/214950#7d> (accessed 12 August 2020); B. Hillier, 'Total War: Rome 2 concurrent players peak at three times that of Shogun 2', 3 September 2013, in *VG 24/7* [website], <https://www.vg247.com/2013/09/03/total-war-rome-2-concurrent-players-peak-at-three-times-that-of-shogun-2/>, (accessed 12 August 2020).

- Diplomacy: factions, diplomatic agreements (spanning from trade agreements to military alliances, from patronage between factions to declarations of war). *(figure 3)*
- Politics: faction leaders and family representatives, political events. *(figure 4)*
- Military: military units for both land warfare and naval battles, generals (themselves members of the main families in a faction). *(figure 5)*
- Special characters: agents such as the dignitary, the champion and the spy. *(figure 6)*
- Technology: two 'tech-trees' relating respectively to civil and military 'technologies' (often classifiable also as policies), and to improvements of the military equipment. *(figure 7)*

Victory conditions are presented and discussed in the section on metaethics.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7

3.2 WHAT IS METAPHYSICS?

Attempting to define metaphysics means dealing with a problematic area that far exceeds mere definitions. For reasons of space, I cannot delve here into the intricate and centuries-old debate on the nature of metaphysics. Instead, I am going to briefly present the main understandings of metaphysics in the Western canon, and how my research relates to them.

The term 'metaphysics' first appeared in the 1st century BC, in Andronicus of Rhodes' edition of Aristotle's writings. Andronicus grouped fourteen books of Aristotle's work under the label *Ta meta physica* ('what follows the physics'). Although this particular grouping might have been justified by pedagogical reasons (possibly, an indication to approach them only after studying the books on physics), the new label soon grew into a branch of philosophy in its own right. From antiquity to early modernity, and particularly during the Middle Ages, 'metaphysics' indicated a philosophical inquiry on the issue of 'being as such' and of 'first causes'. Both in Christian Europe and in the Islamic world, this approach was considered to be eminently theological, concerning our understanding of God's nature and of its relationship with the created world. It was only in the 17th Century that the term metaphysics began to acquire the meaning that we assign to it today. German philosopher Christian Wolff was the first to theorise the new boundaries of the discipline, which over the course of the previous decades had expanded into realms previously associated with other branches of philosophy. According to Wolff,²⁵³ it is possible to distinguish two main areas of metaphysics: general metaphysics (or ontology), dealing with the problem of 'being *qua* being', or 'being as such'; and special metaphysics, whose various sub-branches concern questions referring to specific beings.²⁵⁴

The very notion of metaphysics has been subject to powerful attacks during the age of modernity, especially by Immanuel Kant (whose *Critique of Pure Reason*²⁵⁵ denied that metaphysics could be deemed a meaningful science), Friedrich Nietzsche (who, since *Human, All Too Human*,²⁵⁶ accused metaphysics of de-historicising philosophy and of congealing thought and life), and more recently

²⁵³ See C. Wolff, *Preliminary Discourse on Philosophy in General*, ch. 3, Indianapolis, IN, Bobbs-Merrill, 1963.

²⁵⁴ For a discussion of an alternative origin of ontology as an independent field of inquiry (one that sees it emerging from Medieval Scholastics and through the work of baroque-age Spanish philosopher Francisco Suarez), see P. Kobau, 'Ontologia', in M. Ferraris (ed.), *Storia dell'Ontologia*, Milano: Bompiani, 2008, pp.98-145: 98-108.

²⁵⁵ I. Kant, *Critique of Pure Reason*, trans. P. Guyer and A. W. Wood, Cambridge, Cambridge University Press, 1998.

²⁵⁶ F. Nietzsche, *Human, All Too Human*, trans. M. Faber, London, Penguin, 1994.

by Martin Heidegger. According to Heidegger, especially in the later part of his work, ontology and metaphysics should be kept distinct: while ontology refers to the general way in which consciousness encounters Being, metaphysics characterises a particular way in which the ontological question is “framed” within certain parameters (with the consequent risk of obfuscating the “openness” of Being as such).

For the purpose of the present research, I will not engage with these criticisms of metaphysics, since they concern specifically the opportunity of adopting this branch of philosophy as part of a meaningful human experience of life. If we consider a video game-world as a fully ‘real’ entity that exists autonomously from its fruition by human players, it is possible to maintain the categories of metaphysics as a useful toolkit to interpret an object which is – at least in its architecture – the expression of the metaphysical thinking of the designers who created it.

Over the course of the last couple of centuries, and especially in the field of analytic philosophy, ‘metaphysics’ has indicated a range of topics referring to philosophical enquiries. These topics can be translated ‘problematically’ (i.e. as questions) as follows:²⁵⁷

- Universals: are the qualities exemplified by concrete particulars in the world, real? If so, how do they exist and how do they relate to particulars themselves?
- Concrete particulars: what constitutes a ‘thing’? What is its fundamental structure?
- Identity through time: how can we understand the notion that something is ‘that’ particular thing? How does this notion sustain the changes imposed by the passage of time?
- Modality: what do notions such as ‘possibility’, ‘impossibility’ and ‘necessity’ mean? How can we envisage the existence of other ‘possible worlds’?
- Causation: how can we understand the notion of a thing or an event causing another to take place or to change its status? Does this notion have any legitimacy?
- Time: how can we understand the passage of time? What is ‘time’ after all?

²⁵⁷ I have based this grouping on the most frequently recurring categories, as they appear in contemporary overviews of the field. See for example: M. J. Loux, *Metaphysics: a contemporary introduction*, London and New York, Routledge, 2010; R. Le Poidevin et al. (eds.), *The Routledge Companion to Metaphysics*, London and New York, Routledge, 2012; R. C. Koons and T. H. Pickavance, *Metaphysics: The Fundamentals*, Chichester, Wiley Blackwell, 2015; E. J. Lowe, *A Survey of Metaphysics*, Oxford, Oxford University Press, 2009; P. Van Inwagen, *Metaphysics*, Boulder, CO, Westview Press, 2015; T. Crane and K. Farkas, *Metaphysics: a Guide and Anthology*, Oxford, Oxford University Press, 2004; M. J. Loux, *Metaphysics: Contemporary Readings*, London, Routledge, 2008.

- Propositions: what does it mean, when we say that something is ‘true’ or ‘false’? In what way do these concepts relate to ‘actual’ events in the world?
- Freedom and determination: to which extent can we attribute actions and change, to the will of a subject?

Conversely, ontology has acquired a certain autonomy of its own (particularly after Heidegger), focusing instead on the relationship between individual beings and Being as such, and between the essence of things (*what* they are) and their existence (*that* they are).

Within the present thesis, I have limited the metaphysical analysis of my case study to the branches of ontology, universals, particulars, time, and modality – while I have not developed an analysis of the problems of identity through time, causation, propositions, freedom and determination. This selection was due to the limits of a PhD thesis, which impose a trade-off between the quantity of the angles observed and the in-depthness of the observations. As framed by these limits, my decision was based on an attempt to identify the metaphysical elements that would suffice to present a strong practical example of my methodology – while simultaneously opening the way to future investigations that might include the missing angles.

I have selected specifically the angles of ontology, universals, particulars, time, and modality, since they provide the fundamental architecture of metaphysics as a whole: its foundation (ontology), its constitutive elements (universals and particulars), the context of its unfolding as part of a world (time), and the boundaries of its range of investigation (modality). These elements of metaphysics are not only representative of the discipline, but they are also immediately applicable to the fundamental building blocks of a video game-world – and to their possible, alternative designs.

On the other hand, I have not engaged with the problem of identity through time, since my analyses of concrete particulars, universals, modality and time already provide a framework for the investigation of this topic; I have not engaged with causation, on the basis of David Hume’s powerful case against this notion;²⁵⁸ I have not dealt with the problem of propositions, since this issue applies only marginally to a video game-world, where agents are only limitedly endowed with the ability to “speak” on their own behalf; finally, I have not included the angle of freedom versus determination

²⁵⁸ See D. Hume, *A Treatise of Human Nature*, London, Clarendon Press, 1960; and D. Hume, *An Enquiry Concerning Human Understanding*, Indianapolis, IN, Hackett, 1993.

due to its localisation at the threshold between metaphysics and ethics (while I have preferred to investigate ethics through the fundamental category of metaethics).

3.3 THE ONTOLOGY OF TW:R2

3.3.1 Introduction

The field of metaphysics that deals with the question of existence is known as ‘ontology’. Even though the first proper discussion of ‘existence’ *per se* dates back to the 11th century Persian philosopher Ibn Sina (Avicenna), it is possible to trace its origins (in the West) to the time of the Eleatic philosopher Parmenides. In the following pages, I provide a brief (and necessarily incomplete) account of some of the main themes in the ontological debate. On that basis, I proceed with an ontological analysis of the world of TW:R2 – and, subsequently, to its ontological re-imagination.

The main references employed in this section belong to the time of Classical Antiquity and of the Middle Ages, while Modern sources appear more rarely. This imbalance is due to the history of this discipline: although its modern definition is relatively recent, ontological analysis has witnessed its greatest expansion in the eras before modernity. While modern philosophy has largely assumed a ‘negative’ relationship towards ‘being *qua* being’ (typically presented as a limit-concept beyond the grasp of intellectual analysis), Classical and Medieval philosophers have long engaged in experiments of analytical dissection of this topic.

It is possible to enter the main debates in the field of ontology via the fundamental question of whether ‘existence’ is a property. To claim that existence is a property means to say that there is a certain domain of objects, and that only some of them have the property of existing (and thus they exist), while others do not have this property (and thus they do not exist). The view of existence as a property has been employed most significantly in medieval and early modern attempts to demonstrate the existence of God: according to Anselm of Aosta,²⁵⁹ and later to Descartes,²⁶⁰ God exists because the ownership of the property of existence is inextricable from the very definition of God as a perfect being. Implicit in this perspective, as its corollary, is the idea that the objects that

²⁵⁹ St. Anselm, *Proslogion: with the replies of Gaunilo and Anselm*, trans. T. Williams, Indianapolis, IN, Hackett Publishing, 2001.

²⁶⁰ R. Descartes, *Meditations on First Philosophy*, V, trans. J. Cottingham, Cambridge, Cambridge University Press, 1996, pp. 44-49.

do not have the property of existing, and thus do not exist, are nonetheless endowed with an ontological status – that is, they are things that somehow ‘are there’ even though they do not exist.

Conversely, denying that existence is a property (as does Kant),²⁶¹ entails that it does not make sense to talk about things that ‘are there’ without existing: everything that exists ‘is there’ and, more importantly, everything that ‘is there’ exists. From this perspective, anything that does not exist – i.e. non-existent objects – is merely nothing.

A position in favour of non-existing objects was defended in the 19th/20th century Austrian philosopher Alexius Meinong. According to Meinong,²⁶² the most general ontological category is not the ‘existent’, but the ‘object’. Since our mind can grasp both existing and non-existing objects, the ‘being there’ of an object does not depend on its existence or non-existence. Meinong thus divides objects in three main categories: a) those that exist (i.e. they have a material presence in space-time); b) those that do not exist but subsist (i.e. they ‘are there’ but immaterially and outside of space-time, like numbers or relations); c) those that neither exist nor subsist.

A similar position to Meinong’s was suggested centuries earlier by the Hellenistic school of Stoicism.²⁶³ According to the Stoics,²⁶⁴ the most general category is not the ‘existent’, but the ‘something’. Like Meinong, the Stoics held that certain things exist (i.e. bodies), while others subsist (i.e. space, time, emptiness and *lekta* – the content of meaningful linguistic expressions). What neither exists nor subsists, is banned from ontology as ‘non-something’.

A position contrary to non-existing objects has been recently championed by the American philosopher Willard Van Orman Quine. According to Quine,²⁶⁵ it is nonsensical to say that ‘there is’ something that does not exist. Anything that ‘is there’ and to which we can attribute or deny properties, exists. Quine claims that the notion that there are non-existent objects is merely a fallacy

²⁶¹ I. Kant, *Critique of Pure Reason*, A598/B262, trans. P. Guyer and A. W. Wood, Cambridge, Cambridge University Press, 1998, pp. 566-567.

²⁶² see especially A. Meinong, ‘The Theory of Objects’, in R. Chisholm (ed.), *Realism and the Background of Phenomenology*, Atascadero, CA, Ridgeview, 1981, pp. 76–117. For a detailed discussion of Meinong’s theory on non-existing objects, see also D. Jacquette, *Alexius Meinong: The Shepherd of Non-Being*, Berlin and London: Springer, 2016

²⁶³ On the similarities between Meinong and the Stoics, see in particular A.A. Long and D.N. Sedley (eds.), *The Hellenistic Philosophers*, vol. 1, Cambridge, Cambridge University Press, 1987, p.164.

²⁶⁴ For a general account of Stoic theories on existence, see J. Brunschwig, ‘Stoic Metaphysics’, in B. Inwood (ed.), *The Cambridge Companion to the Stoics*, Cambridge, Cambridge University Press, 2003, pp. 206-232.

²⁶⁵ See in particular W. V. O. Quine, *From a Logical Point of View*, Cambridge, MA, Harvard University Press, 1953, pp. 1-19.

induced by the wrong understanding of certain paradoxical features of our language. Attempting to provide a positive notion of existence, Quine says that “to be is to be the value of a bound variable”.²⁶⁶ This means that the things that exist are those that render true the enunciate of which they are the objects. For example, if I say that “there is an x such that...”, x exists if the enunciate in question is true – and conversely, the enunciate is true if x exists. Obviously, there can be disagreements on whether a certain enunciate is true or not, but Quine’s proposed definition of existence stands at a more general level. Quine claims that existence is an absolute notion: the verb ‘to exist’ has the same meaning whenever it is applied, regardless of its object.

The question of whether ‘to exist’ is predicated equally for all the objects that exist, runs throughout the earlier history of ontology, from Classical Antiquity to the Middle Ages.

In the *Metaphysics*, Aristotle stated that ‘the existent’ is not a genus that befalls equally all that exists. Different things exist in different ways. Aristotle proposed a fundamental distinction between the category of substance and the nine categories of accidental properties. While a substance (like an individual person) can be said to exist in a primary, independent and autonomous sense, accidental properties (like that person being blonde or tall) exist only secondarily and dependently on the existence of the substance to which they belong. Thus, Aristotle understands existence in a strongly essentialist fashion: each thing exists in a particular way, according to its essence. To be is, for Aristotle, to be a certain kind of thing. Coherently, Aristotle denies that there can be such a thing as non-existing objects: all that there is, exists, and it exists on the basis of its essence.

Aristotle’s teacher, Plato, also claimed that existence cannot be predicated equally. According to Plato, reality is composed of two main types of things: the concrete particulars of the material world, and the perfect Forms of which such concrete particulars are imperfect copies. There is a horse, and there is the Form of ‘the horse’. Only the Forms can be said to have full existence, while their material imitations (and even less so, the artefacts that imitate those imitations, like the statue of a horse) have an inferior degree of existence, bordering on that of an illusion. Plato sees existence as ordered along a hierarchy of four decreasing levels of intensity:²⁶⁷ from the full existence of Forms, through the lesser one of mathematical numbers, down to that of sensible objects, all the way to the minimal existence of the representations of these objects. This classification presents Plato’s theory of the ‘two worlds’: Forms and mathematical numbers belong to the intelligible world

²⁶⁶ Ibid., pp. 14-15.

²⁶⁷ See Plato, *Republic*, 509d-511e.

(absolutely existing), while material objects and their representations belong to the sensible world (minimally existing).

This same problem returns in medieval philosophy, particularly in reference to the problem of whether God's existence is of the same kind as the existence of His creatures. The problem is presented as the question of whether 'existence' is predicated univocally (in the same sense) or equivocally (in different senses) in reference to different objects. A classical solution was provided by St. Thomas Aquinas,²⁶⁸ who suggested that the existence of God and of His creatures, like that of a substance and of its accidental properties, is neither univocal nor equivocal, but rather analogical. This means that God's existence is primary, while that of His creatures is secondary and dependent on it. Equally, the existence of substances is primary, while that of their accidental properties is secondary and dependent. The relationship between primary and secondary existents is defined as an 'ontological dependence'.

A view opposed to that of Aquinas was suggested by Duns Scotus, who claimed that existence is predicated univocally in reference to all its objects.²⁶⁹ Everything exists in the same way, even though such existence takes different forms in reality. Scotus' approach is epistemological before being ontological: his claim rests on the fact that whenever we conceptually approach the existence of anything (regardless of what it is), we do so via a unitary concept of 'existence'. This underlying, unitary concept reveals to us the fundamental unity of existence, behind and before the different forms that it takes in the world.

A crucial innovation in the debate on existence was provided by the Persian philosopher Ibn Sina (Avicenna), who first clearly distinguished between the notions of existence and of essence.²⁷⁰ He reached his conclusion drawing from the original distinction between a 'thing' and an 'existent': a

²⁶⁸ for an overview of Aquinas' understanding of Being and an anthology of the most relevant passages in his work on this topic, see J. F. Anderson, *An Introduction to the Metaphysics of St. Thomas Aquinas*, Washington, D.C., Regnery Publishing, 1997, pp. 24-35; and J. F. Wippel, *The Metaphysical Thought of Thomas Aquinas: From Finite Being to Uncreated Being*, Washington, D.C., The Catholic University of America Press, 2000.

²⁶⁹ Duns Scotus, *Philosophical Writings*, trans. A. Wolter, Indianapolis, IN: Hackett, 1987, pp. 13-33. For a discussion of this aspect of Duns Scotus' philosophy, see G. Pini, *Scoto e l'Analogia: Logica e Metafisica nei Commenti Aristotelici*, Pisa, Scuola Normale Superiore, 2002; and G. Pini, 'Univocity in Scotus' "Quaestiones Super Metaphysicam": The Solution to a Riddle', *Medioevo*, vol. 30, 2005, pp. 69-110.

²⁷⁰ see Avicenna, *The Metaphysics of The Healing*, trans. M. E. Marmura, Provo, UT, Brigham Young University Press, 2008; for a summary of Avicenna's argument see R. Wisnovsky, 'Avicenna and the Avicennan Tradition', in P. Adamson and R. C. Taylor, *The Cambridge Companion to Arabic Philosophy*, Cambridge, Cambridge University Press, 2012, pp.92-136.

thing is something that has an essence, while an existent is something that has existence. According to Avicenna, the realm of essence and that of existence ultimately coincide (that is, there are no non-existing objects), but the two principles are nonetheless distinct. Furthermore, for Avicenna, it is possible to contemplate mental existence as well as physical existence. Anything that is thinkable is endowed with mental existence and thus, ultimately, it exists. Avicenna does not only refer to our human minds: even that which is for us unthinkable, is eternally being thought by God's mind, and thus exists.

Aquinas further radicalises the distinction between essence and existence proposed by Avicenna. According to Aquinas, every created being is composed of essence and existence, while only God is perfectly simple (i.e. in God, as the necessary existent, essence and existence coincide). Like Avicenna, Aquinas holds that the essences of possible things that have not yet appeared in the physical world (or that that never will) are nonetheless existing, since they are always existing in God's mind. Precisely, these unrealised essences are identical with (though they do not exhaust) God's mind and His essence.

Other medieval philosophers engaged with the problem of unrealised essences, and of non-existing objects. According to Henry of Ghent,²⁷¹ unrealised essences (i.e. possible things that are not in the catalogue of what exists in the material world) are indeed thoughts in God's mind (and thus they exist), but they are distinct from God's own mind and essence. They have an ontological status of their own (mental existence in God's mind), which is transformed into extra-mental existence if-or-when God decides to actually bring them into the world. Similarly, in an early stage of his thought and as part of his *fictum* theory, William of Ockham held that non-existing objects are objects of our thought and thus enjoy mental existence.²⁷²

This brief overview of some of the main debates around the notion of existence is in no way sufficient to have a complete idea of the immense wealth of the field ontology. Other significant debates have animated this field, especially after the phenomenological turn initiated by the 'school' of Franz Brentano in the late 19th/early 20th century. Heidegger's distinction ("ontological

²⁷¹ See P. Porro, *Enrico di Gand: La Via delle Proposizioni Universali*, Bari, Levante, 1990. For a comparative analysis of Henry of Ghent's position in the context of the medieval debate, see J. F. Wippel, 'The Reality of Nonexisting Possibles According to Thomas Aquinas, Henry of Gent, and Godfrey of Fontaines', *Review of Metaphysics*, vol. 34, no. 4, 1981, pp. 729-758.

²⁷² For an analysis of this aspect of William of Ockham's thought, see M. McCord-Adams, *William Ockham*, 2 vols., Notre Dame, IN, University of Notre Dame Press, 1987, pp. 73-103.

difference”)²⁷³ between being and Being, for example, opened important avenues for thinking the relationship between a subject and the very notion (and experience) of existence as such.²⁷⁴

For the purpose of the present research, centred as it is on the digital game-world ‘in itself’ rather than on its relationship with human players, however, the ontological lines of inquiry outlined above should be sufficient. They already provide a basic set of key concepts and perspectives, against which it is possible to begin analysing the philosophical architecture of a video game-world.

²⁷³ M. Heidegger, *The Basic Problems of Phenomenology*, trans. A. Hofstadter, Indianapolis, IN, Indiana University Press, 1988, pp. 120 and 318ff.

²⁷⁴ For a comprehensive and detailed overview of the historical developments of the field of ontology, see in particular M. Ferraris (ed.), *op. cit.*, 2008; G. Galluzzo, *Breve Storia dell’Ontologia*, Roma, Carocci Editore, 2012. For a thematic overview, centered on the key problems of ontology, see D. Jacquette, *Ontology*, Chesham, Acumen, 2002.

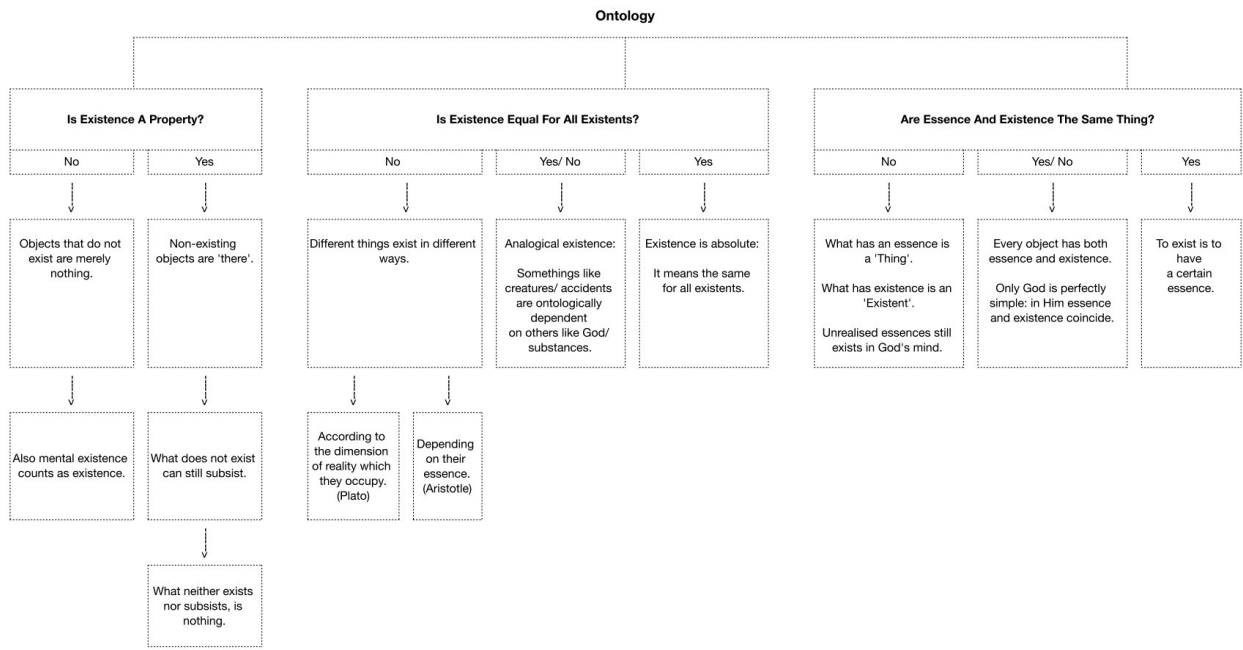


Diagram 2

3.3.2 Reading TW:R2's ontology

We can approach the metaphysics of TW:R2 by asking a number of fundamental questions:

- What is the notion of existence that underlies TW:R2's world?
- Is existence predicated univocally, equivocally or analogically?
- Are there non-existing objects?
- Are essence and existence separate?

As we look at the world of TW:R2, we see that it is divided into two layers, which represent its two main dimensions. (*figure 8*) On the one hand, there is the map of the world, populated by cities, armies, fleets, etc. We could liken this to the material world of our everyday reality. On the other, the various menus (i.e. building menu, unit recruitment menu, unit information menu, etc.) present to us a second dimension of this world. We could liken this second dimension to Plato's world of Forms. Most of the items in this second dimension act as the perfect model of what eventually goes to populate the 'material' world of TW:R2's map. They transcend the space-time boundaries of the narrative unfolding on the map, and they remain immutable at any stage of the game. They are the ideal Forms, of which the concrete particulars living on the map are but an instantiation, or a representation.

If 'existence' in TW:R2 belonged exclusively to 'bodies' (i.e. to things that are detectable as items on the map), then the items that we find on the menus should be considered as 'non-existing objects'. This would lead us to the strange conclusion that the world of TW:R2 is composed in great part (possibly, for the greatest part), by non-existing things – which should make us question our definition of existence.

Conversely, if we adopted a Platonic perspective, we could understand items in the second dimension of the game (i.e. in the in-game menus) as fully existing. Indeed, they appear to exist autonomously, and to transcend the temporal boundaries of the game's narrative. Within menus, for example, we find items (such as units, buildings and characters) that could be made to become present on the map but have not yet been 'mirrored' by concrete particulars. Their existence in TW:R2's second dimension thus precedes that of concrete particulars in its first dimension (the map).

Most concrete particulars on the map cannot exist without an ideal model in the second dimension of TW:R2's world, while items in that second dimension can exist quite independently from their actualisation as concrete particulars on the map.

On this basis, we might be inclined to interpret the underlying ontology of TW:R2 as fundamentally Platonic. The existence of the items in the menu is primary, while the concrete particulars that originate from them exist secondarily – similarly to the relationship between the high-intensity existence of Forms and the low-intensity existence of material objects in Plato's theory.

The dimension of the map is populated by concrete particulars that are subject to becoming and to vanishing, that are available to be transformed (for example, a building can be damaged, or a unit of soldiers decimated), and whose existence depends on their ideal models. On the other hand, the second dimension of the menu is populated by Forms that transcend in-game time, and that exist even when there is no concrete particular on the map that exemplifies them. It appears to be a clear case of Platonic 'two-worlds' ontology.

Yet, a further aspect of TW:R2's world forces us to reconsider this categorisation. When we observe the menu listing the factions that are present in the world, for example, we notice that some of them occasionally disappear or reappear, depending on the events in the game. Coherently with our reading so far, these factions, as items of the second dimension, should be eternal Forms and thus should not be subject to becoming or vanishing. What happens to them, when they disappear? Where do they go? And where do they come from, when they reappear in the game? Do they fall into nothingness, and come back out of nothingness? A closer look at the game might help us solve this riddle. Indeed, there are not just two dimensions to TW:R2's world, but there is also a third dimension that fully transcends the world: TW:R2's encyclopaedia. (*figures 9 and 10*)

The encyclopaedia is accessible at any point of the game, via a button on the top-left side of the screen. In the encyclopaedia, we can find all the items of TW:R2's world, both those that belong to the first dimension of the map, and those from the second dimension of the menu. There, we can also find items that might have temporarily vanished from TW:R2's menus – such as, for example, factions that have been destroyed. Even when these items are unavailable at the level of the Forms, they remain present in the third dimension of the encyclopaedia. Seen through this broader perspective, the dimension of the Forms thus takes up a more intermediate role: it is the place where the items in the third dimension of the encyclopaedia become operative, as replicable on the

first dimension of the map. In other words, we should correct our initial hypothesis of a ‘two-world’ ontology, to a ‘three-world’ ontology, where the third dimension (the encyclopaedia) holds the greatest existence, while the first dimension (the map) has the least existence (while still existing). To a certain extent, existence is predicated univocally – in that all things in any of the three worlds equally exist on the screen – yet it is also predicated equivocally in that the eternal existence of items in the encyclopaedia is irreducible to the caducity of the second dimension (partly temporal) or of the map (fully temporal).

This challenge to the initial hypothesis of TW:R2 having a standard, Platonic two-world ontology, leads us in the direction of the expansion of Platonism suggested by mystical authors in the lineage of 12th Century Persian philosopher Suhrawardi.²⁷⁵ His take on Neoplatonism expands the ‘two worlds’ to ‘three world’, with a ‘*mundus imaginalis*’ (an ‘imaginal world’, to borrow the definition suggested by philosopher Henry Corbin)²⁷⁶ in the middle.

[This is] a schema on which all of our mystical theosophers agree, a schema that articulates three universes or, rather, three categories of universe. There is our physical sensory world, which includes both our earthly world... and the sidereal universe... ; this is the sensory world, the world of phenomena (*Molk*). There is the suprasensory world of the Soul or Angel-Souls, the *Malakut* [i.e. the *mundus imaginalis*], in which there are the mystical cities [...], and which begins “on the convex surface of the Ninth Sphere.” There is the universe of pure archangelic Intelligences. To these three universes correspond three organs of knowledge: the senses, the imagination, and the intellect, a triad to which corresponds the triad of anthropology: body, soul, spirit.²⁷⁷

Similarly to the intermediate world of *Mundus Imaginalis*, the second dimension of TW:R2 regulates the coming-to-being and falling-out-of-being of concrete particulars in the first dimension of TW:R2’s map. Thus, it is the third realm of the encyclopaedia that enjoys the highest and most intense form of existence, though one that fully transcends the dynamics of in-game development – including those that affect the presence of factions in the game.

²⁷⁵ see in particular Suhrawardi, *The Philosophy of Illuminationism*, Chicago, IL, University of Chicago Press, 2000, pp. 90-115. For a comprehensive discussion of Suhrawardi’s metaphysics, also in reference to the question of multiple levels of existence, see in particular H. Corbin, *En Islam Iranien, vol 2: Sohrawardi et les Platoniciens de Perse*, Paris, Gallimard, 1991.

²⁷⁶ H. Corbin, *Mundus Imaginalis or The Imaginary and the Imaginal*, Ipswich, Golgonooza Press, 1976.

²⁷⁷ H. Corbin, *op. cit.*, 1976, p.2.

To borrow from the debate in Medieval metaphysics, we could say with Aquinas that the items in the encyclopaedia resemble ideas in God's mind, in that they both eternally exist there, and they coincide with the stuff of which the highest existent (or the 'necessary existent') is made of. It is perhaps Aquinas' notion of 'analogy' (instead of univocity or equivocity) that best describes the relationship between the state of existence on the three dimensions of TW:R2's world. What first looked like straightforward Platonism, thus begins to take on more Thomist attributes (though with strong [Neo]Platonic influences).

As in Aquinas and Avicenna, there aren't any non-existing objects: anything that is thinkable by the 'divine' mind of the encyclopaedia, exists. Like in Plato, these non-concrete entities are in fact even more intensely existing than their concrete counterparts. Again like Aquinas and Avicenna, it is possible to imagine a distinction between essence and existence in TW:R2's world: any item in its first dimension, that is on the map, is composed both by essence (*what* it is) and existence (that it *is*). Yet – in accord with the two medieval thinkers – this distinction is in practice only conceptual, since there are no essences without existence, not existents without essence. This is particularly evident at the third level of the encyclopaedia, in which the pure essences also enjoy absolute, eternal and autonomous existence.

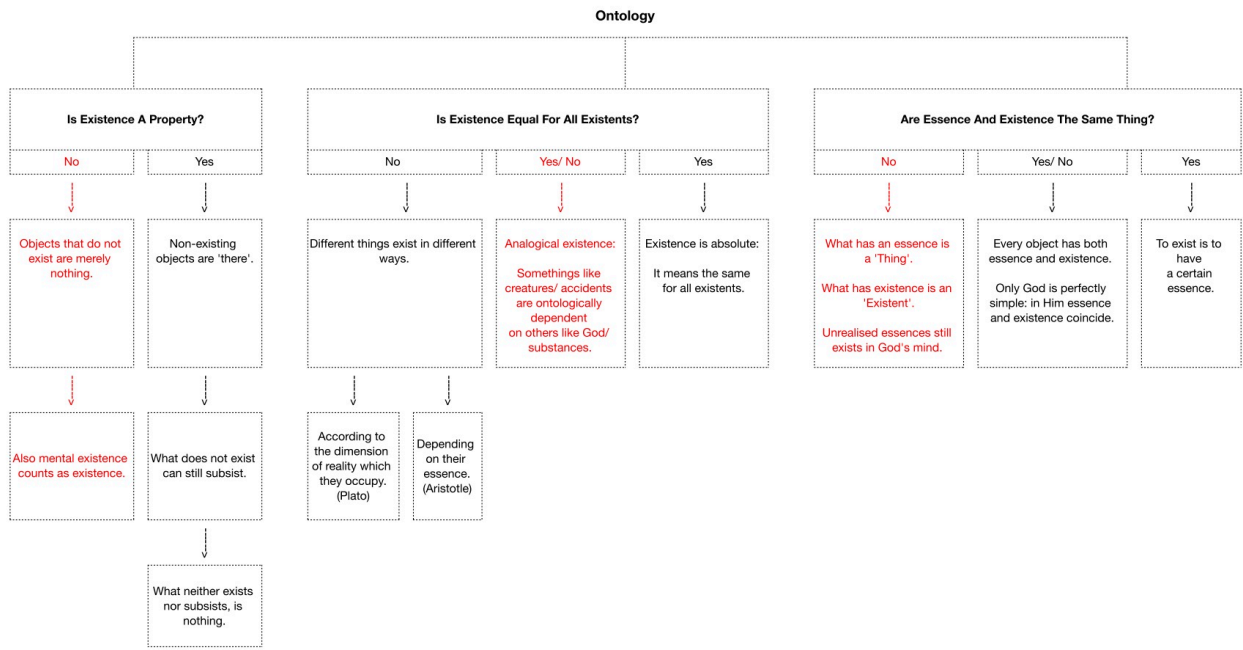


Diagram 3

3.3.3 Alternative scenarios on ontology

Let us now attempt to imagine what TW:R2's world would look like, if we were to re-structure it on the basis of alternative metaphysical parameters.

Firstly, let us imagine that we were to deny existence to anything that is not a concrete particular. This would entail that whatever is not on the map is either subsisting, or it is merely not-existing (that is, it is nothing at all).

If we were to take the first road, and accept the notion of subsistence, we would have to restrict it to items such as numbers, relations, time, space and *lekta*. This would entail that we would have to rely on the notion of *lekta* (sing. *lekton*) for all those things that do not appear on the map, and yet that we want to retain in the world. As discussed earlier, a *lekton* is the content of a meaningful linguistic expression.²⁷⁸ If we wished to place non-existing things in this category, we would need to have something on the map, which would be capable of uttering meaningful linguistic expressions – and then, we could present subsisting items as (the visual representation of) the content of such linguistic expressions.

This would greatly modify the structure of the game, since in it the highest existence would belong to the things existing on the map, which would act as the gatekeepers, not just to existence, but also to most of the cases of subsistence. In this scenario, the generation of items on the map would be entirely due to activities on the map itself, performed by items that are already present on the maps. It would no longer be the case that items on the map would derive from items on the menu – or that the first dimension of TW:R2's world would originate from the second dimension. Conversely, it would be the world of the map that, through its speech-acts, would populate or depopulate the catalogue of items in the second dimension. Whenever the populations on the map ceased to produce certain *lekta*, their content (which would figure in the catalogue of the menu) would equally disappear. The relationship of ontological dependency between the first and second dimension would thus be inverted, with the second dimension depending on the first one for its subsistence. In this scenario, the third dimension of TW:R2's world, the encyclopaedia, would no longer find any legitimate ontological status, and it would have to vanish.

²⁷⁸ See *intra*, 3.3.1.

The second road, that of denying any existence to whatever is not a concrete particular, would bring about even more radical changes. If whatever is not on the map in TW:R2's game-world was mere *flatus vocis* (a mere sound to which no reality corresponds), then we would have to imagine a world in which the coming-to-being or concrete particulars is either part of a causal chain between other concrete particulars, or either is a case of creation *ex nihilo* (out of nothing). What is more, we would have to imagine a world in which the similarity between things which is accounted for by Forms (or universals), becomes either a primitive and non-analysable fact, or it is challenged as a fact at all. We shall explore in detail this scenario in the next section on universals, particularly in the paragraphs dedicated to austere nominalism in 'alternative scenarios'.

Let us now proceed imagining what TW:R2's world would look like, if existence was predicated univocally (rather than analogically) of all items existing in it.

We could imagine, for example, that all things were to exist eternally and autonomously, just like Forms do in the second dimension of the menu (or ever more comprehensively, on the third dimension of the encyclopaedia). This particular form of univocal existence would entail that the world of TW:R2 would be populated exclusively by items that: 1) cannot come in or fall out of existence during the game (whatever exists at the beginning of the game, exists also at the end); 2) do not lie on different dimensions (the divide between map, menu and encyclopaedia would be erased); 3) are each unique in their own right (there would not be two items that are identical, since they would not have any common and preceding Forms of which they would be the representation).

Or let us imagine that everything in TW:R2's world shared the same kind of existence as the entities that populate the map. In this case, we would have to include all the items contained in the menu and in the encyclopaedia in a localised position on the map. We would then need to find a 'physical' location for all the factions, buildings, units, etc. that are not yet (or no longer) 'embodied' by a unique concrete particular – and this location for not-yet or no-longer embodied possibilities would have to be alongside and on the same plane as the location of currently existing, 'embodied' particulars. We would then see the world of TW:R2 populated by a new set of peculiar and archetypal entities, akin to the non-transcendent Gods of ancient Greek pagan mythology.

Alternatively, let us imagine that existence was to be predicated entirely equivocally, that is, in a completely different sense when it is applied to different dimensions. This would be a more radical version of the varying degrees of intensity of existence, which currently apply to TW:R2's world. We can still recognise a certain continuity between the dimensions composing TW:R2's world as it is at present – even just for the fact that they all exist on the same screen. If we were to imagine radically different forms of existence for different items in the world, we would have for example to expand our conception of TW:R2's world, to include a dimension outside of the computer screen. For example, we could imagine to have physical cards, or dice, or any other item existing in the physical reality outside of a computer, which would have to a certain extent to be nonetheless part of TW:R2's world – that is, that would somehow still affect the dynamics of the game-world. In that case, we would indeed have radically different forms of existence at play, and we would encounter a world that is bifurcated into radically different dimensions (rather than the merely relatively different dimensions of which TW:R2's game is currently composed).



Figure 8

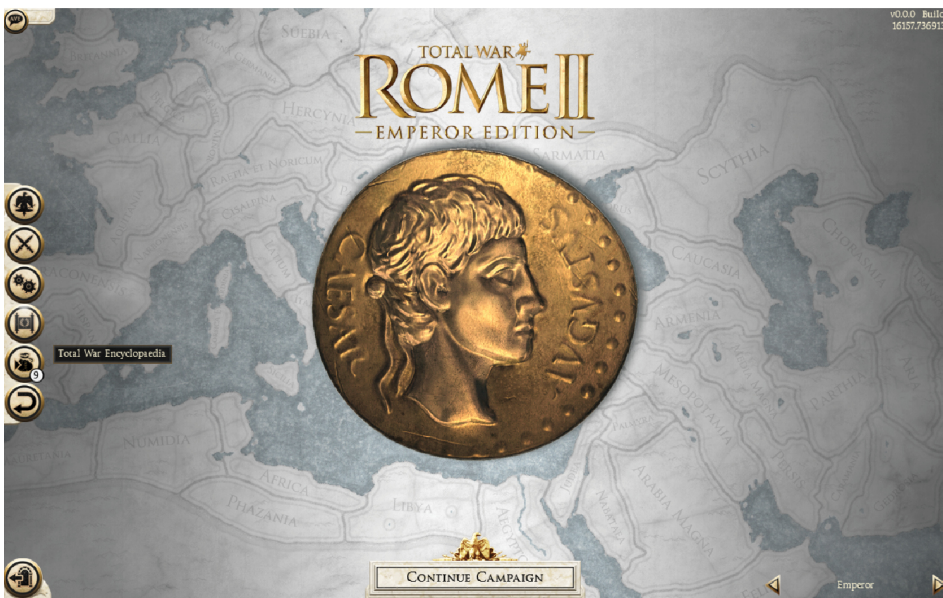


Figure 9

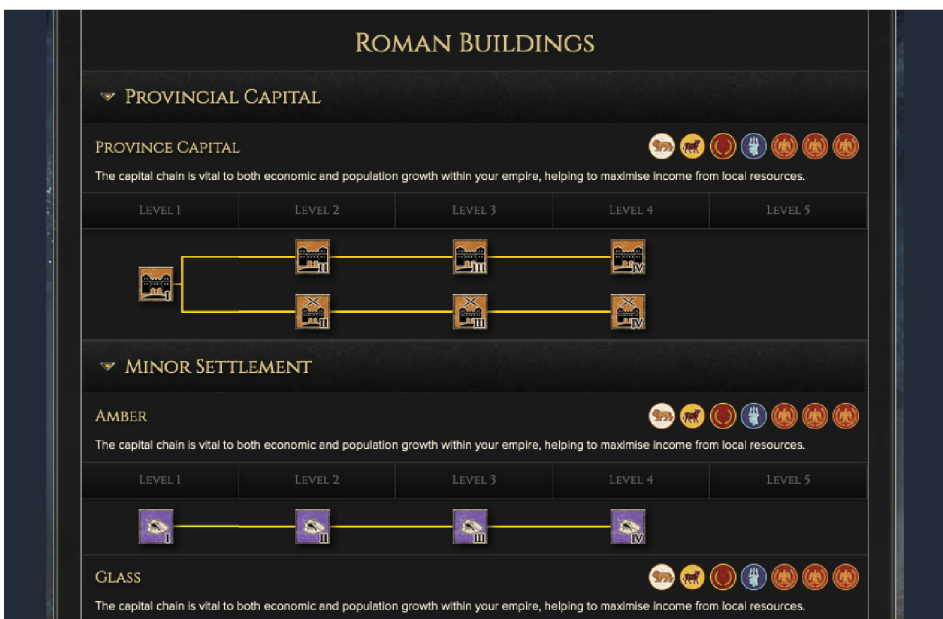


Figure 10

3.4 THE METAPHYSICS OF TW:R2

3.4.1 Universals

- 3.4.1.1 Introduction

The problem of universals is one of the most ancient in philosophy. Its origin is very simple, deriving from direct observation of the world: if I see a red flower and red chair, I observe that these two objects seem to share the same property, namely that of 'being red' or 'redness'. Now, the question is: is 'redness' a thing? Does it exist in its own right, and if so, in what way does it exist, and where? The same problem applies to any property or quality that is shared by things in the world: two different horses can be identified as such because they appear to share the quality of 'horse-ness', two brave firefighters appear to share the quality of 'courage', and so on.

Historically, there have been two main philosophical positions towards this problem: realism and nominalism. The realist camp claims that qualities shared by things – let us call them with their philosophical name: universals – truly exist and that they are fully real. Universals are entities that can be simultaneously exemplified by several different objects. They encompass the properties that things possess, the relations into which they enter, and the kinds to which they belong.

On the other side, the nominalist camp holds that universals do not really exist.

Both camps have a variety of different views on how their respective positions can be articulated. Let us briefly summarise them, so to be able to apply them in our reading (and imaginary reinvention) of the world of TW:R2.

Realists disagree mainly in reference to the generality of their approach. While some hold that each general term in our language corresponds to a universal, others wish to limit the number of suitable candidates to the position of universals. We can locate a crucial divide in the realist field, running between Platonists and Aristotelians.

Platonists claim that there are both exemplified universals (i.e. universals that are exemplified by at least one thing in the world) and also unexemplified universals (i.e. universals that are not exemplified by anything in the world). Unexemplified universals can be:

- Universals that lack instances only contingently: they might have been exemplified, but they are not.
- Universals that are necessarily unexemplified: they are properties such that nothing could have exemplified them.

Platonists thus embrace a two-worlds ontology: there is a radical bifurcation in reality, with universals and concrete particulars occupying separate and unrelated realms. While concrete particulars exist in space and time, universals, do not. As observed in the previous section on ontology, Platonists assign a greater degree of existence to universals (or, in their parlance, Forms) than to concrete particulars (which are merely reflections of the universal properties that they exemplify). Since we, as human individuals, exist in space and time, then our knowledge of universals (as beings outside space and time) is necessarily innate and *a priori*.

Aristotelians oppose the Platonists. Aristotelians endorse an ontology that involves only exemplified universals. They reject *a priori* knowledge, while claiming that knowledge can only be empirical. According to Aristotelians, we cannot separate our knowledge of universals from our knowledge of concrete, spatiotemporal particulars. We can grasp particulars only by grasping the kinds to which they belong, the properties they exhibit and the relations they bear to each other; and we can do so, only through epistemic contact with the particulars that exemplify them. Medieval realists like Thomas Aquinas and Duns Scotus endorsed an Aristotelian view of universals, which they developed in further details. Medieval realists considered each concrete particular as the aggregate of two main components: a common nature, which accounted for its similarity with other concrete particulars of a similar kind, and a principle of individuation, to which it owed its uniqueness and distinction from all other particulars.

On the other side, we find the nominalists, who are even more divided among themselves. They all deny that there are such things as universals, but they disagree about the best alternative explanation to the observable fact that things seem to display similar qualities:

- Austere nominalists claim that the only things that exist are concrete particulars (i.e. individual persons, individual plants, individual animals, individual inanimate objects). As claimed by the medieval philosopher Peter Abelard²⁷⁹, all things that are not concrete particulars are merely *voces*, or *sermones*, or *nomina* – that is mere words. Equally, William of Ockham considered universals to be mere signs of a mental language – that is, they are just concepts. According to austere nominalists, like Willard Van Orman Quine²⁸⁰, we do not need to explain the phenomenon of ‘attribute agreement’: we should take the similarity between things to be a fundamental and un-analysable feature of the world. The fact that certain objects agree in attribute (i.e. by all being yellow) is an irreducibly basic or primitive fact: we do not need any prior facts to explain it, and thus we do not need to believe in the existence of properties. ‘Properties’ are in fact just classes of objects that share a certain type of (primitive) similarity.

- Metalinguistic nominalists reject both the claim that general terms such as ‘redness’ or ‘courage’ refer to nonlinguistic objects (i.e. to anything existing outside language). Metalinguistic nominalists, like Wilfrid Stalker Sellars²⁸¹, claim instead that sentences featuring general terms are metalinguistic: they are just a way of making claims about the linguistic expressions that we use to talk about non-linguistic objects (but they do not directly concern non-linguistic objects). According to metalinguistic nominalists, things like ‘universals’ do not exist in any way in the non-linguistic world, and even within language they are merely ways of referring to sets of words that have a certain linguistic function (i.e. the word “triangular” does not refer to a property, but merely to all the occurrences of certain linguistic expressions that have a certain linguistic function)

- Trope theorists disagree with both austere nominalists and metalinguistic nominalists. Both austere and metalinguistic nominalists hold that only concrete particulars exist; conversely, trope theorists like D. C. Williams²⁸² and Keith Campbell²⁸³ claim that there are such things as attributes

²⁷⁹ For an English translation, and a discussion, of Abelard’s theory of universals, as presented in his *Logica Ingredientibus*, see P. V. Spade (ed. and trans.), *Five Texts on the Mediaeval Problem of Universals: Porphyry, Boethius, Abelard, Duns Scotus, Ockham*, Indianapolis, IN, Hackett, 1994.

²⁸⁰ see W. V. O. Quine, ‘Nominalism’, in D. Zimmermann, *Oxford Studies in Metaphysics*, vol. 1, Oxford, Oxford University Press, 2006, pp.6-21; and W. V. O. Quine, ‘On What There Is’, *Review of Metaphysics*, vol. 2, 1948/1949, pp. 21-38, reprinted in W. V. O. Quine, *op. cit.*, 1953, pp. 1-19.

²⁸¹ see W. S. Sellars, ‘Abstract Entities’, *Review of Metaphysics*, vol. 16, 1963, pp. 627-671.

²⁸² see D. C. Williams, ‘The Elements of Being’, in D. H. Mellor and A. Oliver (eds.), *Properties*, Oxford, Oxford University Press, 1997, pp. 112–124, first published in *The Review of Metaphysics*, vol. 7, no. 1, 1953, pp 3–18.

²⁸³ see K. Campbell, ‘The Metaphysics of Abstract Particulars’, in D. H. Mellor and A. Oliver (eds.), *op. cit.*, 1997, pp. 125–139, first published in *Midwest Studies In Philosophy*, vol. 6, 1981, pp. 477–488.

or properties, though they deny that they can be exemplified by multiple entities. Thus, trope theorists hold that there are things like colours, shapes, character traits but, against the realists, they also hold that these things are particulars. Concrete particulars have colours, shapes and the like, but these attributes are just as particular or individual as their possessors: it is metaphysically impossible for distinct things to share one and the same attribute. Trope theorists thus take general terms to name sets of resembling tropes – where resemblance, once again, is a primitive and un-analysable fact. This means that, to predicate a general term of a concrete particular (i.e. ‘Socrates is courageous’), is just to say that that concrete particular has a trope that belongs to certain resemblance set.

- Fictionalists²⁸⁴ say that we should treat claims that appear to be about abstract entities, like properties and attributes, in the same way that we treat fictional discourses. Similarly to a sentence like ‘Paris killed Achilles’, claims about abstract entities are false in themselves, but they make sense if we accept them as fictional: we can legitimately use them within specific contexts (i.e. ‘Paris killed Achilles’ is false in a history class, but it is true in a mythology class). Fictionalists thus claim that all sentences seemingly about universals (i.e. ‘courage is a morale virtue’, ‘red is a colour’, ‘two plus two equals four’) are literally false, but that they can make sense as elements in a specific story (i.e. ‘two plus two equals four’ within the story of mathematics).

²⁸⁴ a substantial number of philosophers – from Phyrro, though Hume, Bentham, Vaihinger, etc – have endorsed one form or another of fictionalism. For an overview of fictionalism, see J. Divers and J. Hagen, ‘The Modal Fictionalist Predicament’, in F. MacBride (ed.), *Identity and Modality*, Oxford, Oxford University Press, 2006, pp. 57-73; and M. Sainsbury, *Fiction and Fictionalism*, London, Routledge, 2010.

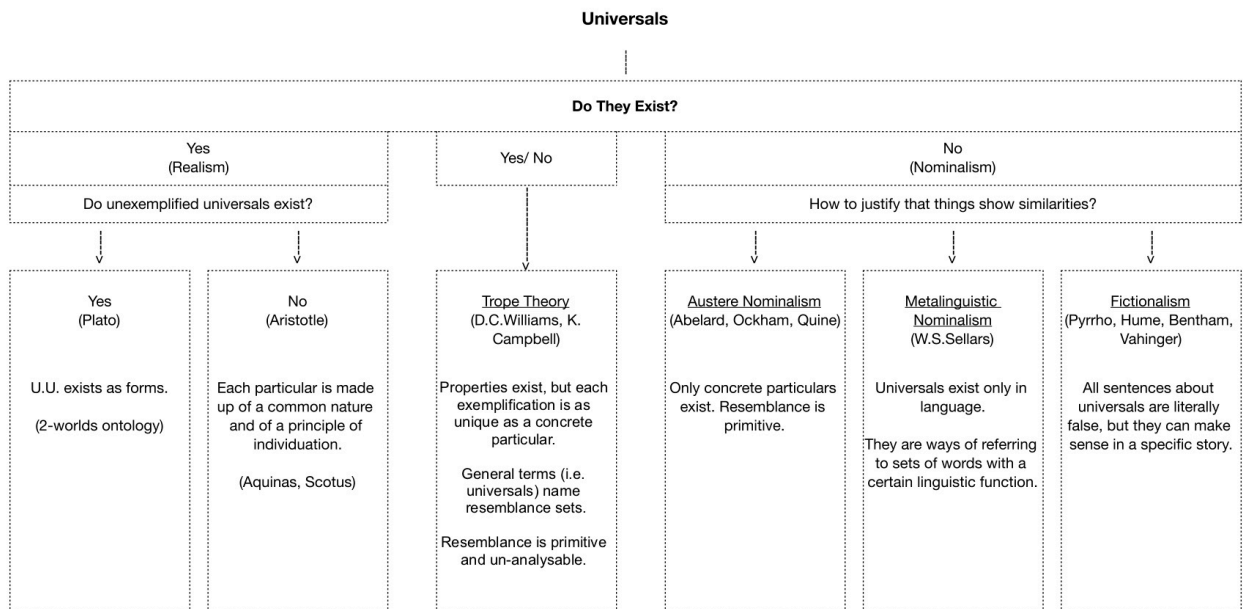


Diagram 4

- 3.4.1.2 Universals in TW:R2

The world of TW:R2 is populated by an array of entities, some of which appear to be unique (like concrete particulars), while other appear to be repeatable and exemplified by several concrete particulars (like properties, attributes or universals).

Non-repeatable entities are individual units and characters, individual cities, individual portions of territory (i.e. provinces).

These entities, however, display a number of repeatable similarities between them. These apparent similarities (or attributes) can be grouped in the following main categories:

- Kinds: belonging to a certain faction, to a certain type of unit, of building, of character/agent, of resource, of territory or of geographical features (i.e. mountain, sea, desert, forest, plain, road).
- Properties:
 - of units: health, experience, abilities (attack/defence/effect on other units, etc.);
 - of buildings: wealth, effect on public order;
 - of actions: specific traits;
 - other: public order, wealth, technologies.
- Relations: diplomacy (client state, satrapy, alliance, etc.), politics (being the head of a certain family or faction, being in a certain relation to other members of a family or faction), military (being a general in an army, being in a certain relation to an army/unit/general), space (being at a certain distance from another entity).

Translated 'problematically', we can investigate the problem of universals through the following questions:

- Do these shared attributes exist in their own right, or are they mere *voces*?
- If they are not just mere convention, in what way can it be said that they exist?
- If they exist, does their existence depend on whether they are exemplified (i.e. embodied) by concrete particulars on the map?

When we look at TW:R2's world, we can see that the attributes, as well as the unrepeatable individual particulars, are all simultaneously present on the same screen. The main difference between them appears to be that the map is populated exclusively by concrete particulars, while attributes belong to the dimension of the menus or to the encyclopaedia. As discussed in the previous section on ontology, this seems to be a case of (expanded, Neo)Platonic realism. If we take presence on the screen of the game as a criterion for existence in TW:R2's world, then we must admit that the attributes (or universals) in the menus and in the encyclopaedia, are just as existing (or possibly even more existing, as previously discussed) as concrete particulars on the map.

On this basis, we can refute the arguments that would see universals as merely linguistic entities (unless, of course, we were to consider the whole of TW:R2 as a product of programming language rather than as a fully existing world). By the same token, we can reject the metalinguistic argument. Equally, we can refute the argument that each property is as unique and unrepeatable as a concrete particular: a certain type of building appearing on the menu of one city is identical to the same type of building on the menu of another city. Finally, if we were to accept the austere nominalist claim that properties are just basic un-analysable facts, we would have to give up hope of analysing also concrete particulars in TW:R2's world – since they are equally present together on the same screen.

To conclude and to summarise, we can say that universals do exist in TW:R2's world. Like in a traditional realist account, they fall neatly into the classical categories of kind, property and relation. It remains to see whether they consist only of those attributes that are exemplified, or if there are also unexemplified universals. If we take the map to be the terrain where concrete particulars lie, then we can see that there are plenty of unexemplified universals that exist within TW:R2's world: for example, a type of building of which there are no exemplars as-yet present on the map, is nonetheless just as existing as a fully exemplified one. Once again, this seems to push us in the direction of a Platonic understanding of universals, as separate Forms of which concrete particulars are merely the representation.

The quality of universals in TW:R2's world is worth investigating further. Like Platonic Forms, they are indeed the perfect version (or essence) of concrete particulars on the map. Most of these universals are present on the menu, while others – like buildings that are not yet available on the menu, or like geographical features – are only present in the Encyclopaedia. As discussed in the

section on ontology,²⁸⁵ this modification of the traditional Platonic structure suggests a three-world structure, in which universals are present in their pure essence in the encyclopaedia, while they are present in their functional capacity on the menus.

This distinction brings to mind the metaphysical principle of the ‘indifference of essence’: according to Avicenna,²⁸⁶ essences (like being a human, or being a house, or being red) are neither particular nor universal in themselves – they become particular or universal only depending on their different modes of existence. When it exists in the extra-mental reality, an essence or nature becomes particular, since it exists in the concrete particular that exemplifies it. Conversely, an essence is universal in the mind, where it is a concept that equally represents all entities of a certain kind – it is important to remember that, for Avicenna, unlike the nominalists, mental existence is just as legitimate as extra-mental existence, and it is ontologically equal to it.

As we already mentioned in the section on ontology,²⁸⁷ we can interpret the Encyclopaedia as akin to a medieval metaphysician’s view of God’s mind: in this sense, all universals existing there, enjoy full (mental) existence. But the situation is here complicated by the presence of the intermediate level of the menus, where these ideas in God’s encyclopaedic mind become functional prototypes for the effective creation of more concrete particulars of a certain kind. We can thus say, borrowing again from Avicenna, that essences exist in TW:R2’s world (which is thus based on a realist metaphysical structure) but that they are indifferent in themselves. Considered in itself, a certain type of building is neither universal or particular: it becomes one or the other on the basis of its modes of existence – universal when it is in the encyclopaedia, particular when it is exemplified by a specific concrete particular. But what about universals at the functional level of the menu?

We can answer this question going back, once again, to Plato. In the final years of his life, Plato developed a few radical modifications to his previous doctrines, but he kept them shielded from public inquiry, as part of what his pupil Aristotle named the ‘unwritten doctrines’. We owe to scholars in the schools of philosophy of Milan and of Tubinga the recent rediscovery of these doctrines, and particularly to the Italian historian of philosophy Giovanni Reale. As recounted by

²⁸⁵ See *intra* section 3.3.

²⁸⁶ Avicenna, *op. cit.*, 2008, pp. 148-161.

²⁸⁷ See *intra*, 3.3.1.

Reale,²⁸⁸ in his unwritten doctrines Plato expanded his notion of a two-world ontology, specifying the hierarchies that are in place within reality. At the highest level, in the position of first principles, we find Ideal Numbers (that is, the essence of numbers), followed by the Forms or Ideas, then by the mathematical numbers, and finally the concrete particulars in the sensible world and, at the very bottom of reality, their representations. In this structure, mathematical numbers act as intermediaries between forms (in themselves already an emanation of the Ideal Numbers) and the sensible world. It is through the operations that can be undertaken using mathematical numbers, that the Forms manage to instil themselves into the concrete particulars of the sensible world. We could thus understand the particular status of the universals in the menus of TW:R2, as akin to that of mathematical numbers in Plato's ontology. Like mathematical numbers, they can be at once abstract and multiple (while Forms can be repeatable, but not multiple), and they serve the function of transmitting the world-making message of the Forms (i.e. the items in the encyclopaedia) into the concrete particulars of the sensible world (i.e. the entities on the map).

²⁸⁸ see G. Reale, *Towards a New Interpretation of Plato*, ch. 8, Washington, D.C., The Catholic University of America Press, 1996, pp. 153-166.

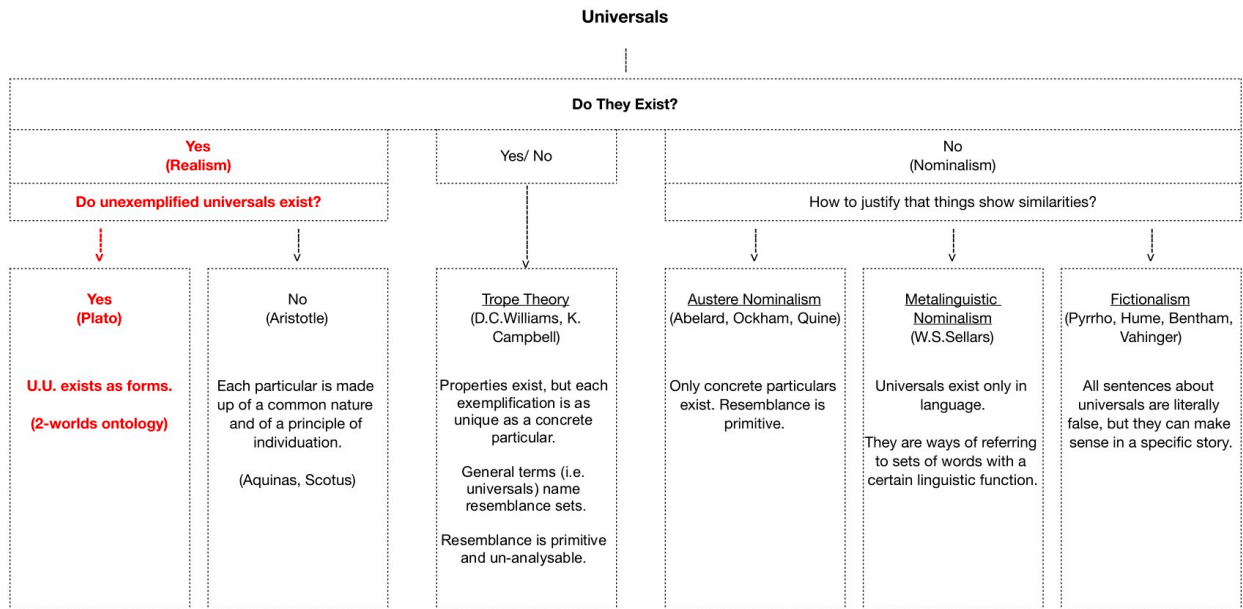


Diagram 5

- 3.4.1.3 Alternative scenarios on universals in TW:R2

Let us now attempt to imagine what TW:R2's game-world would have looked like, if its makers had endorsed a different set of metaphysical tenets on universals. As we said, their view of universals is certainly 'realist' and more precisely Platonic, although with elements that position their debt to Platonism closer to the 'unwritten doctrine' than to the classical dialogues of his middle period.

Imagine, instead, that TW:R2's designers were austere nominalists: what kind of world would they have designed? For one thing, they would have had only concrete particulars: only that which exists on the map actually exists, while menus and encyclopaedia are abandoned. Secondly, the similarities between things (for example, two units of soldiers being of the same kind) would be a primitive and un-analysable fact. This combination of tenets would imply that the creation of new units/buildings/etc. in the game would have to be wholly rethought. If there is nothing but what is present on the map, and if the attributes of things on the map are not further analysable, then how could new buildings/units/etc. of a certain kind be brought about? Clearly, their production would have to happen only within the world of the map – that is, without the use of 'universal' buttons on the menu. We could imagine, for example, that a certain kind of interactions between entities on the map would be able to bring about new entities, of a kind that would resemble them – yet, this resemblance would have to be taken at face value, and it would remain open to unpredictable aberrations. Closing off the realm of attributes and properties, would thus also imply opening up TW:R2's world to an element of unpredictable chance in its internal productions and re-productions.

Conversely, if we were to adopt a metalinguistic approach to nominalism, we would have to rethink TW:R2's fundamental elements, by adding a whole new dimension relative to language. This would be unlike the informative messages that already address the player of TW:R2 at the end of each turn – rather, it would have to be a layer of linguistic conversation between the concrete particulars existing on the map (since nothing else would exist). It would be only in that linguistic layer, that it would still make sense to talk about a certain type of unit or building rather than another – while in fact, in the 'reality' of the map, such distinctions would not actually apply. This split could be visualised, for example, in such a way that we would be able to see things as actually distinct and categorizable only in a new dialogue menu, while the overview of the map would have to remain immune from easy classification – possibly with a visual confusion between particulars, which would not be easily categorised as belonging to one kind or to another. As suggested by Sellars, properties

as metalinguistic entities would also transcend differences between languages, so that for example equivalent types of unit in different faction would no longer be presented (in the new dialogue menu) as different, but it would have to be placed within the * * signs, thus signifying that it stands for a certain type of linguistic function, rather than for a certain property.

If we were to take the approach of trope theorists in our restructuring of TW:R2's world, we would have to consider its metaphysical architecture as rather different from the two previous scenarios. Trope theorists do not reject properties, but they take them to be just as singular and unrepeatable as concrete particulars. This would entail that properties displayed by each entity on the map would be entirely unique to that entity. True, according to trope theorists we can class together these properties as part of resemblance sets, but in themselves each attribute should be considered as entirely unique and particular. If we were to adopt this metaphysical tenet, no two units or buildings could be exactly the same, and it would not be possible to order the construction of a certain type of unit or building, say, via one general button – each button, if at all present, would only refer to a certain resemblance class, and not a certain type of entity. As with all other nominalist options, there would no longer be any separate, universal dimension outside of which it would be possible to create a standardised set of concrete particulars. In this specific case, however, we should consider that each property (for example, being a certain kind of entity on the map) would be as concrete and particular as any other concrete particular. Consistently, their production would have to be as unique and individual as they are, and it would have to remain limited within the realm of what exists on the map. In other words, we would witness an immense proliferation, not only of individual attributes (each unique), but also of individual processes of production of those attributes (again, each unique in itself).

Finally, we can explore the possibility of a fictionalist/nominalist reconstruction of TW:R2's world. Similarly to its metalinguistic re-construction, if we were to rebuild TW:R2's world according to a fictionalist version of nominalism, we would need to have a discursive layer of reality produced by the concrete particular entities living on the map. Only within that context, we could consider properties to be (relatively) existing and legitimate entities.

3.4.2 Concrete particulars

- 3.4.2.1 Introduction

So far, I have freely used the expression 'concrete particular' to refer to those unique and unrepeatable entities that exist in the sensuous world – or, in the case of TW:R2's world, on the map. But what exactly is a concrete particular?

We can look at concrete particulars from two main angles:

- Static/synchronic: looking at concrete particulars in themselves, regardless of their existence in time;
- Dynamic/diachronic: considering concrete particulars as they exist in/through time.

The first angle privileges problems such as individuality (what makes a concrete particular unique?) and unity (what makes a certain portion of existence a single particular, rather than a multiplicity of particulars?). Conversely, the latter angle is primarily concerned with the question of identity over time (how can an object change some of its qualities or parts overtime, and still remain the same?).

In the present chapter, I focus on concrete particulars, as considered from a static/synchronic angle.²⁸⁹

Let us begin by looking at the three main metaphysical approaches to concrete particulars, as they stand in themselves:

- Aristotelian theory of substance:²⁹⁰ concrete objects or substances, such as individual living things, are primary and irreducible. They cannot be analysed in terms of more fundamental ontological components. Their accidental properties are not their ontological components, because properties do not need any specific 'bearer': if a rose is red, it is the rose itself that is red, not a particular ontological component within it that 'carries' that property. Properties can be divided between accidental (like colour, size, etc.) and substantial or essential (like the kind to

²⁸⁹ For the reasons behind this selection, see *intra*, introduction to 3.2 (particularly when I discuss why I did not specifically address the problem of identity through time).

²⁹⁰ as outlined in the *Categories*. For a comprehensive discussion of Aristotle's two main theories on substance, as developed respectively in the *Categories* and in *Metaphysics*, book Z, see D. W. Graham, *Aristotle's Two Systems*, Oxford, Clarendon Press, 1987.

which a certain object belongs). Accidental properties can change, while essential properties define what changes an entity can undergo without ceasing to be the thing that it is. Essential properties, like kind, are ‘individuating’ universals: they define what something is. On the basis of this distinction, Aristotelians hold that the verb ‘to exist’ applies primarily only to substances, and secondarily to anything else.

- Bundle theory: according to bundle theorists – such as George Berkeley,²⁹¹ David Hume,²⁹² and Bertrand Russell (in the final part of his career)²⁹³ – like a thing is nothing but the sum (precisely, the ‘bundle’) of its properties, and thus a thing can ultimately be reduced to its composing properties. What makes a bundle of properties into one specific object, is a relationship of ‘compresence’ between these properties – where this relationship is taken to be primitive and un-analyzable. Not all the properties that make up an object are equivalent, though: according to recent trope theorists,²⁹⁴ we can distinguish between ‘core’ properties that are essential to the object (whose loss would determine the end of the object as that specific thing), and a ‘periphery’ of accidental properties (whose loss would leave the object unaffected).
- Substratum theory: like bundle theorists, substratum theorists also believe that an object can be divided into a number of ontological components. Unlike bundle theorists, however, substratum theorists claim that an object is more than the mere sum of its properties: as well as its properties, a concrete particular also necessitates something (a substratum) that ‘does the job’ of having such properties. The bearer of the properties cannot be, as the Aristotelians claim, the concrete object itself, but it has to be a separate component within it. This substratum, in itself, has no property whatsoever, and thus it can be considered the heart of the concrete particular: precisely, it is called a ‘bare particular’. The substratum also does the job of guaranteeing the unity of the object (by holding its properties in a unified whole), and to individuate it (by making it unique, since no substratum is like any other). Famous substratum theorists have been John Locke,²⁹⁵ Bertrand Russell²⁹⁶ (at an early stage of his career) and Gustav Bergmann.²⁹⁷

²⁹¹ see G. Berkeley, *A Treatise Concerning Human Knowledge*, New York, N.Y., Liberal Arts Press, 1957, paragraph 1.

²⁹² see D. Hume, *op. cit.*, 1985, book I, part I, section vi.

²⁹³ see B. Russell, *An Inquiry into Meaning and Truth*, London: Routledge, 1997, pp. 108-130.

²⁹⁴ see for example P. Simons, ‘Particulars in Particular Clothing: Three Trope Theories of Substance’, *Philosophy and Phenomenological Research*, vol. 54, 2004, pp. 553-75.

²⁹⁵ see J. Locke, *An Essay Concerning Human Understanding*, edited with an introduction by P.H. Nidditch, Oxford, Clarendon Press, 1975, II.xxiii.6 and II.xxiii.2.

²⁹⁶ see B. Russell, ‘On the relations of universals and particulars’, in *Logic and Knowledge*, London, Routledge, 2004, pp. 103-124.

²⁹⁷ see G. Bergmann, *Realism: a critique of Brentano and Meinong*, Madison, WI, University of Wisconsin Press, 1967.

These three alternative theories can be further grouped in two main approaches: the Aristotelian theory, holding that concrete objects, that is substances are irreducible and primary entities; and the trope and substratum theorists, holding that concrete objects can be further divided into their ontological components. Let us now attempt to read the status of concrete particulars in TW:R2's world, in the light of these metaphysical theories.

Concrete Particulars

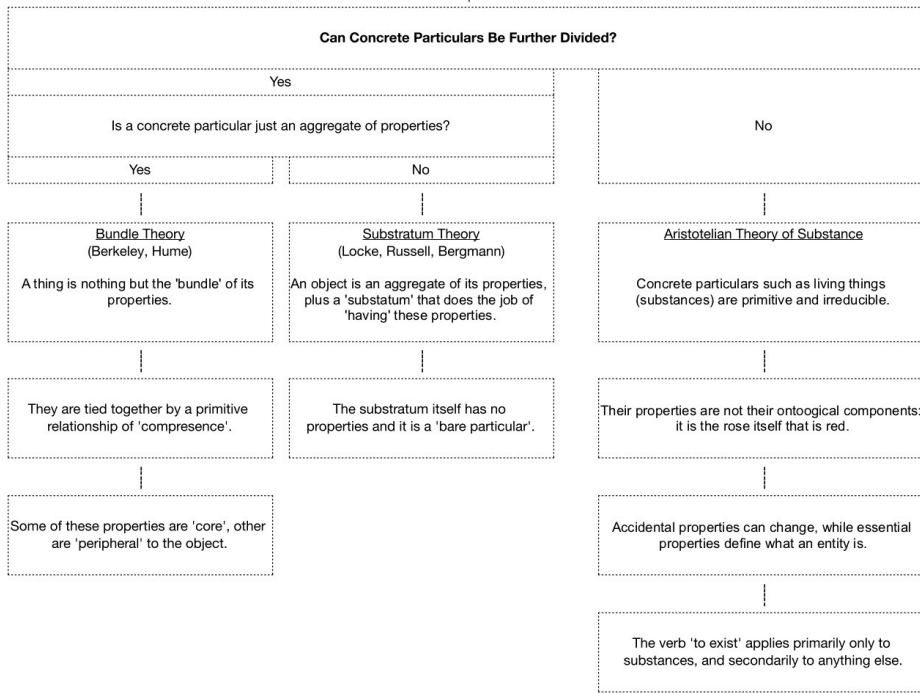


Diagram 6

- 3.4.2.2 Concrete particulars in TW:R2

Concrete particulars in TW:R2's world are all those individual entities that can be found on the map or on the battlefield, such as individual units or individual cities. Notably, individual buildings within cities, individual soldiers within a battalion, or individual value-points (i.e. wealth, health, etc.) can arguably be considered not to be concrete particulars, but rather portions of the properties that make up a concrete particular – so, for example, an individual building (with its specific properties) constitutes just a portion of the overall qualities that belong to the city, as a concrete particular. *(figures 11 and 12)*

The 'problem' of concrete particulars in TW:R2 can be translated as the following questions:

- In what consists the essence of a concrete particular in itself, regardless of its unique identity?
- If its essence is not homogeneous and unitary, is there an ulterior element that holds together its composing parts?

Coherently with their placement within a game-world (that is, in a world that has been designed to be procedural and operative, and not just an object of contemplation), it is possible to analyse concrete particulars in TW:R2's world in terms of their specific functions. This is particularly clear when we consider units on the battlefield, where their presence is little more than a visual coating over a bundle of specific properties in terms of their ability to attack or to defend, or in terms of their morale, speed, health, etc. Equally, each individual city can be truthfully described as a bundle of specific functions in terms of producing wealth, public order, etc. The same applies to individual agents, individual generals or individual features of the geographical terrain. At a first glance, it appears quite clearly that concrete particulars in TW:R2's world are 'bundles' of properties, and specifically of properties that refer to various forms of production.

But two questions still remain unanswered: Is there anything that makes a unique individual, out of a certain bundle of properties? And what bundles together these properties into a unitary whole?



Figure 11



Figure 12

Let us begin with the problem of individuality. It is common to find in TW:R2's world concrete particulars that have exactly the same properties, as in the case of two identical units of soldiers, or two identical buildings. What allows us to distinguish them? This problem can be rephrased according to Gottfried Wilhelm Leibniz's philosophical principle of the 'identity of the indiscernibles':²⁹⁸ according to this principle, if two objects have exactly the same properties, they cannot be considered to be two different things. Yet, in TW:R2's we can see that two identical units are, in fact, distinct from each other. How can we explain it? Medieval metaphysicians in the tradition of Boethius come again to our aid. According to a metaphysical vision that enjoyed a hegemonic status until Peter Abelard, concrete particulars are bundles of universal properties: some of these properties (i.e. essential properties, like belonging to a certain kind or species) are common to all entities of a certain kind or species, while other properties (i.e. accidental properties) are different in each individual. Importantly, these metaphysicians considered the space-time coordinates of a concrete particular to constitute an accidental property of an object. Thus, even if we had two objects that have identical essential and accidental properties (such as two identical units with equal properties in TW:R2), the two would be kept distinct by the fact that they occupy different space-time coordinates (themselves considered as an accidental property of the object). We could assume this as our working hypothesis: concrete objects in TW:R2 are bundles of universal properties, individuated by their space-time coordinates.

Let us now proceed to the next question, keeping in mind that by answering it we might want to change our previous hypothesis: what holds these bundles of properties together? Is there a substratum that does the job of bundling them?

In his late work *Timaeus*, which was mainly dedicated to cosmological issues, Plato defined concrete objects as unstable conglomerates (or bundles) of properties that are compresent in a certain region of space. His understanding of the status of these bundles and of space, however, requires further clarification. Firstly, Plato (in his later years) believed that these bundles are held together by a substratum: in each concrete object, there is something in addition to the object that does the job of keeping its properties together.²⁹⁹ Secondly, he identified this substratum with the 'place' in which each bundle of properties takes place.³⁰⁰ This 'place', in itself, is just a portion of that absolute space which acts as the general container in which concrete particulars (as bundles of universal

²⁹⁸ W. G. Leibniz, *Discourse on Metaphysics and Other Essays*, trans. D. Garber and R. Ariew, Indianapolis, IN, Hackett, 1991, pp. 9-10.

²⁹⁹ Plato, *Timaeus*, 48e-49b, 50b-51b, 52b-53e.

³⁰⁰ Plato, *Timaeus*, 52b-53b.

properties) take place. This vision partly contradicts our previous working hypothesis of concrete particulars in TW:R2 as bundles of universal properties that are individualised by their accidents (particularly by space-time coordinates, as an accidental property of an object). Yet, this might be an improvement to our previous hypothesis, rather than its abolishment. Indeed, considering the digital status of TW:R2's world, we could agree with Plato that there is in a general (digital) substratum acting as the spatial container in which concrete objects take place. Furthermore, as in Plato, this substratum is in itself inaccessible to sense-experience: what we can perceive are the qualities in a certain portion of space, rather than that particular portion of space that acts as their receptacle.

To conclude, we can refine as follows our hypothesis on the metaphysical status of concrete objects in TW:R2: concrete objects are bundles of universal properties, some of which are essential to the object (i.e. their kind), while others are accidental; these bundles are held together by a particular kind of substratum, which in itself does not belong to that specific object, but which acts as the container holding together its properties and individuating them as one particular object (since only one object can occupy a specific portion of space at a time). Once again, we find further confirmation to our ongoing discovery of the Platonic roots of TW:R2's underlying metaphysical architecture.

Concrete Particulars

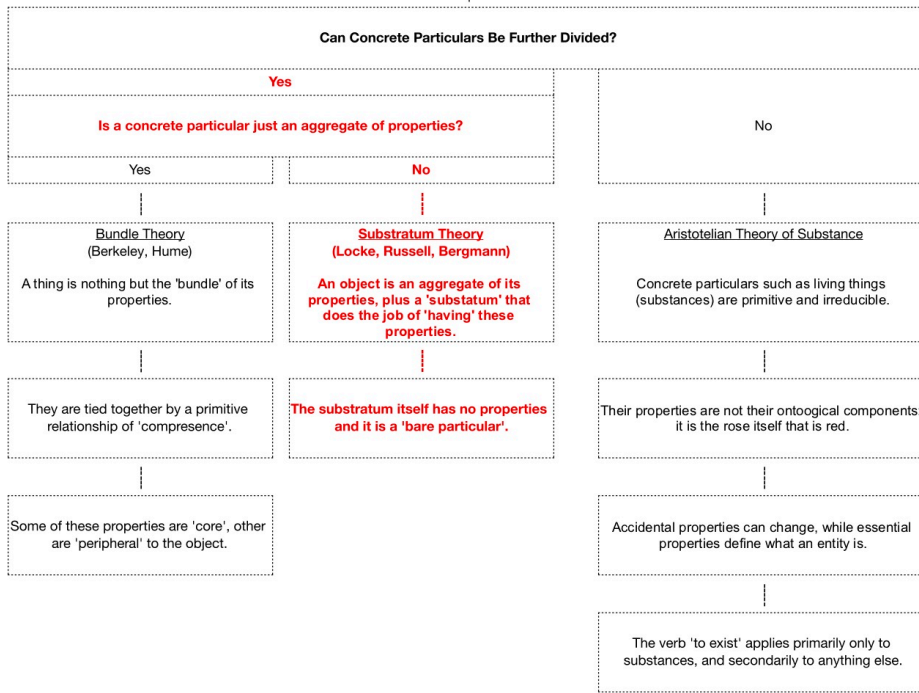


Diagram 7

- 3.4.2.3 Alternative scenarios on concrete particulars

We can begin our exploration of alternative scenarios concerning concrete particulars, by considering the closest possible modification to the current settings in TW:R2. As we said, objects on TW:R2's map are bundles of properties held together by a relationship of compresence that takes place in a specific portion of TW:R2's space-time. Following Plato's *Timaeus*, we identified this spatial-temporal portion as a kind of substratum. However, this type of substratum is unlike what most substratum theorists would generally endorse. John Locke, for example, considered concrete particulars to be a bundle of properties that are held together by a substratum – where this substratum is not merely a portion of space, but a thing, though a strange, unanalysable thing which “we know not what it is”.³⁰¹ Thus, according to Locke, this substratum is a ‘thing’ that exists within each concrete object – and, since he was a nominalist, this substratum is itself a particular.

Let us consider how TW:R2's world would be affected by the adoption of this kind of substratum theory. As an aid to our imagination, we can look at a later instalment of the Total War series: *Attila*. Released in February 2015, *Attila* is set in the latter days of the Roman Empire, during an era plagued by wars and by frequent invasions of the Hunnic hordes. In that game-world, it is possible to destroy a settlement completely, in a way that is not possible in TW:R2. When a Hunnic horde conquers a town, for example, they destroy it to the point that it becomes ‘desolate’. A ‘desolate’ place is what remains of a settlement that has lost all its attributes, which were embodied by the buildings. A ‘desolate’ place comes very close to a traditional understanding of a substratum: something that in itself has no attribute or properties, while still existing as a particular that remain (potentially) capable of hosting or holding together bundles of properties. A ‘desolate’ place in *Attila* is something akin to a ghostly presence: there, but not there at the same time.

We could apply a similar notion of substratum to all concrete particulars existing on the map. For example, we could imagine that a military unit might be destroyed, so that it is stripped of all its attributes, while its substratum would still somehow remain as a ghostly entity. The possibility of disentangling a particular substratum from the properties that it supports, would introduce a new type of entity on the map, and a new kind of performable actions: bare ‘ghosts’ (i.e. pure substrata)

³⁰¹ J. Locke, *An Essay Concerning Human Understanding*, Oxford, Clarendon Press, 1975, II.xxiii.3.

could be included in the catalogue of entities on the map, and stripping a concrete particular of all its properties could become a performable action.

Let us now move towards a more radically different hypothesis in our re-imagination of TW:R2's metaphysics concerning concrete particulars. Both bundle theories and substratum theories share a 'reductivist' understanding of concrete particulars, as entities that can be divided into ontological components. Conversely, Aristotelian theories see concrete objects, that is substances, as irreducible and primary entities. What would TW:R2 look like, if we were to re-conceive its metaphysics concerning concrete particulars along an Aristotelian line? An important aspect of Aristotle's theory consists in his specification of what qualifies as a substance. Not all concrete particulars are substances: only individual living things (plants, animals, or humans) and the elemental items of physics (earth, fire, air, water) are irreducibly unified entities, that is, they are substances. Conversely, artefacts (a table), stages in the existence of an object or roles that they take up (a larva, or a president), or aggregates of physical objects (a pile of stones, a mountain) are not substances. This implies that only some entities on TW:R2's would qualify as substances, while others would be ultimately reducible to their composing entities. Based on this hypothesis, we would have a world populated by two different kind of entities: irreducible and primitively unified substances, like living beings and the elements of physics (as such currently absent from the game), and everything else (like, for example, buildings) as reducible non-substances.

Approaching Aristotle's theories on concrete particulars, however, requires some initial clarification. In the *Categories*, Aristotle put forward an understanding of concrete particulars that partly differed from the theory which he developed in the *Metaphysics*. In the *Categories*, he stressed the aspect of a substance's irreducibility to more fundamental components, while in the *Metaphysics* he suggested that substances can be read also in terms of an interplay between form and matter.

Let us begin with an Aristotelian re-writing of concrete particulars along the line of the *Categories*. The crucial aspect to consider, in this case, would be that a thing would not exist, if it was not *that* particular thing. A substance does not merely belong to a certain kind, but it exists only inasmuch as it is a member of that kind. This implies that, while things can change their accidental attributes (like colour, size, etc.) they cannot change their essential or substantial attributes (like belonging to a certain kind – say, being a human, or an oak tree, or a dog).

Yet, in TW:R2's world we often see how it is possible to 'upgrade' existing buildings or units, making them pass from one type of thing to another. We can read this phenomenon in two ways. One way is to see it as already Aristotelian, if we take their kind to be that of a 'human' (in the case of a unit) or an 'artefact' (in the case of the building). If we endorse this classification, then it is already the case that a thing of a certain kind (say, a human unit) cannot become a thing of a different kind (say, a building). The other way is to read the kinds to which things belong as referring to the specific type to which a unit or a building belongs (i.e. not as generally 'humans' or 'buildings', but rather as 'legionary cohort', 'aqueduct', etc). This latter solution might be a more congenial way of approaching the question of genera and species in the virtual realm of TW:R2, where the notion of a living creature versus a non-living artefact is much less clear than in our 'non-virtual' reality. In this more restrictive perspective, we see that the present possibility to upgrade a unit (i.e. from 'legionary' to 'princeps') or a building (in case we also take them to be substances, despite their being artefacts), constitutes a breach of the Aristotelian tenet that a thing's very existence depends on belonging to a certain kind. If we were to re-write this process according to Aristotle's injunction, we would have to disable the possibility of 'upgrading' units and, possibly, also buildings (again, provided that we do not consider them as artefacts, or that we decide to discard Aristotle's rejection of artefacts from the realm of substances). Anything that is born in a certain way, that is as a substance belonging to a certain kind, cannot change its essential core to turn into something else.

Yet, as we said earlier in reference to universals, if we were to endorse an Aristotelian vision also in terms of the status of universals (that is, accepting only exemplified universals), TW:R2's world would have to start already fully furnished with anything that will ever fit in it: since there are no unexemplified universals, and since anything can exist only inasmuch as it belongs to a substantial universal, then any kind of thing that does not exist *ab origine*, will never exist. This would be an uncontroversial claim, if we considered kinds in TW:R2's world to coincide with those of our so-called 'real' world (thus, all units are fundamentally 'human', while buildings are fundamentally 'artefacts' and so on) – however, if we were to consider kinds in a more specific and restrictive sense, as suggested above, this would have a dramatic impact on the restructuring of TW:R2's game-world.

Let us now consider Aristotle's theory on the topic, as it is exposed in the *Metaphysics*. In this work, Aristotle partly modifies his earlier views on the irreducibility of substances, suggesting instead that

concrete particulars can be analysed in reference to two constitutive components: form and matter. Form is that metaphysical principle that determines all the functions, activities and ultimately the range of possible interactions of an object. Conversely, matter is the material support, or substratum, where these functions and activities can take place. What interests us here is not the problem of the internal consistency of Aristotle's earlier and later theories, but rather the possible insertion of a new metaphysical principle in the context of TW:R2's world: namely, matter. In our earlier discussion of concrete particulars in TW:R2's world, we noticed that Plato's idea of an absolute space, acting as a substratum *sui generis*, can well represent the current metaphysical structure of concrete particulars in TW:R2. But what if we were to rethink this substratum, no longer in terms of a Platonic 'container', but rather as Aristotelian 'matter'?

A possible way to proceed along this line, is to consider Aquinas' interpretation of this theory. Aquinas understood a concrete object such as a human being to be composed of a form (i.e. 'human') and of two types of matter: common matter (of which all substances of a certain kind are composed; i.e. flesh, blood, bones) and individual matter (the material parts of which a certain object is composed; i.e. a person's specific flesh, blood and bones).³⁰² Both types of matter derive from an underlying 'first matter', which is matter without any form. This 'prime matter' acts as the general substratum for all concrete particulars, which it composes as it becomes individualised by the specific 'dimensions' of a specific concrete object.³⁰³ This metaphysical theory opens up the question of what (if anything) constitutes matter in TW:R2's world: what is the 'stuff' of which items on the map are made of?

Our previous answer to that question was that concrete particulars on the map are bundles of properties that are held together and individualised by the specific space-time location which they occupy. Indeed, there is no such thing as 'matter' in TW:R2's world. But what if there was? What would the world look like? As we approach this question, we should keep in mind that our investigation does not concern the 'behind the scenes' to the game, and thus we cannot advocate that pixels or bits are in fact the 'prime matter' of which concrete objects in TW:R2 are made. The matter that we are seeking (or rather, inventing), can be found at the level of TW:R2's world as a *cosmos* – it is at that level that we should locate this imaginary 'prime matter'.

³⁰² T. Aquinas, 'De Ente et Essentia', in *Opera Omnia Iussu Leonis XIII P. M. edita*, ed. R.A. Gauthier, Commissio Leonina-Vrin, Romae-Parisiis, 1989, vol. IV, cap. 2, pp. 370-371.

³⁰³ for a discussion of the several texts in which Thomas Aquinas discussed this theory, see J. F. Wippel, *op. cit.*, 2000, pp. 371-375.

As pointed out by Aquinas, matter, in itself, has no internal differentiations, and as such it is a unified whole that becomes divided only when form is imposed onto it. To a certain extent, we can already find a similar process at play in TW:R2's world, in reference to financial wealth: we can imagine wealth to be a sort of prime matter, which takes a specific form or another when a certain form (unit, building, etc) is imposed onto it (by 'buying' a certain unit, building, etc.). Yet, this financial form of prime matter appears to constitute only certain concrete particulars in the game, while it seems to remain completely foreign from others (such as geographical features, family members, etc.). Conversely, if we were to take this hypothesis seriously, we would have to imagine a prime matter that runs equally throughout all concrete particulars in TW:R2's world.

We should then decide whether this prime matter is finite, or infinite – that is, whether it can host infinite instantiations of the essential universals, or only a limited amount. Finally, we should consider whether such prime matter is able or not to exist on its own, as separate from matter. Each of these dilemmas would open alternative scenarios in our construction of concrete particulars in TW:R2's world.

Let us begin with the first question. According to Aristotelians, prime matter does not exist in the world unless it is somehow shaped by the dimensions of the substance which it constitutes. Thus, if we were to adopt an orthodox Aristotelian vision, we would not have any instances of a formless matter, in the same way that we would not have any substantial universals that are not instantiated by matter. But what if we modified this version, to allow for the two principles to exist separately from each other, not only in theory but actually? We would then have, on the one hand, pure universals (much like the Forms that are already currently present in TW:R2's world), and, on the other, undifferentiated prime matter. This prime matter would then exist in a fashion that is difficult to render in practice: unitary, lacking internal differentiations and any attribute apart from its ability to give a body to a form. The creation of a concrete particular would then consist precisely in the combination of this prime matter with a certain form, as defined by the kind to which it belongs. This combination would then be influenced by our decision of whether this prime matter is extensionally finite or infinite. In the former case, we would have a limited quantity of individual things that can exist in the world, and the map would act as an ultimate frame, defining the spatial range of ontological possibilities in the realm of concrete particulars. In the latter case, we would have a world that can potentially grow without limits, and the map would be little more than a

temporary, moving frame, running over a potentially limitless world. In this scenario, it would be imaginable that the whole focus and dynamics of the game would move away from the political-military struggle over finite territory and finite resources, towards a greater focus on the imagination and invention of endless novelties in the realm of concrete particulars.

3.4.3 Possible worlds (modality)

- 3.4.3.1 Introduction

Everybody has an intuitive understanding that things could have been different than they are. When I got out of my house this morning I turned left – but I could as well have turned right. More fundamentally, my very presence in this world could have easily never occurred – if my parents had never met, for example. A great number of things, events and properties in the world appear as if they could have never existed, occurred or being possessed. In technical philosophical language, we can call them accidental or contingent. The same goes for propositions about things, events and properties in the world: the proposition stating that I'm seated on a chair is true at present, but it might as well have been false – in other words, it is only accidentally or contingently true. Opposed to the notion of accidentality and contingency, we find the notions of essentiality and necessity. I am only accidentally seated on a chair, but I am essentially a human being. Essential properties are properties that a thing cannot lose without ceasing to be what it is. Essentiality and necessity are close concepts, yet they do not coincide. For example, I am essentially a human being, but I am not a necessary being – that is, as long as I exist, I will be a human being, but it is not a necessity that I must exist or have existed at all. According to medieval philosophers, it is only God that has a perfect coincidence of essence and necessity: God is a 'necessary existent', in that His very essence consists in the impossibility of not existing.

Discussion of possibility, impossibility, contingency and necessity are typically referred to as problems of 'modality'. The field of modality is divided into two main areas, depending on whether it refers to propositions or to things:

- *De dicto* modality expresses the notion of possibility or necessity as ascribed to a proposition

- *De re* modality expresses the notion of contingency or necessity as ascribed to a thing

Since there is a scarcity of 'propositions' in TW:R2's game-world – whose populations cannot 'speak' – I will focus my analysis on 'de re' modality.

A good way to approach the use of modality in a philosophical context, is through the notion of 'possible worlds'. At the heart of the very field of modality, lies the idea that the world as it is at the moment, the 'actual' world, is only one of many other possible worlds – or, according to a Neo-Leibnizian approach,³⁰⁴ one of infinite possible worlds. What distinguishes our world from another world (for example, a world where I am not seated or I do not exist), is just the fact that our world is the 'actual' world: our world is the only one in which all the propositions about how things are, 'obtain' (that is, they are true).

Deriving from Leibniz's use of modal metaphysics, the notion of 'possible worlds' has been recuperated by a number of philosophers in the 20th century. This has resulted in a number of different metaphysical systems that propose different takes on what a 'possible world' is like.

Firstly, we find those who deny the very legitimacy of the use of modality.³⁰⁵ These are typically empiricists, who challenge the use of concepts that cannot be traced back to our empirical experience of the world: experience never reveals to us what is 'necessarily' or 'possibly' the case, but only what *is* the case. According to these critics, talk of modality (talk of what is necessary, impossible, contingent, possible) has legitimacy only in conjunction with language: it merely reflects our decision to use words in a certain way. Empiricist objections to the use of modal notions go back at least to David Hume.

Among those who accept to adopt modality and the notion of possible worlds, we find two major tendencies:³⁰⁶

³⁰⁴ See for example S. Kripke, 'Semantical Considerations on Modal Logic', *Acta Philosophica Fennica*, vol. 16, 1963, pp. 83-94.

³⁰⁵ For example, see W. V. O. Quine, 'Two Dogmas of Empiricism', in *op. cit.*, 1953, pp. 47-64; and W. V. O. Quine, *Word and Object*, Cambridge, MA, MIT Press, 1960, pp. 195-200.

³⁰⁶ A useful overview of these two main positions can be found in P. Van Inwagen, 'Two Concepts of Possible Worlds', in *Midwest Studies in Philosophy*, vol. 11, 1986, pp. 185-214.

- Concretism: this approach understands a 'world' as a collection of physical objects, that is of concrete particulars. The founder and main proponent of concretism, David Lewis, endorsed a nominalist approach, which translated in his understanding of what a 'world' is. According to Lewis,³⁰⁷ the actual world is simply the whole of our physical universe, including anything that stands in a spatiotemporal relation with another concrete particular. Equally, any other possible world is a similar collection of spatiotemporally related concrete particulars. Lewis' claim is thus that our actual world and other possible worlds are things of the same kind. What is more, other possible worlds exist just as much as our actual world. The definition of 'actuality' (i.e. our world being the 'actual' world) is merely indexical: it corresponds to notions such as 'here' or 'now', which depend entirely on the subject of the enunciation. All other possible worlds truly exist, although they are not 'actual' from our specific perspective: in this sense, Lewis' concretism is an example of 'possibilism'. This intuition rests on another claim: that each possible world, including ours, is spatiotemporally 'closed': no item in a world has any spatiotemporal relation with an item in another world, and thus they are not connected by any causal nexus. In technical language, this means considering each world as a 'maximal connected object', since all connections are internal to it. For this reason, Lewis considers concrete particulars to be completely 'world-bound', and he rejects any possibility of 'transworld' individuals – that is, of individuals that exist at the same time in more than one world. The 'Federico' that is not seated does truly exist in another possible world, yet it is not the exact same thing as the Federico that is seated in the actual world: it is his 'counterpart', standing in a relationship of resemblance with me, rather than in one of identity. According to this view, we can say that a property is essential to an individual, if it and all its counterparts exemplify it; and that a property is accidental to an individual, just in case it exemplifies it while some of its counterparts do not.
- Abstractionism: according to abstractionists – such as Alvin Plantinga,³⁰⁸ the main proponent of this view – a world is not a 'maximal connected object', but a 'maximally comprehensive state of affairs'. A state of affairs is a situation (e.g. me being seated) that might 'obtain' (i.e. it is true that I am seated) or 'fail to obtain' (i.e. it is false that I am seated). A maximally comprehensive state of affairs is a 'total way' that things could go: it is a state of affairs that includes all possible

³⁰⁷ see in particular D. Lewis, 'Possible Worlds', in *Counterfactuals*, Oxford, Blackwell, 2001, pp. 84-90; and D. Lewis, *On the Plurality of Worlds*, Oxford, Blackwell, 1986.

³⁰⁸ see in particular A. Plantinga, 'Actualism and Possible Worlds', in M. J. Loux (ed.), *The Possible and the Actual: Readings in the Metaphysics of Modality*, Ithaca, N.Y., Cornell University Press, 1979, pp. 253-273; and A. Plantinga, *The Nature of Necessity*, Oxford, Oxford University Press, 1982, pp. 44-163.

situations, and for each of them it states whether it obtains or fails to obtain. In technical language, this amounts to say that for every state of affairs (for every situation, such as 'Federico is seated'), a world either includes (i.e. 'yes, he is seated') or precludes (i.e. 'no, he is not seated') that state of affairs. While for Lewis possible worlds were concrete objects, for Plantinga they are abstract entities. While Lewis is a nominalist about abstract entities, Plantinga is a realist: abstract entities do truly exist, and in fact a world is just an entity of that kind. Another important difference between concretism and abstractionism is that, while Lewis considered actuality to be merely indexical and all possible worlds to exist alongside each other (although inaccessible to one another), Plantinga holds that only our 'actual' world exists: against Lewis' 'possibilism', he is an 'actualist'. Plantinga claims that while each possible world is a maximally comprehensive state of affairs, only our actual world 'obtains', and thus only our actual world 'truly' exists. To be more precise, we can say that while states of affairs are necessary beings that pre-exist the worlds in which they obtain or fail to obtain (e.g. if w_1 is a certain possible world, the state of affairs 'being seated' pre-exists its obtaining as 'being seated in w_1 ') yet, concrete objects exist only within the single maximally comprehensive state of affairs that actually obtains: our world, the actual world. There are no concrete objects belonging to any other possible world that failed to obtain. Because he considers possible worlds to be merely states of affairs, Plantinga can allow for 'transworld individuals', that is for individuals that exist in more than one possible world. While Lewis found it impossible to allow the individuals to exist in more than one world (since each world is a concrete object, its parts are world-bound), Plantinga can concede that individuals can exist in other possible worlds: they can be part of other maximally comprehensive states of affairs, but these other worlds do not in fact obtain. Thus, for example, the Federico that is not seated in another possible world, is indeed the same 'Federico' that is seated in the actual world: but since only our actual world obtains, while that in which Federico is not seated does not obtain, then the only Federico that actually exists as a concrete particular is the seated one. To clarify on this point: when Plantinga says that a certain thing exists in another possible world, he does not mean to say that it is physically present in that world: rather, he wishes to make the counterfactual claim that, if that world had been actual, then that thing would have existed. Likewise, when Plantinga says that a thing has a certain property in another possible world (e.g. Federico having the property of standing rather than being seated), he only means that, had that other possible world been actual, then that thing would have had that property. On this basis, we can understand essential properties as those properties that a thing has in all possible worlds in which it exists (including the actual one), while accidental properties are those that a thing has in the actual world, while it

does not have them in another world in which it exists (in the counterfactual sense in which we defined existence above).

In addition to the two main tendencies outlined above, we find other approaches to modality and possible worlds, such as David Armstrong's 'combinatorialism',³⁰⁹ as well as sub-categories of each approach, such as 'magical abstractionism', 'linguistic abstractionism', 'pictorial abstractionism', 'structural abstractionism', etc.³¹⁰ For the purpose of the present research, it will not be necessary to go into further detail of each of these approaches: the two main schools of Concretism and Abstractionism suffice as lenses through which we can interpret the implicit notion of modality and of possible worlds which is embedded in TW:R2's metaphysical architecture.

³⁰⁹ see D. Armstrong, *A Combinatorial Theory of Possibility*, Cambridge, Cambridge University Press, 1989.

³¹⁰ for an overview of these sub-categories of abstractionism, see R. C. Koons and T. H. Pickavance, 'Abstractionism', in *The Atlas of Reality: A Comprehensive Guide to Metaphysics*, London, Blackwell, 2017, pp. 332-351; and R. C. Koons and T. H. Pickavance, *op. cit.*, 2015, pp. 167-174.

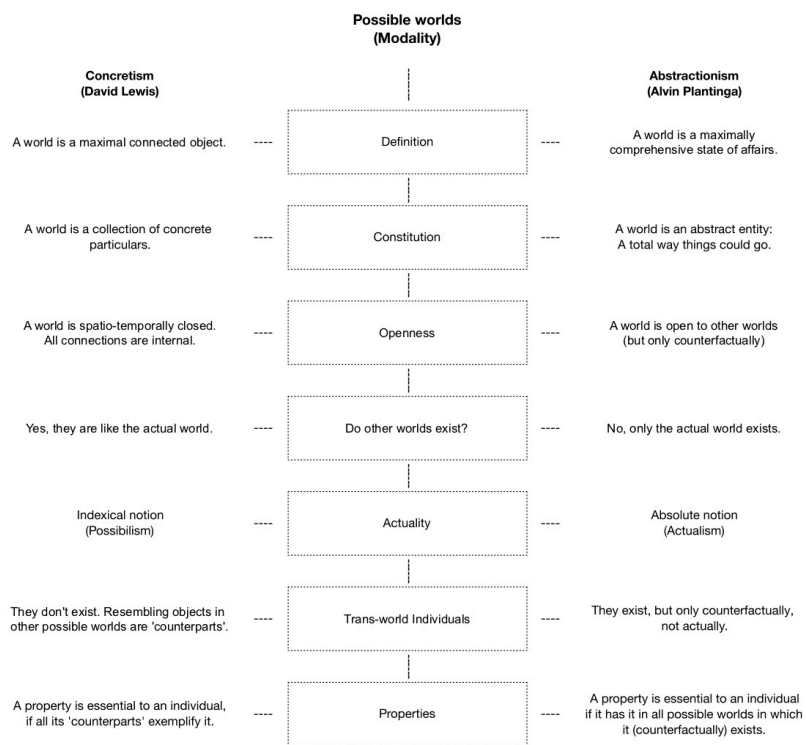


Diagram 8

- 3.4.3.2 Possible worlds in TW:R2

In our physical reality, we can only speculate on what our world would have been like, if things had gone otherwise. In a video game, we do not have to limit ourselves to speculation: to a certain extent, we can see how the world changes, as the events take different courses. This possibility is given to us by the 'save' and 'load' buttons, the former freezing a certain world in a specific moment in time, the latter allowing us to re-access that world whenever we please. Through the 'save' and 'load' functions we are thus granted access to a potentially infinite number of possible worlds, each somehow existing alongside each other. (*figure 13*)

The 'problem' of modality in TW:R2 can be approached as the following set of questions:

- Is there more than one possible world within TW:R2?
- If there are multiple possible worlds, do they all contain the same items necessarily?
- If there are multiple possible worlds, how can we describe the metaphysical status of each of them?
- If there are multiple possible worlds, are there also items that can move seamlessly across (or that can be simultaneously present in) more than one?

We should consider more closely the comparison between the traditional philosophical understanding of possible worlds and the opportunities provided by the 'save' and 'load' functions. In our physical reality, we assume that most beings and properties are of a contingent kind: they exist in a certain way, but they might as well have existed differently, or not existed at all. As briefly discussed above,³¹¹ necessary existence is usually discussed only in reference to God. Conversely, no matter how many times we 'save' and 'load' TW:R2's world, a great number of its entities never fail to appear. It seems as if TW:R2 allows for a great number of necessary beings and properties, that is, of beings that exist in every possible world, and of properties that beings have in every possible world in which they exist. For one, the geographical features of map and the cities exist in every possible world (where we consider each instance of a new game, or of a new 'save' and 'load' a possible world). Humans also exist in every possible world: even if all units of all factions were to be killed, at least one faction and at least one member of that faction would necessarily survive.

³¹¹ See *intra*, 3.3.1.



Figure 13

Another thing that necessarily exists in all possible worlds are universals, both those on the menus and those on the encyclopaedia. As long as we start a game on TW:R2, the world and a number of its features never fail to appear as existing – thus implicitly providing an answer to the fundamental philosophical question, ‘why is there something rather than nothing?’.

TW:R2 answers this philosophical question in the line of the ‘ontological argument’ developed by 11th century philosopher Anselm of Aosta: there is something rather than nothing, because there are necessary beings, that is beings for which it is impossible not to exist (notably, Anselm reserved this notion to God alone, while TW:R2 grants it to more than one entity).³¹² Alongside necessary beings, in TW:R2 there are also a great number of essential properties, that is, properties that beings necessarily have in every world in which they exist. For example, a city has the essential property of producing and consuming wealth, health and happiness. A unit has the essential property of attacking/defending, having morale, consuming wealth (as discussed in the section on particulars, in case we take each upgrade of a unit to be the end of a certain thing and the beginning of a different one, even clothing should be seen as ‘essential’ to each unit). A member of a family has the essential properties of reputation, etc. Those properties are essential to these things, since every time a thing of a certain kind exists in any possible TW:R2’s world, it never fails to have those properties.

Together with the realm of necessity, we also find that of contingency: things or properties that can exist or be possessed, but that can as well not exist or not be possessed by anybody. As observed above, universals never fail to exist in TW:R2’s world, even if only in the dimension of the Encyclopaedia. Also, some of the concrete particulars that we discussed earlier (such as cities, geographical features, etc.) seem to necessarily exist. Yet, others exist only accidentally: for example, while it seems to be necessary that the universal category ‘family member’ is exemplified by somebody, it is not essential which specific family member exemplifies it (hence, we do not have any immortal characters, but they alternate over time). Equally, specific units or individual agents can come into and fall out of existence, since their presence in the world is merely contingent.

³¹² see St. Anselm, *op. cit.*, 2001

We also have cases of modal impossibility: for example, a certain unit or agent or city cannot belong at the same time to more than one faction, and a family member cannot belong at the same time to more than one family.

After this initial assessment of modality (i.e. necessity, contingency and impossibility) in TW:R2, let us now move to a more complex question: what notion of possible worlds best represents TW:R2's metaphysical architecture? Does TW:R2 endorse a concretist or an abstractionist understanding of possible worlds? Said otherwise: does TW:R2 represent worlds as spatiotemporally closed 'maximal connected objects', each existing alongside the other and populated by world-bound individuals; or does it represent them as abstract 'maximally comprehensive states of affairs' of which only one obtains, while allowing for the existence (however abstract) of trans-world individuals? Does TW:R2 understand the notion of 'actuality' (as in 'the actual world') to be merely indexical, or is it categorical in its actualism?

We have to consider this question while keeping in mind also our earlier analysis of universals and particulars. While discussing universals, we noticed how TW:R2 seems to be built on a version of Platonic realism. Accordingly, we could be inclined to see Plantinga's realist abstractionism to be the best fit in TW:R2's overall metaphysical structure. But is this really the case? For one, we should notice that all possible worlds, as deriving from the 'save', 'load' and 'start new campaign' processes, appear to be things of the exact same kind, each endowed with the same existence as the other. This might sound similar to Lewis' concretist account. Yet, we should equally notice that only one of them actually exists on the screen at a time. Or would it be better to say: only one of them obtains? If we were to phrase it this way, we would be back with Plantinga. Indeed, TW:R2's world cannot be considered a 'maximally connected object', since it is not only composed of concrete particulars: abstract entities feature very prominently and are one of its fundamental components. This fact, alone, rules out the possibility of reading it through a concretist lens.

But does our hypothesis still hold, if we consider the issue of transworld or world-bound individuals? Can an individual exist in more than one possible TW:R2? The answer can be a firm 'yes', if we accept the philosophical principle of the 'identity of the indiscernibles', as already discussed in the section on concrete particulars. According to this principle, if two concrete particulars share all the same properties (including their spatiotemporal localisation, if we consider it a property), these two objects are in fact one and the same thing. In the case of a 'save' and 'load' creation of two possible

worlds starting from one same moment, we see that this principle imposes that we should consider two identical units in two different worlds. And if they are the same unit at that point, they must remain the same unit even if they undergo changes at different moment in time as the game progresses differently in the two worlds. This means that TW:R2 allows for transworld individuals, thus reinforcing our hypothesis that it endorses an abstractionist conception of possible worlds.

It remains to be seen in what sense TW:R2's worlds can be understood as 'maximally comprehensive states of affairs', as per the standard abstractionist definition. States of affairs are abstract entities that represent the world in various ways, and that can 'obtain' (they 'are the case', if they represent the world as it actually is) or 'fail to obtain' (they 'are not the case', if they represent the world differently than it actually is). Something like 'a rose being red' or 'snow being hot' are states of affairs – the former obtains in our 'actual' world, while the latter does not obtain. Some states of affairs are possible (they *can* obtain, like ' $x + y = 4$ '), other necessary (they *always* obtain, like ' $2 + 2 = 4$ '), while some are impossible (they *never* obtain, like ' $2 + 2 = 5$ '). A state of affairs S is 'maximal' (or maximally comprehensive), if for any state of affairs S' , S either includes S' (S could not obtain if S' did not also obtain) or precludes S' (S could not obtain if S' also obtained). A maximally comprehensive state of affairs is thus a total description of the way a world is – and a precise and complete description of the way the world actually is, is the only 'maximally comprehensive state of affairs' that manages to obtain. Although a 'world' is an abstract entity, it is nonetheless populated both by concrete particulars and by universals. We could say that a world, understood as a state of affairs, is something akin to a representation of the entities that populate it, in the way that a map is the representation of a territory. Yet, from an abstractionist perspective, it makes more sense to consider the totality of the territory of the world in the abstract terms of a map, rather than as a collection of 'things' (possibly also because such things are of irreducibly different kinds, like concrete particulars and universals).

Considering the variety of dimensions and entities that constitutes TW:R2's world, the only way to grasp it in its entirety, without reducing any of its internal differences, is to understand it as a maximally comprehensive state of affairs. This perspective can also explain in what sense it is possible to have a variety of possible worlds that are all equal in kind to each other, while they actually exist one only at the time. Like maximally comprehensive states of affairs, only one TW:R2 world can obtain at a time – and for another possible world to become 'actual' (for example when we 'load' it), the previous one has to cease to obtain.

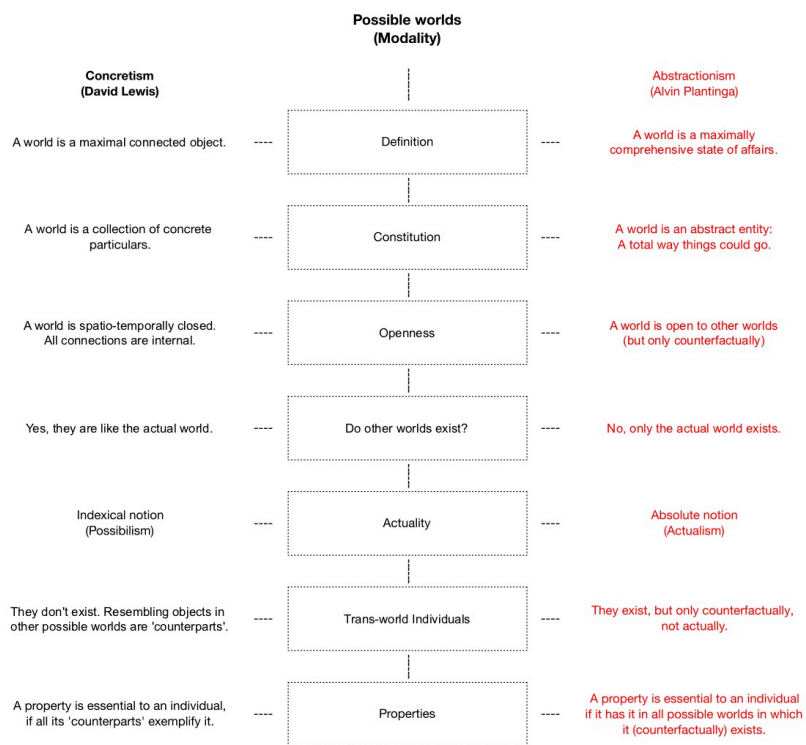


Diagram 9

- 3.4.3.3 Alternative scenarios on possible worlds in TW:R2

In the previous paragraph, I concluded by saying that Plantinga's version of abstractionism is the best suited to describe the metaphysical tenets on which TW:R2's possible worlds are constructed. Let us now imagine what TW:R2 would be like, if its creators had endorsed instead a concretist approach to possible world, in the line of Lewis' philosophy.

The first aspect to consider about a concretist re-writing of TW:R2, has to do with Lewis' nominalism. In a concretist world, there is no room for entities like universals or Platonic forms: thus, we would have to reimagine TW:R2's world as populated exclusively by concrete particulars. We have already discussed the various scenarios that would originate from this choice, and the status that we might assign to properties in this case.³¹³ A concretist version of TW:R2's world would present every possible world as a 'maximal connected object', that is as an object whose composing parts are all in a spatiotemporal relation to each other. Such a world would be closed, so that no part of it would have any connection (causal or spatiotemporal) with parts belonging to other possible worlds. Individuals existing in a certain world would be entirely world-bound: even if there were entities in other worlds that were indiscernibly identical to them, they would still remain completely distinct from each other (thus disregarding Leibniz's law). Their relationship would be one of resemblance, rather than of identity: two seemingly identical entities in two different worlds would be nothing more than 'counterparts' to each other – that is, they would be connected only by the fact that they resemble each other more than any other entity in either world. Finally, a crucial aspect would be that all possible worlds would exist simultaneously alongside each other. This would entail that every possible world in TW:R2 would always-already exist alongside the one which we indexically call 'actual'. In other words, while the player is looking at a certain world in TW:R2, all the other possible worlds would be existing alongside that. This would not be abstract existence, as in the case of abstractionism: they would all exist just as much and as that one, which the player calls 'actual' merely because s/he is looking at it at that time.

Embracing this hypothesis would cause a dramatic proliferation of worlds in TW:R2: if not infinite in number, they would be as many as there are possible combinations of every single particular in the game (including properties, if we were to consider each of them as a concrete particular). There are

³¹³ See *intra*, 3.4.1.3.

obvious logistical problems with this option, since a computer would have to run an immense number of worlds all at the same time. But leaving this problem aside for the moment (since we are concerned with metaphysical speculation on game-worlds, rather than with practical issues related to the hardware support of the game), let us consider the implications of this metaphysical tenet on an alternative version of TW:R2. An immediate implication to consider is that, by 'loading' a 'saved' game, we would not re-access a certain world that was frozen at a certain stage in time, but we would rather access a certain world that was always-already there. The question would arise at this point, if we are not merely jumping between pre-existing possible worlds: said otherwise, whenever we modify something in a certain world, are we perhaps simply jumping to another possible world that was always-already there, rather than continuing within the same world?

This problem is best approached if we consider the question of 'identity over time' – that is, the question of whether a certain object remains itself over the course of time, even if it changes some of its parts or attributes. Lewis has a 'four-dimensionalist' approach to the question of identity over time: according to Lewis, a concrete object has to be considered as stretching temporally from the beginning of its existence to the very end. In this perspective, time is only another dimension of a concrete object, in addition to its three spatial dimensions. Each moment in the existence of an object is a 'temporal part' of that object, like different spatial portions of an object are its 'spatial parts'. As seen through this angle, the question of 'identity over time' concerns whether or not different temporal parts (i.e., a chair existing at the instant T and a chair existing at the instant T') are properly related in composing a unique overall object that extends four-dimensionally. If we adopt Lewis' four-dimensionalism, we can say that even in a concretist scenario we would still be able to develop a single world through the course of time, since the 'maximal connected object' which is a world is composed of a temporal aspect as well as a spatial one.

A problem, however, remains: if a world, understood as a maximally connected object, is stretched temporally as well as spatially, would it not be the case that all its temporal parts are always-already inscribed in it? Said otherwise: would we not have to face a case of determinism, in which a certain world is pre-determined to be in a certain way? If this was the case, then by playing a game we would not give rise to a new world, but we would merely discover a pre-existing world, which we would slowly explore by sequentially crawling through its different temporal parts. In this scenario, no actual change would ever be possible: if we could see all the temporal parts of a world laid out like its spatial parts, we would see that each world always-already contains all those aspects that

we would otherwise attribute to changes – but that in fact, are no changes at all (in the same way that a foot and a hand are not ‘changes’ of a body, but merely different spatial parts of it). If this was the case, then we would have to consider each possible world in TW:R2 as a tableaux that is fully pre-determined in all its spatial and temporal parts. TW:R2 would then be reduced to a state of metaphysical stillness, and a gamer’s approach to it would necessarily be that of contemplation and exploration, rather than of interaction. Thus, TW:R2 would become the contemporary equivalent of an enormous archive of works of art as traditionally understood (in which each possible world is a work of art in its own right), rather than a game as such.

3.4.4 Time

- 3.4.4.1 Introduction

It is almost customary to begin a metaphysical discussion of time by quoting two philosophers from very distant eras: St. Augustine of Hippo, and J.M.E. McTaggart. In his *Confessions*, Augustine famously remarked about time: "What, then, is time? I know well enough what it is, provided that nobody asks me; but if I am asked what it is and try to explain, I am baffled."³¹⁴ The 19th / 20th century Cambridge metaphysician McTaggart, as if replying to his ancient colleague, attempted to demonstrate that our confusion about the passing of time is due to one simple reason: that the passing of time is mere illusion, since time does not actually exist.

Let us explore the main positions on the metaphysics of time, by looking at McTaggart’s way of structuring this issue. According to McTaggart,³¹⁵ there are two fundamental ways of talking about time: in terms of ‘later than’, ‘earlier than’, ‘simultaneously with’; or in terms of ‘past’, ‘present’ and ‘future’. He defined the former way as the B-series of time, and the latter way as the A-series of time.

³¹⁴ St. Augustine, *Confessions*, London, Penguin, 1961, book XI, 14, p. 264.

³¹⁵ see J. M. E. McTaggart, *The Nature of Existence*, 2 vols., Cambridge, Cambridge University Press, 1927, vol. II, chap. XXXIII, sections 303–333, reprinted in M. J. Loux, *op. cit.*, 2008, pp. 350-361.

- The B-series is based on relational notions such as 'later than', 'earlier than', 'simultaneously with'. Each value in this series is immutable: if an event occurs 'earlier than' another one, their respective positions are never going to change. Said in technical terms, propositions on the B-series never change their truth-value.
- The A-series describes events on the basis of notions such as 'past', 'present', 'future'. Unlike the static B-series, the A-series is dynamic: a future event at some point becomes present, then past. Events slide through the A-series, until eventually falling into the abyss of the past. Said again in technical terms, propositions on the A-series can change their truth-value over time.

McTaggart's aim was to prove that the B-series relies on the A-series, and that, since the A-series is impossible, then the B-series is also impossible – *ergo*, time is unreal. We do not need to go into the detail of McTaggart's argument; it suffices to adopt his structure of a B-series and an A-series of time as a scaffolding, on which we can lay out the main metaphysical theories of time.

B-theorists³¹⁶ claim that McTaggart's B-series does not require the A-series, and that it holds by itself. Since the B-series is fundamental, A-values actually rely on B-values (not vice versa, as claimed by McTaggart). A strand of this approach, known as the New B-theory,³¹⁷ insists that A-values (past, present, future) are merely indexical: like values such as 'here' or 'there', they are entirely dependent on the temporal location of the subject that holds them. So, while B-values are absolute, A-values are merely relative to the context of their utterance. This stance has brought B-theorists to purge their language from verbal tenses, seeking instead a tenseless language.

A-theorists³¹⁸ hold properties like being 'past', 'present' and 'future' to be fundamental. They understand time as an intrinsically dynamic process, as opposed to the fixedness of B-values. Also, not all moments in time are ontologically equal to each other, as it is the case in the B-series. According to A-theorists, events are irreducibly tensed, and thus we should accept the use of tenses

³¹⁶ see for example D. C. Williams, 'The Myth of Passage', *Journal of Philosophy*, vol. 48, no. 15, 1951, pp.457-472; W. V. O. Quine, *op. cit.*, 2013, section 36, pp. 154-159; J. J. C. Smart, *Philosophy and Scientific Realism*, London, Routledge, 1963, pp. 131-142.

³¹⁷ for an overview of the new B-theory, see L. N. Oaklander and Q. Smith (eds.), *The New Theory of Time*, New Haven, CT, Yale University Press, 1994.

³¹⁸ See for example C. D. Broad, 'The General Problem of Time and Change', in *Scientific Thought*, London, Routledge, 2014, pp. 53-84; C. D. Broad, *An Examination of McTaggart's Philosophy*, 2 vols., Cambridge, Cambridge University Press, 1938; A. Prior, 'The Notion of the Present', in M. J. Loux, *op. cit.*, 2008, pp. 379-383; and R. Taylor, *Time and Eternity*, in M. J. Loux, *op. cit.*, 2008, pp. 369-378. For an overview of the A-theory, see R. M. Gale, *The Philosophy of Time*, London: MacMillan, 2000 pp. 65-85.

in language and we should appreciate its ontological implications. There are several takes on the A-theory, differing from each other in terms of their understanding of the relationship between the three temporal tenses:

- Minimal A-theory: according to this theory, the present is to be understood as a primitive property, that is, as something at once fundamental and not analysable. The property of being present is exemplified or instantiated only by one moment at the time – though the moments that occupies this position constantly change. An image that is often used (first by C.D. Broad)³¹⁹ to describe this notion of the present, is that of a spotlight, like the headlights of a car, moving along a line of houses and bringing each one of them into the light – though only one at the time. An interesting corollary is that these moments of time somehow pre-exist, since they exist independently from their being present, past or future. This theory has been recently defended by Ross P. Cameron and Daniel Deasy.³²⁰
- Growing block theory: according to this theory (first expounded by Broad in the same pages in which he characterises Minimal A-theory as ‘moving spotlight theory’), there is an important ontological difference between the past and the present, on the one side, and the future on the other. While the past and the present are fully real, the future has no real existence. Reality is like an ever-growing block, of which the present is the ever-moving edge: “the sum total of existence is always increasing.”³²¹ Thus, falling into the past does not entail a loss of existence for an event: on the contrary, only events in the present or the past exist – and they exist equally. All that happens when an event is past, is that it has another event after itself. Broad defines the coming into being of an event as an irreducibly unique type of change, a form of emergence out of nothing into existence which he appropriately puts under the name of ‘be-coming’.
- Falling branches theory: this version of the A-theory (as exposed by Storrs McCall)³²² focuses on the difference between the immutability of the past and the open character of the future. The image is no longer that of a car, or of a block, but of a tree trunk from which myriad branches emerge. The branches are the possible futures that are open at any moment of the present. As

³¹⁹ C. D. Broad, ‘The General Problem of Time and Change’, in *Scientific Thought*, London: Routledge, 2014, pp. 53-84.

³²⁰ R. P. Cameron, *The Moving Spotlight: An Essay on Time and Ontology*, Oxford, Oxford University Press, 2015. D. Deasy, ‘The Moving Spotlight Theory’, *Philosophical Studies*, vol. 172, 2015, pp. 2073–2089.

³²¹ C. D. Broad, C.D., *Scientific Thought*, London, Routledge, 2014, pp. 66-67.

³²² S. McCall, *A Model of the Universe*, Oxford, Oxford University Press, 1994.

the present falls into the past, however, these multiple possible futures are reduced in number to the one actual present: only one branch passes through the filter of the present, soon to join the rigid trunk of the past. Seen from this perspective, the present acts like a limit: it is the last moment in which a certain number of possible futures are still open. The filter of the present depends on the actions and the decisions of the agents that inhabit the world.

- Shrinking block theory:³²³ this theory reverses the ontological tenets of the growing block theory of time. It is no longer the past and the present that are fully real, but the future and the present instead. This theory sees reality as an ever-shrinking block, which constantly loses slices on the edge of the present. Whatever falls into the past, falls into nothingness. It remains to be seen whether reality's block is ever going to run out of future...
- Presentism:³²⁴ unlike all other versions of the A-theory, presentism does not endorse a four-dimensionalist understanding of reality. A four-dimensionalist view sees reality extended in time as well as in space, like an object whose temporal parts exist on an equal standing with its spatial parts. Conversely, for presentists time is completely crushed into the single instant of the present, encompassing the whole of reality. Only that which is present is real, while the past and the future cannot be said to truly exist in any meaningful way. Presentists do not deny that past events occurred, but they insist that these events were truly real only at the time when they were present, while once they ended up belonging entirely to the past (or, by the same token, entirely to the future), they are less than real. They might be the stuff of memories or expectation, but nothing more than that.

To conclude this brief introduction to the metaphysics of time, we should mention at least three additional views on the topic.

The first is perhaps the most classical take on time. In the fourth book of his *Physics*, Aristotle defines time as inextricably related to change: "not only do we measure change by time, but time by change,

³²³ though often discussed as a possible theory of time (see for example M. J. Loux, *op. cit.*, 2010, p. 221-223) so far there have been virtually no supporters of this theory.

³²⁴ For examples of presentism, see A. Prior, *op. cit.*, 2008, pp. 379-383; D. Zimmerman, 'Temporary Intrinsic and Presentism', in P. Van Inwagen and D. Zimmerman, *Metaphysics: The Big Questions*, Oxford, Blackwell, 1999, pp. 206-220; T. M. Crisp, 'Presentism', in M. J. Loux and D. Zimmerman, *The Oxford Handbook of Metaphysics*, Oxford, Oxford University Press, 2003, pp. 211-245; and N. Markosian, 'A Defense of Presentism', in D. Zimmerman (ed.), *Oxford Studies in Metaphysics*, Oxford, Oxford University Press, 2005, vol. I, pp. 47-82.

because they are defined by one another.”³²⁵ More precisely, Aristotle sees time as the measure or the *number* of change. This entails that while change can vary in speed and frequency, time’s measure always proceeds regularly and undisturbed. Nonetheless, if change was to suddenly end, time would also have to stop. There is a rhythm to music, only as long as there is music.

The second view was first formulated by Kant (although it can be partly traced back, with some modifications, to Leibniz). According to Kant, space and time are neither items existing in their own right, nor are they the properties of existing objects. Rather, space and time have to be seen as pure (a priori) forms of sensible intuition: space is the a priori form of “outer sense” (i.e. the form through which we represent objects outside of us), while time is the a priori form of “inner sense” (i.e. the form through which we represent objects within ourselves).

Everything that belongs to the inner determinations is represented in relations of time... Time is not an empirical concept that is somehow drawn from an experience... Time is a necessary representation that grounds all intuitions. In regard to appearances in general one cannot remove time, though one can very well take the appearances away from time. Time is therefore given *a priori*. In it alone is actuality of appearances possible.³²⁶

The third metaphysical view on time comes from the field of science, precisely from quantum physics. According to the latest theories in the field,³²⁷ it makes no sense to talk about time in the absolute terms suggested by Newton. Time does not have a uniform speed throughout the universe, nor does the notion of ‘present’ apply equally to portions of space that are very remote from each other. What we have instead is a multiplicity of ‘presents’ and a multiplicity of ‘times’, so that in the end we cannot talk about ‘time’ as a unitary process. Going even further in depth, notions of time and space eventually vanish entirely, becoming simply mundane variables on the par with all other variables of the physical universe. Reality is a discontinuous flow of change, happening under irreducibly different circumstances. Nothing more than that.

³²⁵ Aristotle, *Physics*, 220b 14-15.

³²⁶ I. Kant, *op. cit.*, 1998, A23 and A31, pp. 157 and 162.

³²⁷ see C. Rovelli, *L’Ordine del Tempo*, Adelphi, Milan, 2017.

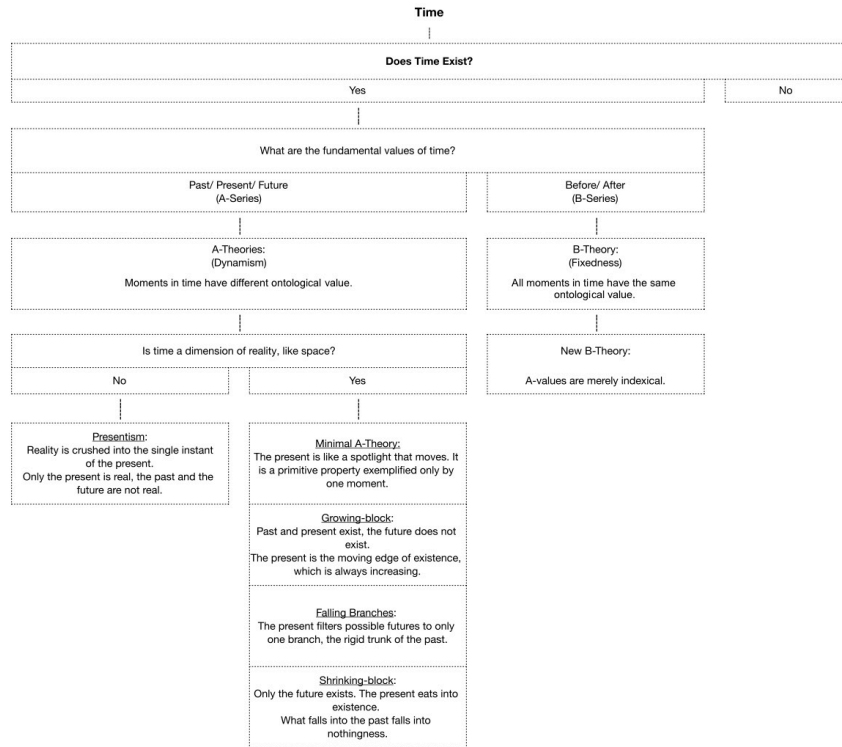


Diagram 10

- 3.4.4.2 Time in TW:R2

The metaphysical 'problem' of time in TW:R2 can be translated as the following questions:

- Does time exist in TW:R2?
- If it exists, what relationship does it have with TW:R2's world?
- If it exists, how can we understand its flow?

The first thing that we can notice by looking at TW:R2's world, is that time exists, and that it moves at regular intervals: at the end of each turn, the calendar of the game moves forward with regular pace. Yet, things are not this simple. In terms of the game's calendar, time flows in a predictable fashion. But in terms of a player's experience, each turn can potentially stretch to hours or days, or shrink to a handful of seconds. Which of these two times should we consider: the time counted by the game's calendar, or the time witnessed first-hand by the player?

Aristotle's notion of time as the number or measure of change, might come to our aid in untangling this enigma. In each turn, it is possible to perform only a certain amount of actions – or, said from a perspective that is internal to TW:R2's world, its populations (either particular or universal) have only a limited potential for change within the measure of a game's turn. We should consider this change somehow 'vectorially': even if the player started and stopped the construction of a certain building infinite times during a single turn, this would 'vectorially' amount to no change at all. Yet, we said that it would be possible to shrink the length of a turn to a handful of seconds, as experienced by the player. For example, we could just click the button 'end turn', without performing any actions, that is, without producing any changes. This fact forces us to rephrase our notion of time in TW:R2: not simply as the measure of change, but rather as a measure stretching to the point of exhaustion of the potential for change of TW:R2's world. Time thus appears as a form of urgency, rather than as measure: it could pass instantly, if the player so wished, but it *must* pass once the world's potential for change has been exhausted. Then, as the turn passes, the world's potential for change is replenished once again.

From the perspective of TW:R2's world, it is irrelevant whether it takes the player five minutes or five hours to decide how to allocate the potential for change at his disposal in that turn. TW:R2's time moves only when change actually takes place – if the screen remains fixed on certain settings,

without any change actually taking place (neither in reference to the entities under the control of the player, or to those governed by the AI), then time simply does not pass.

However, there is an exception to this rule: during battles, it is possible to set a timer, so that the hostilities can take place only within a certain time range. Is this a contradiction to our previous analysis? Not necessarily. To reconcile the view of time in TW:R2's world exposed above with the ticking clock of a battle, it is sufficient to see that passage of time as a form of energy that is progressively being dispersed. Just like a unit progressively loses its 'health' value in the course of a confrontation with another unit, so we can interpret the ticking clock on the battlefield as the fading 'health' (or energy, or, metaphorically, 'time') of the battle-scenario. When the indicator of the clock reaches zero, that scenario has exhausted its internal potential for change – and the battle is automatically over. Alternatively, if we choose a certain set of options that allow us to fight indefinitely on a certain battlefield, we can simply interpret this state of things as a condition in which that specific parameter of a scenario's potential for change is infinite. Having translated the apparent 'time' of a battlefield in these terms, we need not worry to reconcile it with the turn-based temporality of TW:R2's world as it exists on the campaign screen.

So far, we have discussed time in TW:R2 only as a function of the potential for change of TW:R2's world and of its populations. But how can we understand the notions of the B-series and of the A-series in the context of TW:R2's temporality? For one thing, we can say that B-values (being earlier than, later than, or simultaneous with) do apply to TW:R2. An event taking place at turn 10, say, is earlier than an event taking place at turn 150 – which, in turn, is later than the first event. Things get more complicated with the notion of simultaneity. TW:R2's turn-based system has each player, or faction, play their turn sequentially: when it is my turn, for example, all other factions can only react to my decisions, while remaining paralysed in all other concerns. Once all factions have had their turn, the calendar moves forward to the next year. Thus, something happening during my turn (e.g. my faction creating a new unit) is only partially simultaneous with an action undertaken by another faction during their turn in the same calendar year. We could think of simultaneity in TW:R2, in the context of an extended 'present' (thus inserting A-values into our account). TW:R2's present is not as an instantaneous point in time, but rather as a segment within which change takes place sequentially (something akin to Henri Bergson's notion of 'duration').³²⁸ Once all portions of

³²⁸ See H. Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, New York, N.Y., Dover, 2001.

this segment have been fulfilled (either by actualising the full potential for change of the world at that time, or by deciding to keep parts of it in a potential state), then the 'present' jumps forward to the next calendar year – that is, to the next segment of extended 'present'.

Does this mean that there isn't an 'instantaneous', or 'atomic' level of time in TW:R2? If we look closely, the instant in which I select to build a certain unit, for example, is in no way fixed in its B-determinations against the instant in the same turn when I decided, say, to create a certain building. I can easily deselect the creation of the unit and re-select it again, after I begun the creation of the building: what was 'earlier' now becomes 'later'. B-determinations do not quite apply to the temporal level that is internal to each player's turn. Yet, there are two exceptions to this claim: first, if I interact with entities belonging to another faction (for example, by engaging them in battle) and this event does take place, then there is no way to take back what happened (at least, not within that specific 'possible world' – that is, not unless I go back and 'load' a previous scenario). Secondly, if, say, I make a certain unit exhaust its potential for movement through the map, I cannot take that action back and perform it again at a later moment in that same turn. But these two apparent exceptions need not be taken literally: once again, if we read them through the lens of the connection between time and change, they seem to point only to the fact that certain forms of change in TW:R2's world are irreversible (such as a unit's movement, or change that involves entities belonging to another faction), while all other forms of change are reversible in the context of a single turn.

These considerations force us to refine our understanding of 'present' in TW:R2. The present in TW:R2 is a segment that is measured by the passing of the calendar years in the game. This segment allows for a maximum amount of change to take place within each year. This potential for change takes place sequentially, with each faction performing its available actions (that is, managing its own potential for change) in their allocated turn. Within each turn, it is largely irrelevant in which sequential order these actions take place – with two notable exceptions. These exceptions do not contradict the general temporal structure of TW:R2's world, but they are merely functions of the specific way in which change takes place (i.e. irreversibly as soon as it is initiated) in reference to certain components of TW:R2's world.

On the basis of this characterisation of TW:R2's 'extended present', we seem to have discovered the validity of A-theory values (such as 'present'), not merely as indexical references (as the B-

theorists would claim), but rather as essential aspects to the temporality of TW:R2's world. Hence, we can say that B-theories do not accurately describe the temporal structure of TW:R2. But which, among the different A-theories, would best represent the metaphysical architecture of time in TW:R2?

We can approach this question by asking if TW:R2's world is built on a four-dimensionalist notion of its populations – that is, if time features as a dimension on a par with the spatial dimensions of each object on the map. We already encountered the idea of four-dimensionalism in the previous section on possible worlds, particularly in reference to Lewis' concretist theories. In that context, we noticed how Lewis' approach does not fit well with TW:R2's metaphysical architecture, which appears to lean much closer to the abstractionist theories championed by Plantinga. Coherently, we should expect to find that four-dimensionalism remains alien to TW:R2's temporality, just like the rest of Lewis' theories that we have observed so far. And indeed, this is the case. Firstly, four-dimensionalism entails an aspect of determinism which does not sit well within the metaphysical dynamics of a video game. Moreover, four-dimensionalism is at odds with TW:R2's approach to the question of possible worlds. When we 'save' a game at a certain moment in time, we create a direct access to a possible world – which becomes 'another' world, as soon as we affect any irreversible change to the 'actual' one. If we adopted a four-dimensionalist view, thus considering concrete objects as composed by temporal parts like they are composed of spatial parts, then we would have to take transworld existence to be absolutely literal (against Plantinga's actualist understanding of transworld identity as merely counterfactual): this would be a contradiction to TW:R2's actualist approach to possible worlds.

These considerations on the incompatibility between four-dimensionalism and TW:R2's metaphysical structure, point towards an incompatibility between TW:R2's temporality and all forms of A-theory – with the exception of one: presentism. This is unsurprising, since presentism (about time) and actualism (about possible worlds) are 'naturally' suited to each other. As claimed by the presentists, in TW:R2 only that which is present is fully 'real' – though, we should add, it is real only in a certain possible world (that is, the 'actual' world). In the 'actual' world, the past no longer exists (aside from records, memories, and causal genealogies), and the future does not yet exist (aside from expectations and predictions). Yet, if we freeze a certain moment in time by 'saving' the game at that point, we can see that that moment (now past in the actual world), remains fully existent in another possible world. And, if we wish to access that other world by 'loading' it,

we find that 'past' to be 'present' in that world (which in turn has become, all of a sudden, the 'actual' world). Thus, we should specify that the past and the future do not exist in TW:R2, as far as the 'actual' world is concerned – but they do continue to exist in other possible worlds (though these worlds do not literally exist, unless they are 'loaded' and thus turned into the actual world – and there can be only one actual world at a time).

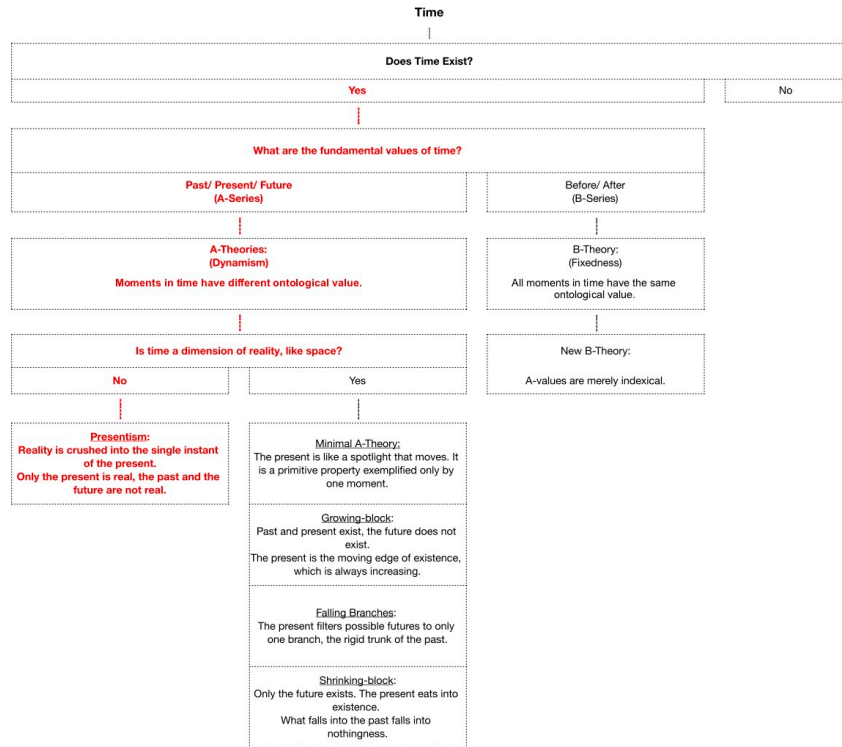


Diagram 11

- 3.4.4.3 Alternative scenarios on time

What would TW:R2's world be like, if its designers had abolished the notion of 'time', as suggested by McTaggart?

If we consider the world only as a combination of events and changes, without any innate 'temporal' structure, then the question of time is reduced to a matter of perspective. Time (and by the same token, space) is just the result of a certain perspective on the events that populate the world. Indeed, the world itself is just a certain way of framing events that in themselves merely take place, without any need for further qualification. This entails that, if the perspective on events was ever to change, time itself (or at least, 'that' time) would dissolve. If we were to take this metaphysical stance in our re-construction of TW:R2, we could imagine to build something definable as a 'mobile perspective'. Instead of keeping the temporal perspective fixed on that specific angle which makes 'time' emerge in the way of an optical illusion, we would have a perspective on the world that could also move to other angles – angles from which time dissolves, and events appear as they (supposedly) are in themselves: merely a galaxy of happenings, without any overall temporal order.

Obviously, playability would become an issue in such a world – but this is not the place to concern ourselves with questions of ludology. What is important to notice, however, is that the player's viewpoint on the world would radically differ from the one currently in place. A 'perspectivist' approach to time would create an even more radical discrepancy between the perspective enjoyed by the player and that assigned to the populations within the game. At the moment, the main difference between them consists in the fact that the populations in the game cannot see the universals existing in TW:R2's second (menus) and third (encyclopaedia) dimensions. But if we were to allow for a mobile perspective on time, the player would be allowed a metaphysical mobility that would be entirely precluded from the populations in the game (stuck as they are in the fixed angle form which the optical illusion of time exists). This would open up a theological problems: at the moment, the god-like player is distinguished from the populations 'living' in the game-world by his/her power to create particulars in the game-world and to have direct access to its Forms and universals. But if we were to take up this alternative metaphysics, the 'godliness' of the player (as opposed to the 'creaturalness' of the populations in the game), would consist primarily of a radically different access to the knowledge of what the world is – not just in terms of it being a video-game, but also internally to TW:R2's world, in terms of its metaphysical constitution.

If we do not wish to take this radical path in our re-imagination of TW:R2's metaphysics about time, we can consider instead what TW:R2's world would be like, if we endorsed a B-theory approach to its temporality. For B-theorists, tensed values like being 'present', 'past' or 'future' are unnecessary and ultimately illusory: only the fixed B-determinations of being 'earlier-than', 'later-than', or 'simultaneous-with', can be deemed real. According to B-theorists (and to some A-theorists), objects are four-dimensional, and as such they are akin to multi-coloured monoliths: though their different parts have different colours, they always-already exist as a closed, complete and unitary entity. 'Change' (if this is change at all) amounts merely to the fact that a certain part of the monolith has a certain colour, while another one does not. Thus, all the temporal parts of an object or of an event are equally real, and they all equally exist: the 'earlier', 'simultaneous' or 'later' parts of a thing or of an event (like my being born, my being alive right now, or my exhaling my last breath) are both equally real and, in absolute terms, they all exist with the same strength and legitimacy. B-theorists tend to translate our common notion of the 'present' merely in terms of the simultaneity between a certain event (or more exactly, a certain temporal part of a thing or of an event) and the concomitant event of a subject's gaze or utterance. Thus, saying that 'now it is raining' can be translated in tenseless terms as 'it is raining simultaneously with this utterance'.

As with all four-dimensionalist perspectives, adopting a B-theory approach to a re-structuring of TW:R2's metaphysical architecture would severely impact the very nature of TW:R2's game-world. As discussed above in reference to Lewis' four-dimensionalism, this would move TW:R2 away from the interactive field of video games, towards the realm of artistic contemplation. All of TW:R2's possible worlds would be always-already fully constituted. The player could do nothing more than slowly passing his/her gaze along them, like one would read a novel, or look at an obelisk. Devoid of any authentic possibility of change, the populations within the game would be compressed into a crystallised form: the only real 'thing' to live and to exist would be the world in its totality (as a 'maximal connected object'), while the (illusory) dynamics internal to it would be little more than an ornamental pattern.

Similar issues return with the four-dimensionalist versions of the A-theory – as opposed to the presentism currently adopted by TW:R2. However, if we were to take up the metaphysical tenets of four-dimensionalist versions of the A-theory, the paralysis of TW:R2's world would be less complete than in the case of the B-theory. At least, there would be a certain dynamic at play, either in the

constant 'growing' or 'shrinking' of reality's block, or in the 'falling' of possible futures under the blade of the present, or in the relentless movement of the 'spotlight' of the present.

Things would become particularly interesting, if we endorsed the 'shrinking block' theory of time. If we re-thought TW:R2's world on this basis, we would have an always-already existing story of TW:R2's world that would progressively unfold while disintegrating into the abyss of the past (a past that amounts to mere nothingness). Since what is past is no longer real, once a certain temporal part of TW:R2's world has passed, it is no longer anywhere to be found – not even as another 'possible world'. It would be impossible to 'save' a game at a certain point in time, so to access it again later by 'loading' it. If the past has no reality, and the present is just the fading edge of the block of reality, then all possible worlds would ultimately lie only in the future. How could a player access them? In order to access them, or even just to see them, the player would have to be able to experience the game as if backwards: from the future, looking back towards the present. This option would be made easier, if the narrative of TW:R2's world (that is, TW:R2's block of reality) was conceived as temporally finite. If there was a furthestmost point in TW:R2's future, the player could re-read the whole of the game backwards from there: from the apocalyptic viewpoint of the 'end time', the player could see the multitude of possible worlds (the 'falling branches') as they stretch past-wards towards the fading edge of the present. This would suggest a double way of experiencing the game: future-wards from the present, and past-wards from the countless possible futures towards the past. Again, this would no longer be a case of 'interaction' as we commonly understand it, but it would rather be like reading a detective story that begins with a murder: the player, like a reader, would move backwards from this final event, trying to see what chain of events had led to it. Though in this case, with the myriad possible futures allowed by TW:R2's world, there would be countless 'murders' to choose from, for one's own investigation.

It would not be less interesting, if we restructured TW:R2's metaphysics according to the 'growing block' theory of time. What would it mean for TW:R2's world, if in its world "the sum total of existence [was] always increasing"? In metaphysical terms, it would mean that TW:R2's world would be constantly expanding: not just passing from one 'present' to the next, but actually swelling as new instants in time are added to its growing "block". This entails that the growing block of reality could become accessible in any of its temporal parts: indeed, being stuck on the edge of the present would be merely and arbitrary choice, since it would be possible to access any of its equally-existing, 'past' moments. On this basis, we could reimagine TW:R2's world as akin to a peculiar, ever-growing

movie. We could rewind it at any time, moving backwards as we please – while the new moments that are constantly added to the total length of the film continue to appear as if out of nothing. This would be a world in which time travel is (at least theoretically) possible – though it would be limited only to the past.

Finally, if we structured TW:R2's temporality as a growing (or, equally, shrinking) block, we could also complement this position about time with a concretist stance about possible worlds: it would become possible to describe each 'block' as a 'maximal connected' concrete object, alternatively growing or shrinking depending on one's temporal assumptions.

3.5 SUMMARY

In this chapter, I have applied the categories, language and method of metaphysics to reading and re-inventing my case study, the 4x strategy video game-world TW:R2. This experiment allowed me to detect the metaphysical architecture sustaining this world, which can be briefly summed up as follows:

- **Ontology:** TW:R2 is built on the basis of an expanded Platonic cosmology (as in Suhrawardi's Neoplatonism, there are three, hierarchically ordered levels of existence: the encyclopaedia, the menus, the map). Its conception of existence is akin to that proposed by Aquinas and Avicenna, in that, anything that is within the range of the 'thinkable' for the 'divine mind' of the encyclopaedia can be considered as existing, regardless of whether it is actualised at the level of the map or of the menu. Also, in accord with Aquinas and Avicenna, TW:R2 implies a theoretical (though not practical) difference between essence and existence.
- **Universals:** TW:R2 embraces again a Platonist view regarding universals. Universals feature in the catalogue of what 'legitimately exists' within TW:R2's video game-world, regardless of whether or not they are actualised at the level of the map.
- **Concrete particulars:** In the video game-world of TW:R2, concrete particulars are bundles of universal properties, some of which are essential to the object, while others are merely accidental. The version of 'bundle theory' embraced by TW:R2 is modified by the adoption of a particular twist on the competing 'substratum theory', seemingly moulded on the same basis as Plato's vision exposed in the *Timaeus*. The bundles of properties are held together by a particular kind of space-time substratum, which in itself does not belong to that specific object, but that acts as the container holding together its properties and individuating them as one particular object (since only one object can occupy a specific portion of space at a time).
- **Possible worlds:** TW:R2 endorses an 'abstractionist' notion of possible worlds, in line with Plantinga's vision and consistently with its general Platonic slant. A possible world in TW:R2 is a 'maximally comprehensive state of affairs', and while all possible worlds exist at the same time, only one of them actually 'obtains' (i.e. exists concretely) at any given time. TW:R2 also allows for

‘transworld individuals’ existing in more than one possible world, although their existence remains counterfactual rather than actual.

- Time: TW:R2 unfolds along a ‘presentist’ notion of time. Only what is ‘present’ is ‘actually’ real, while the past or the future exist only in a counterfactual fashion (on the basis of an abstractionist notion of possible worlds, as applied to time).

The combination of these positions creates a consistent metaphysical architecture. As I intended to demonstrate, any system that is built on metaphysical premises necessarily has to maintain a certain amount of internal consistency, in line with the reciprocal necessitations or exclusions that are implicit in the metaphysical solutions adopted for each problem. This overall architecture can be broadly described as Platonic, and its adoption might in fact reveal a more general Platonic trend within the genre of strategy video games.

In the next chapter, I will present a parallel reading of this video game-world through the lens of metaethics. In the final section of the next chapter, I am going to provide an initial set of conclusions on the basis of my findings.

CHAPTER 4

THE METAETHICS OF TOTAL WAR: ROME 2

In this chapter I proceed with a metaethical reading of TW:R2 that mirrors the metaphysical reading offered above. This metaethical reading is noticeably shorter than its metaphysical equivalent. This is due, in part, to the hierarchical relationship between metaphysics and ethics, as envisaged by Aristotle – whose division between practical and theoretical philosophy serves as a model for my research. In part, it reflects the younger age of metaethics as a formalised discipline, compared to the millennia-old tradition of metaphysics. In part, it is also a reflection of the different importance of ethics and metaphysics, when it comes to introducing the philosophical method within the study and the design of virtual game-worlds.

By deciding over questions related to the very existence (and the character of such existence) of anything within the digital game-world, metaphysics sets the parameters within which ethics can operate. The field of the 'possible' (i.e. what is possible to do and to value) depends on what is allowed to exist within a certain world. Said otherwise: the metaphysics of a certain world impact and to a certain extent shape the very foundations of ethics (i.e. metaethics). Hence the primacy – conceptual and functional – of metaphysics over metaethics.

4.1 WHAT IS METAETHICS?

- 4.1.1 Introduction

How is metaethics different from ethics? While ‘ethics’ is commonly employed as a shorthand for what is technically known as ‘normative ethics’ (i.e. whether it is good or bad to act in a certain particular way), metaethics is the philosophical level where ethics’ founding axioms are exposed.

Normally, when we ask questions of normative ethics – “What has value?” “What are our moral obligations?” – we... assume that there are such things as value or right and wrong, and ask what, if anything, has these properties. But... what *is* value, or moral obligation, itself? Are there really such things? ... These are questions of metaethics rather than of normative ethics. They arise... when we step back and reflect on the nature and status of ethics itself. Metaethics consists of *philosophical questions about ethics*.³²⁹

Metaethics deals specifically with what we fundamentally understand as ‘good’ or ‘bad’, when these notions are considered in themselves, regardless of the objects or behaviours to which they can be attached.

In metaethics, we are concerned not with questions... like ‘Should I return the wallet I found in the street?’ but with questions about questions like this.³³⁰

It is possible to distinguish between ‘first-order’, or ‘substantive’, questions about ethics (regarding which aims and principles should direct moral action), and ‘second-order’ questions about the place of ethics within the broader philosophical discourse, the nature of morality, the existence of moral qualities, and so on. Normative ethics belongs to the ‘first’ order of questions around ethics, while metaethics belongs to ‘second’ order.

The relationship between second-order metaethics and first-order normative ethics, however, is not unproblematic. As observed by philosopher Georg Henrik von Wright:

³²⁹ S. Darwall, *Philosophical Ethics*, Boulder, CO, Westview Press, 1998, pp. 8-9.

³³⁰ M. Smith, *The Moral Problem*, Oxford, Blackwell, 1994, p. 2.

The idea of a sharp separation of normative ethics and meta-ethics seems to me to rest on an oversimplified and superficial view of the first and on an insufficient understanding of the nature of the second. ... 'Normative ethics' is not a suitable name for any one thing. Those who use the name tend to heap under it a number of different philosophic and moralistic activities. One of these activities thus classified as 'normative' I would myself call conceptual investigation; and I would not know how to distinguish it sharply from the allegedly non-normative conceptual analysis belonging to meta-ethics.³³¹

Taking account of von Wright's injunction against an excessively sharp separation between these fields, Italian philosopher Gianluca Verrucci has recently offered a more nuanced definition of metaethics, as:

a philosophical-reflective activity that investigates the main normative categories of the moral discourse.³³²

In his discussion on the nature of metaethics, Verrucci refines his definition by keeping it as open as possible:

[Metaethics is] a collection of questions and of fundamental problems whose boundaries remain blurred and in constant expansion. Such questions address generally, but not only, problems referring to semantics, epistemology and metaphysics, and they manifest the effort of restoring intelligibility and meaning to ethics through an analysis of its fundamental concepts.³³³

In this chapter, I analyse the metaethics of TW:R2 – while addressing only tangentially its normative ethics – not on the basis of an *a priori* separation between the two fields, but due to the conceptual primacy of these 'fundamental problems' as the ground where the ethical discourses can establish itself. In the context of a video game-world, the conceptual primacy of metaethics also translates

³³¹ G. H. von Wright, *The Varieties of Goodness*, London, Routledge, 1963, p. 2.

³³² G. Verrucci, *Introduzione alla Metaetica*, Milano, Franco Angeli, 2014, p. 9 – my translation.

³³³ *Ibid.*, p. 11 – my translation.

into a functional primacy, inasmuch as each alternative metaethical position defines in advance a possible realm where different ethical position can take place.

- 4.1.2 A brief history of metaethics

Although ethics is among the oldest fields in philosophy – let us recall the centrality of the problem of the ‘good’ throughout Plato’s dialogues, the debate on ‘justice’ in books I and II of the *Republic*, and the problem of moral standards in the *Euthyphro* – the establishment of an autonomous field of metaethics is a fairly recent innovation. It is possible to sketch a brief history of the field in its formalised state, by dividing its development into three main phases.

The first phase, from the beginning of the 20th century to the end of the 1930s, was centred around the philosophical contributions offered by British analytical philosopher G. E. Moore, and particularly by his argument around the ‘open question’ of ethics. Moore developed the intuition put forward by David Hume in the 18th century, according to whom it is not possible to derive the moral imperative of an ‘ought’ from the observations of any natural fact that simply ‘is’. According to Hume:

In every system of morality, which I have hitherto met with, ...the author proceeds for some time in the ordinary way of reasoning... ; when of a sudden I am surpriz’d to find, that instead of the usual copulations of propositions, *is*, and *is not*, I meet with no proposition that is not connected with an *ought*, or an *ought not*. This change is imperceptible; but is, however, of the last consequence. For as this *ought*, or *ought not*, expresses some new relation or affirmation, ‘tis necessary that it shou’d be observ’d and explain’d; and at the same time that a reason should be given, for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it. But as authors do not commonly use this precaution, I shall presume to recommend it to the readers; and am persuaded, that this small attention wou’d subvert all the vulgar systems of morality, and let us see, that the distinction of vice and virtue is not founded merely on the relations of objects, nor is perceiv’d by reason.³³⁴

³³⁴ D. Hume, *op. cit.*, 1960, book III, pp. 469-470.

G. E. Moore's *Principia Ethica* stated that it is not possible to equate the quality of 'goodness' with some non-moral property – regardless of whether such non-moral property is 'natural' (i.e. a material event) or 'supernatural' (e.g. a divine command).³³⁵ The fundamental elements of ethics are always susceptible to be interrogated by 'open questions' – that is, by questions that remain irreducible to their composing terms, and that are always in excess to the elements provided by the observation of natural (or supernatural) facts. Consequently, the object of the 'moral good', which is the object of ethics, is endowed with a *sui generis* specificity, which cannot be reduced to anything else – not to (super)natural facts, nor to pleasure, nor to any possible consequence that might be produced by one's actions.

On the basis of Moore's position, early metaethicists divided into 'non-naturalist' intuitivists (who supported it) and 'naturalists' (who opposed it).

The period between the 1930s and the 1950s saw a great expansion of the research in the field, and it can be defined as a 'golden age' of metaethical investigation. Especially prominent were the theories elaborated by Alfred J. Ayer³³⁶ and Charles Stevenson,³³⁷ who established the 'non-cognitivist' position in metaethics and particularly the current known as 'emotivism'.³³⁸ These investigations developed alongside a sophisticated examination of the language adopted in ethics, consistently with the attitude of analytical philosophy at that time. This 'golden age' of metaethics saw an explosion of different takes, mostly coming from the 'non-cognitivist' side of the debate: from the work on the non-descriptive nature of normative language promoted by Elisabeth M. Anscombe³³⁹ and Philippa Foot³⁴⁰ (on the basis of the studies developed by Wittgenstein in the later part of his life), to the theories on the 'moral point of view' suggested by Stephen Toulmin³⁴¹ and William Frankena,³⁴² to the Kant-inspired 'prescriptivism' championed by Richard M. Hare.³⁴³

³³⁵ G. E. Moore, *Principia Ethica: revised edition*, Cambridge, Cambridge University Press, 1993.

³³⁶ See A. J. Ayer, *Language, Truth and Logic*, London, Gollancz, 1946.

³³⁷ See C. Stevenson, *Ethics and Language*, New Haven, CT, Yale University Press, 1944.

³³⁸ See the next section for an explanation of all these terms and positions.

³³⁹ See E. M. Anscombe, *Intention*, Cambridge, MA, Harvard University Press, 2000.

³⁴⁰ See P. Foot, *Virtues and Vices: And Other Essays in Moral Philosophy*, Oxford, Oxford University Press, 2003 (especially the essays 'Moral Arguments', pp. 96-109, and 'Moral Beliefs', pp. 110-131).

³⁴¹ See S. Toulmin, *The Uses of Argument*, Cambridge, Cambridge University Press, 2003.

³⁴² See W. Frankena, *Ethics*, London, Pearson, 1988.

³⁴³ See R. M. Hare, *The Language of Morals*, Oxford, Oxford University Press, 1952.

A third phase in the debate around metaethics, from the 1960s to the present day, has witnessed an expansion of the sub-sets of positions within the still-persisting dichotomy between ‘cognitivists’ and ‘non-cognitivists’. Among these contributions to metaethical analysis, especially noteworthy are John L. Mackie’s ‘error theory’;³⁴⁴ the Hobbesian theory of practical reason championed by David Gauthier,³⁴⁵ and its Kantian equivalent suggested by John Rawls;³⁴⁶ the theories on sensibility put forward by David Wiggins³⁴⁷ and John McDowell;³⁴⁸ the realism of Nicolas Sturgeon,³⁴⁹ Richard Boyd³⁵⁰ and David Brink,³⁵¹ the norm-expressivism of Alan Gibbard³⁵² and the quasi-realism of Simon Blackburn;³⁵³ and, more recently, the non-naturalism of thinkers such as Derek Parfit³⁵⁴ and Russ Shafer-Landau.³⁵⁵

For the purpose of my research, I shall refrain from providing a detailed historiographical examination of the development of metaethics, while I will focus instead on providing a problem-oriented systematisation of this field, which mirrors my work on metaphysics in the previous chapter. This approach allows me to offer to the reader (and more importantly, to the video game scholar and the video game designer) a usable set of metaethical alternatives among which it is possible to select a series of alternative ‘destinies’, where different approaches to the establishment of normative ethics may be pursued.

- 4.1.3 The main positions in metaethics

In the course of its brief history, the realm of metaethics has expanded from an earlier attitude that saw its scope as an investigation of the language of ethics...

³⁴⁴ See J. Mackie, *Ethics: Inventing Right and Wrong*, London, Penguin, 1973.

³⁴⁵ See D. Gauthier, *Morals by Agreement*, Oxford, Oxford University Press, 1986.

³⁴⁶ See J. Rawls, *A Theory of Justice*, Cambridge, MA, Harvard University Press, 2005.

³⁴⁷ See D. Wiggins, *Sameness and Substance*, Cambridge, MA, Harvard University Press, 1980

³⁴⁸ See J. McDowell, ‘Values and Secondary Qualities’, in T. Honderich (ed.), *Morality and Objectivity*, Abingdon, Routledge, 1985, pp. 110-29.

³⁴⁹ See N. Sturgeon, ‘Moral Explanations’, in G. Sayre-McCord (ed.), *Essays on Moral Realism*, Ithaca, N.Y., Cornell University Press, 1988, pp. 229-255.

³⁵⁰ See R. Boyd, ‘How to Be a Moral Realist’, in G. Sayre-McCord (ed.), *op. cit.*, 1988, pp.181-228.

³⁵¹ See D. Brink, *Moral Realism and the Foundations of Ethics*, Cambridge, Cambridge University Press, 1989.

³⁵² See A. Gibbard, *Wise Choices, Apt Feelings*, Oxford, Clarendon Press, 1990; and A. Gibbard, *Thinking How to Live*, Cambridge, MA, Harvard University Press, 2003.

³⁵³ See S. Blackburn, *Essays in Quasi-Realism*, Oxford, Oxford University Press, 1993.

³⁵⁴ See D. Parfit, *On What Matters*, 3 vols., Oxford, Oxford University Press, 2013-2016.

³⁵⁵ See R. Shafer-Landau, *Moral Realism: A Defence*, Oxford, Oxford University Press, 2003.

[Metaethics] is not about what people ought to do. It is about what they are doing when they talk about what they ought to do.³⁵⁶

...to an understanding of metaethics as a field whose positions are defined in terms of the answers that are given to questions relating to:

- a) *Meaning*: what is the *semantic function* of moral discourse? Is the function of moral discourse to state *facts*, or does it have some other non-fact-stating role?
- b) *Metaphysics*: do moral facts (or properties) exist? If so, what are they like? Are they identical or reducible to natural facts (or properties) or are they irreducible and *sui generis*?
- c) *Epistemology and justification*: is there such a thing as moral knowledge? How can we know whether our moral judgements are true or false? How can we ever justify our claims to moral knowledge?
- d) *Phenomenology*: how are moral qualities represented in the experience of an agent making a moral judgement? Do they appear to be 'out there' in the world?
- e) *Moral psychology*: what can we say about the motivational state of someone making a moral judgement? What sort of connection is there between making a moral judgement and being motivated to act as that judgement prescribes?
- f) *Objectivity*: can moral judgements really be correct or incorrect? Can we work towards finding out the moral truth?³⁵⁷

Different sets of answers to such questions (which are at times mutually interdependent), give rise to a number of alternative positions on metaethics – thus also indirectly influencing the range of normative ethics that can be built upon them.

As I did in the section on metaphysics, I now begin by offering a brief summary of the main alternative positions that have emerged within the field of metaethics. Subsequently, I will read TW:R2's metaethical structure in the light of such positions, and finally I will suggest a range of alternative metaethical options.

³⁵⁶ W. Hudson, *Modern Moral Philosophy*, London, Macmillan, 1970, p.1.

³⁵⁷ A. Miller, *Contemporary Metaethics*, Cambridge, Polity Press, 2017, p. 2

Due to the current liveliness of the field, it would be difficult to offer a complete account of all the different positions. For the purpose of this thesis, it is necessary to operate a selection – privileging those approaches with greater potential for an analysis and the design of a video game-world. My decision rests on similar grounds as that operated by Verrucci:

The study of contemporary metaethics has to face a daunting amount of different positions and an extremely vast intertwining of collateral themes. Thus, I have abandoned any pretence to exhaustiveness in my exposition, while I have focused on a selection of authoritative figures, who represent established theoretical positions – which entails the exclusion of a number of other protagonists... I cannot fully justify this choice, of which I am fully responsible, if not in terms of the unique character that belongs to any personal path of research.³⁵⁸

To begin mapping of the metaethical alternatives without further ado, it is possible to group metaethical positions into two main, alternative approaches: cognitivism and non-cognitivism.

1) Cognitivism: cognitivist philosophers claim that moral judgements (i.e. the judgement that something is right or wrong) express *beliefs*. Such beliefs can be assessed in terms of *truth or falsity* – and thus, moral judgements can be either true or false.

A ‘strong cognitivist’ approach stresses the fact that moral judgements can be evaluated in terms of truth and falsity, and that they can be the outcome of cognitively accessing the facts that render them true or false. Strong cognitivist theories differ among themselves in terms of how they understand the relationship between moral properties (i.e. being right or wrong) and natural states of affairs or natural properties. We can understand ‘natural states of affairs’ (or properties) in the sense suggested by G. E. Moore:

By nature then I do mean and have meant that which is the subject matter of the natural sciences, and also of psychology. It may be said to include all that has existed, does exist, or will exist in time.³⁵⁹

The two main positions within strong cognitivism are naturalism and anti-naturalism:

³⁵⁸ G. Verrucci, *op. cit.*, 2014, p. 13 – my translation.

³⁵⁹ G. E. Moore, *op. cit.*, 1993, p. 92.

- Naturalism: naturalists hold that moral judgements grant us access to natural states of affairs (or properties), and that the truth or falsity of moral judgements depends on their correct assessment of such states of affairs or properties. Naturalists are divided among themselves on the basis of their understanding of the metaphysics of moral facts and of moral properties:
 - Moral Realism: moral realists claim that moral facts and moral properties actually exist, and that they exist independently of human opinion. Moral realists may disagree in terms of their views on moral properties as natural properties:
 - Cornell Realists: thinkers such as Nicholas Sturgeon,³⁶⁰ Richard Boyd³⁶¹ and David Brink³⁶² consider moral properties to be irreducible natural properties in their own right.
 - Naturalist Reductionists: thinkers such as Richard Brandt³⁶³ and Peter Railton³⁶⁴ claim that moral properties are perfectly reducible, that is are identical, to the natural properties that are (or can be) described by the natural science or by psychology.
 - Moral anti-realism: thinkers like John Mackie³⁶⁵ deny that there are such things as moral facts or moral properties. Each and every moral judgement is necessarily false, and issuing moral judgements is invariably an error (hence the denomination of Mackie's theory as 'error theory')

- Non-Naturalism: philosophers that support this position believe that there are such things as moral properties or facts, but they deny that they are akin to natural properties. Non-naturalists differ in their notion of what kind of things are such moral properties or facts:
 - Rational intuitionism holds that moral facts and properties are irreducible and *sui generis* entities. Philosophers such as G. E. Moore³⁶⁶ (who suggested that 'moral

³⁶⁰ See N. Sturgeon, *op. cit.*, 1988.

³⁶¹ See R. Boyd, *op. cit.*, 1988, pp.181-228.

³⁶² See D. Brink, *op. cit.*, 1989.

³⁶³ See R. Brandt, *A Theory of the Good and the Right*, Oxford, Oxford University Press, 1979.

³⁶⁴ See P. Railton, 'Moral Realism: Prospects and Problems', in W. Sinnott-Armstrong and M. Timmons (eds.), *Moral Knowledge*, Oxford, Oxford University Press, 1996, pp.49-81.

³⁶⁵ See J. Mackie, *op. cit.*, London, Penguin, 1973.

³⁶⁶ See G. E. Moore, *op. cit.*, 1993

goodness' is a non-natural, simple, and un-analysable property) claim that moral judgements are true or false depending on how they correspond with an objective order of 'ethical facts', which are themselves irreducible to the language of naturalist empirical science or to supernaturalist theology. The truth or falsity of moral judgements vis-à-vis ethical facts is not of a contingent kind (i.e. it could have been different), but it is of a necessary kind (i.e. it could never have been different): ethical facts stand autonomous and immutable in themselves, and moral judgements are made true or false by how they relate to them.

- Theological Voluntarism can be described as a form of 'supernaturalism', stating that the moral value of particular states of affairs or of possibilities of conduct depends entirely on their relationship with God's will. Theological Voluntarism is encapsulated by Euthyphro's claim, in Plato's dialogue of the same name, that: "What is dear to the gods is pious, what is not is impious."³⁶⁷

A 'weaker' form of cognitivism presents moral judgements as suitable to be tested in terms of truth and falsity (in line with strong cognitivism), but it denies that they are the outcome of our rational understanding of mind-independent moral properties or states of affairs. Weak cognitivism (as espoused for example by Crispin Wright)³⁶⁸ thus denies moral realism, not because it deems moral properties or states of affairs as entirely 'unreal' (like Mackey's error-theory), but because it doesn't consider them to be autonomous and independent from the activity of our mind. The main form of 'weak cognitivism' is Roderick Firth's 'Ideal Observer Theory',³⁶⁹ suggesting that moral properties and facts acquire their value on the basis of their relationship with the very idea of a moral judgement. Unlike the other forms of cognitivism, which tested the truth or falsity of a moral judgement on the basis of its relationship with 'external' elements, the Ideal Observer Theory takes an 'internalist' perspective: the truth or falsity of a moral judgement derives from its relationship with the internal structures and functioning of ethical judgement itself – as expressed by the position of an 'ideal observer'. The Ideal Observer Theory thus states that moral judgements are false if they do not conform with the structural requirements of ethical judgement, while they are

³⁶⁷ Plato, 'Euthyphro', 7a, in *op. cit.*, trans. G. M. A. Gruber, 1997, p. 6.

³⁶⁸ See C. Wright, 'Moral Values, Projection, and Secondary Qualities', *Proceedings of the Aristotelian Society*, vol. 62, 1988, pp.1-26.

³⁶⁹ See R. Firth, 'Ethical Absolutism and the Ideal Observer', *Philosophy and Phenomenological Research*, vol. 12, n. 3, March 1952, pp. 317–345.

true if they do. These requirements consist fundamentally in satisfying the following standards for judgement, which an 'ideal observer' considering the moral issue at hand would necessarily have:

- Informedness: the person issuing a moral judgement must be suitably informed about the matter being judged.
- Dispassionateness: the person issuing a moral judgement must avoid distortions deriving from influences that are irrelevant to the matter being judged.
- Impartiality: the person issuing moral judgement must warrant the same consideration to the interests of all the parties involved in the matter being judged.

2) Non-Cognitivism: according to non-cognitivism, moral judgements can never be considered in terms of truth or falsity, since they do not express 'beliefs' (as the cognitivists hold). Moral judgments express *non-cognitive states* such as emotions or desires, which *cannot be true or false* in themselves (while it can be true or false whether a person has certain desires or emotions). As claimed by Hume, beliefs and desires are "distinct existences",³⁷⁰ and thus they cannot be tested or assessed in the same way as we test or assess beliefs (i.e. in terms of truth/falsity).

The main currents of non-cognitivism are:

- Emotivism: according to A.J. Ayer,³⁷¹ moral judgements do nothing more than expressing the feelings or attitudes of the person who issues them. A moral judgement like "Torture is wrong" could then be translated as "Boo for torture!" or "Torture: tsk tsk!" – that is, just as an expression of disapproval, which in itself is not apt to be judged in terms of truth or falsity.
- Prescriptivism: philosophers like R. M. Hare³⁷² challenge the notion that the nature of moral judgements is emotive, claiming instead that their meaning is 'prescriptive'. Their function is not to express a feeling of approval or disapproval, but rather to act as a command. "Torture is wrong" can thus be translated as the universal imperative "Let no one torture!".
- Norm-expressivism: Allan Gibbard³⁷³ suggests that our moral judgements are best understood as expressions of our acceptance of specific norms. Thus, saying that "Torture is wrong", should be considered as an expression of the speaker's acceptance of a norm that

³⁷⁰ D. Hume, *op. cit.*, 1960, book I, part III, and *Appendix*.

³⁷¹ See A. J. Ayer, *op. cit.*, 1946.

³⁷² See R. M. Hare, *op. cit.*, 1952.

³⁷³ See A. Gibbard, *op. cit.*, 1990; and A. Gibbard, *op. cit.*, 2003.

prescribes outrage as the correct response to an act of torture. Unlike the other non-cognitive positions, norm-expressivism does not require the person issuing a particular moral judgement to actually feel a certain way or to issue a certain prescription in reference to a moral state of affairs: it suffices that this person subscribes to a particular moral norm that regulates the correct moral response vis a vis that particular state of affairs.

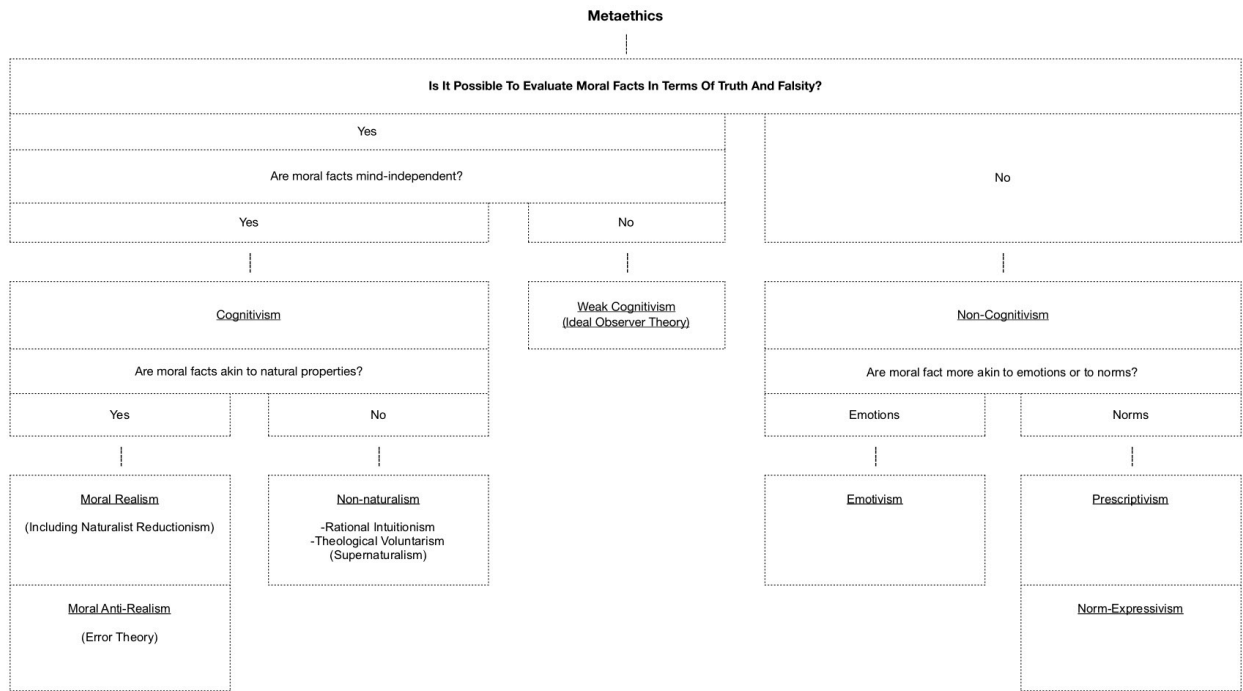


Diagram 12

4.2 THE METAETHICS OF TW:R2

4.2.1 Reading TW:R2's metaethics

Attempting to examine the metaethics implicit in a video game-world requires a movement beyond the level of its normative ethics, delving instead at the level in which the very notions of 'good' and 'bad' are articulated. Like the vast majority of other strategy video games, TW:R2 displays a teleological structure, in that it states specifically the conditions of 'victory' or 'failure' against which it is possible to judge whether an action or state of affairs is 'good' or 'bad'.

The game presents three ways in which it is possible to achieve victory: military, economic and cultural. The details of each type of victory vary slightly from faction to faction, yet they are generally comparable. In the case of the game's main faction, Rome, they are as follows: (*figures 14, 15, 16, 17*)

- Military victory:
 - o Completely control the following 6 provinces: Italia, Magna Graecia, Aquitania, Armenia, Africa, Britannia.
 - o Hold 140 settlements.
 - o Maintain 140 units in total.
 - o Maintain 40 naval units.

- Economic victory:
 - o Completely control the following 6 provinces: Italia, Africa, Syria, Bosphorus, Baetica, Asia.
 - o Hold 90 settlements.
 - o Maintain trade relations with 20 factions.
 - o Hold at least one of every strategic resource.
 - o At the end of your turn, have an income of at least 80000 talents.
 - o Maintain 70 units.
 - o Research at least 20 of the civil technologies.

- Cultural victory:
 - o Completely control the following 6 provinces: Italia, Aegyptus, Hellas, Aquitania, Mesopotamia, Syria.
 - o Hold at least one settlement in 35 provinces in which Roman culture is dominant.
 - o Construct the following building: Pantheon.
 - o Construct the following building: Coliseum.
 - o Research 30 of all technologies.

It appears evident that in TW:R2 there are such things as ethical facts: victory conditions are objective, and their existence is not dependent on the emotions, desires, opinions or cognitions of the populations living within the game-world (or, for that matter, of the player). The game has an implicit, in-built notion of the 'good' (i.e. victory), which is based on a series of identifiable parameters. TW:R2 seems to espouse a form of moral realism, thus orbiting within the field of cognitivism. It remains for us to consider to which branch of cognitivism it belongs.

We can begin by observing whether the ethical facts of TW:R2 can be reduced to 'natural' facts – i.e. facts that can be assessed by the natural sciences or by psychology. The breakdown of each type of victory into a number of specific, 'natural' facts – as presented above – seems to point precisely in this direction. It appears that the ethical vocabulary of TW:R2 can be easily translated in 'natural' terms, that is, in terms of facts, properties and states of affairs that can be said – borrowing Moore's definition of 'nature' – "to include all that has existed, does exist, or will exist in time" within TW:R2's world-game. On this basis, we can characterise TW:R2's metaethics as a form of 'naturalist reductionism'. Thus, the game-world of TW:R2 is structured around a metaethical approach that is:

- Realist (i.e. moral facts/properties/etc. exist independently of anybody's opinion, emotion or desire)
- Naturalist (i.e. the truth or falsity of a moral judgement depends on its relationship with these autonomously existing moral facts/properties/etc.)
- Reductionist (such moral facts/properties/etc. can be apprehended and evaluated exhaustively through the language of natural science – or, in the case of TW:R2, with the same language with which we apprehend and evaluate all other 'natural' facts/properties/etc. within the game-world).



Figure 14



Figure 15



Figure 16



Figure 17

This metaethical structure profoundly influences TW:R2's normative ethics, that is, the definition of what exactly constitutes the 'right' or 'wrong' course of action within its game-world. All actions, choices and strategies that bring about the fulfilment of victory conditions (whether directly or indirectly) are to be deemed 'right'; while all actions, choices and strategies that do not bring about the fulfilment of victory conditions are to be deemed 'wrong'.

The normative ethics espoused by the design of this game-world, on the basis of its metaethics, understands normative ethics through a 'consequentialist' angle, rather than through an 'intentionalist' angle. According to an intentionalist perspective, the moral value of an action depends on the intentions that animated it (e.g. if I try to commit something morally good but I end up bringing about horrific consequences, my actions can still be deemed as morally sound). Conversely, a consequentialist position judges the moral value of an action on the basis of its actual consequences (e.g. if I attempt to cause a horrific massacre, but I fail and my action end up having unexpected beneficial consequences, my action has to be judged as morally good). TW:R2's metaethics make immediately apparent how the moral value of an action within the world-game has to be judged exclusively in consequentialist terms, that is in its ability to contribute to the ultimate fulfilment of the victory conditions.

4.2.2 Alternative scenarios on metaethics in TW:R2

Let us begin by considering what would happen if TW:R2 endorsed a non-realist approach to ethics, that is, something akin to Mackie's error theory (according to which moral facts do not exist and any moral judgement is invariably false).

If we wished to reimagine TW:R2's world along this line, we would have first of all to abolish victory conditions: the game could no longer have a teleological structure, neatly positioned within the dichotomy victory-right and failure-wrong. If the game-world so reimagined wished to become even more explicit in its adopting non-realist metaethics, it would have to make apparent how each faction holds specific moral standards that are utterly incompatible with those of other factions (thus espousing a form of moral relativism that sees the moral discourse as akin to a 'fiction', holding true only within its own specific narrative and entirely dependent on its social context), and that these moral standards vary dramatically over time (thus emphasising also the internal fragility of each socially constructed moral 'fiction'), while never really conducing to a final moral resolution

such as a 'victory'. This kind of game-world would take on an open-ended nature, whose ethical dimension would be reducible to the arbitrary superimposition of unwarranted beliefs about 'good' or 'bad', over a metaethical landscape that does not actually contain any ethical facts.³⁷⁴

As such, this world-game could hardly be described as a 'strategy' video game, in that a strategy always assumes the pre-existence of a set of undisputable goals to which all action within the game-world should be directed. Once again, this form of game-world would be more akin to a work of digital land-art or to a large landscape, where characters roam without any pre-destined goal to fulfil.

Another scenario would emerge, if we imagined TW:R2 as structured around a non-naturalist paradigm. In this case, we would have again ethical facts existing within TW:R2's game-world, yet they would be irreducible to the language that is employed to describe its 'natural' properties (i.e. the language with which we can describe having possession of a settlement, creating certain units or buildings, unlocking certain discoveries, etc.). We would have to create a separate space and a language *sui generis* for the moral dimension that animates TW:R2's world-game. This dimension would have to be connected with the 'natural' actions/properties/states of affairs that take place within the world-game, yet it would have to remain irreducible to them. For example, we could imagine assigning to each action/property/state of affairs within the world game, a certain moral value whose accountancy would remain irreducible to the same numerical accumulation that currently defines TW:R2's victory condition. We would still be able to have something like a 'victory', yet its achievement would not merely consist in accumulating a certain number of naturally describable results. This would require a metaphysical modification of the world-game, since we would have to imagine a separate realm from that of 'nature' (which includes the three dimensions of TW:R2's world, as discussed in the previous chapter), where we could locate these irreducible ethical facts – which, however, still maintain a connection with the realm of nature that brings them about. This could be just another, non-natural realm, or a theological super-natural realm in which we could insert a God-like figure (in case we wished to follow the structure of theological voluntarism).

The situation would be again different, if we had a 'deontological' approach, such as it is espoused by the Ideal Observer Theory. In this case, we would still retain 'victory' conditions, but they would

³⁷⁴ On the existential and philosophical difference between finite and infinite games, see J. P. Carse, *Finite and Infinite Games*, New York, NY, Free Press, 2012.

no longer be connected to the content of the actions performed within the game-world. Rather, we would have to consider how they are performed: that is, whether they are performed according to the requirements of informedness/impartiality/dispassionateness, as per Roderick Firth's metaethical theories. This shift would allow for a computational approach to the ethics of the game (i.e. it would be possible to measure the deontological soundness of actions performed in the world-game, so to lead to an eventual victory), yet they would also require an additional form of computation, measure and evaluation, on top of those currently existing within TW:R2. A faction would be able to achieve 'victory' by consistently acting in a specific way (which could coincide precisely with Firth's specifications, or it could adopt a different deontological paradigm). This paradigm, of course, would have to be specified *ab origine* by the game designers, and it would have to remain the same regardless of the differences between factions.

Let us now consider what would happen to TW:R2's world-game, if it was to adopt a non-cognitivist approach to metaethics. In this case, there would no longer be any objective ethical 'facts' to which the activity in the game-world could conform in a 'cognitive' manner (i.e. having true or false beliefs about them). Rather, we would have to articulate the ethical dimension of TW:R2 in reference to the desires, emotions, prescriptions, etc. that are expressed by the populations living within the game-world. This would be a dramatic shift in the ethical structure of TW:R2, since it would place the responsibility for determining the 'right' or 'wrong' way of acting, on the populations living within the game rather than on the designers of the game-world. Even if we wished to retain such a thing as 'victory', this would have to depend on the whim of the people within the game-world, rather than on any pre-established set of standards. It remains to be seen – and this would be a challenge for the designers – how the population within the game-world could express their own desires and emotions, and whether this would coincide precisely with any psychological structures that the designers might wish to insert as in-built within the game.

Finally, let us problematize the notion of 'victory' as such, considering both what currently happens if a faction achieves victory within TW:R2 world-game, and what could happen if we were to adopt a different metaethical approach.

In the present setup, nothing quite happens when a faction achieves victory. The only real referent of a victory message is the player, rather than anybody existing within the same game-world. The player receives a victory message, accompanied by a short video and a recapitulation of their

achievements. If the player wishes to continue after the victory message, they are free to do so – and the world to which they return is precisely the same as that before the victory message. In other words, victory – as it is currently conceived within TW:R2 – is an event that leaves the game-world entirely unaffected.

If we wished to consider an alternative option, we could insert here an eschatological dimension, which is typically connected with ethical notions belonging to a religious perspective. According to a religious/eschatological dimension, the final ‘victory’ of good over evil – typically depicted by pre-modern theologians as an apocalypse or apocatastasis, and by modern political theologians as a world-changing revolution – would lead to an utter and possibly substantial transformation of the world. If TW:R2 embraced this perspective, it would have to reconsider the event of victory, no longer as just a message delivered to the player, but as an utterly transformative event that modifies the foundations of TW:R2’s world and of its populations. This would make the game even more intensely teleological, and such an event would in fact lead from one world to another – thus doubling the amount of game-worlds contained within TW:R2.

It remains to consider whether victory, understood in this eschatological way, is one final event, or if there are multiple, successive ‘victories’, each counting as a world-changing events While this would exceed the scope of the present research, it would also be interesting to consider the possibility of importing in the metaethical design of the victory-event(s) a number of conceptual tools and narratives from the field of theology – particularly the notions of salvation, resurrection, damnation, sin and repentance.

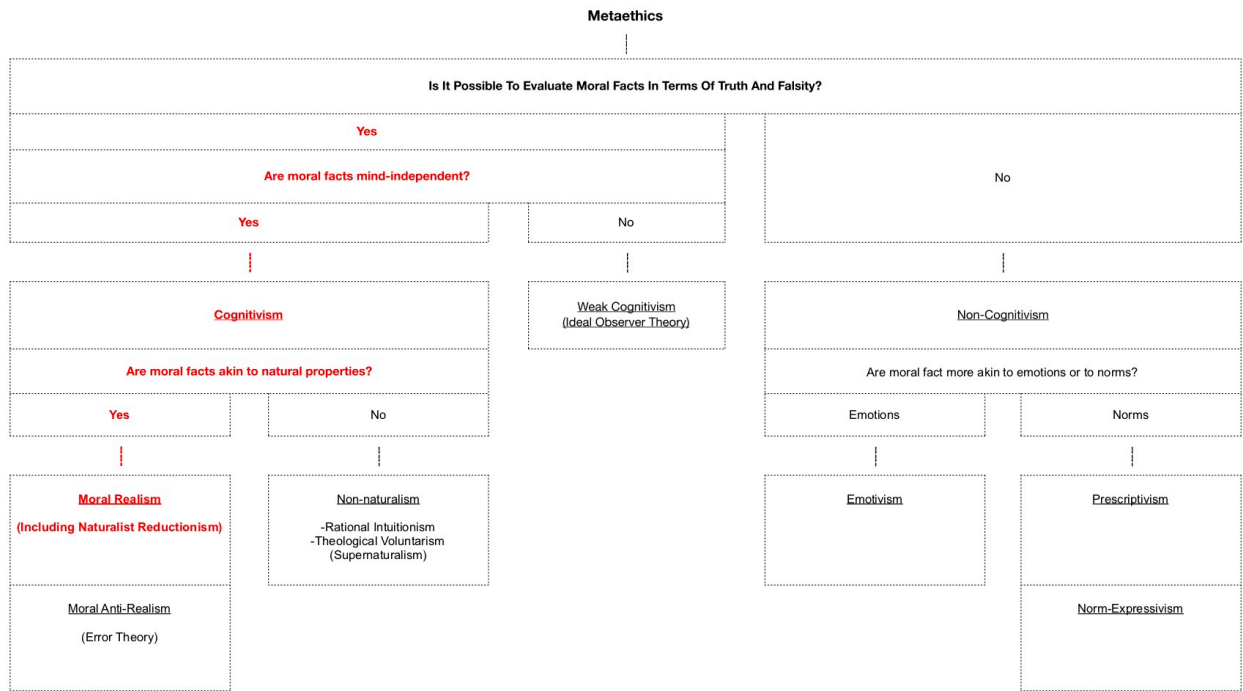


Diagram 13

4.3 SUMMARY AND INITIAL CONCLUSIONS

Before moving towards a set of initial conclusions regarding the possibility of reading and reinventing TW:R2's game-world through the adoption of the method and language of philosophy, it is worth recapitulating the overall metaphysical and metaethical structures that sustain it.

As read metaphysically, the game-world of TW:R2 emerges in its traits as eminently 'Platonic'. It embraces an (expanded) form of (Neo)Platonic ontology, and it is consistent with Platonism in its way of conceptualising universals and concrete particulars. Its 'abstractionist' take on possible worlds is also consistent with a Platonic viewpoint, while its 'presentist' take on the metaphysics of time as applied to the map, combined with its 'eternalism' with regard to the encyclopaedia, matches Plato's notion of time as "a moving image of eternity".³⁷⁵

As read metaethically, the game-world of TW:R2 endorses a notion of the 'good' that is:

- Realist (i.e. moral facts/properties/etc. exist independently of anybody's opinion, emotion or desire)
- Naturalist (i.e. the truth or falsity of a moral judgement within TW:R2's game-world depends on its relationship with these autonomously existing moral facts/properties/etc.)
- Reductionist (such moral facts/properties/etc. can be apprehended and evaluated exhaustively through the language of natural science or, more precisely in the case of TW:R2, with the same language with which we apprehend and evaluate all other 'natural' facts/properties/etc. within the game-world).

Although this metaethical architecture does not perfectly coincide with that (often implicitly and not always linearly) suggested by Plato, its first two traits (realism and naturalism), remain consistent with it, while differing only in reference to its third trait (reductionism).

Such internal consistency is an indicator of the underlying philosophical structures that sustain the architecture of a specific video game-world. Since a video game-world is the product of a group of

³⁷⁵ Plato, 'Timaeus', 37d, in *op. cit.*, trans. D. J. Zeyl, 1997, p. 1241.

human designers, whose world-making minds operates according to the mechanisms that have long been at the centre of philosophical analysis, it should not come as a surprise that their cosmological output reflects the same fundamental traits that sustain philosophical enquiry.

It is possible to draw an initial set of conclusions, by answering some of the research questions outlined at the beginning of this project (precisely in the section on the 'academic/ontological' objectives of this research). In the course of the last two chapters, it was confirmed that:

- It is possible to read a world-game metaphysically and metaethically.
- It is possible to apply traditional metaphysical and metaethical theories and concepts to our reading of a world-game.
- It is possible to imagine different world-games emerging from different metaphysical and metaethical structures and from the adoption of different sets of metaphysical and metaethical positions.
- It is the case that metaphysical and metaethical architectures require a certain level of internal consistency in order to produce coherent worlds.

Even though the world presented by a video game is not just a mere representation of the so-called 'real' world of the player and of the designer, it is possible to retain its character as a 'simulation' in its being fundamentally 'similar' (*similis*) to the philosophical thought-process that makes the so-called 'real' world emerge to the consciousness of human players and designers. The video game-world of TW:R2, like any artificial world that is produced by humans, is inextricably bound 'together' (*simul*) with the quintessentially philosophical mechanisms that sustain at each moment the presence of a meaningful 'world' to human consciousness.

In the same way that different humans develop and adopt different philosophical architectures to sustain the meaningful landscape of a world in which they might be able to live (thus giving rise, not only to different cultures and civilisations, but also to fundamentally different 'worlds'), so also video game-worlds can embody alternative philosophical set-ups. Each of them, while essentially equal in their arbitrariness, allows for the emergence of different fields of possibility – that is, of different grounds where alternative sets of behaviour, thought and action become possible.

On the basis of this experimental confirmation of my initial hypothesis, in the next chapter I will subject my research project to the 'external' examination of a group of video game designers. This further stage of my research brings my investigation outside of the circle of philosophical inquiry, moving the focus from the set of 'academic/ontological' objectives, towards those objectives that I initially discussed in terms of 'innovation' goals.

CHAPTER 5

INTERVIEWS

In the course of the previous chapters, I have worked with two types of sources: literature in the fields of video game studies, video game design research and philosophy; and information deriving from my empirical analysis of a case study, as observed through a philosophical (metaphysical and metaethical) lens. In this chapter, I put to the test the ideas and hypotheses that have been central to my enquiry so far. To this aim, I have worked on a third kind of source: seven interviews – lasting one hour each on average – with professional video game designers, scholars, and CEOs of video game production companies. I have conducted these interviews in accordance with the principles described in the section on methodology, as geared towards a three-fold set of goals (which, in turn, are in the service of my research questions):

- Engaging first-hand with the process of mutual education between a philosopher and a professional in the field of video game design;
- Testing my hypothesis, that it would be beneficial (especially in terms of innovation) to insert a philosophical lens in the way video games are currently conceptualised and designed;
- Acquiring suggestions on how to improve my research and my overall approach.

5.1 INTRODUCTION

There is a reason for the late placement of this section within my thesis. Indeed, it would have been possible to insert excerpts from the interviews across the text, corroborating or correcting certain ideas that I have exposed so far. However, it is important to expose the development of my research, presenting the mistakes, contradictions and evolutions of my work (as, possibly, of any research that wishes to suggest a new methodology). By placing the interviews at this late point, I also wish to make explicit the natural progression of my research: from a literature-based approach in the early chapters, to the empirical approach of my own analysis in the following sections, to the moment of direct test in this nigh-final section.

This section is organised thematically in four macro-areas, on the basis of the main topics discussed with my interviewees. Despite the flexibility that accompanies a live interview, I have asked each interviewee similar sets of questions – thus composing a mosaic of approaches to the object of my research.

I have selected my interviewees with the aim of providing a fairly comprehensive perspective on different specialisms in the field of video game design – from designers in AAA companies, to CEOs of independent studios, to freelance designers, to video game artists, while not neglecting to include also the perspective of a scholar. In particular, I aimed to cover all the different figures and positions that are involved in the creation of digital game-worlds, in order to gain a comprehensive perspective on the different perspectives that are involved in this process. I approached them individually, on the basis of cross-recommendations, leading from one to the other. Such recommendations followed my request to each interviewee to indicate another possible interviewee, who might be both interested in discussing my research, and who would have direct experience of creating video game-worlds. Although this method to choose my interviewees brought an element of self-selection, it also ensured that the interviewees were willing to embark on a lengthy process of discussion and mutual education, which is at the heart of this phase of my research.

My interviewees were:

- Soren Johnson:³⁷⁶ American video game designer and programmer. He obtained an MSC in Computer Science at Stanford University. He was employed by Firaxis Games from 2000 to 2007, where he co-designed *Civilization III*,³⁷⁷ also writing the entire artificial intelligence, and where he was the lead designer of *Civilization IV*.³⁷⁸ Subsequently, he worked with Electronic Arts, where he co-designed with Will Wright the video game *Spore*, and with the social network game development company Zynga. Johnson formed Mohawk Studios in 2013. Their first video game was *Offworld Trading Company*,³⁷⁹ an economic real-time strategy game for Microsoft Windows and OS X. He was a design columnist for Game Developer magazine and on the Advisory Board of the Game Developer's Conference. He runs the game design blog *Designer Notes*, for which he also hosts a podcast dedicated to interviews with game designers.

- Jelena Viskovic:³⁸⁰ Croatian-Hungarian video game designer. She obtained an MA in Design Interactions at the Royal College of Art, and a postgraduate diploma from the Strelka Institute in Moscow. Viskovic has recently collaborated with the collective Forensic Architecture, and with speculative designer Daisy Ginsberg. She is a member of *Rites*, a game design collective based between Berlin and Budapest. Her game *Nirgendheim*³⁸¹ uses a narrative framework which allows game mechanics to provide alternative ways of interacting with technological systems of control and governance. She also co-designed the location-based, augmented reality exploration game *Patternist*.³⁸² Viskovic also collaborated with me to create the prototype of the speculative video game *Lamassu*.³⁸³

- The AAA collective (in the persons of Gabriel Helfenstein and Troy Duguid):³⁸⁴ Active in Berlin, the AAA Collective comprises artists, designers, and creators from all over the world. Its founding members are Merle Leufgen, a software artist and curator, Gabriel Helfenstein,

³⁷⁶ Websites: https://en.wikipedia.org/wiki/Soren_Johnson and <http://www.designer-notes.com/> and <https://www.mohawkgames.com/>

³⁷⁷ Firaxis Games, *Civilisation III* [video game], 2001.

³⁷⁸ Firaxis Games, *Civilisation IV* [video game], 2005.

³⁷⁹ Mohawk Games, *Offworld Trading Company*, 2016.

³⁸⁰ Website: <http://nullinventories.com/>

³⁸¹ Viskovic, J., *Nirgendheim* [video game], MA graduation project, Design Interactions, Royal College of Art, London, 2016, <https://www.rca.ac.uk/students/jelena-viskovic/> (accessed 12 August 2020).

³⁸² Bondarenko, L., et al., *Patternist* [video game], Post-graduate project, The New Normal, Strelka Institute, Moscow, 2017, <http://pattern.ist/> (accessed 12 August 2020).

³⁸³ See the project, and its accompanying text, in the *Appendix* to this thesis

³⁸⁴ Website: <https://troyduguid.com/aaa>

a French transmedia artist, curator and writer, Troy Duguid, an Australian artist working with game engines, and Jessica Palmer, a Canadian multimedia artist interested in neuroscience.

- Mundi Vondi:³⁸⁵ Icelandic artist, designer and entrepreneur. Vondi is the CEO and co-founder of the Berlin-based independent video game development studio Klang Games. Started in 2013, Klang Games has gained acclaim for releases such as *ReRunners: Race for the World*,³⁸⁶ for iOS and Android devices, and it is currently working on *Seed*,³⁸⁷ a simulation MMO utilizing SpatialOS technology. Klang Games is funded by several external investors, including London Venture Partners and Plain Vanilla Ventures. As declared in its mission statement, “Klang believes that virtual worlds can have the same emotional investments as their real-life counterparts.”
- Francis Tseng:³⁸⁸ American independent video game designer and artist, based in New York. He has worked as part-time faculty at The New School, teaching about simulation, systems thinking and game design, and as the co-publisher of the acclaimed magazine for critical theory *The New Inquiry*. He has developed a large number of independent projects of speculative video game design, focusing in particular on simulations, such as his acclaimed business-simulator, dystopian game *The Founder*.³⁸⁹
- Ryan Sumo:³⁹⁰ Filipino video game designer, founder, art director and CEO of the Manila-based independent video game development studio Squeaky Wheel. Squeaky Wheel Studio aims to be a developer of thematically unique PC strategy and simulation games. Its mission is to make entertaining games that bring attention to current affairs in developing countries.
- Paolo Ruffino: Italian academic, artist and video game designer based in the United Kingdom. Ruffino is Lecturer in Communication and Media at the University of Liverpool. He is Chair at DiGRA (Digital Games Research Association) Italy, and an active member of British DiGRA. He is an editorial member at GAME, The Italian Journal of Game Studies. Ruffino is a co-

³⁸⁵ Website: <https://www.klang-games.com/>

³⁸⁶ Klang Games, *ReRunners: Race for the World* [video game], 2016.

³⁸⁷ Klang Games, *Seed* [video game], forthcoming.

³⁸⁸ Website: <https://frnsys.com/>

³⁸⁹ Tseng, F., *The Founder* [video game], 2015, <http://thefounder.biz/>, (accessed 12 August 2020).

³⁹⁰ Website: <http://www.squeakywheel.ph/>

founder of the media art collective IOCOSE. He is the author of *Future Gaming: Creative Interventions in Video Game Culture*.³⁹¹

This chapter unfolds along the following four sections, each containing selected excerpts from the interviews, as well as and my conclusive analysis:

1 – The problem of innovation.

2 – How to build a world.

3 – Visual analysis and metaphysical language.

4 – A place for philosophy in video game design.

³⁹¹ P. Ruffino, *Future Gaming: Creative Interventions in Video Game Culture*, London: Goldsmiths Press, 2018.

5.2 THE PROBLEM OF INNOVATION

This series of questions aims to explore the state of the field of videogame design, with particular reference to the issue of innovation. I asked my interviewees to give a brief assessment of this aspect of the field, and then to tell me how they would/do tackle the issue of innovation in their own work. My attempt was to understand first-hand how professionals in the field address the problem of innovation, since an important aspect of my research concerns this issue (which I suggest tackling through the insertion of a philosophical approach to the design of game-worlds).

5.2.1 The state of the field

Question: What is your assessment of the current state of the field of videogame design, with particular reference to the problem of innovation? How is the industry (both mainstream and independent) addressing the challenge of avoiding repetition?

- AAA Collective

Gabriel: At the moment the video game world has three layers: first the mainstream industry, which is only franchises, just like today's blockbuster movies, always the same stuff. Then the indie scene, which used to be interesting but is getting less and less interesting, as it tends to go towards mainstream ideas. And then you have what we [i.e. the AAA collective] are doing, which is very open to innovation but really far from the mainstream. The name of our collective is AAA, that is, the name of mainstream videogames – which we hijack. You have lots of good ideas there, but they are very remotely connected to what you might call 'videogames': more often, they are interactive digital art.

Troy: There's not going to be any innovation in the mainstream industry, because it's a commercial enterprise: innovation just isn't the name of that game.

- Francis Tseng

Innovation is a problem in the video game industry, in the same way that it is in cinema. In the same way as cinema, a lot of major studios are falling back to franchises and remakes. But at the level of independent game design, you see a lot of experimentation and really interesting things coming out. And that's because most of the software you need to make games is now free for a great part, so a lot of people can access those tools. And there are all sorts of publishing platforms now that make it easier for people without any backing or without a lot of money to distribute their game and to present it to a lot of people.

- Ryan Sumo

Large companies have to support a large number of people, and so they tend to become more and more conservative towards the kind of games that they produce. If a game seems to be consistently a hit, they're just going to keep remaking that game. However, there are a lot of tools now to make games and this is lowering the barrier to create new kinds of games. It's a lot easier now to sell games around the world, so a developer is able to work with smaller teams on smaller ideas and they can take on more risks. I wouldn't expect a studio like The Creative Assembly to make those kinds of games, because of the size and scope of their organization. But smaller teams are better able to experiment and explore new ideas.

- Jelena Viskovic

The way the industry works is by taking patterns from games that have been commercially successful and then repeating them. I recently played a video game which was amazing, but which was composed of all sorts of patterns taken from other games.

- Mundi Vondi

Sure, there is repetition, but games are probably the fastest-changing field out there. There are so many new developments in terms of software and hardware. And this results in video-game companies having to compete on ever-changing foundations and having to come up with different ideas and different approaches to games very rapidly. This could seem repetitive but, in all honesty, compared to films or any other art or creative field, I wouldn't say that it is. Maybe the most famous genres, like first-person shooters or mobile games, have been the same for a certain amount of time, since they've been held stable by large companies. But this is because for big studios taking a risk in innovation is way riskier than for smaller studios. Big studios have a very tough time innovating because each game that they make costs over US \$ 100 million to produce, and so they must avoid risk as much as they can. But smaller studios have not even 1% of those costs, so they can be way more creative. There are tons of creativity and of new ideas spawning all the time in the field, particularly in smaller studios.

- Paolo Ruffino

For the past many years, there has been a dominance of very simplistic design models. I'm thinking about concepts such as the theory of flow, 'Skinner boxes', and this sort of very positivist design/psychological theories. Their claim is that through proper design you can channel the actions of the user in a sort of 'positive flow' – for example if you provide the right rewards for certain actions, they will release enough dopamine in the brain to create an incentive to repeat the same action. Now things are getting a bit more complex. There is more attention to more sophisticated models and strategies of game design. This is probably because the number of people making games is growing, while there seems to be also a desire to see different things from the past. But those old models are still very present, for example, in mobile games, which are currently dominated by clones. Mobile game developers are usually very small independent companies, so they are less likely to invest in innovation. It's a survival strategy. After a first wave of enthusiasm for independent game developers, who were expected to create new games and foster innovation, now we are realising that perhaps there is more innovation in the larger studios, that can afford to experiment with different ways of making games, constructing stories and so on.

I think that innovation currently emerges mostly at the level of players' intervention, or at the level of the game scholar – that is, in the different ways of writing about games, which allow us to

reinterpret them outside of this repetitive cycle. Some of the most innovative and creative things in the game industry over the past 20 years, have happened primarily because of players who decided to take video games and to remake/modify/hack them.

Repetition is very common also in the way in which we currently talk about video games. If you look for instance at video game magazines, they talk about new or forthcoming games in a very repetitive manner: there is a game that is a sequel to a previous game, and the sequel is 'more' of something. Whenever a game is released there are already expectations on what will be its next version or its next update. Even game festivals are presented in this way. There is a strong focus on repetition, on the franchise, on intellectual property and on how it's going to be translated into different iterations. It's a very conservative industry. Much more so than cinema.

Question: Why do you think it is so conservative?

Answer: It's a problem of economic risk, at least in part. But it's also because of the kind of people that so far have been dominating the industry and have produced narratives about their own domination. If you look at how the game industry became a male-oriented industry, for instance, and how it inherited a particular male-oriented approach from the sub-culture of role-playing games, particularly in the Western part of the United States, that kind of culture always gave the idea, to those who were leading game development, that they were producing games for like-minded people. Only recently it has been noted that different kind of people have always been playing video games, like women, older people, and so on. The reaction to that – which proves my point about it being a very conservative industry – was the online movement *Gamer Gate*. Started in 2014, *Gamer Gate* was a reaction against the idea that games are now for everyone, that even women can make video games. It unleashed a new wave of misogyny. ... Since then, however, there has been more attention to improving the position of women in the stories told by games, as well as within video game companies. For instance, mainstream games like *Horizon Zero Dawn*,³⁹² and even *God of War*,³⁹³ are no longer one-sided, super-masculine, aggressive games, but they have a nuanced narrative about disempowerment, and they display different ways of approaching gender, sexuality, power, etc.

³⁹² Guerrilla Games, *Horizon Zero Dawn* [video game], 2017.

³⁹³ Sony, *God of War* [video game series], launched 2005.

Question: At the level of the creation of worlds, though, what do you think is the state of play in the industry? Looking at strategy video games like Civilization III and V, for example, we can see that the fundamental qualities of their world are still basically the same. For what I've seen so far, the recent developments in terms of world-architecture in strategy video game have been limited.

Answer: What you're saying is accurate. Games like *Civilisation* are very repetitive, but that's because they are within the same franchise, within the same series, and the developers think that the players expect always the repetition of the same... There are many game series that repeat themselves in almost identical forms. Think about sport video games, for example. The latest *FIFA*³⁹⁴ by Electronic Arts has a story-mode where you play the story of a football player who tried to get into the football world. It's a very silly story, it's very polished, you don't get any of those messed-up things that are actually an interesting part of football. But you also have women teams, to include also that demographic. These are very poor ways of trying to change things enough to give people a reason to buy a new video game. The same goes for *Civilization*: they just increase the number of tribes and factions, making their traits more racist and extreme... But I have noticed that there is more innovation in narrative video games and adventure games. For example, *Red Dead Redemption 2*,³⁹⁵ although flawed in many ways, is quite revolutionary in the way it tells its story. It is much braver in its design and in its tone than what is usually expected from a best-selling video game. Or the *Wolfenstein* series:³⁹⁶ it has been taken by a new game development company, and they are making a re-styling of the series, which is now a brilliant satire of Trump's America. *Wolfenstein II*³⁹⁷ has made many gamers angry, because they were expecting a game where you shoot Nazis – but then they realised that the Nazis were very similar to Trump supporters.

Question: My question was also about the very structure of the world, aside from its narrative. Could you comment on that?

Answer: there hasn't been that much recent development in that direction. Maybe you can see some experimental, independent games where they also play with the interface, with how the information is organised, with visibility and obscurity, and so on... I think for instance of the work of

³⁹⁴ Electronic Arts, *FIFA 20* [video game], 2019.

³⁹⁵ Rockstar Games, *Red Dead Redemption 2* [video game], 2018.

³⁹⁶ Muse Software, *Wolfenstein* [video game series], launched 1981.

³⁹⁷ MachineGames, *Wolfenstein II: The New Colossus* [video game], 2017.

Lucas Pope, who made the game *Papers, Please*³⁹⁸ a few years ago, where you play a border control agent in a fake Soviet country during the Cold War and all you have to do is to check passports. The interface and the rules you have to follow become more and more complicated and eventually they include an emotional aspect, emerging when you are asked to disobey the rules and to take risks. The way in which the interface is structured and the way in which the information is made visible or invisible is also used as a commentary on the politics of surveillance. Perhaps only experimental games dare to play more with that aspect.

5.2.2 How do you tackle the problem of innovation in your own work?

- Jelena Viskovic

Question: if you were in your own video game studio, or if you were in a mainstream studio, and you were given in both cases the task of innovating a game – how would you proceed in either scenario?

Answer: if I knew it was mainly a commercial task, I'd use the newest technology to make something very smart. But if I had to create something new, as myself, I would create something that is connected to reality – for example it'd have me sitting in a coffee shop talking with you, but then the timeline would span, say, across 5,000 years... For example, I recently I did a project where the time-span of the game is thousands of years. It is marginal aspect within the game at the level of game-play, but the whole game couldn't function without it. I wanted to create something new by connecting things (i.e. the timeline and a lot of other aspects of the game) that wouldn't normally be expected to connect to each other.

- Soren Johnson

Question: let's imagine that your shareholders say: "We need to invent a completely new product, something entirely different." How would you go about doing that? How would you tackle the challenge of innovating a video game world that you've been working on?

³⁹⁸ Lucas Pope, *Papers, Please* [video game], 2013.

A: that's pretty hard to do, because when you make new games, you only want to change a couple of things about them. Business-wise, it's a huge risk to make a game where everything is brand new. Of course, there's also a huge risk in making things that are too samey... *Offworld Trading Company* is a good example of us feeling that all trading simulation games were pretty much the same: we liked the format, and we asked ourselves what other games could be made around that format. Everything else is up for negotiation. You can still make a game in that form and use a very different mode of competition. If you really want something that's just completely off the wall, I think that you'd have a hard time doing that with professional game designers. If you really want to do this – and I wouldn't advise doing this in terms of economic investment – I'd probably go out to find people who have never made games before and probably who have never even played a lot of games... [Nonetheless,] I think that good new games often start from bad ideas. As a game designer, over time, you start to filter out the bad ideas, because you know what cannot work. But every once in a while, a bad idea just needs to be approached in a different way and suddenly you can make something really amazing. As game designers, we get really used to the range of what is already there, so you need to find a way to still be open to stuff that sounds terrible at first.

- Ryan Sumo

Question: Let's talk about innovation. First, let's imagine that I'm commissioning a new strategy video game. How would you go about doing that?

Answer: There are two different things that I would personally want to explore. One is based on my geography and my national belonging, since I'm Filipino. Traditionally, our area of the world doesn't get a lot of love in any medium... So, I would push for some sort of game – maybe a trading game – that revolves around my area of the world. Part of the appeal of these games, like *Crusader Kings*, is to be able to trace your own history, your alternative history: and that's a wonderful feat of the imagination, you can remake the world as you would like it to be. I don't think that we [in South-East Asia] have that possibility as much, since there aren't many games built with us in mind.

Question: Imagine that you were employed by a mainstream studio like the Creative Assembly. What do you think it would be expected of you in terms of innovation? What is the standard notion of innovation in that part of the industry?

Answer: It's hard not to be a bit cynical or just pragmatic... The bottom line is that large companies have to make sure that whatever they take on has sufficient commercial potential. Would it be palatable to a large enough audience that would sustain the costs of building the game?

Question: do you see the commercial dimension as the primary constraint on innovation?

Answer: Yeah. I run this small company with just five people, but even then, I'm always thinking about how I can support the livelihood of these people. That's always going to be in the back of my mind, balancing whatever my aspirations are to innovate.

- Francis Tseng

Question: Imagine that you're working for a mainstream studio like the Creative Assembly, and that they want you to innovate their series Total War. How would you look at this demand for innovation? And how do you think you'd be expected to look at it by the senior management of an AAA video game studio?

Answer: The first thing I'd start thinking about is multiplayer games, because multiplayer games haven't been around for all that long, at least in their current form, and my first thought would be: how can you design that as interesting social mechanics? I'd consider what dynamics between players would create interesting experiences. Frankly, I've never thought how to make a different game at the level of your research [i.e. at the philosophical level].

Question: so, for example, you'd keep a similar world to the one TW:R2 already has, but you'd rethink the way in which the player interacts with this world?

A: Yeah, I think so. I'd take a lot of what we've discussed during this interview [i.e. the metaphysics of its game-world] as a given. I wouldn't rebuild things on that level. I think that one of the challenges

here, especially if you're designing for a big studio or a large audience or a popular market, is that gamers are already familiar with the kind of language in which games are usually designed. There's a kind of legibility of a game that already exists within this norm of game design [i.e. turn-based strategy video games] and I think I'd still have to stick to that – so that the game would be readable by people who play games now.

- Mundi Vondi

Question: when you're thinking about creating a new game, what is the way in which you start approaching this challenge? Do you think first about which genre to choose, or the technology that you will employ, or the specific qualities of that world, or the experience you wish to give to your player?

Answer: For me, it all revolves around opportunity. Anyone can come up with cool ideas for games and that's not the point. Big studios spend hundreds of thousands of dollars into market research to find an audience that is being underserved or a lucrative area that can be greatly improved. As the CEO of a smaller studio, you can't afford that kind of market research, but you must instead theorise about what are the market trends that you see, where can you fit your thing... Also, you must consider if there are new opportunities offered by technology, if there is a new platform opening up, a new device coming to the market... On the basis of this theorising, you start building your philosophy.

Question: Is your approach to take account firstly of the context in which you are going to insert your game?

Answer: Well, it's always a dance... You want to think freely about game concepts and then maybe look at it again and if it's not right, you'll push it out of the way... The pitches that I have seen, often focus on an egotistic approach: they believe so much in their own creativity that everything is supposed to turn out great simply because of that. It's all good and well to believe in your own creativity, but more important is to understand the philosophy of your own idea: why does the world need this, and why should your audience come rushing in?

5.2.3 Analysis

There appears to be a broad consensus among all interviewees that innovation is currently an issue in the field – although there isn't consensus over which part of the industry is most suffering from it. This assessment corroborates my observations at the beginning of this research, and it confirms the textual evidence that I offered in support of my thesis in the literature review.

A defined pattern of difference has appeared in the way that the interviewees have answered this question. There seems to be a certain correlation between the level of self-perceived distance from the mainstream, and the intensity of my interviewees' criticism: on the one end, the art collective AAA denounced the lack of innovation across the whole spectrum, including the indie scene (but excluding their own position as interactive artists); on the other end, the CEO of Klang Games reclaimed the innovativeness of the whole industry, including the mainstream. Although there is a consensus over the problem of innovation, each interviewee seems to wish to distance themselves from it. Another important element to emerge, is a certain disillusionment with the official 'indie' scene, which appears to have betrayed earlier expectations that it might bring forward groundbreaking innovation – to the point that scholar Paolo Ruffino argues that we should seek true novelties in the mainstream, or in the outsider field of games re-created and modified directly by the players.

It is noteworthy that nobody has mentioned any significant feat of innovation at the level of world-building – that is, at the level in which philosophical disciplines like metaphysics and metaethics would position themselves. This corroborates my initial suggestion that inserting philosophy within the basic toolkit of a video game development studio would amount to inserting an 'alien' method, and that it would touch an area that is currently largely neglected.

My second question concerned the way in which my interviewees understand innovation. Interestingly, the answers I collected seem to discount entirely the possibility of innovating the fundamental structures of the game. My interviewees considered as the main possible areas of innovation, those that have to do with the narrative content of the game (including its cultural and political value), the modes of interactivity of the player, the positioning of a certain game within the market, or the use of the latest technologies. While this is a warning sign to anybody interested in

fostering philosophical innovation within game design, it is also a useful indication that professionals in this field might not be prepared, or interested, to think about their work primarily in such terms.

5.3 HOW TO BUILD A DIGITAL GAME-WORLD

This second series of questions exposes my own learning process of practical videogame design, as filtered through my philosophical outlook. I asked my interviewees to tell me how they approach the challenge of creating a virtual game-world, with specific reference to what they understand as the fundamental building block of a game-world. Particular relevance was assigned to the problem of designing time within game-worlds – which is, perhaps, the most immediately apparent element of metaphysics in video game design.

Question: How do you start conceptualising a new video game-world, as part of your work? Do you start by defining the flow of time, or the geometry of the space, or the properties of things, or the story, or the playability?

- AAA Collective

(Gabriel): You seem to be under the assumption that videogames always start as world-creation, which is not always the case.

(Troy): I think that this kind of lens – the world-building lens – is how games are understood in pop culture: 3D virtual worlds which people inhabit. However, as opposed to creating the space first, and then doing something with the space, it is often the opposite way. You might start by creating behaviours and systemic patterns, and then creating the world that fits them.

Question: Do you design the dynamics first, and then a world that fits those dynamics?

(Gabriel): It depends. The classical assumption about games is that you go about it the same way that you would write a book like *Lord of the Rings*: first you create a language-structure, a story about that world, the world itself, and so on. That's what mainstream games often do. But we [i.e. the AAA collective] don't do it like that. For example, the game I'm working on at the moment with Troy is a game in which I document my own process of making a game, so it doesn't really have a

fictional world in which it takes place – it's more like a meta-commentary about the process of making games.

Question: I'd like you to answer my next question with two different hats on: as yourselves, and then by imagining that you're working in a mainstream studio. When you have to create something, what is the fundamental building block with which you work? What is a videogame made of, fundamentally? Please start by answering as yourselves.

(Gabriel): It's very different from one project to the other. I've made projects where the main building block was the story, so it was something like an animated interactive book. And then sometimes the building block is just the aesthetics: you have a certain style or a visual thing that you wish to adopt, and you try to fit everything within that particular aesthetics. Or you can have a more systemic approach, where you want to create a specific interaction between the different parts of the game. It depends on the project, at least for me.

(Troy): All I can say is... emotion. It feels to me like the most authentic starting point.

Question: Let's imagine that you are working in a mainstream studio. What do you think would be expected of you, in terms of starting to work on a videogame? What would you be fundamentally working with? What would be the main 'thing'?

(Troy): I'd say: rules. And what I mean by 'rules' is really deciding that all things in that game have a compelling logic flow that creates a good 'game', like chess. I'd say that the building block of a videogame, from a mainstream perspective, is designing a set of rules that are 'fun'. And 'fun' is another question: it is usually something that makes someone feels powerful and addicted.

- Francis Tseng

The video games that I make are often rhetorical, so first I try to understand the point that I want to make with the game. Then I figure out what kind of scenarios or decisions I'd have to reckon with, to be able to make my point. The next step is realising what are the elements that I would put in that system. At that point, I figure out what are the 'first class entities'. For something like my game,

The Founder, which is a Silicon Valley simulator/critique, an example of these first-class entities are the employees, the properties that they need to have, how they interact, and how they are related to each other. At that point, it's about building the simplest version of the system and then iterating it, and building more, and changing things as I go.

Question: is this the standard process in the industry?

Answer: I think it's more common outside of the bigger studios. My understanding of their approach is that it is much more market-driven, trying to figure out what players would respond to, or what would sell well. I'm more focused on games as a medium for fantasy. My approach is not uncommon in the realm of indie games or art games.

Question: so, mainstream games would start with a market analysis of what players usually like, and then trying to re-create that kind of stuff?

Answer: yeah, I think so.

Question: on that basis, though, would they still work in the same way as you: focusing on first class entities and then on all the rest?

Answer: yeah... I never worked on a game like that, but I can speculate from what I've seen that they use a similar approach. A good example could be something like the *Doom* series:³⁹⁹ the mechanics are pretty much there already, and then they probably do level design, character design... So, they'd start with these sort of first-class entities... In a game like *Doom* there's weapon design and that kind of stuff. I imagine it's pretty similar in a lot of ways: they have these first-class entities that they flesh out first, and then they do the rest.

Question: If, for example, you're approaching the question of how time unfolds in your game – how do you think about it?

³⁹⁹ id Software, *Doom* [video game series], launched 1993.

Answer: I guess there are two notions of time that you grapple with as a game designer: there's a technical notion, where you're dealing with frame-rates, and there's the literal time experienced by the player; and then there's another scale of time, which is your narrative time. For example, in *The Founder*, I wanted it to feel like years would pass in a few hours of real-time, but then on some level you have to reconcile this time as frames-per-second with narrative time.

Question: how would you describe the way in which the dimension of time is usually implemented in contemporary video games?

Answer: It feels like a relentless march forward. What's interesting is that in a videogame there's so much more that you could do with time. Like you could reverse it and so on. But... most games don't do any of that.

- Mundi Vondi

Question: Let's imagine that you're working with your team to create a videogame, which has to be endowed with its own game-world. For example, you have to set the way in which time flows, or the fundamental relationships between qualities and objects, and so on... Do you clearly direct your designers in this respect, or do you let them use their own creativity?

Answer: It's a matter of finding a balance. We have already set our platform, and it's clear what kind of games we expect. Each world that we build is very game-dependent, but the main element is that everything in that world has to have purpose and has to be interactable: every tree has to be available to be chopped down and has to have a name, certain qualities, etc. The resource that comes out of it has to be defined by a name, qualities, and all of that sort of stuff... The world has to be made up of assets with which people can interact. And when it comes to the visual style, we have to have some back-story to the game: for example, if it takes place in our universe, the magical elements have to be greatly reduced, because that world has to obey the laws of physics, and that gives designers and artists a picture of what they can and cannot do.

- Ryan Sumo

I don't know if this is very common among game developers and game designers, but I usually have a goal in mind, or a message that I want the game to project, and I build it around that idea.

Question: Could you say that you start from the content?

Answer: Yes. Take for example one of the games that I worked on, *Political Animals*.⁴⁰⁰ It's a political strategy game. From the start, the idea was to challenge people's notion that all we need are better politicians, a 'good president' in office, and then everything will be fine. The goal was to put the player in the role of a politician trying to win an election and then in situations that would continue to test their morals – to see how soon they would break and begin to compromise in order to achieve victory in an election.

Question: was this meant also as an educational game?

Answer: Yeah. It didn't do very well as a commercial product, but we're working with a PhD student right now to develop a curriculum that the local board of education could adopt, part of which includes this game as a teaching school in high schools.

Question: you start from a specific theme, message or content, and then you build your video game-world around that. Is this also the normal process in the AAA video game industry?

Answer: It's hard for me to say, because I started as a freelance and then I ended up running my own studio, but I've not yet worked in a large studio environment. But it doesn't seem to me that this is the normal way in which the video game industry operates. My sense would be that aspects like playability, functionality, etc. would take priority, at least in a mainstream video game studio.

- Soren Johnson

⁴⁰⁰ Squeaky Wheels, *Political Animals* [video game], 2016.

I don't work on worlds that are pre-constructed. Everything I work on is dynamically built, like random maps. You try to make it look like a plausible world. With Mars [in *Offworld Trading Company (OTC)*], we worked with a planetary scientist who gave us feedback on whether we were building the world realistically – though also with fantastical elements. The question is: what does the world look like? Does it look like an actual place? But also, the bigger question: what is that world, why are people there, what are they doing there? I chose Mars because it is actually easier to supply things to the solar system from Mars than from Earth, because Mars is smaller and has less gravity.

Question: when you say 'realistic', what do you mean?

Answer: realistic could mean a couple of things. First, realism can be a specific goal: some games want to provide as accurate a simulation as possible. For example, car-simulation games emphasise their ability to provide a perfect simulation of a racing car – that is the 'fun' in those games. The opposite of these, are games like *Mario Kart*,⁴⁰¹ where they throw realism out of the window and they make any decision that they like, and that could be fun for the player. Another way to look at realism is: don't make the game unnecessarily difficult to understand. You learn a certain set of schemas over your life, like 'this goes with this', or 'put your clothes in the washer before you put them in the dryer'. If you're making a cooking game, the schema is going to be something like 'you put the oil in the pan first, then you do this, then this, etc...'. Over your lifetime you build up these schemas in your brain, and when you design a videogame is a good idea to take advantage of them. A game is basically just a bunch of rules, and I could make those rules totally arbitrary if I wanted; but why would I want to do that? They'd be just more difficult for the player.

Question: imagine that you hired a programmer who comes from the Amazon forest. This person is an animist, believes in completely different things from what we believe. If you told them to create something 'realistic', they'd probably create something completely different from what you would create.

⁴⁰¹ Nintendo, Mario Kart [video game series], launched 1992.

Answer: I'd think that this person would have a hard time designing games. As a video game designer, you're anticipating how people will react to things, and if you come from a very different place it makes that job a lot harder.

Question: so, game design does presuppose a general consensus about metaphysics?

Answer: that's right. And it would be interesting to see games coming from different cultures, because they would have different assumptions about the way the world works... If you, as a designer, adopt a certain viewpoint towards reality, your game is going to work best with people who share that viewpoint. You want them to have the same schemas as you have, otherwise it's going to be very difficult for them to enter the game.

Question: When you create a world, you have to design the way time works. How do you approach this challenge?

Answer: you're always going to have some sort of awkward structure when you deal with time. With *OTC* for instance, if you look at the timescale it doesn't really make sense: the game plays out in the course of days, like a full game might be 7 to 9 days, which are about 30 minutes in real time. You see buildings go up in the equivalent of 8 hours and it doesn't seem realistic. There's a sense that the world is running at fast forward. We [designers of *OTC*] didn't bother to explain that, and we didn't worry about it being unrealistic. There's a reason for that: we wanted a day/night cycle in the game, and if you want that, it's better to use the usual 24-hours clock, so that the players feel comfortable. Even though it might not be realistic in itself, the player can 'feel' time passing in a realistic way – a way that they recognise and are used to.

- Jelena Viskovic

Right now, I'm working with practical simulations – and what I learned from them is that there has to be some sort of goal, something that needs to be reached within that world. But it also depends on whether the world is built around actions, or around spatial properties. The goal can be either something that fills the gaps within the world, or something that changes the course of its narrative, or something that is entirely detached from it. If it is entirely detached, it gets more complicated

because there has to be a starting point, which is not necessarily related to the whole narrative of the world, and everything else is built around that.

5.3.1. Analysis

This series of questions explored the process of world-creation, as considered by my interviewees. I was particularly interested to know what are the fundamental building-blocks with which they work, when facing the challenge of creating a new video game-world. This was connected to my overall attempt to understand the possible compatibilities, distances and opportunities that arise between the practice of philosophy and that of video game design.

The answers ranged from a focus on experimenting with dynamics and emotions (the AAA collective), to a keen attention on new opportunities granted by the context (Mundi Vondi), passing through a content-based approach (Ryan Sumo, Francis Tseng), a focus on goals (Jelena Viskovic), and a pragmatic attitude towards realism and ease of play for the gamer (Soren Johnson).

The mosaic of these different perspectives makes emerge an element of concern for a researcher wishing to introduce the methodology of philosophy into the toolkit of video game designers. The level of abstraction that is typical of a philosophical discipline, like metaphysics, has to be embodied not only within the practical process of video game design, but also within the main set of concerns that animate designers themselves. To this aim, the language of philosophy has to be able to effectively enter the ongoing dialogue between the narrative, commercial, motivational, technical and artistic elements that currently animate the field. Without this connection, it might be difficult to make a convincing case for the insertion of philosophy within the basic toolkit of a video game designer. It remains debatable whether it is actually possible to bend philosophy to take these elements into account – and, importantly, whether it might be advisable to submit this discipline to such external pressures and demands.

5.4 VISUAL ANALYSIS AND METAPHYSICAL LANGUAGE.

This section is dedicated to a joint exercise of visual analysis. First, I show to my interviewees a screenshot from my case study, and I ask them to tell me what they see. Subsequently, I present my own, philosophical reading of the same image. Finally, I ask my interviewees to assess my reading, especially commenting on its potential usefulness (or uselessness) to the actual design process of a video game-world. Particular relevance was assigned to the question of ontology, and to metaphysical problems regarding universals and concrete particulars. This exercise aims to assess the areas of distance and of overlap between the approaches to virtual worlds of a video game designer, and of a philosopher.

5.4.1 Visual analysis

- Francis Tseng

Question: I'm going to send to you a few screenshots from TW:R2 and I'll ask you to tell me what you see. And then I will reply by saying what I see. The point is to try to compare our respective design/philosophical gazes, since I would like to better understand what I'm missing. Let's start with this screenshot on victory conditions. (figure 18)

Answer: It's a very familiar-looking interface. Most of these grand strategy games have a very similar structure. You have what looks like a tutorial window on the top left, describing game mechanics, how to play, and so on. Then you have objectives describing win-states. You have a button to end your turn, so it looks like it's turn-based. There is a mini-map that shows who owns what territories. You have time, it's the year 272 BC. There's a sun, which I guess means that it's daytime. There are some resources under the mini-map as well, like bread, a chest, etc. Then you have the actual top-down worldview. You have a few units, and I'm guessing these stand in for troop regiments that are literally just one big unit. There are banners to indicate what player they belong to. There are cities, with the symbol of which player they belong to. Then you have a star next to a city name, which indicates that it's a capital. You have a hammer floating above a city, I think it means that there's some kind of production going on. Then you have the objectives. They're all about hitting some

specific number, or so it looks like. There are different cultural, military and economic victories. It's really similar to *Civilization*, now that I'm looking at it.

Question: if you were to break it down what you see in categories, what would these be?

Answer: There's a spatial component, where you have the world-map and spatially located things that move around. I'm assuming that a big part of the game has to do with making good strategic decisions about those movements. Perhaps another aspect is that certain terrain types have different movement penalties. So, the physical world is one big component. There's clearly an economic component too: you have all these resources you're managing in the bottom left. I'm guessing that the city with the hammer floating above it is producing something. So, managing resources and production is another category. I guess that military and combat is a big category as well. Maybe the way in which you expand your territory is through military conquest. Economic mechanics is one big category, then spatial mechanics, then there's the military mechanics. It also mentions cultural victory, but I'm not sure how that works. That's all I can get from the image.

Question: As seen from a philosophical angle, I would start describing this image by saying that there are at least two levels of existence: one is the map and one is the menu. This is even clearer if you look at another screenshot, where there is a city and the menu with all the buildings that you can create. (figure 19) This suggests that the notion of existence in this world is multi-layered, a bit like in Plato's philosophy. [Follows: a brief explanation of the relevant aspects of Plato's theory.] From what you described, perhaps you look at it primarily as a game, with its playable features and its game-mechanics. While I look at it as if it was an actual world, an object, a thing – something which counts more as a whole than as an aggregate of functions. Would you agree that these are our different and respective ways of looking at it?

Answer: Yes, definitely. And now that you mention it, when I develop my games there's a similar distinction between layers [i.e. *similar to that proposed by Plato*]: when I design something like a soldier unit, I'll design it more towards what's necessary for the menu (what properties it has, and so on), while usually I create the actual rendering of it in the game-world as a completely isolated, separate function. In the games that I make this is typically a secondary aspect, just a way to make the world more accessible, to make it more like a game. And sometimes it's not even necessary.

Question: I'd like to ask you to comment on the following screenshots. How would you describe the main difference between them? (figures 19, 20, 21, 22)

Answer: They seem to be at different scales. You have the combat, which is literally at the ground level. And you have this view at the level of the city, including political and economic aspects like public order and so on. Then you have this other view a layer above the city, encompassing a region. And then the encyclopaedia, which steps out the single game, to include the entire boundaries of the world where the game exists. It encompasses all the buildings, all the characters, anything that could exist in a game – they're all defined here. I see these different kinds of scales of existence, I guess.

Question: I'd like to show you also this screenshot. (figure 23) Could you comment on what you see?

Answer: A lot of the units seem to be copies of each other. I think that their stats, as they appear in the little menu on the bottom left, are identical across all units that look the same. When these games are designed, you want the visuals to be consistent with the game-mechanic properties. What else do we have... Again, as you said, there is this distinction between the visual manifestation of these units and the actual properties as described in the stats. There's something else... there are these stats on 'melee attack', 'damage', etc. There are also these other little numbers and icons... I wonder if the skull and crossbones are the unit's kills... Then I see that each unit has a certain level of experience, so I wonder if there is a way to upgrade these units. You also have a menu where you have the avatars of the single units, so that you can select them more easily. The banners also demarcate these regiments. In this kind of games, you never manage at the level of the individual unit, you always manage at the level of battalions. So, these battalions are the first-class entities.

Question: would you define a 'first-class entity' as that thing that the player encounters functionally as they play?

Answer: Yeah.



Figure 18



Figure 19



Figure 20



Figure 21

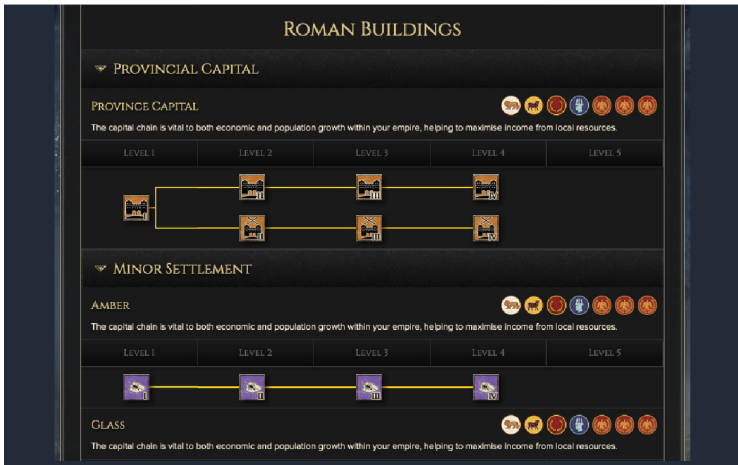


Figure 22



Figure 23



Figure 24



Figure 25

Question: So, if the player deals with battalions, they exist as battalions?

Answer: Exactly. At the level of the game code, they are probably defined as “ten units in a battalion”, and the stats are defined at the level of the battalion, not of the individual unit. When a unit dies in a battalion, it’s just a matter of multiplying the states of the battalion for how many units remain in it. They’re always treated as aggregates. I also see that there is time on the bottom left. So, I guess that each battle is limited in time. You can also fast forward through these fights and so on. And it seems that the only value that the terrain has, is that, for example, you can move quicker on the roads, or perhaps they have also some strategic value.

- Ryan Sumo

Question: I’m sending you a screenshot from TW:R2. What do you, as a video game designer, see in this screenshot? Not as a game player, but as a game designer. (figure 24)

Answer: I can see that the focus is on the city, while the map on the lower right indicates that the goal is to capture more territory. There’s a lot of information in the middle, I guess this is where the designer wants the player to focus most of their attention, where most of the activities will be happening. It’s very city-centred. On the left there’s other stuff that you need to keep track of, like public order, food, etc.

Question: the first things that you saw were the goals of the game, the focus of activity and the range of player’s interactions. Is that correct?

Answer: Yes.

Question: I’d like to compare your perspective with my own, philosophical take on this exercise. If I was to comment on what I see in this screenshot, I would say that this world has two different levels of existence, two ontological layers: the map and the menu. This game has a two-worlds ontology. This is not what we usually encounter in our daily life. And it is not the only possible option. We could have a pluri-dimensional world, or a world with only one dimension. [Follows: an explanation of the

relevant aspects of Plato's theory.] Does my way of interpreting it makes sense from the point of view of a video game designer?

Answer: It does make sense in a certain way. Maybe it's difficult for us, because having that separation [*i.e. between two worlds: the controls and the actual game map*] is so ingrained in our mentality as game designers, on the basis of our experience with other games, that there might not be a conscious awareness of this ontological separation between the 'real' world and the menu system that you use to control that world.

Let me think of an example in which this two-worlds structure is absent. Have you heard of that game, *Dead Space*?⁴⁰² It's a first-person, horror shooter. Their experiment is to integrate DUI into the world game, so that you feel like you're more immersed in it. There are very few cases when the game pops out in a sort of menu screen, that only happens when the player is interacting with a monitor or something; it's integrated in the real-game world.

Question: I'd like to show you a second screenshot from TW:R2. Can you tell me, please, what you see in this image? (figure 25)

Answer: I see this army and my impulse makes me immediately think about how I can control them. That's the overriding impulse. And as a designer, I think of how I could simplify or improve the ways that the player controls the units.

Question: is the functional/interactive dimension the first thing that you think about?

Answer: Yes, how can I interact with this?

Question: what I thought when I looked at it from a metaphysical perspective, was the problem of defining what a unit is. I noticed that a unit is a bundle of properties, not a thing in itself but a mix of properties that are bundled together in one unit. On the left you see all the properties, health, armour, etc. It's a 'bundle-theory' way of creating concrete particulars. [Follows: a brief explanation of bundle theory.] But this is not the only possible way.... [Follows: a brief explanation of the

⁴⁰² EA Redwood Shores, *Dead Space* [video game], 2008.

alternative theories on concrete particulars.] What do you think about this kind of philosophical reading? Does it get anything relevant about the game?

Answer: I think it's an interesting way. Personally, I'm struggling with how you could make that work in a game. My first thought was: it would be very difficult, for example, to create a world in which each concrete particular has its own unique character. It would be difficult in a game like this one, which has masses of characters and people and it's hard to distinguish a single soldier in a unit from its comrades in that same unit. If you worry about their individual uniqueness or their soul, it would be hard to function in a battle, as you would be too worried to hurt an individual and unique person.

Question: that would be in itself an interesting educational game! How can you send an army to war and to die, if every single person is utterly unique, or has a soul of their own?

Answer: this is where it would be very interesting, but probably not very commercially successful. Let me add one thing. Are you familiar with the game *X-COM*?⁴⁰³ It's a turn-based strategy game, the original was made about 10 years ago, but the latest updated version was recently released. The idea is that the world was invaded by aliens and you are part of a pan-global military force, as the entire world has combined its forces to defeat the aliens. But you only control a small unit of specialist soldiers. While each of the soldiers is built around different properties, specific traits like attack/defence/etc, if a soldier dies there is no way for you to resurrect them. In that sense, they are irreplaceable (unlike individual soldiers in *TW:R2*) and they are unique. When the game came out, people would talk about their favourite character and how they felt when that character died.

- Soren Johnson

Question: Please tell me what you see, from the perspective of a lead designer, in this screenshot from TW:R2. (figure 24)

⁴⁰³ MicroProse, *X-COM* [video game series], launched 1994.

Answer: I'm looking at Rome, I see other cities, I see the mini-map, I see different things that you can build inside the city, I see things like food and income. I see big units moving around the environment.

Question: the first thing that you noticed was the functional aspect of the game, what each element does – is that correct?

Answer: right, yes

Question: I'll offer an alternative, philosophical reading. Please tell me what you think – if it makes sense. A metaphysician looking at this screen would say that there are two levels of existence (map and menu). [Follows: a brief explanation of the relevant aspects of Plato's theory]. But the designer could have chosen a different metaphysical approach. [Follows: a brief explanation of nominalist theories about universals]. If you adopt these other options, you create entirely different worlds. How do these options sound to a videogame designer?

Answer: Generally speaking, video game designers have the concept that, say, a 'temple' might mean very specific things – always the same things basically, with some variations. We do that for two reasons: 1) it makes the game easier for the player to digest, because they're not trying to learn everything again and uniquely every time; 2) from an engineering / game development point of view, there is this separation in programs where you have code versus data. Stuff like a temple will exist in data: you have some sort of data file, and there's going to be some entry in that file that says: 'this is a temple, and it is defined as this'. In the game, anytime you have a building, it is really an index in this data file. So, the game is not keeping track of each temple, it is just keeping track of the fact that this is a building with this ID, I'll just go to the data file to see what it is – and the data file of each temple will have the same characteristics.

Two other, interesting things to discuss here: in older games, like *Civilisation I* and *II*,⁴⁰⁴ they took a quick approach and they coded the temple into the game code itself – that meant that they didn't have a clear delineation between code and data. If the game wanted to deal with the temple-object, it dealt with it directly: the game understood that there was the concept of 'temple', and so when

⁴⁰⁴ MicroProse, *Civilisation II* [video game], 1996.

the AI wants to build a temple it could go straight to the temple-object. This is a fast and efficient way to build a game, but if you want games to be more flexible, that's actually a bad way to do things – because for example you can't mod the game. It's like painters who like to keep their paint wet, so that they can keep changing it – as opposed to sculpting marble, where every hit is permanent. For *Civilisation III* and *IV*, we took this aspect out: we wanted to remove all high-level concepts of any buildings from the game code, so the game no longer thinks that there are temples (or libraries, or barracks), all it does is that it reads all the buildings dynamically from the data file and it just judges them by their characteristics. So instead of looking for a temple, when the AI wants to build a cultural building it looks at all the buildings that provide culture and ranks them on that basis and then chooses among them. This is what you call 'data-driven' development. The old way was to hard-code the stuff into the code – this new way is more flexible.

- Jelena Viskovic

Question: Can you please tell me what you see in this screenshot? (figure 18)

Answer: It looks like a city-building strategy game, based in an ancient narrative. Aesthetically it looks early-2000s. It seems to be quite closed, in terms of its missions and topics. In terms of the game design, it looks like an open-world strategy game, where the map is supposed to represent an actual landscape in Italy. It looks like the open world is tied to some mission and that, like in other simulators, cities are divided into different units. There seems to be a third-person tutorial character in the corner. I guess that you're supposed both to conquer and to build things.

Question: It seems that what first caught your eye was the genre of the videogame, the possibilities of interaction for the player, the playability of this game, and the content of the game. I would like to present to you how I read the same image, from a philosophical angle. [Follows: a similar take on Plato's two-world ontology, plus a brief explanation of the theory.] What do you think of this perspective? Does it sound relatable or in any way relevant from the point of view of a videogame designer?

Answer: I think that it makes sense. The difference that you're talking about, between entities on different dimensions of existence, is basically that between content as it's visualised on the map

and the things that you look at first. I think that the latest games, like those games that you play on your phone, are going more towards a composite image and all these things [i.e. *elements from different dimensions of existence*] are blended together.

Question: Is this platonic model of a two-world ontology being overcome by new video games?

Answer: Yeah.

Question: Do you have any references in particular to games that would do that?

Answer: Well...I'm working on one! But talking of other videogames that do that, there's this augmented reality video game developed by Google, *Ingress*,⁴⁰⁵ which came out before *Pokemon Go*.⁴⁰⁶ It adds magical elements to the existing world, so there is a second layer of reality – but it tries to blend them into the same layer as 'normal' reality. They do that by tying these magical elements to existing locations and then putting everything together in an augmented reality perspective. You watch everything through your phone as you move. The idea is to make the two worlds blend in together seamlessly.

5.4.2 Metaphysical language

- Francis Tseng

Question: My focus is on metaphysics [Follows: a brief explanation of what are the main traits of metaphysics]. The main metaphysical categories that I currently work on, are: existence, universals, concrete particulars, possible worlds, time. Do these words make any particular sense to you, as a video game designer? Would you think of these problems in these terms? How would you approach them?

Answer: they all make a lot of sense to me as a video game designer. The notion of possible worlds, for example, is central to the games that I'm most interested with, which are less about a pre-

⁴⁰⁵ Niantic, *Ingress* [video game], 2012.

⁴⁰⁶ Niantic, *Pokemon Go* [video game], 2016.

formed narrative, and more about a realm of possibilities for players to create their own experience and their own story. And universals are very close to the idea of first-class entities, where you design the template of something and then you create multiple instantiations of it – which is a very common technique not only in videogames, but in programming in general. There’s also another common technique, called ‘identity components systems’, which takes a slightly different approach: instead of defining a ‘knight’ character, for example, and then creating copies or instances of that, you might define the meta-level of something having physics, and something having health, and something being able to fight, and each thing is created by combining those various meta-level components. In any case, what you described maps on pretty well on professional video game design practice.

Question: the technique of ‘identity components system’ seems to coincide almost exactly with a metaphysical theory called ‘bundle theory’. [Follows: a brief explanation of bundle theory]. Philosophers don’t know that video game designers do this, and video game designers for the most part don’t know that metaphysicians think along similar lines as them.

Answer: interesting, that’s cool. I had never heard these theories.

Question: These interviews are meant primarily as a way for me to learn the approach of a video game designer, and to test if my hypotheses make sense to a video game designer. I will read you an excerpt from my analysis of time in TW:R2. [Follows: I read a section from 3.4.4.2, from “the present in TW:R2 is a segment that is measured by the passing of calendar years”to... “these worlds don’t literally exist unless they are loaded, and thus turned into the ‘actual’ world.”]. In those lines, I explain how I understand time to exist in relation to possible worlds within a video game. [Follows: a brief explanation of the theories of modality/possible worlds.] Do you think what I just read to you make sense? Is it relevant to the way in which you, as a videogame designer, consider the problems of time and possible worlds?

A: Definitely. It made me think about a few things. Earlier I was saying that in video game design there is a more technical notion of time in terms of frame-rate, and then there is a narrative time... but after hearing what you just read, it seems that there’s also a third notion of time in a turn-based game like TW:R2: the narrative time is that at each turn a season passes, but within each turn all things happen simultaneously. It’s like a weird hack in that as a player we can only exist within a

linear time, but the game translates that linearity into simultaneity. All that stuff that we as players do in sequence, actually happens simultaneously in a turn-based game. That's a pretty interesting way of thinking about that.

Question: If I entered your studio, and you were discussing how to create time in a game you're working on, and I said something like what I've just read to you – what would you think about it?

Answer: I can't really think of a way in which it would actually affect game-play. Unless you're designing a game that deals specifically with the notion of time, a lot of this stuff is somehow taken as a given. At least I haven't really given it a whole lot of thought in this way... For example, if I'm trying to determine how time should work in my game – should I have real time, should it be turn-based? And so on – it's more based on what is manageable from a development standpoint. If everything is happening in real-time, that could make development more complicated. If you're doing everything turn-based, then it's easier to develop it. In a turn-based game, you can easily manage a hundred things in each turn, but in a real-time game that prospect becomes too daunting for a player. That's the typical thought-process, when it comes to making games: what is more manageable for the player, as well as for the game-developers.

Another interesting perspective is on multiplayer games: you talk a lot more about time in those contexts, because if you have to synchronise multiple streams of time, that's a pretty difficult thing to orchestrate. Designing a multiplayer game is a typical situation where a video game designer thinks seriously about time.

- Jelena Viskovic

Question: I will talk about one specific aspect of metaphysics and then I will ask you how you would approach it. The aspect that I'd like to discuss with you is what we could call 'properties', which you'd describe philosophically as 'universals'. [Follows: a brief explanation of universals]. How do you think about universals when you create a video game-world?

Answer: When we talk about this, I immediately think of object-oriented programming – where you have big groups of things that contain smaller sub-groups, and these sub-groups in turn have their own properties.

Question: Is it like the classification of animals in genera, species, etc?

Answer: Yes exactly. It's interesting that you can also cross-breed these groups, and they can be applied to very different things [in the game-world]. For example, there can be properties that can be applied to, say, both an animal and the weather.

Question: Is there an alternative to object-oriented programming?

Answer: Object-oriented programming is still the main method that is being used in video game design. But the way in which programming is going right now is to have 'deep objects' – so, you have different libraries of programs, different packages that can be applied. In this way, programming becomes a modular system, where you use programming to define the architecture of a game, but this architecture can contain also, for example, libraries for machine learning or something like that – and that's a different way of programming. But most of the main game engines still use object-oriented programming, with this structure of objects that inherit properties from each other.

Question: Do you think that the designer that built TW:R2 used object-oriented programming?

Answer: Yes, definitely.

5.4.3 Analysis

The first series of questions in this section had to do with an extended exercise of visual analysis, where I showed my interviewee a number of screenshots from TW:R2 and I asked them to tell me what they (as video game designers) saw on the screen.

The range of answers was remarkably consistent, concerning in particular the functional and interactive aspects of the video game-world. My interviewees seemed to read the images presented in terms of their dynamic potential for playability. A second focus to emerge was the technical aspect of engineering: how that world had been built, using what technology and what engineering

model. At times, as with Francis Tseng, our observations coincided in practice, while differing in terms of the vocabulary that we employed to describe them.

Asked to comment on my philosophical way of doing the same exercise, my interviewees replied by voicing their concern in terms of the applicability of my method. As noted in particular by Ryan Sumo and Soren Johnson, the main problem would be the impact on the ease of playing and of engineering the game. As in the case of the previous section on the creation of a digital world, these answers are both a warning and an indication of an important aspect that the philosopher should keep in mind: the ease of interaction (both for the player and for the designer/programmer) is a key element to consider, when thinking of inserting a philosophical perspective into the design process.

The second series of questions in this section aims to deepen the dialogue between philosopher and designer, so to make emerge the proximities and distances of our respective approaches. Once again, the conceptual proximity and linguistic difference between philosophy and video game design appeared very clearly. Particularly in the discussion with Jelena Viskovic and Francis Tseng, it was clear that certain metaphysical theories and certain forms of programming share the same conceptual approach, even though they articulate it through different vocabularies. Both philosophers and video game designers seem to be paying the price of their ignorance of the other's language, which could be an obstacle to discovering the common ground that already lies underneath both their practices.

Francis Tseng's remark on multiplayer games (whose attention on the element of time is typically keener than in other forms of games), can also be read as a suggestion that different forms of game – rather than different game genres – might offer unique opportunities for the insertion of philosophical thinking within design. Like many of the other suggestions offered by my interviewees, this has influenced the idea and the design of my prototype for a speculative, philosophical game, *Lamassu*, co-created with Jelena Viskovic.⁴⁰⁷

⁴⁰⁷ See *Lamassu*, with its accompanying text, in the *Appendix* to this thesis. Also, see *intra*, 6.3.

5.5 A PLACE FOR PHILOSOPHY IN VIDEO GAME DESIGN

This last set of questions explores what the opportunity (or the possibility) might be to include a philosophical mindset as part of the toolkit of a video game designer, and a philosophical consultant within the team of a video game studio. I also asked my interviewees to suggest how to improve the presentation of my research to video game designers. Finally, I asked them to suggest another possible candidate for an interview, thus reconnecting this final section to the beginning.

5.5.1 Does a philosophical approach to videogame design make sense to you? Does it sound useful?

- Jelena Viskovic

Question: Does this of way of looking at video game-worlds through philosophy makes sense, from the perspective of a video game designer?

Answer: I think that a game-world could be designed in this way [i.e. philosophically]. I can actually imagine a game designed in this way. It'd definitely be important, also to avoid the endless repetition of the same industrial products. And philosophy could also change the narratives that are typically used in video games. The problem, though, is that 'big' mainstream games, like TW:R2, are typically designed with a completely different mindset. But I think that it's a very interesting way to analyse video games.

Question: how are they usually designed in mainstream studios? What kind of approach do they typically have?

Answer: Especially now, they take patterns from previous video games that have been commercially successful. I think that a lot of it is also related to the genre of the game, so for example a stealth game has its own specific mechanics, or open-world games have their own specific mechanics – and then the same thing applies to object-orient programming, where a whole game can be reduced to a flow chart.

- AAA Collective

Question: I will tell you how I read philosophically a certain aspect of a video game, and how I try to imagine an alternative to it. Then, I will ask you to comment on the design values of my reading. When looking at a strategy video game like TW:R2, I noticed that the highest degree of existence is assigned to the properties: a series of abstract categories, like in object-oriented programming. First, you have these abstract categories in the menus, and then you have examples of those categories actually taking place on the map.

(Troy): Could you break this down into an example?

Question: For example, you have the possibility of creating a certain type of building, even before you have actually created any of them on the map: the button is already there, regardless of whether there are any concrete examples of that building on the map. Even if you destroyed, say, all the theatres on the map, the possibility of creating a theatre remains. Even before you have built any legionary unit, the button, or option, of the legionary unit is already there in the menu. So, I realised that those abstract categories are the primary existents in these games. This way of looking at the world is the typical way in which 'realist' metaphysicians look at properties, which they call 'universals' [Follows: a brief explanation of realism about universals.] But there are also other philosophers that don't believe these abstract categories can truly be said to exist [Follows: a brief explanation of nominalism]. So, I tried to see how that game would change, if we were to base it on nominalism rather than on realism about universals. [Follows: a brief explanation of the consequences of this shift in the design of TW:R2]. Do you think that this way of looking at video games is something that video game designers might find useful?

(Troy): I would definitely love to read something like that, and I'd find it useful for sure for my own work. I also doubt that many people would. It would take a very specific kind of person and most people would have a much less philosophical approach to games.

(Gabriel): It really depends on who you are talking to. Mainstream videogames are based on a logic that is very capitalistic: it's usually about different ways of showing a maximisation of profits and

points within the game and it always has a very straightforward logic, so it doesn't really allow, for example, for the simultaneous existence of many different worlds. In mainstream games you have this one world, and your goal is to function best in this one world. If you allowed for different worlds taking place simultaneously, or for different occurrences of reality to coexist, it would break down the logic with which you're actually playing. It would make a mainstream game, not unplayable, but unplayable in the way that people usually want to play. So, in the mainstream videogame industry I'd expect designers to tell you that this (i.e. this philosophical approach) is a nice idea but it wouldn't make them enough money. Your approach is definitely something that is interesting to video game designers, but not in the mainstream industry.

(Troy): Culturally, games are in a really frustrating place because they're stuck between a movie and a sport. And the sport part is pulling things into a purely mechanical place. But lots of other people outside of the mainstream would be interested – I'm interested, for example! One toxic reason why there might be resistance to this philosophical approach to videogames, might be that you can't be better than someone else at something if it's a fluid thing that changes. You'd need to have a solid set of rules to be able to dominate everyone else. To excel and to create a hierarchy in which you can defend your position you need to have rules that are unchanging.

- Francis Tseng

Question: I'd like to ask you to assess the idea that the introduction of a philosophical method might be beneficial to the design process of video games. What do you think it might be able to contribute, and what would be the main obstacles to its application?

Answer: I think that the philosophical approach, as you present it, is really relevant to video game design more broadly. Your ideas have a lot of relevance, they're very interesting, although the level of depth of your analysis is too much for a large mainstream studio of video game design. But that's definitely something I'll be thinking about more from now on, as I design games. Maybe there's a technical or practical constraint on its application, though. As you're describing these different ways of conceptualising how these game-worlds are designed and structured, it's very difficult for me to figure out how you'd actually build a game like that. I think that's because it presents challenges at the level of video game design, but also in terms of programming more broadly. Do you know

‘object-oriented programming’? There are two major programming paradigms: functional and object-oriented programming, and the latter is by far the most common way of programming. I’d say that pretty much all video games are built on the object-oriented paradigm, including TW:R2. That programming paradigm is very explicitly this kind of Platonic method that you described: you define this template class, and you create instantiations of that class. So, that approach of programming itself is biased towards this particular way of designing games. This means that there’s even a deeper challenge here, since design is reflected at the level of code implementation. But I think there are some games that try to do that. For example, are you familiar with ‘procedural generation’? It’s a relatively fringe way of designing games, mainly because it’s pretty unpredictable, so you don’t see many large studios take on this approach. According to this method you don’t predefine game entities, but you may define some of the parameters that roughly define them... For example, you’d say that the colour brown is within a certain range of wavelengths – even if it’s not exactly ‘something’, it corresponds to a range that most people would call ‘brownness’. In procedural generation you define these functions that dynamically produce things without anyone pre-determining specifically what these things are. A notorious example of this is *No Man’s Sky*,⁴⁰⁸ which is entirely procedurally generated. It’s a game where you play a space traveller and you fly across planets and you explore them. The fact is that none of these planets are actually pre-defined in the code, there are just some map functions and they are generated dynamically. From my perspective that’s a big technical achievement. It did very badly as a game, though. Not for those reasons, but because perhaps they were too focused on the technical aspects and they neglected the game play... This game has also a more fluid notion of game. For example, in TW:R2 you snap between these different scales (you have one view that is combat-view, one is city view, etc. They are very discreet), whereas in *No Man’s Sky* it is continuous: you can come from space onto a planet, land on the plant and then you can look at the ground and even the little pebbles on the ground are procedurally generated, like the atmosphere and the stars are. Maybe procedural generation is one way of breaking out of this existing metaphysical framework in game design.

Question: Do think that this kind of philosophical approach might have some sort of meaningful contribution to the way that we approach innovation in the creation of new video games?

⁴⁰⁸ Hello Games, *No Man’s Sky* [video game], 2016.

Answer: I'd love to see games that manage to do successfully what you're describing, but for me the main roadblock is "how would you actually make those games?". But maybe procedural generation is one technique that might work... I think that your approach has a lot of relevance also at the studio level because one of the issues with games is coming up with new content for a game. Nowadays the standard model is that you publish a game, and then over a period of time you release new downloadable content and expansion packs so that players keep paying for the game. But it's difficult to constantly develop that content, and one reason that *No Man's Sky* was so appealing was that you don't have people creating content by hand, but you have a system dynamically generating things as it goes. When you're describing these kinds of different games, it was popping into my mind is that it's a more flexible way to create games. Game design now is pretty rigid: you have these kinds of categories of things and there's nothing that can exist outside of those, but perhaps there are more ways of making it so that it's not as tightly bound, for example though what you're describing.

- Mundi Vondi

Question: Earlier, you mentioned the importance of keeping in mind the laws of physics while designing a game-world. But alongside physics there is also metaphysics, which applies to a more abstract level. Let's think for example about the notion of 'qualities' and how they are connected to objects. [Follows: a brief explanation of realism versus. nominalism about universals.] There are two very different metaphysical approaches about this issue. While in physics there is generally more consensus about the fundamental qualities of the world, in metaphysics there are several viable hypotheses and less overall consensus. Do you think that it might be interesting for video game designers to experiment at a metaphysical level, in the creation of new video-game world?

Answer: First, I'd have to understand what exactly is the game in which they'd like to create those different metaphysical structures. The metaphysical structures have to follow the game. It could be a game where you are rolling around and it's going to be fun because there are a lot of slopes. Or we could design a game in which we need a lot of flatlands, because the player has to build buildings. Or we know that there will be a lot of players, so we need a lot of space because the world has to be big enough to contain them all, and the resources have to be plentiful. You see, we build up a

world very logically like that. Going the other way around, where you start with the metaphysical structure is an interesting approach, but... I've never seen anybody do it.

5.5.2 A philosophical consultant?

- Paolo Ruffino

Question: I'm not aware of any studios that employ a philosophical consultant in the same way that they employ historians or narratologists as consultants. Is that right?

Answer: yeah, I've never heard of it.

Question: my thesis is that it would be possible to reconceptualise video game design, by looking at its world-defining architecture through the lenses of metaphysics and metaethics. Has this been done before? Do you think it would make sense?

Answer: I think that it would make a lot of sense, and this might be a time when video game designers and developers are becoming a bit more receptive to something like this. If you think about strategy games and war games, I haven't seen much innovation in a long time, so it might be the case that something like this could find an attentive audience there, as they might be looking to finally make something different. There are philosophers who make video games, I think for example about Ian Bogost, or about some games made in the Institute of Digital Games in Malta. I think for example about the work produced by Stefano Gualeni. There are some scholars who also make games. For example, in 1970, the mathematician John Horton Conway made the *Game of Life*, an artificial intelligence game that simulated a game playing itself. They do it either to talk about their philosophical concepts in a different way, or to try to make you think about some concepts that are typically used in informatics, philosophy or game design.

Question: does this also happen at the level of mainstream studios?

Answer: not that I know of. There is a growing interest now for morality and ethics, that's for sure. For example, Miguel Sicart writes about the ethics of computer games. Narrative choices are often

looked at in terms of their ethics. I don't know if a AAA studio would employ a specialist for that, though...

- Soren Johnson

Question: when you were creating OTC, you called a scientist to advise you. What if I suggested that a philosopher might also be able to advise on the way in which you create a video game-world?

Answer: could a philosopher contribute to a game by suggesting different worldviews and world-models?

Question: yes, both at a general level and in terms of the details. A philosopher would be able to suggest ideas in terms of the general way a world works, as well as the details of it. For example, when you consider a certain option in the way the world works, there are several other options available, and a metaphysician would be a specialist in that. Would that kind of figure would be in any way helpful in a studio?

Answer: I think that there could be some games that would be able to accommodate that. But I'm thinking only about games that deal specifically with philosophical issues. For example, games that deal with the questions and ideas raised by sci-fi – like the problem of identity in the event of teleportation: who are you, the old thing that was teleported or a new thing, since the old one was destroyed? What happens if instead of teleporting you they just copied you: which one is you? I think that a philosopher would have a good chance to work out how these different levels would work. These kinds of games can potentially exist. Frankly, what I worry about from my own point of view is not necessarily philosophy, but history. In the games I've worked on, *Civilisation III* and *IV* and *10 Crowns*,⁴⁰⁹ there are a lot of historical elements, but I also want to change a few of them on the basis of the fact that they'd work better that way. At some point the game takes over, it takes a life of its own and it is out of your hands. You can make the comparison that towards a video game-world a designer is like a god, but certainly they're not an omnipotent god. If the game needs to be

⁴⁰⁹ Mohawk Games, *10 Crowns* [video game], forthcoming.

fun, then we have to be true to that aspect of the game. You can make a world just like you want to, but there's a good chance that nobody will play it.

- AAA Collective

Question: Do you think that there is any chance that at some point philosophical consultants might be a normal staple in a videogame studio, like narrative or historical consultants already are?

(Gabriel): In the AAA industry, I doubt it...

(Troy): Would that make a mainstream studio more money? Because if it does the answer is yes, and if it doesn't the answer is no. It's that simple, I'm afraid.

- Mundi Vondi

Question: Strategy video games like Total War typically select a place and a time in history, and on that basis, they create a certain video game and a certain world. My idea is to use metaphysics, in the same way that they use history. I'd even suggest bringing a philosophical consultant into a video game studio, to discuss with video game designers all the different metaphysical options that are available, when they have to design their world. Would this be useful in any way, or doable at all? How would you envisage a philosophical consultant joining a team of video game designers? Where should they be positioned within the company and the studio?

Answer: it sounds like a very academic approach to me. And that has pros and cons. It's good during the honeymoon phase of game concepts, but very quickly after that, things have to become very clear and concrete. Philosophy is, or tends to be, often content with very being very confusing, and that could have a negative impact on the development of your product. I'd say that philosophy can help at the very early stage, when you're coming up with a new game concept. Everybody has a lot of opinions at that stage, video game designers, CEOs and even programmers: that's a highly volatile phase. If you can prove that a specific philosophical approach works well in terms marketing, and if you can prove that it succeeds in reaching a certain audience, that's usually very highly valued...

Often in smaller studios they can't afford a full-time person doing marketing, so a philosophical consultant could be appreciated if they present their contribution in a marketing capacity. In the production of a game, after the general concept has been nailed down, it goes very quickly to a different phase, where you design and create individual features – and that has to be a very technical approach, focused on user-experience. There's no space for any theoretical approach after you nail down the core concept of the game.

Question: Who is leading the early stage of conceptualisation? How does it work?

Answer: there's either the senior game designer or the creative director, or the team creative officer... and usually there's a room full of people that are throwing things around and there are a lot of arguments. The creative director or the team creative officer are responsible for making sure that things work well. But they also have to convince the CEO, the CTO and the CCO, so it's a very collaborative process – but ultimately the creative director or the team creative officer is responsible for that phase.

- Ryan Sumo

Question: Would it make sense to add a philosophical perspective to the way that video games are conceptualised and built, or maybe also a philosophical consultant to a team of video game designer? And, if at all compatible, in what way could philosophy enter the process of video game design?

Answer: Well, you're talking to someone who is kind of in your camp already. In general, I think that we could use more philosophy and ethics in everyday life, so having them inside games makes a lot of sense to me. But I'll explain why I think it might be difficult to include philosophy within video game design. And this comes from a basic understanding of programming: it's easier for programmers to reduce things into their composing parts and put them back together, and then you have a new object. Programming is basically a bunch of instructions, and those instructions tend to be very binary, yes/no, and so a character or object in a video game world can be thought of as a bunch of yes/no answers. I don't know if it's even possible for programming as we know it to create new kinds of systems, which may be richer and more interesting to a philosopher. But having

philosophers in an advisory role to a game designer would be an interesting idea. If only as a sounding board, as someone to bounce ideas off. That would be very interesting for me – I'd like to look at your ideas on TW:R2 for example and see how we can add something new and interesting to a strategy video game that might also be enjoyable for a player. But thinking pragmatically, it might be a stretch to hire a philosophical consultant as a permanent member of staff...

Question: What would be the problem?

Answer: Well, at a certain point, once certain ideas are kind of locked in the game development, it's very difficult to turn the whole design around. The more stuff you build, the more the design gets locked in and it's hard to undo previous decisions without basically remaking the entire game. I think that the role of a philosopher would be as a consultant at the beginning, during the ideation and conceptualisation process, and that's probably where they could make the most impact. It would make sense to have that person as a consultant that could work on multiple different games across multiple studios, and not necessarily being tied down to a single studio – unless it's a publisher who has a lot of different games, and they could bounce around different games...

Question: would there be any interest for this approach in the mainstream, or would it be just a niche experiment for independent studios?

Answer: I don't think that a mainstream environment precludes the possibility of philosophers engaging with the process of video game design. In fact, it might be very beneficial for a franchise to hire a philosophical consultant – they'd have a stimulus of new ideas during the conceptualisation process. It remains to be seen whether they'd actually use any of those ideas, but it's definitely worth their time at least engaging with a philosopher.

5.5.3 How to present philosophy to videogame designers?

- Paolo Ruffino

Question: How do you envision the possibility of establishing a stronger dialogue between video game designers (not just the indies, but also the mainstream studios) and philosophers?

Answer: What could be happening more in the long term, and is in part already happening, is to have more academic degrees on the philosophy of game design and development. There are already courses on the philosophy of game design, there is a game philosophy conference which is quite big, although it is mostly for philosophers rather than for designers. But many people who go to that conference teach game design, and their students are more receptive to this approach. There are more arts programs now that do game design, for example in UC Santa Cruz, where they've been incubating many independent companies. In Milan, at IULM, there is a master's in game design with a specific interest in philosophical and cultural studies. So, there is a new generation of game designers who are going to be much more capable of understanding these debates. I'm not sure about what would be the best strategy to proceed... Perhaps something like the video game exhibition at the V&A: someone who's making videogames now will probably go there and they will see that foundations of game design are much larger than what they're used to see...

Question: Do you suggest nurturing this dialogue through academia, and by changing the cultural discourse?

Answer: Yes. In the short term, if a philosopher would like to be noticed by video game studios, a good strategy would be to get your voice heard by writing themed articles that are visible to gamers and game developers. Ian Bogost is an excellent example of this strategy: he's been writing on many American newspapers and magazines for years, on top of writing academic papers he's also written books that can be read by almost everyone. And he's a game designer himself. He's the kind of person that is probably approached by development teams who are interested in his ideas and alternative visions.

- Jelena Viskovic

Question: What do you think would be a good way to present to video game designers and the video games industry, the potential impact of introducing a philosophical method?

Answer: I think that a good way to proceed, would be to have a less abstract approach. For example, you could produce a prototype of a game, where your ideas are immediately experienceable by players and designers alike. This would help to make clearer the possible impact of philosophy on video game design.

- AAA Collective

Question: Do you think that it might be possible to integrate philosophy in the process of video game design?

(Gabriel): I don't think that that would be such a difficult thing. Art has always been influenced by philosophy. When I'm doing a game, I'm aware of the things that I've read and thought about before, it is almost automatic. The games I make are nourished by, and full of, the philosophical questions that I've asked myself.

Questions: in what way should a philosopher go about presenting their potential contribution to video game designers?

(Troy): For example, a few years ago you published a book with Zero Books,⁴¹⁰ and there's a bunch of philosophical stuff in there that has inspired some of the games that we've been making. But I think that we video game designers are used to thinking about philosophy as a theme, but not as a way to understand the mechanical, systemic aspects of the games. I don't think that your approach is the way in which anyone is currently applying philosophy to videogames, and it would be very interesting to do this. Just keep in mind that you're talking to a different audience, and some of them have a higher education while some of them don't. It's not even like talking to art people, it's more like talking to random people. I'd suggest making language very clear, with examples that would be able to bring into action what you're talking about, so that people would understand how they could actually apply that.

⁴¹⁰ See F. Campagna, *The Last Night: Anti-Work, Atheism, Adventure*, Alresford, John Hunt Publishing, 2013.

- Francis Tseng

Question: What would you recommend that I did, to make it my philosophical approach relevant, usable or even just palatable to video game designers or video game studios? And who do you think would be the best interlocutor for a philosopher within a video game studio?

Answer: The designers and developers would be your ideal interlocutors. I think that the challenge is to bridge the gap between this new way of thinking about games, and actually figuring out how it would manifest within existing game development, or how you'd transition away from existing game development processes to accommodate something like what you're describing. It would help if you had a concrete example that video game designers could look at or even play. The ideal would be to implement some kind of proof of concept that demonstrates one of these approaches. Obviously not on the scale of a game like TW:R2, but even just a toy example would be good. A prototype that would embody what you're describing would go a long way.

5.5.4 Analysis

This final series of questions went to the heart of my thesis, directly touching the issue of whether it is possible or desirable to include the perspective of philosophy within the toolkit of videogame design.

First, I asked my interviewees to tell me if the philosophical outlook (as I tried to explain it in the course of our conversation) made sense at all, and if it sounded useful. There was a general consensus about the originality of my approach, and its potential to open an interesting perspective on videogame design. But my interviewees didn't hide their scepticism on the opportunity to actually include it within a video game development studio.

Their main concern had to do with the impact that philosophical experimentation could have on the playability and the 'fun' aspect of the game – which are crucial elements also within a commercial perspective. The AAA collective pointed out the conflict between the fluidity of philosophy's approach, and the rigidity of the motivational system which is currently ingrained in videogames – something "between a movie and a sport". Indeed, in most of the 'modified' versions that I

suggested for my case studies, competition would become very difficult, primarily because it would be difficult to measure results – and thus to grant the player with that sense of “domination” that is currently perceived as important to gamers. Another concern was the absence of previous examples of this being done, which seems to suggest that it might not be a feasible possibility. Technical constraints also added a further level of criticality, although they could be potentially overcome by new technologies such as procedural generation – as noticed by Francis Tseng.

Subsequently, I asked my interviewees to comment more in detail on the potential of inserting a philosophical consultant within a video game studio, and on what would be their place (if they had one at all). Again, nobody hid their scepticism about the possibility of establishing such a position on a permanent basis. Many of my interviewees mentioned the problem of how the development of a new videogame soon crystallises into a set form – thus making philosophy’s contribution to innovation rapidly irrelevant. Nonetheless, it was suggested that a philosophical consultant might be able to operate: 1) during the early stage of conceptualisation of the game, 2) as a part-time figure, either across different companies or across different projects within one large studio.

Finally, asked to advise on how to open a dialogue between philosophers and video game development studios, my interviewees offered two crucial suggestions: 1) the language adopted by the philosopher has to be clear enough to overcome the distance between different vocabularies, 2) examples and prototypes could prove essential to send across complex philosophical content to the attention of video game designers.

In terms of the media that could achieve such bridging of the distance between the field of philosophy and that of videogame design, my interviewees suggested two main courses of action: 1) the creation of proofs of concept and prototypes, 2) interventions at the level of videogame culture, for example through magazine articles, thematic exhibitions, and interventions at the level of academic curricula in university courses dedicated to video games.

CHAPTER 6

CONCLUSIONS

This chapter concludes my thesis. In the following pages, I summarise my findings and I refine my previous conclusions on the basis of the interviews presented in the previous chapter. In order to render explicit the unfolding of my research, and in the interest of a future expansion of its line of inquiry, my conclusions are presented in the form of an assessment, correction and integration of the objectives and methodological proposals that were put forward in Chapter 2. On the basis of these assessments, the last section of this chapter connects this thesis with the prototype *Lamassu* (which accompanies my thesis, together with its explanatory text), where the main ideas of my research are presented experientially as a speculative video game.

6.1 ASSESSING MY METHODOLOGY

In the methodological section of this thesis, I presented a step-by-step presentation of my research, which I universalized as a possible method for anyone interested in pursuing the line of inquiry developed in this thesis.⁴¹¹ Now that my findings have been tested with a set of professionals in the video game industry, it is necessary to consider whether my approach requires any modification.

The section on the literature review proceeded as set out in my methodology, and it did indeed require a through investigative work on the fields of video game studies and of metaphysics and metaethics. The methodological suggestions issued in Chapter 2 thus remain valid for this section, but they might need to be expanded at least in one direction. On the basis of my experience with the speculative re-design of TW:R2's metaphysical and metaethical structure, I have noticed how the process of philosophical reinvention has significant elements in common with literary fiction. Although it might be sufficient to simply sketch in formal terms the alternative game-worlds that would derive from different fundamental architectures, it would be worth developing these sketches also in reference to their literary potential. In view of universalizing my methodological proposal, I would recommend complementing the literature review with an engagement with (not games-related) literary criticism – especially concerning 'theory fiction', as briefly discussed in Chapter 1.3.4. Equally, sustained practice with writing, and especially with narrative/fictional forms of writing, might prove beneficial to a researcher who wishes to support their speculative findings with an adequate writing style. To this aim, it might be useful to consider the possibility of developing academic research on this topic – constrained as it is by the stylistic parameters of its particular form – also towards an enhancement of the literary element of the exposition, without sacrificing intellectual rigor. This might be achieved, for example, by keeping the flow of the text unbroken by quotes and references, while moving the additional bibliographic references and excursus to the paratext (e.g. to the footnotes, which might be expanded to form a parallel body of text, or to other equivalent para-sections complementary to the main text – a noticeable example being Roberto Calasso's typical placement of references at the end of his texts, where the text is free from links to the references, while the references do link back to the relevant page and line in the text).⁴¹²

⁴¹¹ See *intra*, 2.2.3.

⁴¹² See this bibliographic solution, for example, in R. Calasso, *Ardor*, London: Penguin, 2015.

The following step of my research, consisting in the creation of a matrix of metaphysical and metaethical alternatives, as drawn from the existing literature, has proved of crucial importance to my work. In view of a further refinement of my methodology, it would be worth emphasizing the process through which the elements composing this matrix have been selected by the researcher – since the range of alternative takes on a philosophical field is as infinite in its variety, as it is subject to constant expansions by new authors. In the case of my research, I have kept such ‘matrix’ outside of the body of the text, maintaining it among my own working materials. I attempted to expose my criteria of selection in an indirect fashion, through the provision of a (necessarily subjective and, as declared, selective) ‘brief history’ of the disciplines that I was exploring. In the case of future researchers working in this area, it would be interesting to make it even more explicit within their research, for example by placing added emphasis on the implications of a certain selection of philosophical sources, and on the alternative selections that might have been possible. Once again, this would amount to bringing to the fore the speculative and literary quality of philosophy, and to presenting the parameters offered by any chosen constellation of philosophical references as comparable to the restrictions used by Oulipo writers for their writing exercises.

The following step,⁴¹³ where the matrix is applied to the reading and speculative reinvention of a case study, remains the central element of this research – as it might be, predictably, also with any other effort along my same line of inquiry. However, as it has emerged during the interviews, the abstract language of philosophy might present some difficulties to non-specialist interlocutors. This difficulty can be interpreted in light of Socrates’ admonishment:

You know, Phaedrus, writing shares a strange feature with painting. The offsprings of painting stand there as if they are alive, but if anyone asks them anything, they remain most solemnly silent. The same is true of written words. You’d think they were speaking as if they had some understanding... But if you question anything that has been said because you want to learn more, it continues to signify just that very same thing forever... [Every written text] always needs its father’s support; alone, it can neither defend itself nor come to its own support.⁴¹⁴

⁴¹³ See *intra*, 3 and 4.

⁴¹⁴ Plato, ‘Phaedrus’, 275d-e, in *op. cit.*, trans. A. Nehamas and P. Woodruff, 1997, p. 552.

Any theoretical contribution that is presented in a written form – however narrative its style may be (as in the case of Plato’s dialogues) – remains always in need of support from its author in the form of an actual, face-to-face dialogue with an interlocutor. As remarked by the ancient Greek rhetorician Isocrates:

When written texts are used, and... misconceptions arise, there is no one to correct it, for since the writer is not at hand, the defender is lacking.⁴¹⁵

In reference to this aspect, the methodology provided in Chapter 2 should be modified, to include added emphasis on the importance of the researcher’s presentation of their work in the form of public speaking (either as talks, lectures, workshops or seminars). In a public presentation, the apparent impenetrability of the text might be rendered more permeable to non-specialists, while not sacrificing the elements that are peculiar, and unique both to the written form, and to the specialist vocabulary of disciplines like metaphysics and metaethics. As claimed by the historian of philosophy Walter J. Ong:

Oral expression can exist and mostly has existed without any writing at all, writing never without orality.⁴¹⁶

This course of action might be able to preserve the intellectual strength of the philosophical language and method – which is too often sacrificed in the name of a supposed ‘pop-ularisation’, often amounting to mere oversimplification, or commercialisation as ‘pop’ culture – while counting on ‘real-world’ dialogue as the moment in which what is obscure in the text can be made explicit and eviscerated, according to the specific questions posed by the interlocutors.

The following step in my research concerned the synthesis of the findings that emerged from the philosophical reading of my case study, which had to be composed in one, coherent picture.⁴¹⁷ This passage has proved successful, in that my research has managed to detect a coherent philosophical structure sustaining to the game (in the case of TW:R2, an expanded [Neo]Platonic structure in metaphysics, and a realist naturalist reductionist structure in metaethics). Despite the reductions

⁴¹⁵ Isocrates, ‘Letter I: To Dionysius’, 3, in *Isocrates: Volume III*, trans. L. Van Hook, Cambridge, MA, Harvard University Press, Loeb Classical Library, 1954, pp. 373-375.

⁴¹⁶ W. J. Ong, *Orality and Literacy: The Technologization of the Word*, London and New York, Routledge, 1982, p. 8.

⁴¹⁷ See *intra*, 3.5 and 4.3.

that are implicit to any attempt to place a philosophical architecture under one encompassing definition – such as ‘Platonic’, ‘Aristotelian’, ‘Hegelian’, etc. – a definition allows for the synoptic viewing of a certain philosophical architecture as one whole, thus making more apparent the totalizing effect that a philosophical system can have on a video game-world. In this sense, the ‘Platonic’ quality of TW:R2, for example, counts not only as a technical assessment of its chosen metaphysics and metaethics, but more generally – and more profoundly – as the ‘ideology’ that regulates the ‘life’ of the populations living within its video game-world (and consequently, of the player’s interaction with, and ‘en-roling’ within such world).⁴¹⁸ As suggested by Slovenian philosopher Slavoj Žižek (where his reference to our ‘social reality’ should be transposed to their equivalent within the ‘social reality’ of video game-worlds):

The fundamental level of ideology... is not of an illusion masking the real state of things but that of an (unconscious) fantasy structuring our social reality itself. ... [Ideology is] always materialized in our effective social reality: belief supports the fantasy which regulates social reality.⁴¹⁹

Within the framework of this expanded notion of ideology, and through its connection with the metaphysics and metaethics sustaining a certain video game-world, it would also be possible to connect the line of enquiry developed in this thesis with the current efforts by several scholars to investigate the social and political impact of video game on contemporary society (an objective that, as I explained in Chapter 2, exceeds the focus of this thesis).

The final step in my thesis,⁴²⁰ consisting of seven interviews with professionals in the field of video game design, has proved crucial to the development of my research. It provided me with an important ‘reality-check’ of some of my assumption, with particular reference to my initial ambition to foster industrial innovation. Also, the interviews ignited the process that led to the creation of a prototype for a speculative video game, *Lamassu*, which I developed together with Jelena Viskovic. Both these aspects are discussed in the next section of this chapter.

⁴¹⁸ For a detailed and, to-date, pioneering philosophical investigation of ‘en-roling’ and ‘de-roling’ in video game-worlds, see S. Gualeni and D. Vella, ‘En-roling and De-roling in Virtual Worlds’, in *Op. Cit.*, 2020, pp. 25-64.

⁴¹⁹ S. Žižek, *The Sublime Object of Ideology*, London and New York, Verso, 2008, pp. 30 and 33.

⁴²⁰ See *intra*, 5.

In view of a possible universalization of my methodological approach, I recommend maintaining interviews as part of the research – and also to locate them, as I have done, at a later stage of one’s research work. This latter, seemingly counter-intuitive suggestion can be explained as follows: my research can already count as an example, and, if you wish, as a cautionary tale, for further researchers in this particular area at the juncture between philosophy, video game studies and video game design. Future researchers will be able to count on my research as an initial departure point, which they will be able either to develop along a line that is similar to mine, or to abandon in favour of a different approach. In either case, keeping the ‘reality-check’ for the end allows them to maintain their initial intuition as unaffected as possible from prejudicial constraints imposed by external expectations. Furthermore, by keeping it to the end, a researcher implicitly allows for a continuation of their work by future colleagues, on the basis of the assessments and modifications suggested in their conclusions (as it is the case in this chapter of my thesis).

The update of my method – which I first presented in Chapter 2, I applied in Chapters 3 and 4, I tested in Chapter 5, and I have just assessed in this section – counts as the main contribution to knowledge offered by my research. As the result of a work of ongoing correction of my initial methodological hypothesis,⁴²¹ it can also be expressed visually, in the form of a diagram that recuperates and corrects the diagram at the end of Chapter 2. (diagrams 1 and 14)

⁴²¹ See *intra*, 2.2.

TABLE 6
UPDATED METHODOLOGY

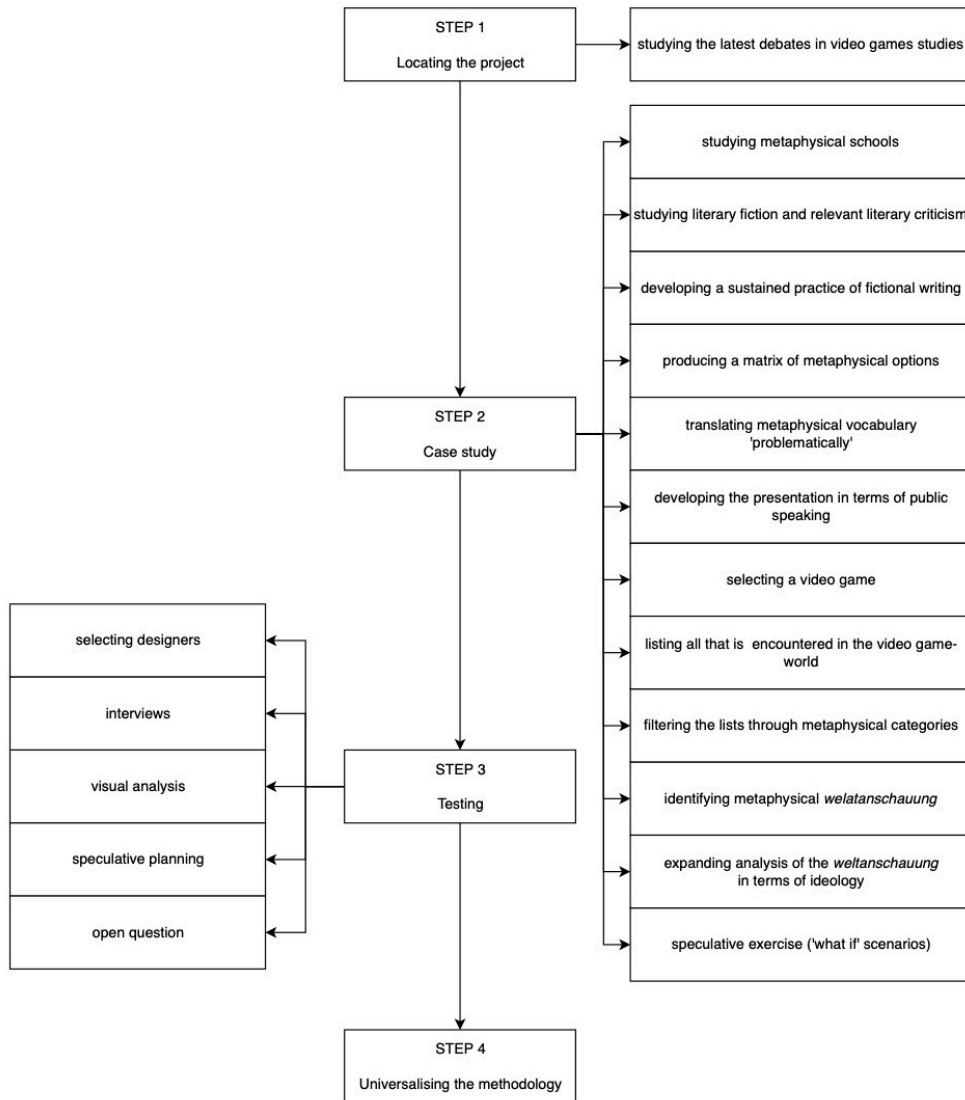


Diagram 14

6.2 ASSESSING MY OBJECTIVES

In Chapter 2, I outlined the objectives of my research along two main lines: ontological/academic objectives, and innovation/industrial objectives. In this final part of my thesis, it is necessary to take account of the extent to which I have succeeded (or in some cases failed) to meet my initial objectives.

The work that I have done in the first (literature review), third (metaphysics in TW:R2) and fourth chapters (metaethics of TW:R2) of this thesis have produced satisfactory results in terms of the first group of objectives. Firstly, I have identified an existing gap in the literature, concerning the role of the philosophical architecture sustaining video game-worlds – when these are considered in themselves as autonomous entities, and explored with particular reference to their relationship with their designers, rather than with their final users (and their society). Secondly, I have detected a fundamental (and internally coherent) metaphysical and metaethical architecture sustaining the video game-world of my case study. Thirdly, I have provided (speculative) evidence of how any modification at the level of this fundamental architecture would lead to fundamental transformations of said video game-world.

Responding to my original research questions, referring to my academic/ontological objectives, my research has systematically confirmed that it is possible to:

- Analyse a video game in reference to the conceptual architecture sustaining and structuring its world.
- Read this conceptual architecture through the lens offered by the philosophical discipline (as exemplified by metaphysics and metaethics), and with the same systematic rigour that has long characterised it.
- Identify a coherent set of philosophical choices operated by designers (wittingly or unwittingly) in the course of their creation of the video game-world being analysed.
- Envisage a number of alternative versions of the video game-world, simply by modifying a number of its founding, philosophical parameters.

The findings obtained in reference to my case study, can seamlessly apply also to the other major titles in the genre of strategy video games – whose fundamental architecture is by and large identical to my case study, also due to the repetitiveness of the genre – to the point that, as suggested in Chapter 3, they can be considered a standard for the whole genre (although this hypothesis would require further empirical test and confirmation on a representative number of other case studies).

As discussed in Chapter 2, a crucial goal of my research was to obtain a universalizable methodology to read the fundamental architecture of video game-worlds via metaphysics and metaethics (as epitomising the philosophical discipline more broadly). Although the specific metaphysics and metaethics that I identified in the empirical part of my research do not necessarily apply beyond the genre of strategy video games, the methodology that was adopted to obtain these findings is perfectly replicable also in reference to video games from altogether different genres, such as adventure games, shooter games, etc.

The fact of having satisfactorily answered my initial research questions, concerning my ontological/academic objectives, allows for a positive assessment of my research so far. Also, it contributes to identifying a possible area of development for scholarship at the intersection of philosophy, video game studies and video game design. As discussed in Chapter 1, it is desirable that future scholarship in this area will explore not only the Western canon of philosophy (as this thesis has done, although, admittedly, with the inclusion of a number of non-Western sources), but also non-Western philosophical traditions – among which, the millennia-old realm of Hindu metaphysics appears to me as especially promising, due to its complexity, originality and profundity.

A different assessment befalls the second set of my initial objectives, concerning the potential for industrial innovation in video game design. Following my interviews with professionals in the field, I have realised the difficulty of inserting the angle proposed by this thesis within the normal working processes of a video game studio. Firstly, as suggested by my interviewees, a philosophical approach to the design of video game-worlds would be applicable mainly (if not only) during the initial stage of conceptualisation of a video game. Once that stage had passed, according to my interviewees, there would be no longer any space for philosophical experimentation, which would have to leave room to technical implementation by programmers. Secondly, it appears that, in the industry, the commercial aspects of a video game take pride of place above any other concern, and that the

methodological angle suggested by my thesis would have little impact in this regard (unless one wished to connect it to marketing, as suggested, perhaps ironically, by my interviewee Mundi Vondi).⁴²² Thirdly, the feeble connection between my philosophical take on the design of the architecture of video game-worlds, and the ‘fun’ aspect of a game, seems to condemn my approach to a marginal position within the contemporary video game industry – placed, as it currently is, at the ‘entertainment’ end of the cultural industry (‘stuck between a movie and a sport’, as wittily remarked by Troy from the AAA Collective). Finally, my research determined that the language and method of philosophy remain significantly distant from the languages and methods that are currently deemed ‘legitimate’ within the video game industry, thus severely hindering the potential of inserting them within the current industrial processes.

While the ontological/academic objectives of my thesis have been duly met, it appears that its innovation/industrial objectives remain still distant from what I have been able to achieve within the scope of this thesis. A number of possible lines of development in this regard were suggested by my interviewees. These can be summarised as follows:

- Intervening at the cultural level, gradually introducing the methods and vocabulary of philosophy within the general discourse surrounding video games. This can be achieved through the publication of books and articles that exceed the academic realm, through the provision of public talks that are aimed primarily at professionals in the industry, and through a personal investment in furthering the – existing, but still pioneering – academic courses combining philosophy and video game design.
- Positioning my intervention away from the commercial realm (although, according to some of my interviewees, the mainstream still holds some promise for ground-breaking innovation), and into the realm of ‘art through video games’. Even though the realm of art doesn’t have direct influence on the industrial creation of new video games, it might have a longer-term influence on those video game designers (some of whom might work for mainstream studios) who seek inspiration among the latest experimentations with this medium.

⁴²² See *intra*, 5.5.2.

- Finally, but importantly, most of my interviewees suggested producing a prototype, in the form of a speculative video game where my ideas and suggestions might be 'played out'. Since welcoming this suggestion would exceed the scope of a thesis, as an essential complement to the text I have added a prototype for a speculative video game, *Lamassu*, which I produced with Jelena Viskovic. The next section of this chapter begins to explore the reasoning behind the creation of this prototype, which can be found alongside this thesis, in the *Appendix*, together with its accompanying text.

6.3 CONTRIBUTIONS TO KNOWLEDGE

Having concluded the thesis, and in the light of the latest revisions to my methodologies and objectives that I have delineated in this chapter, I can summarise the contributions to knowledge offered by my research, as follows:

- 1) Ontological/Academic objectives: I have offered the systematic articulation of a new argument in the field of video game studies, demonstrating that a video game-world can be effectively read, not only as a ludic/narrative/technological/etc artefact, but *also* as a cluster of philosophical options.
- 2) Ontological/Academic objectives: I have produced a step-by-step methodological outline for researchers who investigate the philosophical architecture of video game-worlds.
- 3) Industrial/Innovation objectives: I have offered a detailed examination of the potential for innovation disclosed by a philosophical reading of video game-worlds, showing how it is possible to radically transform a video game-world by manipulating its underlying philosophical structure.
- 4) Industrial/Innovation objectives: as discussed in the next section, together with video game designer Jelena Viskovic I have co-created the working prototype of a speculative video game, *Lamassu*, where it is possible to experience the variations that emerge from the adoption of different metaphysical and metaethical settings.

6.4 WHAT COMES NEXT: *LAMASSU*

This thesis met the first set of (academic/ontological) objectives that it presented at its onset. However, as discussed, this thesis alone does not suffice to achieve the second set of objectives that I originally outlined in Chapter 2. According to my interviewees, it appears that philosophy's proven ability to envisage alternative game-world scenarios, fails to be attractive towards the industry not because of an essential mistake in my hypothesis, but due to two accidental and external factors: the industry's resistance to investing in solutions that do not present immediate economic gain, and the unfamiliarity of professionals in the industry with the language and method of philosophy. The former problem far exceeds my possibilities of intervention, but, as discussed at the end of the previous section, it can be circumvented by focusing on the 'art' end of the spectrum of video game design – with the hope that, sooner or later, the industry will catch up with the most daring artistic experimentations in the field. The latter problem, however, can be addressed directly, both through means of cultural dissemination (as suggested by my interviewee Paolo Ruffino), and, especially, through the creation of a 'proof of concept' prototype.

To this aim, I asked video game designer Jelena Viskovic (whose existing body of work proves her strong interest in speculative design) to produce with me a prototype of a speculative video game. The result of our collaboration, *Lamassu*, offers an interactive, first-hand experience of how different game-worlds (and thus, different ludic realms) do indeed emerge from the adoption of alternative metaphysical and metaethical setups. Further details on the game can be found in the text that accompanies *Lamassu*, in the *Appendix* to this thesis.

Together with this thesis, *Lamassu* is intended as a point of departure – for both scholars, artists and designers – from which it will be possible to develop the ideas discussed in my research, towards a sustained praxis where the methods, languages and attitudes of philosophy and of video game design merge into a new and fruitful approach to the creation of game-worlds.

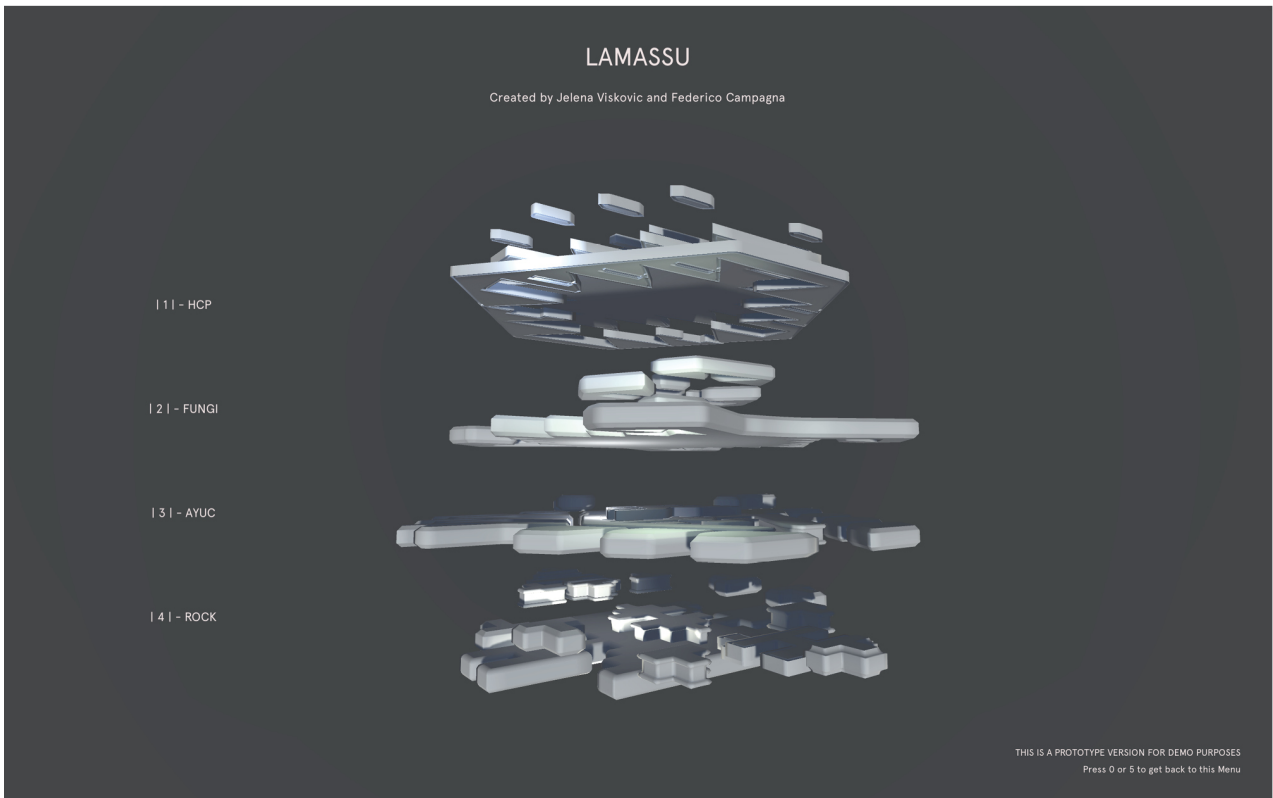


Figure 26

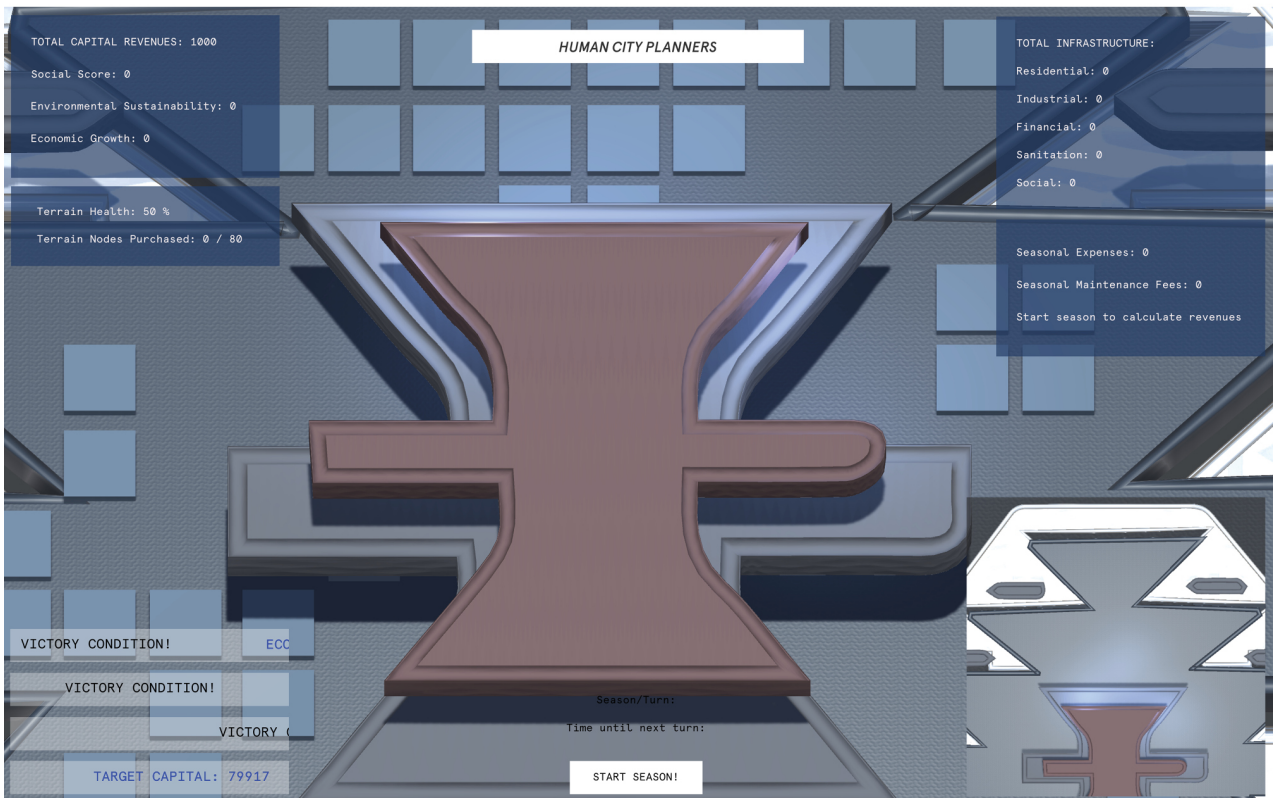


Figure 27

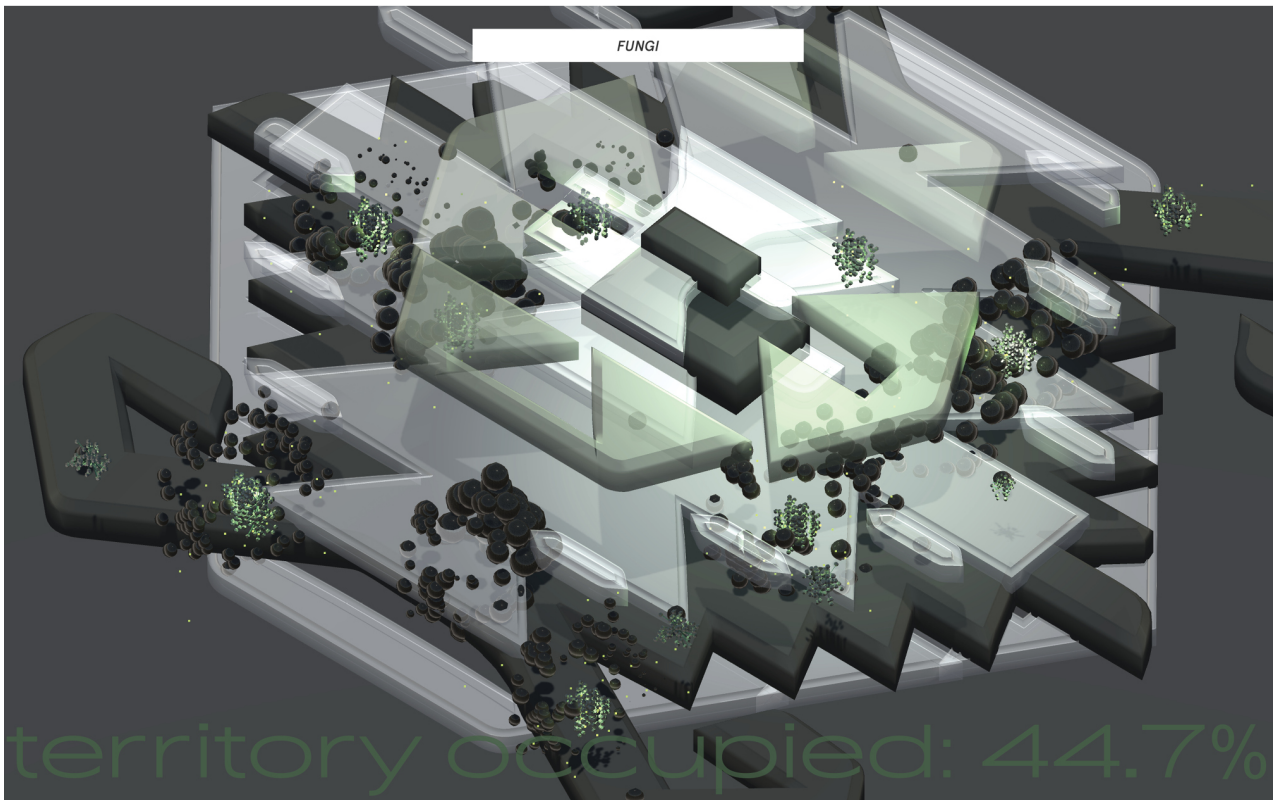


Figure 28

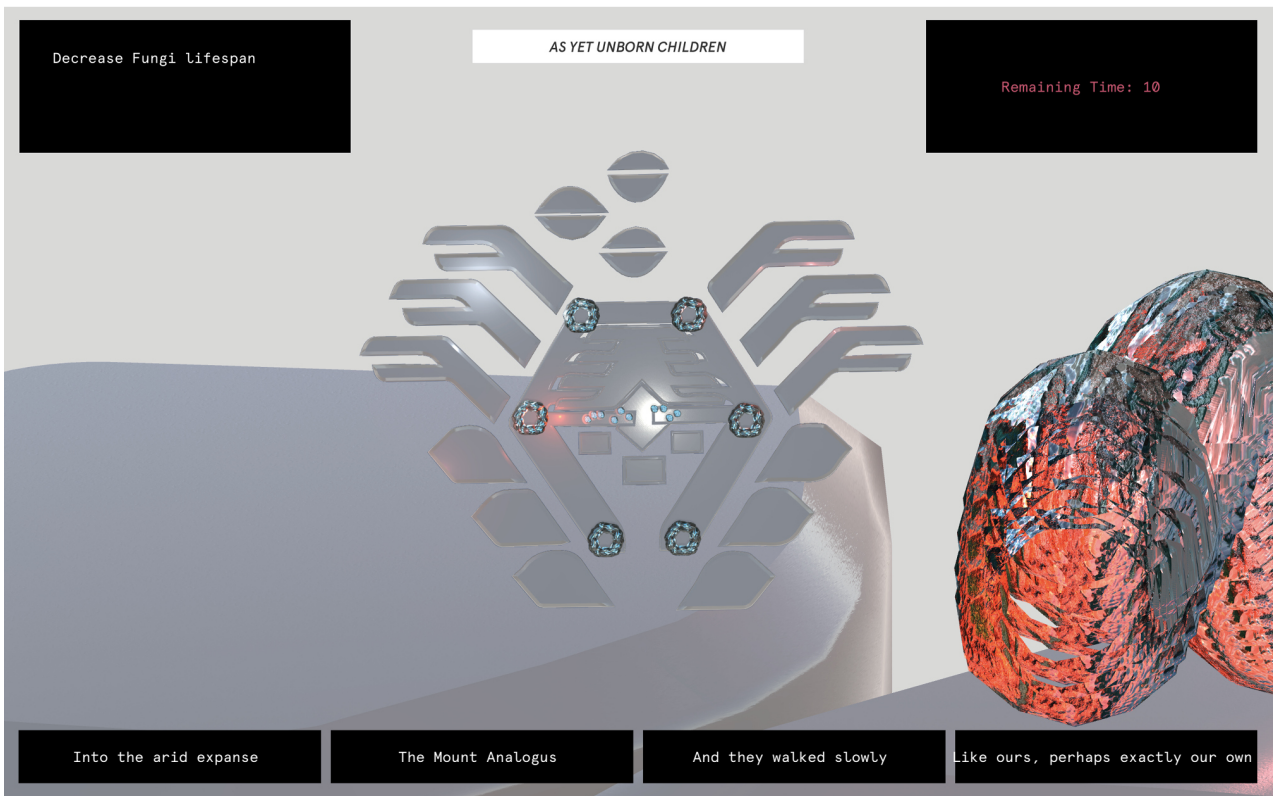


Figure 29



Figure 30

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