Virtual Unaustralia: Videogames and Australia's Colonial History

Thomas H. Apperley

PhD Candidate

Media and Communications Program

University of Melbourne

In August 2006 the Games Lab at ACMI (the Australian Centre for the Moving Image) in Melbourne hosted an exhibition 'Best of the Independent Games Festival 2006'; among the games featured was *Braid* (Number None Inc., game still in development).[1] This game was noted for its clever examination of the platform genre, a genre of videogame[2] closely associated with Nintendo games like *Super Mario Brothers* (Nintendo, 1985) and *Super Mario 64* (Nintendo EAD, 1996). The focus of the game was to explore the flow of time, by allowing players to rewind the game – in a manner similar to that explored in a more limited fashion in UbiSoft's *Prince of Persia: The Sands of Time* (2003) – they could 'explore alternate approaches and differing causes and effects' (Best of Independent Games Festival, 2006). *Braid*'s examination of this genre of videogames parallels this paper's concern with how time, and cause and effect, are presented in another prominent genre of videogames: the historic strategy genre.

The use of the time rewind function in *Braid* creates potential for multiple readings of the game, and allows the player to shift between – and play with – temporal perspectives: what is at stake in this game is a detailed analysis of what could otherwise be regarded as an outdated genre. Currently the platform genre is enjoying a renaissance in appreciation through its remediation to mobile consoles and telephones; however, it is

widely regarded as having had a peak of popularity during the eighties and early nineties. So while *Braid* acts as a nostalgic exploration of the mind-set associated with the playing and solving of the platform game, historic strategy games have other issues at stake. The key issue I will explore in this paper is that of representing history as a dynamic process, focusing on what the relationship between the videogames industry and audience brings to this process.

This paper will focus on how two games – *Europa Universalis II* (Paradox Interactive, 2001) and *Victoria: Empire Under the Sun* (Paradox Interactive, 2002) – represent a specific moment: the colonization of Australia. However, I suggest that this analysis is relevant also in a wider sphere, and appropriate to other historical videogames, and to the representation of other moments in time are represented through the videogame medium. The paper will begin by briefly describing the two games, followed by a review of prior scholarship on this genre of videogames. After this background material, the representation of the Australian colonial moment in each game will be discussed, before turning to an exploration of the particular relations between videogame producers and consumers. This final section will first examine particular practice of these games' communities, the after-action-report (AAR). I will argue that this practice demonstrates that the games are used as counterfactual tools for thinking creatively about history. Secondly, the role that social networking in the form of game forums will be examined, especially the way that these sites are used to discuss particular history moments in terms of authenticity, and how this desire for – and conflict over – what is authentic feeds back into the creation of 'patches' and 'mods'. Finally, the paper will

discuss the influence that open source software has on the relationship, with reference to the ways that 'patches' and 'mods' have on shaping the development of the game.

Paradox Interactive

The company Paradox Interactive is responsible for designing and publishing both the games *Europa Universalis II* (2001), *Victoria: Empire Under the Sun* (2002), and many others. Located in Stockholm, Sweden, the company: 'is focused on delivery strategy games with an in-depth historical context and game experience' (Paradox Interactive, 2006). The company has achieved considerable success with their relatively small stable of games, in particular the *Europa Universalis* (2000) and *Hearts of Iron* (2002) series, both of which garnered substantial critical and audience acclaim despite being considered both extremely complicated and graphically unimpressive.[3] Paradox Interactive was able to capitalize on this success to produce sequels of much better quality, having incorporated many suggestions from players' into the redeveloped games. Players' of the originals eagerly anticipated these games and promoted the games release among the wider game community, creating further success for the small company. The company then began to diversify, moving into self publishing games (Calvert, 2004), and to the development of Gamersgate – which began operation in April 2006 – an online publishing portal for videogames that began as a digital distribution system for their own games, but quickly incorporated the publication of games developed by other companies.

Europa Universalis II spans the era of 1420-1820; the main focus of the game is the expansion of the European powers to dominate trade and create colonies around the globe. While technology, budgeting, diplomacy and military concerns are all important in the game, they are ancillary to the concern of colonialism. The player selects a country for which they will play. Initially this is usually one of the European colonial powers: England, France, Portugal, Russian, Spain; however, a key innovation of the game – and one which is marked by many players as vital to its durability – is the ability of the player to select any country. While under the conditions in the game algorithm it is impossible for many nations to win, another innovation of this game is the remarkable flexibility in terms of the setting of goals. Winning the game – becoming the strongest power – is unfeasible for all but the strongest and most dedicated players', unless they are using the easy setting. Thus challenges are generated through the community by setting goals for smaller nations (e.g. retaining control of Zanzibar if playing as Oman), or placing caveats on the actions of stronger ones (e.g. only to colonize areas that were historically colonized by a particular nation).[4]

Victoria: Empire Under the Sun covers the period from 1820-1920, and has a similar aesthetic to *Europa Universalis II*. However, it deals with issues like commerce, economy, diplomacy, technology and political in a considerably more detailed, and complex, fashion. The key difference in the two games lies in *Victoria: Empire Under the Sun*'s focus on industrialization rather than colonization. This remains an aspect of the game, but the urge to colonize is driven by industry, meaning that the nations of Europe scramble to get control over areas producing essential raw materials (coal, lumber, steel,

sulphur, etc.). Like *Europa Universalis* any country can be chosen for play, and the goals can be decided according to the country and the skill of the player. However, it differs in that it has a more formal manner is assigning value to success, through victory points, and unlike *Europa Universalis II* several non-European nations have a good chance to perform well: China, Japan, and Persia. The countries are ranked according to their total victory points attained during the game, and players' have developed a loose way of evaluating a game based on the ranking that the country has (thus to finish the game with Brazil in a top 8 position is considered a 'win' for that country).[5]

<center>Past Approaches: Ideology, Allegories, and Algorithms</center>

The two games under scrutiny have had little discussion in academia;[6] the purpose of this section is to locate the games in broader discussions of videogames, in particular discussion around the representation of history. Most of the work in this genre of games has been on the blockbuster series *Civilization*,[7] which has a similar theme, but is abstract and ahistorical. The analysis of *Civilization* is constructively divided into three nodes of criticism by Alex Galloway in *Gaming: Essays on Algorithmic Culture* (2006):

1. The cultural critique: that videogames are too trivial to be discussed seriously (p. 95);

2. The ideological critique: that videogame represent history, or society in a way that demonstrates a particular ideological bias (p. 96);

3. The informatic critique: that videogames are algorithms, a form of information that provides an allegory for the contemporary control society (pp. 102-103).

In this discussion, I will ignore the first node of criticism and focus on addressing the ideological and informatic critique of historical videogames.

Ideological critique

A key problem of the *Civilization* series which is relevant to the discussion of *Europa Universalis II* and *Victoria: Empire Under the Sun* is the abstract way that *Civilization* represents the acts of violence that are associated with the expansion of European power across the globe. Scholars have argued that *Civilization* only represents Western style development (Caldwell, 2004, p. 50), ascribes little importance to indigenous cultures (Douglas, 2002, p. 27), and – in the case of game representing history in general – overemphasize the role of the military (Crogan, 2003, p. 279). However, these criticisms can be drawn together under the rubric of Ted Friedman's key criticism of *Civilization II* in his seminal essay '*Civilization* and its Discontents: Simulation, Subjectivity, and Space' (1999), where he argues that the game simultaneously denies and de-personalizes the violence in the history of 'exploration, colonization, and development' (p. 145). Friedman's concern regarding the oversimplification and abstraction of history in *Civilization* is echoed by Barry Atkins in *More Than a Game: Computer Games as Fictional Form* (2003, p. 100). Both games discussed in this paper share this problem of oversimplifying and abstracting history, in particular the relationship between the colonizer and the colonized.

It is the close relationship between the players' actions and the parameters of the game in the production – and reproduction – of ideology that sets videogames apart from other forms of historic representation. Christopher Douglas in '"You Have Unleashed a Horde of Barbarians": Fighting Indians, Playing Games, Forming Disciplines' (2002), argues that the gameplay creates a form of subjectivity where the player accepts the ideology – and rules – of the game as given (p. 24; see also Friedman, 1999, p. 136). Douglas turns to the issue of fan discourses – typically associated with 'productive' readings – stating that even in the case of highly reflexive communities the ideological implications of the game may remain obscured (2002, p. 28). In this argument the bottom line is that the co-production of the ideologically loaded text by the player amounts to tacit acceptance of the world paradigm portrayed in the game.

However, this issue has also been approached with a more sympathetic attitude to player critique. William Stephenson argues in 'The Microserfs are Revolting: *Sid Meier's Civilization II*' that *Civilization II* has a potential for developing in the player a 'skeptical, critical attitude' (1999, p. 4). He notes that the game 'can be used to expose the arbitrariness of ideologies of nation and culture' (1999, p. 1). Understanding the rules and parameters of the game, not only allows the players to exploit them, but also to play with the ideologies that they represent (Everett, 2005, pp. 318-319; Gee, 2003, p. 176). This suggests that learning the rules of play leads to reflection on the rules, and implicitly on the ideologies that they may reflect. Thus knowledge of the rules cannot be equated with accepting them, or their ideological stand-point.

In this paper I will suggest that historic strategy games are used to develop counterfactual texts for simulating possible histories. In this regard they act as tools for the historic imagination that extend recursively into our media-saturated environment. Crogan states that historic videogames are: 'play[ed] in and with a reconstruction of historic temporality drawn from the narrative modes of more traditional media such as historic discourse, historical archives, war films and documentaries' (2003, p. 282). The interactive and abstract nature of historic videogame play can then be used as a site for a wide 'range of interrogations' (Uricchio, 2005, p. 330). Crucial to this paper, they involve a process of play that demands the potential for divergence from the historic events (Atkins, 2003, p. 89). By granting players' the creative license to ask 'what if?' (2003, p. 94), they become a site for imagining counterfactual scenarios (2003, pp. 102-103). As Gonzalo Frasca notes in 'Videogames of the Oppressed: Critical Thinking, Education, Tolerance and Other Important Issues', simulations allows for 'multiple and alternative' views, opening a space for the player to explore different possibilities in their own 'personal and social realities' (2004, p. 97). By turning to the activities of fan communities of both games examined in this paper, I will suggest that these videogames have become tools for imagining and sharing counterfactual scenarios.

Informatics Critique

The core of Galloway's argument is not that games do not have ideological leanings, but rather that the ideologies of games become increasingly irrelevant when

understood against the context of their status as an allegory for the control society. He states:

> To use history as another example: the more one begins to think that *Civilization* is about a certain ideological interpretation of history (neoconservative, reactionary, or what have you), or even that it creates a computer-generated "history effect," the more one realizes that it is about the absence of history altogether, or rather the transcoding of history into specific mathematical models (2006, pp. 102-103).

For Galloway, videogames embody the principles of informatics; history has been turned into manageable and quantifiable variables that allegorically represent the contemporary society of control. In his experimental online publication *GAM3R 7H30RY* (2006), Mackenzie Wark also suggests that strategy games should be read as allegories, but as allegories of America:

> It [*Civilization III*] embraces all differences by rendering all of space and time as being of the same quality – by reducing space and time to quantity. And finally, the next level appears: the expansion of topology outwards, beyond America, to make America equivalent to all of time and space (2006, p. 073).

I suggest that Wark and Galloway's concern with the notion of allegory has considerable overlap. While Wark does not mention explicitly the notion of control society, his

argument is congruent with Galloway's in that its concern is with the quantifying – and homogenization – of all differentials. The allegorical representation of the control society empties the ideology of the historical representation, as every factor becomes simply a variable or input into an algorithm.

However, my own concern in this paper focuses on an issue that these two scholars neglect; that is, the feedback between the algorithm and the ideology. Reflecting on the prior literature on the use of videogames dealing with history as tools for exploring counterfactual scenarios, I will argue that the algorithmic code of videogames supports styles of play that utilize the algorithm to execute their own exploration of ideology; by either learning the pattern of the algorithm, or by creating their own variances within it by altering the code. To put it more simply: either through expert play or through 'modding' the game.[8] In the remainder of this paper I will first discuss the representation of the Australian colonial moment; then, drawing upon my examination of the community of gamers that play *Victoria: Empire Under the Sun* and *Europa Universalis II,* I will examine the significance of this portrayal.

Terra Australias: Maps, Colonies, Genocides and Fantasies

The space of play in both games is presented as a map, or rather as several maps which detail various aspects of management (for resources, transportation networks, religion etc.). The perspective is often as if the player were surveying the map from a tabletop, revealing the genre's roots in board and war games (Apperley, 2006, p. 13).

The player is at a distance from the field that they will be acting upon, rather than clearly located within or adjacent to the screen through an avatar or a gun-sight. Thus the player is located as an 'outsider' to the game-world; one who retains the ability to act upon that world, but from a distance, hence this genre of game is often referred to as 'God Games'. The map is presented at a level of detail that represents military strategic concerns, which reflect the player's role in the game: that of a military/economic machine that typifies military despotism. In *Europa Universalis II* at the start of play Australia and the waters around it are obscured, empty spaces in the map waiting to be filled in through exploration. During the course of play only the Eastern and Western coastal provinces can be explored, the center, South and North of Australia remain empty. However, in *Victoria: Empire Under the Sun* Tasmania, Victoria, and New South Wales are already a part of the British Empire and there is a significant British presence in the rest of Australia; as a result it is likely that during the course of play the whole of Australia will become a British colony, and eventually a self-governing dominion.

The strategic importance of Australia in these games revolves entirely around its suitability for colonization. In *Europa Universalis II*, this means that there is likely to be a race between the seafaring powers to discover Australia and send colonists there. It is also quite likely that several powers will form colonies. While much of the map in *Europa Universalis II* is available for European expansion, much of the spaces are unsuitable for colonization by Europeans, leaving several locations – among them Australia – critically important for developing the colonial empires, while the other regions are best left alone to be dominated by trade. In *Victoria: Empire Under the Sun*,

Australia is of little importance to Britain, as it produces no goods that are not already available from the home isles. Furthermore, the colony does not attract many settlers due the algorithm having a bias towards sending unoccupied population to the USA; this means that even as a self-governing dominion, Australia will remain a relative backwater with little industry or manpower to contribute to the Empire's armies and economy.

One of the more controversial aspects of *Europa Universalis II*, which contributes to Australia's popularity as a destination for colonization, is the ease with which the 'natives' may be either exterminated or assimilated. Each province in *Europa Universalis II* that is uncontrolled by a civilized nation has a native population between five hundred and five thousand; furthermore, the population of each uncivilized province is given a rating between zero and ten to indicate their aggressiveness towards incursions by colonists and traders. This native population is assimilated into the colony once it has become a certain size, and the natives automatically become productive citizens in the economic output of the colonies' economy. A peaceable native population can be easily assimilated to create a large thriving colony without having to allocate troops to protect the colonists. Australia is a desirable colony in the game because it has a large and peaceful native population. However, trying to set up a colony or even a trading post in a province that has large and aggressive native population will often lead to the extermination of the colonists. This can be prevented by stationing the colony with troops, as even the weakest colonizing troops can usually defeat a large native army. Once troops enter a province with a native population, the player is presented with the option 'exterminate natives'; this option is recommended in most strategy guides when

dealing with natives of aggression level 4 or more. In *Europa Universalis II*'s simulation of aboriginal culture, they are rated with one or zero aggressiveness depending on the province, thus ensuring their survival because of their value once they are assimilated. In *Victoria: Empire Under the Sun*, the already assimilated aboriginals are shown as a demographic in the population, which can be appeased if the government adopts policies which suit their status. A vital part of the game involves setting the agenda for the government policies on key issues – such as economics, religion, trade and military – in this case minority rights. Minorities can be assigned full or limited citizenship, or reduced to slavery. Thus in the case of *Victoria: Empire Under the Sun*, the player is able to take a more – or less – enlightened approach to minority rights in Australia, than those which were actually adopted during the historic period represented in the game.

During play of both games Australia can take on some rather strange configurations. As previously mentioned, races and competition for Australian colonies among colonizing nations in *Europa Universalis II* can create counterfactual maps which include part of Australia being controlled by France, Spain or Portugal. This will often lead to minor colonial wars, as powers become embroiled in struggles in Europe and extend the field of combat to their Australian colonies. Australia takes on a much more varied form in *Victoria: Empire Under the Sun*; while it is mostly controlled by Britain, it is of a great strategic value to other nations that are trying to industrialize because it is an important source of coal. Britain may then trade parts of Australia with other colonizing powers to gain advantage in another sphere. For example, in one game I played Britain and traded North Australia and Western Australia to the Netherlands, thus making parts

of Australia part of a larger Dutch colonial empire. In another game Australia had

become a Brazilian colony after Britain had traded it for some of Brazil's Caribbean

possessions – Cuba, Puerto Rico – won in a war with Spain. The game's production of

these outlandish outcomes is multiplied by the possibility of player intervention.

Paradox Player Productions

Through mastery of the game the play may start to effect outcomes that express

their counterfactual desires. As David Myers notes in *The Nature of Computer Games:*

Play as Semiosis, expert play established contextual relationship between the variables in

the game's algorithm (2003, p. 44). A key part of this contextualization takes place

through experiencing the algorithm, in play, but of particular importance is the

contextualization that takes place outside of the tradition rubric of the game through the

gleaning of information from secondary sources: Internet sites, chat rooms, bulletin

boards, conversations with other players, game magazines, etc. Paradox Interactive

supports this type of play, and has extensive forums on their official sites for all their

games, which include player-authored strategy guides, and player-created wikis for both

games that aim to break down and examine every aspect of play.

After action reports are the recounting of a single game, often in episodes as it is

played, with an emphasis on counterfactual elements. The report may be made in an

instrumental manner, or more usually is recounted in the form of an elaborate fiction. In a

recent forum post, Wannabe Tartar reporting on a game played as Persia writes:

The Afghans, under the leadership of Dost himself, put most of their effort of driving the Persians out from Farah, but they couldn't break enemy lines. The Shah marched with his army to Kandahar, where he would lay siege to the city. Slowly the Afghans were being pushed back, and realizing that they were not able to withstand the Persians, Dost tried to convince the Shah in signing peace.

But the Shah, now smelling victory, continued his advance towards Ghazni and Mazar I Sharif. Although Ghazni didn't fall to the Persians, Mazar I Sharif did, bringing the Persians within less as 100 kilometres from Kabul. The Shah moved his troops closer to Kabul and when his troops were at the outskirts of the city, Dost was quickly to offer peace. All province currently occupied, with the exception of Mazar I Sharif, would be seceded to the Persian. The Shah realized that if the war would drag on, the probability of a British intervention force being sent to Afghanistan would increase, so he accepted the treaty offered to him (2006).

The after action reports act as a dual display of game and writing prowess, in some cases the posts are illustrated with maps and portraits of the historic figure being discussed. The reports also show other players the tactics adopted to succeed in their goals (in Wannabe Tartar's case it was to create a Persian Empire). The after action reports often show a counterfactual tendency, although some also show a remarkable adherence to historical fact by trying to recreate the events with a sound adherence to historical accuracy.

Historical realism and authenticity are also a major topic of discussion in the forums. Both games are under constant evaluation in the forums regarding how authentically they represent events in the past. In many cases the discussion regarding an individual issue will start with someone talking from a position of expertise. For example, one fan forum, Vojska.net, based in Croatia, has advocated serious changes to the map of the Balkans in *Europa Universalis II*, to have provinces boundaries drawn in a historically authentic manner. In this case the community also produced their own map, which they distributed as a 'mod' for the game, allowing other players to play in what they considered a more historically realistic geography of the region. Here the boundary between talking about the game and making modifications to it are being blurred, guides to modifying all aspects of both games are numerous, with both individual modders producing them, and in collective projects like the game wikis.

Both games also have large collective projects made up of individuals who share a collective vision for the improvement of the game. These groups: the Victorian Improvement Project, and for *Europa Universalis II,* the Alternative Grand Campaign and Event Exchange Projects. The Victoria Improvement Project is committed to making the major wars of the era more realistic; thus they have 'mods' which improve the realism of the game scenarios dealing with the American Civil War, The Franco-Prussian War and World War I. They also expand the development of technology, and have worked on improving the artificial intelligence of the game (an area which is under much criticism, and discussion in the forums). The Alternate Grand Campaign and Event

Exchange Project for *Europa Universalis II* were originally two separate projects that have merged. The focus of the project is to develop more events that occur based on history. In the game events are typically connected to a certain country, and only countries that were originally intended as playable in the colonial sense have many events (English, France, Portugal, Spain, Sweden). So the project has two purposes, to represent historic events more realistically, by modifying events already in the game, and to generate new events that occurred historically in individual nations, but were not included in the game.

UnAustralia

It is clear that the representations of Australia in these games follow a certain logic, and represents a particular ideology, the most problematic aspect being the representation of aboriginal culture as homogenous natives to be assimilated or killed as the player sees fit. Past studies of this genre of game have argued either that this will cause players to accept this ideology as valid, or to question the ethics of the individual moment. Certainly, the player may approach the play in an authentic manner, which begs the question when they reach Australia they will do what? The game whether or not it enlightens people, does force them to confront – an admittedly stylized – version of the historic events.

Individuals and organization that have a stake in the representation of Australia's history could of course create their own 'mods' for the game, to either represent the past

more accurately, or to create a more fantastical scenario. The tools are available for anyone to do that, but in my research, the only mention I have discovered of 'mods' being made for Australia are a part of the Victorian Improvement Project that creates more realistic immigration flows from metropolitan centers to the periphery colonies. This feature makes Australia a more useful asset to the Empire, but does nothing to complicate the moment positioned by *Europa Universalis II*; the decision between assimilation and genocide. When the player reaches the end of *Braid*, they get to watch time rewind and watch their progress through the game, but from a different perspective. The final cut scene reveals, rather than being the hero rescuing the princess; that they were in fact executing her capture, confinement, and driving off potential rescuers, a subtle reversal of the typical theme of the platform genre. I would suggest, that a similar reversal is possible in these games, where the player is confronted with their own villainous role in the historic event.

Works Cited

Anderson, J. (2004, January 11). Valisk's Nation Guide. Message posted to the Paradox
Interactive Forum for Victoria: Empire Under the Sun, archived at http://www.europa-
universalis.com/forum/showthread.php?t=125076

Apperley, T. H. (2006). Genre and Game Studies: Towards a Critical Approach to
Videogame Genres. *Simulation & Gaming 37*(1), 6-23.

Atkins, B. (2003). *More Than A Game: The Computer Game As Fictional Form*.
Manchester; New York: Manchester University Press.

Best of the Independent Games Festival 2006 [Broucher]. (2006). Melbourne: ACMI.

Braid (Under development). Number None Inc., San Francisco.

Caldwell, N. (2004). Theoretical Frameworks for Analysis Turn-based Computer
Strategy Games. *Media International Australia 110*, 42-51.

Crogan, P. (2003). Gametime: History, Narrative and Temporality in *Combat Flight
Simulator 2*. In M. J. P. Wolf and B. Perron (Eds.). *The Video Game Theory Reader* (pp.
275-301). New York; London: Routledge.

Calvert, J. (2004, June 16). Paradox to self-publish Crusader Kings. *Gamespot*. Retrieved 25 September, 2006, from http://au.gamespot.com/news/6100766.html

Douglas, C. (2002). "You Have Unleashed a Horde of Barbarians": Fighting Indians, Playing Games, Forming Disciplines. *Postmodern Culture 13*(1). Retrieved 28 September 2006 from http://muse.jhu.edu/journals/postmodern_culture/v0313/13.1douglas.html

Egenfeldt-Nielsen, S. (2004). Practical Barriers in Using Educational Computer Games'. In *On The Horizon 12*(1), 18-21.

Everett, A. (2005). Serious Play: Playing with Race in Contemporary Gaming Culture. In J. Raessens & J. Goldstein (Eds.). *Handbook of Computer Game Studies* (pp. 311-327). Cambridge; London: The MIT Press.

Europa Universalis II (2001). Paradox Interactive, Stockholm.

EU2wiki (Open source project). Retrieved 27 September, 2006, from http://dhost.info/arsud/mediawiki-1.4rc1/index.php/Main_Page

Frasca, G. (2004). Videogames of the Oppressed: Critical thinking, Education, Tolerance, and Other Trivial Issues. *FirstPerson: New Media as Story, Performance, and Game* (pp. 85-94). Cambridge; London: The MIT Press.

Friedman, T. (1999). *Civilization* and its Discontents: Simulation, Subjectivity, and Space. In G. M. Smith (Ed.). *On A Silver Platter: CD-ROMs and the promise of a new technology* (pp. 132-150). New York; London: New York University Press.

Galloway, A. (2006). *Gaming: Essays on Algorithmic Culture*. Minneapolis; London: University of Minneapolis Press.

Gee, J. P. (2003). *What Video Game Have to Teach Us About Learning and Literacy*. New York; Houndmills: Palgrave MacMillan.

Hearts of Iron (2002). Paradox Interactive, Stockhom

Myers, D. (2003). *The Nature of Computer Games: Play as Semiosis*. New York: Peter Lang.

Osborne, S. (2002, November 27). Review. *Gamespot*. Retrieved 25 September, 2006, from http://au.gamespot.com/pc/strategy/heartsofiron/review.html

Paradox Interactive (2006). What We Do. Retrieved 25 September, 2006, from http://www.paradoxplaza.com/about.asp?Page=whatwedo

Parker, S. (2001, March 20). Review. *Gamespot.* Retrieved 25 September, 2006, from http://au.gamespot.com/pc/strategy/europauniversalis/review.html

Prince of Persia: The Sands of Time (2003). UbiSoft, Montreal.

Stephenson, W. (1999). 'The Microserfs are Revolting: *Sid Meier's Civilization II*'. In *Bad Subjects 45*. Retrieved 29 September, 2006, from http://bad.eserver.org/issues/1999/45/stephenson.html

Super Mario 64 (1996). Nintendo EAD, Tokoyo.

Super Mario Brothers (1985). Nintendo, Kyoto.

Uricchio, W. (2005). Simulation, History, and Computer Games. In J. Raessens & J. Goldstein (Eds.). *Handbook of Computer Game Studies* (pp. 327-338). Cambridge; London: The MIT Press.

Victoria: Empire Under the Sun (2002). Paradox Interactive, Stockholm.

Vojska.net (2006). Retrieved 30 September, 2006 from http://www.vojska.net/

Wark, M. (2006). *GAM3R 7H30RY*. Retrieved 29 September, 2006 from http://www.futureofthebook.org/gamertheory/

Wannabe Tartar (2006, September 21). The Shahs of Persia: The Struggle for an Empire.

Message posted to Victoria – After Action Reports Forum, archived at

http://forum.paradoxplaza.com/forum/showthread.php?t=266233

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[1] *Braid* has yet to be released in a final version, the version exhibited at ACMI – and presumably at the IGF – was a beta version of the game. The final release date of the game is yet to be confirmed by the developers.

[2] The term videogame is used to refer to any form of entertainment software that is designed for the purposes of being played. Terms that are also in general use include computer game, console game, digital game, electronic game etc.

[3] The reviews given these games by Scott Osborne (2002), and Sam Parker (2001) on the online game entertainment network *Gamespot* are typical.

[4] See EU2 Wiki for a discussion of these limits.

[5] See Anderson (2004) 'Valisk's Nation Guide'.

[6] An exception is Egenfeldt-Nielsen (2004), which is not discussed here as his focus is on the challenges facing the use of *Europa Universalis II* in the classroom.

[7] The games: *Civilization* (MicroProse, 1991), *Civilization II* (MicroProse, 1996), *Civilization III* (Fraxis Games, 2001), and *Civilization IV* (Fraxis Games, 2005).

[8] A 'mod' is a program that modifies a game in some way.