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Simulating the Ages of Man: Periodization in *Civilization V* and Europa *Universalis IV*

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Abstract

This article, through an examination of the historical arguments embedded in two historical strategy games, *Civilization V* and *Europa Universalis IV,* argues that historical strategy games present players with sophisticated models of historical change, in particular how time can be divided into periods, and historians with opportunities to revisit historiographical questions about periodization from perspectives unavailable through textual academic history. Both *Civilization V* and *Europa Universalis IV* present an opportunity to examine a familiar concept, periodization, through the new lens of digital simulation.

Author Keywords

Periodization; historical strategy games; historiography; modding communities

Introduction

For historians and historical video game designers alike the division of historical time into "ages" or "eras" is a useful, even necessary exercise. For historians, such divisions provide coherence, structure, and narrative to an otherwise continuous flow of human experience. For designers of historical games, such periodization makes change over time easier to represent in the rational world of the game code. Although historians and game designers have different reasons for adopting the technique of periodization, both by necessity engage with the same historiographical arguments about periodization (and by extension engage their readers and players in those arguments).

Civilization V and *Europa Universalis IV,* two historical strategy games, present conceptions of periodization and change over time which derive from both historiographical tradition and the rational necessities of the game algorithm. Additionally, the models of periodization presented by the two games differ from each other in important ways. This demonstrates that metahistorical arguments within digital simulations need not be narrowly restricted by the medium. There is room within the code for debate over questions of historical scholarship. As a result, historical strategy games can act as venue for the continuation of metahistorical debate which have their origins in conventional textual history. Both *Civilization V* and *Europa Universalis IV* present an opportunity to examine a familiar concept, periodization, through the new lens of digital simulation. In effect, the respective codes of the two games present, in

algorithmic form, systems of historical change which historians have debated in written form for centuries.

This article examines historical video games both as vehicles of historical arguments in general, and historiographical debates about periodization in particular. Both games simulate historical events over time. Players make decisions and guide events over hundreds or even thousands of years of time as measured within the game. This relationship between history and time makes such games ideal venues to examine how historians understand, represent, and quantify the passage of time – specifically by the division of time into coherent periods, eras, or ages. Building on previous research into the historical arguments of video games, this article examines the arguments *Civilization V* and *Europa Univeralis IV* make about periodization, and how these arguments engage with existing historical scholarship. Furthermore, rather than passively receiving these arguments, players interact with, and through modification even adapt, the representation and division of time in these games. The opportunities of play this provides are not just limited to playing the simulation but playing *with* the simulation through user modification.

Periodization

At their fundamental level, historical strategy games take place in a linear historical time frame, and ask players to make decisions or react to events as that historical context changes. As a result, they engage with, and make assumptions about, periodization. Periodization, in this context, refers to the division of historical time into discrete ages, eras, or periods, which can then be usefully studied (or in this case played). The process of locating, constructing, and characterizing these periods requires an underlying model of how change occurs over time. In this sense, periodization is not merely an act of cataloguing history through the imposition of arbitrary boundaries, but the manifestation of metahistorical questions at the core of historical research – what are the agents of change in history, how can they be identified, and are they uniform?

Historians have long held an ambivalent attitude towards periodization. While recognizing the necessity of dividing history into epochs, especially for pedagogical purposes, historians have lamented the artificiality of such distinctions (Wagner, 1988, p. 36). The inescapable division of human history into distinct periods appears to be both “rewarding” and “fatally reductive” (Besserman, 1996, p. 3). Foucault railed against the dangers of periodization, but nevertheless tacitly argued for its inevitability (or at least usefulness) by using epochal models in his work (p. 14). Marc Bloch considered “periods” absurd, but no more absurd than the years and dates that humans impose upon time in order to fashion coherence. In the inherently systemic world of digital simulation, the segregation of time into discrete periods is likewise an absurd necessity.

However, periodization is not merely a flawed tool historians require to construct coherent historical narratives. While deploying the “period” is a necessary simplification, it is also necessarily an argument. As Kathleen Davis (2008) demonstrates, periodization is a “fundamental political technique” which maps the past, but “renders its services *now*” (p. 5). The rupture between the conceptual worlds of the medieval and the modern underpins “some of our

most basic historical and political assumptions" (p. 6), and yet Davis finds the process of the periodization of the medieval remarkably understudied. The "foil" of the medieval "pre-secular" state is deployed to legitimize the modern, secular state. Davis' definition of periodization, "a complex process of conceptualizing categories, which are posited as homogeneous and retroactively validated by the designation of a period divide" (p. 3), is a useful starting point for an investigation of historical change in historical strategy games. If, as she argues, periodization is an important tool for defining our political and societal present, then exploring the arguments popular historical strategy games make about the epochal is a worthwhile exercise. Similarly, Ludmilla Jordanova (2012) points to popular understandings of the "period" as an important element in the consumption of commodities and visual culture, and indeed the construction of modern consumer identities (p. 98). Historical change over time is as much an issue of the present as it is of the past. It is noteworthy then, that two of the most widely played historical simulation games, *Civilization V* and the Paradox Studios historical series of which *Europa Universalis IV* is a part, present different (and in some sense competing) narratives of periodization (and therefore of the present).

The Historical Arguments of Video Games

In his influential book *Persuasive Games*, Ian Bogost (2007) outlines the ability of digital games to deploy what he terms "procedural rhetoric" far more effectively than other technologies or social interactions. By presenting an argument through "rules-based representations" rather than oral, written, or visual argumentation, digital games persuade in different ways than these more conventionally studied types of argument (p. ix). In other words, procedural rhetoric is "some type of engagement with process that can influence and potentially persuade" (Baerg, 2009, p. 119). In the context of historical simulation games, Bogost's (2007) claim that procedural rhetoric is a method of making "claims about *how things work*" is particularly relevant (p. 29). Applying Bogost's framework to *Colonization*, a game simulating the European colonization of the New World, Mir and Owens (2013) argue that the "game's model inherently suggests certain strategies and positions and thus shapes player agency and action" (p. 91-92). While the procedural rhetoric of games directs play by pushing the player, through a process of trial and error over repeated iterations of play towards specific strategies, it also has implications outside of the game. In effect, historical games present historical arguments which are seemingly validated by their ability to explain in-game outcomes. Whether this process is explicit (i.e. in-game text explaining the historical logic behind strategies of play), or implicit in shaping successful strategies, the message of "how things work" is delivered through play itself. In the words of Souvik Mukherjee (2016), simply by playing the player engages with the arguments of the game "whether he or she chooses to or not" (p. 15).

Here it is useful to narrow the definition of "historical videogames", which in Chapman's (2013b) terms are digital games that create a historical narrative by "asking and allowing us to experience its sounds, sights, and processes and requiring us to make decisions about and within that constructed past-*as*-history" (p. 328). Uricchio (2005) draws a distinction, or rather highlights two poles, of historical video games. On one end of the continuum lie games focused on a historical moment. Players take on a defined role (a fighter pilot in the First World War, or a race car driver in 1960s Europe) and inhabit a richly detailed history-world which constrains and shapes play. Alternatively, the other pole of historical video games explores changes over time

and provides players with a "more abstract, theoretical engagement of historical process" (p. 330). In historical video games which focus on strategy and world history, what I refer to in this article as "historical strategy games", the experience and decision-making of historical process is elevated over the sensory immediacy of sight and sound. Uricchio uses the *Civilization* game franchise as prototypically representative of this latter pole, a classification subsequent scholars have eagerly followed up. The *Civilization* games have featured prominently in the discussion of historical strategy games, with ideological and historical arguments advanced through its procedural rhetoric analyzed by several different writers (Voorhees, 2009; Chapman, 2013a; Wainwright, 2014).

Historical strategy games, and indeed historical video games of all kinds, exist within a cultural industry which consists of a "negotiation between the game designers' understanding of a profitable interpretation of the past and the player's own interaction with and reading of the history presented" (Gish, 2010, p. 177). While some historians and game theorists have questioned the rigour with which these games present their historical arguments, such arguments are consumed by the gaming public en masse. If, as Mukherjee argues, players engage with the historical arguments of the game whether they choose to or not, they also do so whether historians wish them to or not. Bogost (2007) describes a video game as a system of "individual procedural claims that the player literally completes through interaction" (p. 43). In the case of historical strategy games, these claims fashion what Uricchio (2005) describes as "particular visions or theories of long-term historical development" (p. 328). As a simplistic example, Paradox's *Europa Universalis IV* puts forward the claim that seventeenth century Dutch power relied on international trade flow from southeast Asia. Once the player has enough experience in the game to become familiar with the unidirectional international trade system, the optimal strategy while playing as the Dutch demands actions which direct resources to developing and controlling the flow of trade from Indonesia. In doing so, the player has completed the claim the game makes about the long-term historical development of European power.

However, like other forms of historical argument, the procedural rhetoric of historical strategy games is shaped by its medium. Due to their procedural nature, Kevin Schut (2007) argues that historical strategy games have an inherent bias towards presenting a "highly systematic" understanding of history. Non-systemic elements of human life are by necessity ignored, or abstracted into random number generation. Similarly, Rolf Nohr (2010) argues that historical strategy games "contribute to a latent stabilization of a type of knowledge", specifically, early twentieth century conceptions of "highly normative and reductive" geopolitics (p. 182-189). This inherent bias towards "systemic" history has led some historians to be wary of the ability of players to accurately predict outcomes once they are familiar with the system. The persuasiveness of procedural rhetoric becomes its undoing, creating "a sense of veracity outside of the arrangement of evidence and interpretation of the argument". The ability of the player to predict outcomes is more a product of the player's control over the game than evidence of a coherent historical argument which can be applied outside of the game (Clyde, Hopkins & Wilkinson, 2012). As Schut (2007) notes, this does not necessarily invalidate the digital historical game as a historical narrative, but merely demonstrates the particular limitations of the medium. Like all historical narratives, those presented through historical strategy games are by necessity shaped by the medium of expression.

Periodization in *Civilization V*

William Green (1995) separates the historiography of world history into "integrationist" and "regional" camps. Integrationist world history sees humanity as globally linked throughout history, which allows for historians to "employ common engines of change" to explain historical processes. Meanwhile, a regional approach emphasizes difference, arguing that human civilizations arise independent from one another, and therefore have separate internal principles of organization, rather than an over-arching theory of change (p. 99-100). Historical strategy games, which require the "common engine" of code to determine the simulation, tend to be integrationist by necessity. *Civilization V* is the iconic example of integrationist theory in gaming. Beginning in 4000 B.C., each civilization develops along within the parameters of a common set of assumptions about historical change, represented in the game rules and mechanics. While not every strategy game adheres as strictly to the integrationist model, at a certain base level games present nations, civilizations, or factions which exist in the same rules-based world.

Therefore, *Civilization V* approaches history from an integrationist perspective. There are gameplay reasons for this historical argument, namely allowing the player to transition from the ancient world through to the modern seamlessly. However, in doing so the game structure makes a historical argument which the player tacitly accepts through play. The player's civilization progresses through "ages" (such as the classical, medieval, industrial) based on technological progress. While Tuur Ghys (2012) has argued that this structure presents a technologically determinist argument, it also posits a claim about historical change more broadly. The relatively smooth transition between eras, and the uniformity of the game rules across eras, places *Civilization V* within a tradition of emphasizing continuity in historical change. *Civilization V* follows this gradualist conception of change as entry into new "ages" unlocks new game mechanics. Generally speaking, the continuity of the underlying structure of the game remains unchanged as time progresses. Clergymen in medieval universities are replaced by scientists in modern research labs, but the process by which they both produce scientific value is unchanged. Perhaps aptly named, *Civilization V* resembles the course structure of a History of Western Civilization course, which presents history "as an unfolding panorama of progress" (Lowenthal, 2015, p. 363). In part, this is due to the baked-in tendencies of digital simulations identified by Schut (2007). Systemic history lends itself to progressive, causal, and incremental change (p. 224). For Clyde, Hopkins and Wilkinson (2012), this reliance upon "general laws of history", makes historical strategy games fundamentally flawed as history (p. 11). However, as the examination of *Europa Universalis IV* below will demonstrate, the medium of the historical strategy game does allow for alternative historical arguments about periodization. The bias towards incremental change is not determinative.

Furthermore, while the historical arguments of *Civilization V* are shaped by the medium of the historical strategy game, they are also informed by a tradition of historiography. *Civilization V* follows in the tradition of Kant's "universal history" determined by a "unified field theory" of historical change (Munslow, 2012 p. 24). Also influential in the historical arguments of *Civilization V* are the positivists of the nineteenth century who, in R.G. Collingwood's (1993) words, sought "the discovery of general laws" of change throughout history (p. 1). Within the game, whether in the classical or the modern era, people behave according to identical patterns:

producing output; demanding luxury goods and leisure activities; and reproducing at a pace mathematically determined by food surpluses. In the world of *Civilization V,* national influence grows through the same process of cultural output whether it is produced by playwrights in a classical amphitheatre, or a radio network broadcasting from a tower; in any era, population growth is determined by a constant algorithm of production and consumption of food. The result is history as a teleological march to "victory conditions" along a consistently coded path. *Civilization V*'s technology tree, the "backbone of gameplay" in the words of *Civilization IV* lead designer Soren Johnson, provides the expression of this progressive view of history. The cumulative development of technology not only drives gameplay, but also drove the design of the game. Johnson explains: "my reasoning was that if my tech tree was a reasonable model of human history, every new game option should fit on it somewhere" (Ghys, 2012).

But while the historiography of *Civilization V* is influenced by nineteenth century positivism, the game finds in the *Annales* school of twentieth century French theory the backing for its core historical argument (Uricchio, 2005, p. 331). Periodization plays an important role in Braudel's (1980) conception of historical time: "it is not so much time which is the creation of our own minds, as the way in which we break it up" (p. 48). For Braudel, only long-term economic or social trends measured in the *longue durée* provide historians with a common language to decipher human history. In its universal, all-encompassing scope, *Civilization V* embraces and shares in the objectives of what Braudel (1972) described as the "great history" of the *Annales* school (p. 22). Braudel's claim that particular moments and events are merely the "crests of foam that the tides of history carry on their strong backs" would fit well in *Civilization V*'s promotional material (p. 21). David Carr (2008) analyzes three levels of Braudel's sea metaphor. First, that traditional political history built upon narratives of individual actors does not drive historical change; second, that in fact these narratives are merely ripples on the broad sweep of social history observable at the macro level; and finally, that at its bedrock history is about man's relationship with the natural world. Therefore, history is "the measureable, the countable, the statistical" record of man in the world (p. 25).

The *Annales* school's focus on the history of the natural environment and human interaction with the natural world are embedded in the procedural rhetoric of *Civilization V*. Chapman (2013a) identifies two possible arguments within the *Civilization V* framework. Firstly, that cultural difference drives history, represented by the unique abilities and units available to each civilization. Conversely, *Civilization V* could present the argument that environment drives history, with the progress of the game determined by the natural resources and landscape surrounding the player. Feedback from players suggests that environment presents the more convincing argument (p. 65). The more familiar players are with the procedural rhetoric of the game, the more likely they are to shape their strategies around exploiting the natural resources around them, rather than concentrate on strategies which take advantage of the culturally unique qualities of their civilization. A. Martin Wainwright (2014) argues that this is a natural outcome of the video game medium. Efficient exploitation of natural resources leads to success in the game because the "computational nature of video games directs them [players] towards quantification" (p. 584). *Civilization V* fashions integrationist, positivist, and environmental arguments about the division of time. Through play, players complete procedural arguments that historical change is governed by universal laws (strategies which work in one time period are largely successful in others); incrementally progressive (each era is achieved and passed through

at regular intervals); and occurs within the much longer sweep of geological time (the unchanging natural world of the map governs play for the entire game).

It should be noted that while *Civilization V* seemingly makes arguments about periodization which emphasize continuity rather than rupture, it in fact merely pushes historical rupture beyond the time scope of the game. The game's starting date of 4000 B.C. reveals its inclusion in a long-tenured conceptual periodization which Dan Smail (2005) describes as the "sacred history" tradition. Since its development in the Enlightenment, modern history has found the concept of a rupture beyond which history cannot usefully traverse. For Giambattista Vico the Biblical Deluge provided a convenient point of demarcation, beyond which empirical evidence of the past had been destroyed and was thus irretrievable for the scientific historian (p. 1342-1343). While eschewing the scriptural influence which guided Vico, the general historians, and textbook authors of the nineteenth century settled upon 4000 B.C. as a veil, beyond which pre-historic man existed in a "speechless past" inaccessible to historians (p. 1350). The choice of 4000 B.C. as a starting point therefore places *Civilization V* squarely within current debates on "deep time". The beginning of each game re-enacts a kind of "Paleolithic stasis" which casts humanity as without change (and therefore without history) until some catalyst propels them into societal self-consciousness (p. 1356). *Civilization V* goes so far as to make this argument explicit with its inclusion of "Agriculture" as the default initial technology for all civilizations. *Civilization V* thus makes an additional argument about periodization – the universal rules of history which apply across all periods, do not apply before a particular rupture (in this case agriculture and permanent urban settlement). Smail's lament that the "otherwise meaningless date of 4000 B.C. continues to echo in our histories" finds further justification in *Civilization V* (p. 1360).

Periodization in *Europa Universalis IV*

The construction of a rupture between a system of historical change and a static pre-history in *Civilization V* is indicative of the problem of a purely integrationist view of historical change in world history. An integrationist approach, by necessity, presents historians with the problem of locating and defining the common systems of historical change in societies which have little or no contact with one another. *Civilization V* answers this challenge by locating a common rupture in the development of agriculture. However, so long as the Old World and New World remained separate from one another, an argument of globally linked "engines of change" remains weak. Integrationist world history therefore implies at least one epochal rupture with the creation of a globally-conscious world in fifteenth century (Green, 1995, p. 101).

It is precisely in this timeframe that Paradox, the developer of *Europa Universalis IV,* places the rupture which is at the core of the game's argument about historical change. In doing so, Paradox presents a fundamentally different historical argument about periodization in their historical strategy games. Rather than progressive stages, which share common universal laws of historical change, Paradox developers envision a series of epochs with "engines of change" so distinct as to be impossible to model in a single game code. Instead, Paradox produces a group of games, each of which covers an "era" in world history. The most recent iterations are *Crusader Kings II*, which takes place over the medieval era from 1066 to 1453 (with a start date extendable to 769 with official expansions); *Europa Universalis IV*, covering the early modern world from 1444 to

1821; *Victoria II* an industrial era game played from 1836 to 1936; and *Hearts of Iron IV*, a simulation of the Second World War beginning in 1936. Each game makes assumptions and arguments about historical change distinct to its own period, and therefore presents a radically different conception of periodization from *Civilization V*. Like *Civilization V*, this conception of history is deeply rooted in historiographical tradition. In a sense, Paradox's historical strategy game series revisits the historical debate between Kant and Johann Gottfried Herder who "assigned every epoch as well as each culture its own unique character" (Lowenthal, 2015, p. 363).

Crusader Kings II presents a medieval world in which personal relationships underpin all political interactions. As a result, the player interacts with this historical environment primarily through a giant social network of thousands of individually simulated characters. The primary concern of the game rules is to define and measure relationships between these characters, whether familial, feudal, legal, sexual or even companionate. Game events are determined by the player character's relationship with each other character in the simulation. How many troops a vassal is willing to contribute to a lord's call to arms, the likelihood of a vassal rebellion, the likelihood of marriage pacts or alliances, are all determined by algorithms which generate an "opinion" score based upon degree of family connection, compatible or incompatible personality traits, differing or shared religious or cultural identity, position within current legal inheritance regime, and positive or negative perception of recent decisions made by the player. In addition, the majority of the actions and decisions the player makes further drive this argument of the politics of personal relationships. The key strategic decisions a player makes revolve around securing marriages, manipulating inheritance laws, and influencing the other characters in the game. In addition to the procedural rhetoric of the game pushing the player into specific in-game decisions, the resulting gameplay persuades the player that the process of historical change in the medieval period was heavily mediated through personal relationships.

Europa Universalis IV is built upon fundamentally different historical arguments, which make for an entirely different world. Rather than the medieval world of direct relationships between characters, the procedural rhetoric of *Europa Universalis IV* argues for a world determined by the dominance of the Westphalian nation-state model, and the forces of international trade.

The early modern world-system imagined by *Europa Universalis IV* introduces a crucial new gameplay element for the player moving on from *Crusader Kings II* – the state. The player and all of the AI agents the player interacts with in *Crusader Kings II* are individuals rather than governments. In *Europa Universalis IV* the opposite is true. Individuals disappear from the game and the player (acting as the state) interacts exclusively with other states. This system marginalizes the inter-personal, and sub-national conflict which permeates *Crusader Kings II.* Such non-state warfare is incomprehensible in the *Europa Universalis IV* history-world. Although sub-national, local powers continued to play an independent and significant role in European warfare well into the sixteenth century, the stark division between game codes demands its excision from *Europa Universalis IV* (Anderson, 1998, p. 5).

The nations of *Europa Universalis IV* also interact in a consciously globalized world. Where in *Crusader Kings II* the gameplay is localized to a map of Europe and the neighbouring regions of North Africa and Western Asia, *Europa Universalis IV* takes place on a global map.

Additionally, a crucial game mechanic is the abstracted system of international trade. "Trade" is itself an abstracted value, as commodities remain anchored in their province of production, but are converted into a numerical value. These values are pooled within regions, then enter into a "flow" of international trade which follows stable, unidirectional channels in a network of international trade nodes which ultimately terminate in Europe. Embedded within this international trade system is a narrative of global Western European dominance based upon military control of key global trade routes. Ensuring trade continues to flow towards Europe, rather than being "collected" and converted into revenue useable by local nations in the various trade regions along the way, is crucial to success. This can be achieved through conquest of territory, diplomatic pressure, or management of trade through a powerful naval presence. The unidirectional, and un-alterable pathways which trade follows also implies an inevitability of European domination of international trade. The best a nation in India or East Africa can hope for is to arrest the further movement of trade beyond their trade node. Value further down the line is permanently unattainable.

However, there is also an argument about historical change being made via this trade system. From a Marxist perspective, the difference between *Crusader Kings II* and *Europa Universalis IV* is one of the "forms of society reflect[ing] material possibilities and restraints" (Cohen, 2001, p. 342). The large tracts of land (and thus agricultural production captured by the many characters under the Emperor's influence) which enable the Holy Roman Empire to dominate *Crusader Kings II* carry less weight in the world of *Europa Universalis IV*. Instead, advantage shifts to those nations best positioned along the permanent flow of international trade. A Marxist understanding of historical change in *Europa Universalis IV* can be further inferred by the conclusion of the game. The story of the European discovery and exploitation of the globe was, for Marx, one of capitalism as a system necessary for man to master nature before class struggle could begin in earnest (p. 25). This narrative slides neatly into Paradox's next epochal rupture. The 1821 end date often coincides with the completion of the European project to discover and settle all the available land in the game. The result is the end of the relevance of the *Europa Universalis IV* code as a system of historical change. It is perhaps not a coincidence that class, entirely absent from previous iterations of their historical strategy games, becomes a key gameplay component of Paradox's nineteenth century game, *Victoria II*.

However, the developers at Paradox are making a far more sophisticated argument about historical change than this direct Marxist reading suggests. By creating entirely different games for different "eras", Paradox developers implicitly argue the impossibility of the grand universal history of man. Instead they present a vision of history as fully compartmentalized "ages", which require their own code. This argument builds upon a tradition in the philosophy of history which began with Giambattista Vico's argument against a uniform nature of humanity throughout time, but rather a humanity which "continuously transform their worlds and themselves". These transformed worlds may share certain characteristics with what came before or after, but "each particular pattern of which is distinguishable from all others". Therefore, cultures could only be understood by their "peculiar use of symbols, especially of language, which belong uniquely to their own time and place". Ultimately, Vico proposed a radically new way of producing historical knowledge via "reconstructive imagination" – the entering into the "mental life" of past cultures. Herder further developed these ideas in his passionate defense against what he saw as the universalism of the *Philosophes*. Cultures could only be understood "in terms of its own

scale of values, its own rules of thought and action" (Berlin, 1976, p. xvi-xxiv). In a sense, the divergent approaches to periodization in *Civilization V* and *Europa Univeralis IV* reflect the divisions between the contemporaries Kant and Herder. Where Kant, and by extension *Civilization V*, see history as a vehicle for the progress of humanity, Herder, and *Europa Universalis IV*, treat history as "the unfolding of the unique qualities of humanity as conditioned by time and place" (Anderson-Gold, 2009). Thus, the medieval code-world Paradox created for *Crusader Kings II* imagines very different "rules of thought and action" than those which constitute the code-world of *Europa Universalis IV*. In playing the two games, players must adapt to these differing cultural languages.

Due to the characteristics of the medium of video games, *Europa Universalis IV* more closely follows the more systemic, or materialistic interpretation of this school of historiography found in Immanuel Wallerstein's (2015) "world-system" thesis. According to Wallerstein, historical change is determined by the rise and fall of world-systems: "they come into existence; they pursue their lives according to the rules of the system; and at some point they enter into structural crisis and therefore go out of existence, to be replaced by another system or systems" (p. 164). In fact, the chronology of *Europa Universalis IV* (which takes place from 1444 to 1821) closely follows Wallerstein's chronology of the establishment and consolidation of the modern world-system (1450-1815) (1974, p. 10). The twin pillars which determine and constrain play, the international network of trade, and the Westphalian nation-state, closely adhere to the dual elements of Wallerstein's world-system. Namely, the world-wide division of labour which drives decisions at the "world" level, and the emergence of bureaucratic nation-state which drive decisions at the local or national level (p. 63-67).

In creating different historical contexts for their games, the developers at Paradox Interactive place themselves within pre-existing historiographical discussions of periodization. Unlike the smooth transition between eras in *Civilization V*, Paradox employs an understanding of periodization articulated by Green (1995): "historical epochs should exhibit long-term continuities, and moments of transition between epochs should involve the dissolution of old continuities and forging of new ones" (p. 101). In practice, the moment of transition is instantaneous (or indeed retro-active – *Crusader Kings II*, set in the medieval world, ends in 1453, while *Europa Universalis IV*, set in the early modern world, begins in 1444). The need for two distinct rules-based systems in two distinct games means that rather than a process of dissolution and re-forging, old continuities disappear immediately, to be replaced by fully realized new continuities as soon as a new game is begun.

The stark transition from one code-system to another necessitates a fundamentally different arrangement of historical arguments about how societies, political organizations, and economies operate. In this, the developers at Paradox are employing the techniques of generations of historians who fashion anachronistic "terms of their own" to mark the boundary of "era" in order to make the past more comprehensible, "endowing it with a retrospective plausibility" (Lowenthal, 2015, p. 340). While such simplified and arbitrary intrusions into time are useful (and in some sense necessary, as Paradox developers might argue) for historians and game developer alike, they present difficulties as well. As David Lowenthal warns, helpful era divisions can develop a life of their own, independent from the historian, quickly turning from "nominal shorthand" to "frames for fleeting Zeitgeists...causal agents in their own right" (p.

354). Additionally, if each era is defined by its distinct theory of change, it is also by extension defined by the priorities of the theory of change chosen (by either historian or developer). Selecting a theory of historical change which explains human activity in 1445 in *Crusader Kings II*, and selecting a *different* theory of change which explains human activity in 1445 when played in *Europa Universalis IV*, suggests a subjectivity in the construction of theories of historical process which can be effectively hidden from players in the universalism of *Civilization V*. Indeed, due to overlapping start-dates Paradox offers players the opportunity to simulate the same years (1444-1453) under entirely different epochal circumstances – an exercise seemingly designed for the exploration of post-modern skepticism of historical certainties. In other words, Paradox allows for an interactive expression of Munslow's (2012) argument that there can be "no single and proper way to represent/characterize a historical period" (p. 23).

The Passage of Time

In representing the passage of historical time historical strategy games operate, for the player, in game-time. The move away from the deferred-time of film or text towards interactively simulated time in video games lends itself to, in the view of Patrick Crogan (2011), a military logistical understanding of time and space. Certainly, both *Civilization V* and *Europa Universalis IV* deploy time in such a way to emphasize planning and strategy. However, considering the differences in how change over time, through historical periods, is represented in *Civilization V* and *Europa Universalis IV,* it is not surprising that the two games adopt differing methods of representing time in gameplay. *Civilization V* operates on a turn-based system in which, in Jesper Juul's (2004) terms, means the game state only changes when the player takes an action. This plays an important role in Voorhees' analysis of procedural rhetoric in *Civilization*. While "event time" (the passage of time in the game-world) is halted during the player's turn, "play time" (the time spent by the player in the real world) continues. For Voorhees (2009), this reinforces the rationalist, progressive argument of the *Civilization* series. With knowledge of the rules of the game, fore-knowledge of the consequences of decisions (for instance, what future technologies will unlock once achieved), and an ultimate victory condition in mind, the player employs cause and effect operating "under the guise of a temporal relationship" to make successful game decisions (p. 266). This degree of planning allows for an experience of history which consists of "progress as a fixed progression of already intelligible advances, a logic that excludes the aleatory" (p. 269). The gameplay strategies the passage of turn-based event time provides reinforces the integrationist, positivist, and environmental arguments put forward by *Civilization V*. Fore-knowledge of the consequences of player actions, and the quantifiable passage of time in the form of turns (everything from population growth, to technology research, to production queues are measured and quantified) allow the player to map out the future of their game on a track which is suited to their physical environment and predictably progressive.

Alternatively, *Europa Universalis IV* represents the passage of time in real-time, or more accurately, a continuous passage of time to scale. Units of time are measured in days of event time, which can be slowed down or sped up in play time. In Voorhees (2009) terms, this creates a very different game experience which presents "the passage of time as a fluid process unmarked by the disjunctive pause of a turn" (p. 263). However, while Voorhees notes that this puts a greater emphasis on speed and reaction (in the turn-based *Civilization V* the player has unlimited time to make decisions), in practice *Europa Universalis IV* players pause the game

when important decisions are called for. Popular game-tags describe this time genre as "real-time with pause". While this, in effect, turns *Europa Universalis IV* into a turn-based game at moments chosen by the player, there are still key differences between the passage of event time in *Civilization V* and *Europa Universalis IV*. Where the untimed turns of *Civilization V* allow the player to map out future actions in the regular, measurable intervals of turns, the self-imposed "turns" of *Europa Universalis IV* are often determined by randomly generated events which require a response from the player. Rather than reinforcing a progressive understanding of the passage of time, this serves to interrupt the kind of careful planning available in *Civilization V*. Time is not so much measuring the intervals of consistent change as it is a movement through an opaque territory, periodically necessitating action (or rather reaction). In both games, design decisions regarding the passage of time serve to further the larger historical arguments each game makes about models of change over time.

Game Modification, Online Communities, and Periodization

While in some sense *Civilization V* and *Europa Universalis IV* are vehicles for the procedural rhetoric of their developers, and present their arguments about issues such as periodization, the extensive modding communities for both games offer opportunities for non-developers to engage with, or even challenge these arguments. User-modification of games has a history as long as video games themselves (Dyer-Witheford & de Peuter, 2007, p. 6-10). In recent years the practice has been incorporated into the production process. According to Hector Postigo (2016), modding has completed the transition into mainstream gaming and its "impact as a massively distributed good is not to be ignored" (p. 332). Both 2K and Paradox actively encourage modding, and present their games as open-ended, unfinished projects. Paradox publishes "Developer Diaries" which detail the official adaptations of the game over time. Developers explain and justify changes to game mechanics, which are implemented through free patches or paid expansions, and encourage feedback and suggestions from players. These online discussions, and modifications of the games, can engage with, and often critique, the procedural rhetoric of the core games. For Uricchio (2005), this is a crucial quality of historical video games as a medium (in comparison to film or monograph). Both film and print are relatively stable technologies, whereas computer gaming technology is ever-improving. In effect, the relationship between gaming and technology creates a dynamic, rather than static, medium for historical simulation (p. 328). Chapman (2013b) casts modders as "popular history revisionists" constantly challenging, or even rejecting the historical arguments of the developers (p. 317).

Sam von Gillern (2016) adopts a "Gamer Response and Decision" framework to explain this phenomenon. In a cyclical process of "meaning-making", the player decides how to approach the game by prioritizing "high scores", "elegance of play", "aesthetics", "customization", or any number of other objectives or styles. In response, the game conveys a "unique set of multimodal symbols" which influence the experience of the player. In this way, the meaning of play fashioned on *Europa Universalis IV* or *Civilization V* message boards fulfills Kurt Squire's observation that learning through historical games happens outside of the game itself. While play alone provides only minimal opportunities for learning, "playing, discussing, critiquing, and expanding upon the game" accounts for the real value of historical games (McCall, 2016, p. 530).

The modding of *Civilization* games and the behaviour of online communities of modders has attracted the attention of game studies. Owens' (2011) analysis of online modding forums has demonstrated that play can bring with it contemplation and discussion of the historical arguments of procedural rhetoric which underlie the game. His investigation points to online forums seeking to "re-evaluate models of scientific and technological advance" using techniques analogous to the work of historians (p. 482-483). As a result, modding and online forums create "an opportunity for gamers to discuss models for understanding different variables in history" (p. 492). If, as Munslow (2007) claims, "history takes place within the construction of its narrative", then modding allows for an engagement in re-constructing the narratives created by the developers (p. 523). To analogize Hayden White's call for readers of history to take up the responsibility of being aware of the historian as a narrative-writer, the modder demonstrates an awareness of the developer as narrative-writer by adapting or refining the narrative (Munslow, 2012, p. 135). The open-ended nature of Paradox games, which are specifically designed to be modified by users long after the "official" re-tooling of games through expansions is suspended, creates a perpetually interrogatable historical narrative. To return to the scenario laid out at the outset, and the "unspoken historical principle" which leads the player to expand Dutch trade into Indonesia, modding allows for an articulation and investigation of such unspoken principles. Perhaps optimistically, Kapell and Elliott (2013) see in this the player's ability to create their own ideology in narrative form (p. 363). Alternatively, modding also offers the opportunity to mould the code to specific outcomes. Tom Apperley (2013) describes a thought experiment which began with an assertion that the Aztecs had repelled the Spanish in the sixteenth century. In order to test the assertion, a modder would then exercise "control over the ideological layer" of the game to see what modifications would be necessary to make such an outcome plausible (p. 193).

Periodization is one of the most interrogated elements of *Europa Universalis IV* in the online modding community, and stands as a key historical "model" open for modification. "Extended Timeline", the most subscribed *Europa Universalis IV* mod on the Steam Workshop website, is an ambitious attempt to provide an alternative to mods which allow the player to transition games from *Crusader Kings II* to *Europa Universalis IV*. Rather than conversion, the developer "qweytr", takes the *Europa Universalis IV* code and applies it to a broad expanse of history from 2 AD to 9999 AD. In effect, this is an exercise in seeing world history from the perspective of the early modern world (or to be more accurate, Paradox Interactive's narrative of what the early modern world was). Modders have also identified the less explicit claims of periodization in the *Civilization* series. A *Civilization IV* mod, "Dawn of Man", elongates the beginning of the game to include the Neolithic era, and allows players to challenge arguments about "deep time" contained within the base game. The possibilities of this kind of exploration are evident in discussions on the "Extended Timeline" suggestion board. When presented with the difficulty of how to accurately simulate the twenty-first century European Union, an organization which challenges the Westphalian assumptions inherent in the *Europa Universalis IV* code, several commenters turned to the already existing specialized code which deals with the Holy Roman Empire. The result is a twenty-first century international institution as imagined through seventeenth century historical processes (or rather, twenty-first century construction of seventeenth century imagination). These interrogations of the arguments both games make about historical change over time are not merely the work of a niche online community. As Squire and

Giovanetto (2008) argue, although contributors to these online communities tend to be highly devoted players, they also often act as guides for more casual players seeking advice about gameplay and information about the game.

Indeed, online communities not only provide modifications to the game, but also discussions that act as extensions of the gameplay itself. For Chapman (2013b), this is the "extra-telic" potential of historical strategy game goal-setting – "the joy of such play is in its relationship to other narratives about the past" (p. 317). *Europa Universalis IV* in particular consciously courts this extra-telic potential by setting no explicit goal for the player; goals are self-determined by the player before, or even during, each iteration of simulation (Lundgren and Bjork, 2012, p. 116). The "extra-telic" quality is one which players of Paradox games have readily embraced. In online discussions of Paradox's *Crusader Kings II* players encourage each other to "set one's own goals and actively narrativize one's playing experience", in place of any in-game measure of success (Hong, 2015, p. 47). In discussing *Europa Universalis II*, Tom Apperley (2013) notes that this "flexibility in terms of goal setting" is explicitly referenced in online forums, as players measure their success against history rather than a method of evaluation self-contained within the game (p. 186). Enrico Gandolfi's (2016) study of *Europa Universalis IV* players reflects this self-narrativizing impulse. One player noted that "doing what is optimal (mechanics-wise) doesn't always make for a good story. For me, it is more important that I feel I am making interesting history". Another player similarly prioritized narrative over "success" in the game: "I do limit myself for the sake of crafting a good 'story'" (p. 738-740). In both cases, the player measured play against a referent outside the game ("interesting" rather than "real" history), rather than passively receiving the procedural arguments of the game. This "extra-telic" potential is linked to how *Europa Universalis IV* approaches periodization. While the progressive, cumulative historical change of *Civilization V* lends itself to a teleological conclusion, the transient nature of the *Europa Universalis IV* world does not. Historical change occurs within, and is defined by, a world-system which will eventually be replaced by another. The game ends, not with the player achieving a particular game-state, but with the exhaustion of the internal logic of the world-system itself. Crucial in this process is an engagement with history outside of the game, and quite often an engagement with other players online.

Conclusion

Civilization V and *Europa Universalis IV* each provide sophisticated and distinct models of periodization in human history. Wainright's *Civilization* players who tend towards an optimal strategy of adapting their play to the physical environment are enacting Braudel's argument about the *longue durée.* Players who are forced to learn entirely new game systems when switching from *Crusader Kings II* to Europa *Universalis IV* are actively experiencing a history which Vico described as a world continuously transformed by humanity. While the models used to divide time in these games are the product of decisions motivated by commercial and game-play concerns, the outcome for the player is an interaction with metahistorical debates. The ideas of Marx, Braudel, and nineteenth century positivists are not just represented within the game, but actively played by the player. The comparison between these two games highlights the historiographical fecundity of video games. While the medium of digital gaming lends itself to a systemic, quantitative conception of history, the restrictions of what can be represented in code do not preclude the expression of diverse historical arguments. *Civilization V* and *Europa*

Universalis IV have each crafted a separate argument for the division of time, both built upon a long historiographical tradition. While the historical arguments of video games are medium-dependent, they are not medium-determined. Designers still have significant latitude to construct their historical worlds. Indeed, through game modification players have the ability to enjoy this latitude as well. Modding communities for both games appear drawn towards metahistorical questions such as periodization. Owens has documented the interest of the *Civilization* modding community in designing their modifications through discussions which are reminiscent of academic historical debate. "Extended Timeline", and the difficulties surrounding extending an early modern model of historical change over the broad sweep of human history, remains one of the most popular *Europa Universalis IV* mods. The issue of periodization is perhaps of particular interest to designers of historical video games. The turns of the turn-based *Civilization V*, or units of time which tick by in real-time strategy games (in the case of *Europa Universalis IV*, days) both require a clear line of division between game-states. How to create these divisions, and what changes between them, is therefore a crucial decision for game designers. However, the model outlined in this article for how historical arguments about periodization are incorporated into games can be adapted to other metahistorical questions. Just as in textual history, the medium is capable of sustaining diverse metahistorical arguments, and communities of players are willing and eager to engage with, and even modify, the history they encounter.

References

Anderson, M.S. (1998). *The origins of the modern European state system*. London: Longman.

Anderson-Gold, S. (2009). Kant and Herder. In Aviezer Tucker (ed.), *A companion to the philosophy of history and historiography* (pp. 457-467). Oxford: Wiley-Blackwell.

Apperley, T. (2013). Modding the historian's code: Historical verisimilitude and the counterfactual imagination. In Matthew Wilhelm Kapell & Andrew B.R. Elliott (eds.), *Playing with the past* (pp. 185-198). New York: Bloomsbury.

Baerg, A. (2009). Governmentality, neoliberalism, and the digital game. *Symploke* 17(1-2), 115-127.

Berlin, I. (1976). *Vico and Herder*. New York: Viking Press.

Besserman, L. (1996). The challenge of periodization. Old paradigms and new perspectives. In Lawrence Besserman (ed.), *The challenge of periodization* (pp. 3-28). New York: Garland.

Bogost, I. (2007). *Persuasive games*. Cambridge: MIT Press.

Braudel, F. (1972). *The Mediterranean and the Mediterranean world in the age of Philip II Volume 1*. New York: Harper.

Braudel, F. (1980). *On history.* Chicago: University of Chicago Press.

Carr, D. (2008). Narrative explanation and its malcontents. *History and Theory,* 47, 19-30.

Chapman, A. (2013a). Affording history: Civilization and the ecological approach. In Matthew Wilhelm Kapell & Andrew B.R. Elliott (eds.), *Playing with the past* (pp. 61-74). New York: Bloomsbury.

Chapman, A. (2013b). Is Sid Meier's Civilization history? *Rethinking history,* 17(3), 312-332.

Clyde, J, Hopkins, H., & Wilkinson, G. (2012). Beyond the "historical"

simulation: Theories of history to inform scholarly game design. *Loading…the Journal of the Canadian Game Studies Association,* 6(9), 3-16.

Cohen, G.A. (2001). *Karl Marx's theory of history: A defense*. Princeton: Princeton University Press.

Collingwood, R.G. (1993). *The Idea of history*. Oxford: Oxford University Press.

Crogan, P. (2011). *Gameplay mode: War, simulation, and technoculture*. Minneapolis: University of Minnesota Press.

Davis, K. (2008). *Periodization and sovereignty*. Philadelphia: University of Pennsylvania Press.

Dyer-Witheford, N. & de Peuter, G. (2007). *Games of empire*. Minneapolis: University of Minnesota Press.

Gandolfi, E. (2016). Subjective temporalities at play: Temporality, subjectivity, and gaming affordances in Cities: Skylines, Europa Univeralis IV and Pillars of Eternity. *Simulation & Gaming,* 47(6), 720-750.

Ghys, T. (2012). Technology trees: Freedom and determinism in historical strategy games. *Game Studies,* 12(1).

Gish, H. (2010). Playing the Second World War: Call of Duty and the telling of history. *Eludamos,* 4(2), 167-180.

Green, W. A. (1995). Periodizing world history. *History and Theory,* 34(2), 99-111.

Hong, S. (2015). When life mattered: The politics of the real in video games' reappropriation of history, myth, and ritual. *Games and Culture,* 10(1), 35-56.

Jordanova, L. (2012). *The look of the past*. Cambridge: Cambridge University Press.

Kapell, M. W. & Elliott, A.B.R.. (2013). Conclusion(s): Playing at true myths, engaging with authentic histories. In Matthew Wilhelm Kapell & Andrew B.R. Elliott (eds.), *Playing with the past* (pp. 357-369). New York: Bloomsbury.

Lowenthal, D. (2015). *The past is a foreign country – revisited*. Cambridge: Cambridge University Press.

Lundgren, S. & Bjork, S. (2012). Neither playing for gaming: Pottering in games. *Proceedings of the international conference on the foundations of digital games*, 113-120.

McCall, J. (2016). Teaching history with digital historical games: An introduction to the field and best practices. *Simulation & Gaming,* 47(4), 517-542.

Mir, R. & Owens, T. (2013). Modeling Indigenous peoples: Unpacking ideology in Sid Meier's Colonization. In Matthew Wilhelm Kapell & Andrew B.R. Elliott (eds.), *Playing with the past* (pp. 91-106). New York: Bloomsbury.

Mukherjee, S. (2015). *Video games and storytelling*. New York: Palgrave.

Mukherjee, S. (2016). Playing subaltern: Video games and postcolonialism. *Games and Culture*. Retrieved from: http://journals.sagepub.com/doi/pdf/10.1177/1555412015627258.

Munslow, A. (2007). Presenting and/or re-presenting the past. *Rethinking History,* 11(4), 517-524.

Munslow, A. (2012). *A History of history*. London: Routledge.

Murray, J. H. (1997). *Hamlet on the holodeck*. New York: The Free Press.

Nohr, R. F. (2010). Strategy computer games and discourses of geopolitical order. *Eludamos,* 4(2), 181-195.

Owens, T. (2011). Modding the history of science: Values at play in modder discussions of Sid Meier's Civilization. *Simulation & Gaming,* 42(4), 481-495.

Postigo, H. (2016). Modification. In Henry Lowood & Raiford Guins (eds.), *Debugging game history* (pp. 325-334). Cambridge: MIT Press.

qweytr. (2014). Extended timeline. Retrieved from: https://steamcommunity.com/sharedfiles/filedetails/?id=217416366

Schut, K. (2007). Strategic simulations and our past. *Games and Culture,* 2(3), 213-235.

Smail, D. (2005). In the grip of sacred history. *American Historical Review,* 110(5), 1337-1361.

Squire, K & Giovanetto, L. (2008). The higher education of gaming. *E-Learning*, 5(1), 2-28.

Urrichio, W. (2005). Simulation, history, and computer games. In Joost Raessens & Jeffrey Goldstein (eds.), *Handbook of computer games studies* (pp. 327-340). Cambridge: MIT Press.

Voorhees, G.A. (2009). I play therefore I am: Sid Meier's Civilization, turn-based strategy games and the Cogito. *Games and Culture,* 4(3), 254-275.

von Gillern, S. (2016). The gamer response and decision framework: A tool for understanding video gameplay experiences. *Simulation & Gaming,* 47(5), 666-683.

Wagner, D. L. (1988). The middleness of the Middle Ages: Periodizing European history. *Essays in Medieval Studies,* 5, 33-44.

Wainwright, A. M. (2014). Teaching historical theory through video games. *The History Teacher,* 47(4), 579-612.

Wallerstein, I. (1974). *The modern world-system*. San Diego: Academic Press.

Wallerstein, I. (2015). Conclusion. In Immanuel Wallerstein (ed.), *The world is out of Joint* (pp. 163-170). New York: Routledge.

zarthas. (2009). Dawn of man. Retrieved from: https://forums.taleworlds.com/index.php?topic=67009.0