University of Reading

Gaming Myth: An Exploration of Video Gaming, Heritage, and Identity Creation in Contemporary Cuba.

Thesis submitted for the degree of Doctor of Philosophy in Latin American Cultural Studies

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Declaration: I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

Signed,

Miranda Ruth Lickert

Abstract

This thesis examines the relationship between video games and the creation and sustainment of local, national, and personal myths in contemporary Cuba. This thesis examines traditional notions of myth, particularly those which relate to culture and heritage. At the same time, it will analyse the evolving role which video games, and technology more generally, play in our lives, and how new technologies affect the creation and propagation of myth in personal and national narratives. This thesis will then go on to give an overview of the historical context of Cuba, a nation in which myth continues to play a fundamental role in the national narrative, and explore how video games are an increasingly central element of these narratives.

This thesis asks whether video games and computing can tell us anything of note about Cuban culture, and whether the games which are being played and developed in Cuba are part of a broader cultural and historical tradition which shapes Cuba as it is today. This thesis answers both of these questions in the affirmative, and demonstrates the significant impact which video games have had upon Cuba (particularly the more rural and remote parts of the country). This thesis also examines the question of whether gaming in Cuba might provide us with any practical or theoretical approaches to gaming which might be missing from the existing literature, and brings to the fore the lessons which Cuba's unique circumstances hold for the furthering of the study of video games as an academic discipline. In order to support these assertions, the final chapter of this thesis is dedicated to a case study of the rural province of Granma. Using original interviews and fieldwork, this chapter combines the extensive historical and theoretical considerations which have been laid out in the preceding chapters, and applies them to the contemporary Cuban context.

This thesis makes an original contribution to both the fields of Cuban studies and video game theory. Video game studies have traditionally been Western-centric, and have all but ignored countries such as Cuba. Whilst previous works have explored the role of myth within Cuba and gaming separately, this is the first work to study the manner in which myth underpins both video gaming and Cuban culture as a symbiotic whole.

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Glossary and Notes

This thesis has not translated any original Spanish quotations, or names of governmental organisations. In cases where there is a commonly used English translation for an event in Cuban history (e.g. Battle of Ideas for *Batalla de Ideas*) the English is used. However, in other cases, such as *quinquenio gris*, the original Spanish is preserved.

All works cited within the text use traditional brackets ( ) to indicate date of publication: e.g. Frasca (2001). Original interviews conducted for this thesis are distinguished by the use of square brackets: e.g. Figueredo [2017].

ADEC – Agrupación de Deportes Electrónicos de Cuba

AHS – Asociación Hermanos Saíz

CID – Centro de Investigaciones Digitales

CINESOFT – Empresa de Informática y Medios Audiovisuales

CITMATEL – Empresa de Tecnologías de la Información y Servicios Telemáticos Avanzados

COMECON – Council for Mutual Economic Assistance

EVIMA – Estudios de Videojuegos y Materiales Audiovisuales

GID – Grupo de Investigación de Desarrollo de Granma

ICAIC – Instituto Cubano del Arte e Industria Cinematográficos

ICRT – Instituto Cubano de Radio y Televisión

INDER – Instituto Nacional de Deportes, Educación Física y Recreación

INSAC – Instituto de Sistemas Automatizados y Técnicas de Computación

ISPJAE – Instituto Superior Politécnico José Antonio Echevarría

UCI – Universidad de las Ciencias Informáticas

UMAP – Unidades Militares de Ayuda a la Producción

UNEAC – Unión de Escritores y Artistas de Cuba

Introduction

> "There can be no elite of experts in the reformation of culture"
> (Dorfman and Mattelart, 1975:99)

What springs to mind when a person thinks of Cuba? For most people, it will probably conjure up images of sandy beaches, of impassioned rumbas, of quirky old Cadillacs, and, of course, of Castro and Communism. Most of the world seems to view Cuba as an anachronistic remnant of the Cold War; since relations with the US were (briefly, cautiously) improved by then-president Barack Obama and Raúl Castro, much has been made in the US and Europe of the need to visit Cuba as soon as possible, before it 'changes'. This particular strain of the exoticisation of the nation as a hedonistic paradise has its most recently identifiable roots in the early twentieth century, when Prohibition in the US made Cuba an attractive place in which to drown one's sorrows (Ogden, 2015:40). Rebecca Ogden notes that: "Even after US laws against alcohol sale were lifted, Cuba remained in the global touristic imagination as a place of boundless exotic pleasures and decadence" (2015:40), and Louis A. Pérez Jr names it as "the site of choice for Americans to experiment self-consciously with moral transgression" (Pérez Jr, 2015:238). Having tried – and, to an extent, succeeded – to rid the island of this image during the course of the Revolution, the pendulum has resolutely swung back towards the characterisation of Cuba as a nation of passion and partying for foreign visitors; Ogden, again, asserts that, since the "resurrection of the tourism industry" which followed the economic hardship of the dissolution of the Soviet Union, the marketing of Cuban tourism has been specifically focused upon promoting an exoticised image of the nation (Ogden, 2015:96).

In stark contrast with this seductive depiction, this Janus-faced island is also portrayed by its political detractors – most notably, the US – as a brutal dictatorship, headed by the "evil spirit" of Fidel Castro[1] (Pérez Jr, 2015:339), and one of the last bastions of global Communism. Antoni Kapcia argues that this depiction could be seen to bring advantages to Cuba's neighbour to the north: "Cuba's survival as a formally communist state allows an anachronistic continuation of an otherwise outdated anti-communism to prevail"

[1] Mostly referred to throughout this thesis simply as Castro, and appearing in references as Castro Ruz. Any in-text reference to Raúl Castro will be clarified, and cited simply as Castro.

(Kapcia, 2000:235). Indeed, the influence of the Cuban-US émigré lobby in Florida, a crucial US swing state, has been a considerable driving force behind the nation's policies towards Cuba over the past few decades, and has provided Republican politicians in particular with a strong supporter base in the state (Pérez Jr, 2015:338). The efforts to daub Cuba with the dictatorial brush have, for the most part, centred on censorship and human rights. Reporters Without Borders currently places Cuba at 172 out of 180 included countries on its World Press Freedom Index (Reporters Without Borders, no date), and Freedom House presents a similarly dismal picture, giving Cuba an Internet Freedom Score of 79 out of 100 (slightly confusingly, 0 on this scale is 'most free', and 100 is 'least free') (Freedom House, 2017). Debates around artistic freedom and censorship did not suddenly arrive with the likes of high profile contemporary figures such as the artist and blogger Yoani Sánchez; from the earliest days of the Revolution, and the controversy surrounding the banning of the film *P.M.* in 1961, accusations of censorship and repression have been consistently levelled at the nation and its leadership.

Video gaming, the primary focus of this thesis, is becoming increasingly relevant to the future of modern Cuba, and has been equally vociferously maligned by certain sectors of society. Speaking in 2012, the president of the National Rifle Association had this to say on the effects of the medium within the US: "There exists in [the US] a callous, corrupt and corrupting shadow industry that sells, and sows, violence against its own people" (*The Guardian*, 2012). It speaks volumes of the heights to which the debate surrounding video games has risen, that they are utilised as a scapegoat for violence by the NRA, the figurehead of one of the most politically and morally divisive organisations in the modern US. This controversy is, of course, not a new phenomenon, either for video games or for culture more generally. The 'moral panic' which surrounds video games has been identified as a means for cultural, social, and political control in relation to previous cultural formats (Cohen, 2011), and the instances which occur in relation to those mediums which are seen to have a particular effect on children, such as film (Charters, 1933), comic books (Wertham, 1954), and computing and gaming (Wartella and Jennings, 2000; Walker, 2014) have been studied extensively. These panics are driven by a multitude of fears surrounding the suspected dangers inherent in a newly emerging medium, and these fears, interestingly, seem to remain relatively consistent across time: Newly Emerging Medium is not educational, and will rot our children's brains! NEM will cause our children to become socially isolated! NEM will lead to moral deviancy (which it actively encourages through its content)! NEM is highly addictive! It is not controversial to hypothesise that most parents today would see nothing at all wrong (and indeed, an awful lot right) with a child who dedicated much of their time to word puzzles and crosswords, but as this excerpt from

a December 1924 edition of the *Tamworth Herald* demonstrates, even these were the subject of contemporary controversy: "Cross-word puzzles have dealt the final blow to the art of conversation, and have been known to break up homes. Twice within the past week or so there have been reports of police magistrates sternly rationing addicts to three puzzles a day" (*Tamworth Herald*, 1924).

The question remains, though, of whether video games are merely the latest incarnation of the collective anxieties of society, or whether they present a real and more tangible threat? New technologies and their possible applications are evolving at an incredible pace, making it more difficult to adequately study their effects in sufficient depth so as to calm the worried minds of technological doomsayers. The questions surrounding gaming in particular seem to mostly centre on the incitement of violent and/or antisocial behaviours, and on the lack of any educational or moral value inherent within the medium and its ever-expanding catalogue of products. Video games are variously seen as corporate moneyspinners (*Pepsiman*, 1999), as a call to release our more violent instincts (the *Grand Theft Auto* franchise from 1997-2013, but especially *GTA III* (2001) onwards), or an overly-immersive experience which encourages children in particular to play for hours, days, and weeks on end (particularly open-world or sandbox online games such as *World of Warcraft* (various titles from 2004 onwards), and *Eve Online* (2003 onwards)). This last point, concerning the potential for addiction, has gained particular traction in recent years, including in the Cuban case, but is equally not a new concern in the gaming world; in 1994, a now infamous *Wired* article referred to the relatively innocuous *Tetris* (1984) as "some sort of electronic drug – a pharmatronic" (Goldsmith, 1994).

The attitudes displayed above towards both Cuba and gaming are rooted in conceptions of alterity, arising from a tendency to delegitimise 'low' culture – in the case of video games –, and a global academic environment which has traditionally favoured perspectives originating in Western, prosperous, Anglophone nations, and which therefore devalues the academic output of nations which fall outside these categories. The confluence of these two sets of circumstances find a unique expression in places such as Cuba, where the desire to defy cultural norms as defined by their political opponents meets with the economic and geopolitical realities of a relatively poor country, which faces both political and practical obstacles, domestically and internationally, to accessing and publishing academic literature.

In both cases, we can identify the strands of myth which run through their narratives. Examining the idea of myth creation within culture, Max Müller (1873:355) questions whether mythology should be classified as accidental or inevitable, as a deliberate invention or as a product of gradual growth. Claude Lévi-Strauss – "the grandest twentieth century reviver of a rationalist approach to myth" (Segal, 2002:613) – believed that any meaning that might be extracted from mythology could only be drawn from the relationships between, and combinations of, its various components; any "isolated elements" are of little consequence unless joined together with others (Lévi-Strauss, 1955:431). Both the Lévi-Strauss and Müller models recommend themselves to an inter-disciplinary approach towards myth. Percy Cohen (1969) argued for the innumerable benefits of an intersectional academic approach, believing that more could be gleaned from a subject if it were not studied along strict disciplinary lines; that in order to most fruitfully analyse the whole, one needed to view it through the lens of a variety of different disciplines. This is precisely the approach that this thesis will take, using the idea of networks of local and national myth as one lens through which to analyse the place of gaming in contemporary Cuba.

Cohen cautions that he does not mean to imply that all approaches are alike in merit: "The task here is to weed out bad theories or bad elements in theories and to seek a synthesis which is not simply a device for avoiding choice" (Cohen, 1969:337). Cohen suggests that, across all branches of Freudian thought, myth is viewed in a similar way to day-dreaming; it adheres to much of the emblematic, codified language of dreams, whilst involving a certain level of deliberate conscious thought. However, the essential dream processes of "condensation, displacement and splitting", which involve the amalgamation of many elements into a single idea or figure, the displacement of that new symbol onto a new subject in order to confer artificial meaning upon it, and finally splitting it into two, diametrically opposed, 'good' and 'bad' portions, can all be found in the construction of myth (Cohen, 1969:341). This could certainly be argued to hold true both for popular representations of gaming, and also for the content (the split between protagonist and antagonist, good and evil characters) of some of the most well-known games. Paul Gilroy notes that this Manichean worldview is essential to the construction of the oppositional, nationalistic myth: "memory of the country at war against foes who are simply, tidily, and uncomplicatedly evil has recently acquired the status of an ethnic myth" (Gilroy, 2004:97). This particular view is of extreme relevance to the Cuban case, where a crucial element of national identity has been forged through conflict with other ideologies and nations, and solidarity with their enemies' enemies.

There is the deep mythic significance in modern Cuban cultural practices, including its video games. Culture on the island since 1959, and arguably even beforehand, has been firmly rooted in concepts of national identity, adherence to history, and pride in the past achievements of the nation and its individual heroes, and we see the idea of such national myths come bounding to the fore in some of Cuba's more narratively and graphically complex video games. It is important, however, to make a distinction between the games which are *produced* in Cuba, and those which are most popular there, as there is currently very little crossover between these two categories (at least, amongst players who are in their early teens and above). On the surface, some the most complex and popular Cuban-made games might seem to confirm US-propagated notions of inculcation and shameless propaganda. Perhaps the most famous game to come out of Cuba so far is *Gesta Final* (2013), which, through a series of five distinct battle levels, guides the player through decisive moments in the 1956-59 insurrection. The link to historical myth is clear, and indeed, we find a direct reference to the concept of the title in a quotation from C. Fred Judson: "Myth, on the other hand [as opposed to Utopia] embodies infinity in its confrontation with catastrophe. It conjures up the vision of some final struggle" (Judson, 1984:9). Of course, whilst there might be those (particularly amongst the gradually disappearing 'old guard' of the Cuban leadership) who wish to preserve the Revolution as a final transition, we shall see how the 'struggle' in Cuba persists in various incarnations to this day.

Games such as *Gesta Final* have the potential to be viewed with suspicion for promoting a particular ideological strand, and some might question whether or not explicit ideology should be the domain of the video game. Those who condemn *Gesta Final* might wish also to examine *Call of Duty: Black Ops* (2010) in which one of the primary objectives is the assassination of Castro. If such games as these are allowed (perhaps, encouraged) to present an unquestioningly, unflinchingly anti-Communist, pro-US narrative, then why should Cuba be expected to maintain total neutrality? Indeed, games such as *Gesta Final* could be argued to be preferable to hyper-violent games such as the *Call of Duty* franchise: the game is based on factual historical events, and it does not show blood, death, or depict violence in a particularly explicit manner, despite being a combat game. A cynic might point out that its lack of graphical complexity would be a barrier to realistic or traumatic depictions of violence, but in either case, its creators have long maintained that it is intended primarily as an enjoyable learning aid.

The two protagonists of this thesis – Cuba and video gaming – might not strike the majority of people as natural bedfellows; indeed, prior to commencing work on this thesis,

Cuba would not have occurred to me as being a site of any particular interest or innovation in the gaming world. When I was invited to join the wider "*Beyond Havana*" project (Kumaraswami and Kapcia, 2014-2018) in order to sculpt a research area of my own design, based in the remote, rural province of Granma, I was initially at a loss as to what I should focus on. Having vaguely decided that youth culture and childhood might be the basis for a fruitful and engaging project, I began browsing the online resources for a variety of Cuban youth organisations; there, on the website for the Granma branches of the Joven Club de Computación y Electrónica, was a blog post detailing a small *FIFA Football 2005* (2004) tournament which had taken place in 2013 (Algarín Pérez, 2013). Although a gaming enthusiast myself, I was then to spend quite some time researching *around* this topic, as I was unconvinced that there would be sufficient material with which to create a full thesis; thankfully, I was sorely mistaken. However, a paucity of resources about this topic (both within and without Cuba), combined with the significant communication difficulties presented by a combination of bureaucratic stonewalling and a still-developing technological infrastructure, made for an occasionally vexing (but consistently fascinating) research process. Although I could not have predicted as much when I began, this thesis reaches its completion during a time of astonishing change in Cuba: the December 2014 'opening up' (however brief) of relations between Cuba and the US, as signalled by a handshake between Raúl Castro and then-President Barack Obama; the death of Fidel Castro in 2016; and, at the close of 2018, the widespread introduction of 3G mobile internet to a country in which, until 2008, it was illegal for most private citizens to purchase a mobile phone (Wylie, 2010:114). Had I begun my research in 2019, I would have found a very different technological landscape, with different resources at my disposal, and I am eager to see how future research will approach this. I also wish to acknowledge that there are a great many further areas for study within the context of Cuban gaming, including the issues of gender, race, and economic status which are common to discussions around gaming throughout the globe. However, since these topics are sufficient by themselves to form the basis of an entire, separate thesis, they are largely omitted from this thesis for reasons of space.[2]

[2] Save for a short discussion on gender on pages 159-160, where it arises during the course of an interview.

Methodology

The research for this thesis was conducted over the course of two separate 8-week fieldwork visits to Cuba (spent predominantly in Granma) in the late spring and early summer of 2016 and 2017, preceded by a month of 'fact-finding' in July 2015. Over the course of the two principal stays, multiple semi-structured interviews were conducted with a range of interviewees from three main groups: Teatro Andante, a street theatre group based in Bayamo, the provincial capital of Granma; Televisión Serrana, a documentary film group from the village of San Pablo de Yao, in the rural Sierra Maestra; and finally, the largest cohort, a range of people involved in both video game production and the local and national Joven Club centres. One of the aims of this thesis is to present contemporary Cuban gaming in the context of other the myriad cultural forms with which it shares the nation, and to discover whether it disrupts or complements them; gaining the views of other cultural actors on emerging technologies of culture, and on wider questions of cultural development, was therefore essential. Additionally, as we shall soon discover, one of the central questions in this thesis focuses on the creation and propagation of historical and cultural myth; as storytellers (and gaming is also, after all, an essentially narrative activity), Teatro Andante and Televisión Serrana play a vital role in these processes. The principal research sites for this thesis were Bayamo, San Pablo de Yao, and a small town named Bartolomé Masó, in the foothills of the Sierra Maestra. These three research sites provided a variation in levels of urbanisation, modernisation, and landscape, ranging as they do from a provincial capital to the remote heart of Cuba's highest and, arguably, most historically significant mountain range. Since this thesis is concerned primarily with the institutional and cultural significance of video games within the existing political and cultural framework, rather than with the reception and perception of the games and their content, very few interviews were conducted with players themselves, but rather with video game developers, Joven Club workers, and other actors involved in technological fields.

The methodology adopted for this research was developed and decided upon gradually over the course of the first 18 months of the PhD, as the topic of video gaming was only finally decided upon after this point. My initial research included wide-ranging discussions with researchers at the Instituto Cubano de Investigación Cultural Juan Marinello, with educators and researchers at various libraries, cultural centres, and Joven Club locations across Granma, and with workers from the Palacio de Computación in Havana. I also conducted extensive archival research at the libraries and cultural centres in Cuba, examined the materials available at the Palacio, and, of course, played through the EVIMA games which I was given by a friend (who shall remain forever nameless). When I

examined the materials which were available to me after this process, having also conducted searches for relevant sources in UK libraries and online, I determined that my research would need to be inherently multi-disciplinary; led by qualitative interviews, supported by historical research, and incorporating a range of approaches from cultural theory.

My methodological approach would draw from a number of schools of thought, including critical theory. The subjective awareness which critical theory demands is a vital tool for recognising the power dynamics which underpin social research (Lather, 2006), an awareness of which is particularly crucial in a perpetually contentious location such as Cuba (Bell, 2013). This awareness would then equip me to approach the challenging task of critically analysing the content and context of my qualitative interviews. I was acutely aware that, whilst being well-versed in other writings on Cuba would be essential, it would be equally important to allow my findings to speak for themselves, and to centre the voices of my participants in a way which acknowledged the postcolonial context of the island, and my relationship to that context as a white British woman. It was essential to carefully analyse and interpret the material presented to me without devaluing or silencing the voices of those people upon whose knowledge I relied (Dutta, 2014), and instead ensure that I truly listened to what was being shared with me (Purdy, 2000).

Since it was clear that I would have to frame my fieldwork in its historical context, I also borrowed from historical cultural studies (Pickering, 2008). Michael Pickering notes that historical approaches are often notable in the field of cultural studies by their absence: "Toby Miller's (2001) blockbuster anthology, *Companion to Cultural Studies*, omits history from the mix even though it runs to nearly 600 pages. An earlier, equally gargantuan volume of proceedings from the 1990 Cultural Studies conference in Urbana, Illinois, contained just one contribution from a historian, Carolyn Steedman, who expressed uncertainty and doubt about why cultural studies should want history at all" (Pickering, 2008a:196). Pickering advocates for the more widespread integration of historical analysis and context into cultural studies, so that the two may "productively inform each other" (Pickering, 2008a:197). This approach seems to me to be essential to the study of contemporary Cuba, for, as we shall explore at length, its history is explicitly woven into day-to-day experiences, and this has influenced the focus on myth within this thesis. Additionally, Pickering warns that the two traditional approaches to history present us with: "a view of the past as chronically different or chronically the same as our own historical world" (Pickering, 2008a:211). This concept of chronic difference can be critically applied

to Cuban studies, when examining the case of Cuban exceptionalism[3] and the professed admiration by tourists for a Cuba which has supposedly been frozen in time.

As I had never conducted research in a potentially politically sensitive location prior to commencing this project, I leaned heavily upon Karen Bell (2013) in order to draw out some potentially useful approaches. Having been able to determine the feasible range of resources and people to whom I might have access in Cuba, I settled upon a mixture of semi-structured qualitative interviews and participant observation; sadly, I had to eliminate participant observation from my fieldwork fairly early on, due to permission being withdrawn by a number of Joven Club centres. My reasoning for adopting semi-structured interviews was to allow my interview subjects, to a certain extent, to guide the interviews, and to speak on the topics about which they were most knowledgeable, most passionate, or which they perceived to be important to the research. Since this research was not intended to produce large, coherent data sets, but instead (as alluded to above) to provide a subtler and more open view of the contemporary Cuban context, semi-structured interviews seemed to be the most appropriate approach. In choosing my interview subjects, I considered the unpredictable aspect of the availability of my interviewees, the (at that time) near-impossibility of making contact with interviewees from outside Cuba in order to arrange meetings in advance, and the unreliable nature of public transportation to help me reach interviews. I therefore decided to adopt a flexible approach which would allow me to take advantage of opportunities as and when they unfolded (Miles & Huberman, 1994). In addition, with the knowledge that many contacts in Cuba would be easier to make via introductions, I had great success in implementing snowball sampling (Berg, 1988) in conjunction with the more traditional method of purposive sampling (Patton, 1990), targeting Joven Club workers and game developers.

There were a number of bureaucratic obstacles which impeded this research, and, on occasion, such as when attempting (unsuccessfully) to organise an interview with part of the game design team at Havana's Universidad de las Ciencias Informáticas, these proved to be ultimately insurmountable. Research was also hindered by a general lack of available writing about the province and its contemporary cultural output, particularly video games; consequently, the final chapter of this thesis leans quite heavily upon interview material to provide some measure of qualitative reinforcement for other areas of research and observation. As will become clear, many Cubans outside Granma do not seem to view it as a location of particular contemporary importance, despite its deep historical significance to the nation. Indeed, Granma has been chronically underdeveloped and generally overlooked

[3] See discussion on p91.

by the government at all but a symbolic level for decades. It is a rural province, and, thanks in part to a relative lack of tourism when compared with more developed urban centres such as Havana, Cienfuegos, or even its neighbour Santiago de Cuba, its transport and communications infrastructure are still sorely lacking; travelling from Bayamo to Bartolomé Masó, a journey of around 60 kilometres, can take the better part of a day if you are unlucky with buses and trucks. Granma, historically part of the (now defunct) larger Oriente province, undoubtedly suffers from what Ogden identifies as an "east-west and urban-rural divide" (Ogden, 2015:41) which still characterises much of the contemporary Cuban landscape.

Given all of the above, what might Granma (or even Cuba) offer to the emerging field of gaming research? Additionally, and no less pertinently, what might gaming offer this quiet, rural, barely-visited corner of a Caribbean island famed more for its communism than its computing? Through examining the games which are played on the island, the processes undertaken by developers, and the relationship between gaming and the rest of the cultural landscape in the province, this thesis will examine to what extent gaming in Cuba is a unique product of the Cuban political and cultural environment, which demands to be analysed and considered with the corresponding levels of consideration for its circumstances. Additionally, whilst studies of Cuba have typically focused on Havana – indeed, taking a capital city or other urban centre as a representative locus of broader national trends is a common occurrence in other nations too – and have looked to the capital to provide an archetypal example of life elsewhere in the island, this thesis will explore whether a place such as Granma might provide a superior Cuban synecdoche. This thesis will also seek to begin the process of filling in the gaps in existing video game literature where Cuba is concerned. As discussed in Chapter 5, there is a real scarcity of existing writing which examines video gaming in Cuba from anything other than a technical standpoint. This thesis will therefore not only be adding knowledge and original research to a field which is, at present, understudied, but will also be doing so within a geographical region of Cuba which receives little attention from the central government, and even less from the wider world.

Research Questions and Thesis Overview

To begin, let us extract a number of more clearly defined questions from the above. The first question will be: what can video games and computing tell us about Cuban culture (both in the present and in recent history)? By extension, do the games which people play,

and the sorts of games being developed on the island, have a directly identifiable relationship with existing cultural and historical myth, or is gaming a disruptive, invasive anomaly? Finally, does gaming in Cuba provide us with any practical or theoretical approaches to gaming which might be missing from the existing literature?

Chapter 1 of this thesis will provide a broad overview of some of the main theoretical frameworks which underpin this thesis. It will begin by exploring the history of the study of video games, including the conceptual roots within other disciplines from which video game theory is mostly derived. It will examine the place of video games within traditional cultural hierarchies, and deconstruct the issues which arise from these mostly vertical structures of categorisation, including the implications for the way in which culture is consumed and assigned value. This chapter will also explore the relationship between culture and myth, including an examination of the interplay between myth and technology in the online world.[4]

Taking, as its starting point, the issues caused by the ever-accelerating shift towards the online, Chapter 2 will begin by focusing on what have traditionally been considered the most polemical or problematic aspects of gaming, particularly its supposed power to incite violent behaviour through an immersive, persuasive experience. This chapter will then explore the roots of violence within the medium, which mostly emerge from a focus on military games. As this chapter will demonstrate, games which are based on historical conflicts can be an engaging tool for working out themes of national heritage and historical myth within a controlled and enjoyable environment, but might also allow for the exploration and creation of a more personal mythic narrative. Finally, this chapter will look at how the physical environment in which we play such games can also influence our experience and viewpoints. This chapter will conclude by demonstrating that, within these spaces as well as elsewhere, modern information technologies are disrupting traditional cultural structures, and providing us with more complex, potentially egalitarian approaches to culture.

[4] It should be noted that, whilst every attempt has been made to utilise contemporary sources throughout this thesis, locating scholarship on myth which was both up-to-date and relevant proved to be a challenging endeavour. Much modern writing which examines myth does so in order to frame a case study within its own discipline (a particular film or work of literature, for example), and these often rely on older, well-established theories set out by the likes of Lévi-Strauss, Cohen, and Bronisław Malinowski. The scope of this thesis does not allow for a full discussion of the vast debates surrounding myth, but attempts instead to extract the most pertinent messages from these works. By doing so, it aims to provide a thorough grounding in the concepts which underlie myth, whilst retaining focus on the issues which are most relevant to Cuba and to gaming.

Chapter 3 will begin by briefly introducing Cuba's relationship with these information technologies, and highlighting the central role which they have played throughout the course of the Revolution. It will then step back in order to lay the foundations of Cuba's modern mythic narrative, including an examination of some of the nation's heroic historical figures. In order to demonstrate the evolution and accumulation of myth and technology in contemporary Cuba, this chapter will then embark upon a chronological examination of some of the principal cultural events within the Revolution, from 1959 to 1970. This will include the Literacy Campaign of 1961, which laid the foundation for contemporary drives towards technological literacy.

Chapter 4 will begin by reviewing the Revolution's passionate and innovative approaches to computing technology in the late 1960s and early 1970s. It will then continue the timeline begun by Chapter 3, and will examine the damage which was wrought upon the Cuban computing community by key historical events such as the *quinquenio gris* and the Special Period. Additionally, this chapter will discuss how the Battle of Ideas revived and reinvigorated a number of more traditional Cuban myths, particularly those which had been seeded and nurtured during the earliest years of the Revolution. Chapter 4 will conclude by exploring the contemporary Cuban computing landscape. This will include an examination of the crucial role of the Joven Club youth centres, the arrival and impact of video games, and the contemporary challenges which game developers now face within the nation.

Chapter 5 will draw together the content from Chapters 1 to 4, and will apply the concepts which they contain to a case study of the Cuban province of Granma. This chapter will explore some areas of more traditional cultural practice within the province, and will interrogate the role and impact of modern technologies on local, national, and personal myth. This case study will include an examination of a local travelling theatre group, a documentary film group, and a number of local video game developers. Through the use of archival research and multiple interviews, this chapter will explore the challenges of infrastructure and resources faced by the people of Granma. Finally, this chapter will demonstrate how video games are transforming the cultural environment within the province, and what this can teach us about the deficiencies in our current understanding of video games.

Chapter 1

What's In A Game?

In May, 1962, a group of students at MIT made history when they screened what is now widely accepted to have been the very first computer game. Writing in 2019, the impact made by *Spacewar!* (1962) at the time is hard to grasp, but in 1984 Steven Levy described it as follows: "the sight of it – a science-fiction game written by students and controlled by a computer – was so much on the verge of fantasy that no one dared predict that an entire genre of entertainment would be spawned from it" (Levy, 1984:52). Adding to Levy's words of veneration, Bob Rehak notes that "the creation of Spacewar! has come to be viewed with a reverence befitting the Book of Genesis" (Rehak, 2003:109). Since that time, video gaming has come to be at the forefront of interactive, appealing, publicly accessible manifestations of technology, and has paved the way for contemporary internet culture; its early discussion forums gave us one of the first forms of social media, some of its current iterations collect vast numbers of users together to socialise and play online, and crowdsourcing online games have even aided in some startling scientific breakthroughs.

Video games have helped to open up so many conceptual possibilities across diverse disciplines, from art to medicine to digital technology, and yet they have only relatively recently become the focus of serious academic study. Even now, for the most part, we continue to employ theories loaned from other disciplines to explore their significance. In a nod to the general perception of video games as a less than serious academic pursuit, and perhaps a dig at the sometimes inscrutable and unnecessarily complex nature of academia, A.G. Bell penned some words of advice to those attempting to specialise in video games: "do not say you wish to "play games". Much better is a wish to study "dynamic technique of search and evaluation in a multi-dimensional problem space incorporating information retrieved and realised in a Chomsky Type 2 language"" (Bell, 1972:10-11). A lack of widespread acceptance within academia may be one reason why video game studies still lacks some of the most basic foundation stones for any field. Mark J.P. Wolf and Bernard Perron point to the "lack of a common terminology" (Wolf and Perron, 2003:16); in fact, there is not even a consensus over whether 'video game' should be written as one or two words (I have betrayed my loyalties here, but it will appear as 'videogame' where necessary in order to accurately cite other works).

The fact that video game theory is still in its relative infancy means that the majority of even the earliest literature remains relevant today, but interestingly, it is mostly well-established writings from other fields which provide a basis for their analysis. Some of the most prevalent examples are the 'mirror stage' from Lacanian psychoanalysis; Johan Huizinga's writings on play (1949); Roger Caillois' work *Man, Play, and Games* (1961); and smatterings of film theory which serve as a point of reference for video games. It is right and proper for any academic field to acknowledge its predecessors and contemporary relatives, if only for the purposes of acquiring greater authority with which to suggest alternative futures. However, beyond this, video games require their own theoretical framework, one which is as innovative and unique as the media to which it applies, rather than being treated as a straightforward evolution of existing cultural theory. The opinion of the prolific video game designer and researcher Gonzalo Frasca on this matter is clear: "The current state of videogame research is mainly driven by scholars who try to explain computer games through previously existing media. For example, Brenda Laurel's work is based on drama, Janet Murray's on storytelling, drama and narrative, and Lev Manovich's on film. While I do not necessarily discard these approaches, I think that they are incomplete and that by studying videogames as something else than games, they are denying its main potential" (Frasca, 2001).[5]

As Frasca's words imply, video games and the online world exist in their own cultural context; just as it would be inaccurate and inappropriate to lift historically embedded cultural theories from one nation and apply them to an entirely different one, so too should theorists be wary of suturing the theoretical framework of one cultural form onto another. In the very first editorial of the online journal *Game Studies*, Espen Aarseth argued that "like architecture, which contains but cannot be reduced to art history, game studies should contain media studies, aesthetics, sociology etc. But it should exist as an independent academic structure, because it cannot be reduced to any of the above" (Aarseth, 2001).[6] Clive Fencott *et al* point to an added complication in the academic study of video games, highlighting the chasm which separates the sheer pace of modern game development, and the bureaucratic sluggishness which often characterises academic publishing: "[video games] are evolving faster than academia can analyse them, a problem which is only

[5] For some of the most commonly known and cited works of these authors, see: Laurel (2014); Murray (1997); Manovich (2013). This Manovich work, *Software Takes Command*, explores the interplay between culture and technology via his concepts of the 'computer layer' and 'cultural layer').
[6] See also: Bogost (2006).

exacerbated by the painfully slow reviewing and publishing process for many academic journals" (Fencott *et al*, 2012:7).

Like the games which they analyse, then, are dedicated video game theories considered to be too new, and too fashionable, to be legitimately academic, and do they therefore need to 'earn' their place by virtue of longevity? The game designer and writer Warren Robinett explores this idea, in what he terms to be the "natural progression in the emergence of a new art form"; first, the "enabling technology" emerges, followed by the first works which explore its nature, during which there is a great deal of experimentation and trial and error. Then, he explains, if the public approves of it – and, as discussed earlier with reference to NEMs, this is by no means a forgone conclusion –, they buy it. Next comes a phase of conformity, during which creators follow the proven commercial model. Finally, "when there are enough works that the public needs help sorting out the good from the bad", the theorists and critics come forth to assist them; in the end, "the players, designers, the critics, and the theorists are natural members of a healthy ecosystem" (Robinett, 2003:viii-ix). However, as will be explored, it could well be argued that this ecosystem is often far from healthy and harmonious. Robinett supports the concept that its (as yet) lack of longevity presents a hindrance to gaming, stating that other art forms "have Godlike practitioners of the past to idolize" (Robinett, 2003:viii), and that video games are the lowest on the "artistic food chain" (Robinett, 2003:vii).

Even acknowledging the issues above, given that video games have been part of mainstream popular culture since the 1970s, one might ask why they have only relatively recently – in the past few decades – become the subject of serious and sustained academic study. Using different theories for the analysis of a given medium renders different results; the question of perspective is paramount, so the development of appropriate, relevant, and applicable theory is essential to the study of any cultural form. One answer may therefore lie in the simple passage of time: in order to truly understand a game, to explore the physical and emotional experiences which it provides, and to analyse it in a truly holistic fashion, theorists also need to be players. The audio-visual experience of a video game, let alone the emotional one, cannot easily be described, and would be difficult to comprehend without direct engagement. The theorists who are currently at the forefront of video game theory are now 'digital natives', individuals whose childhoods were moulded by gameplay (and whose adult lives continue to be absorbed by it). Just as it might be considered inadvisable to embark upon the analysis of a work of literature without being intimately familiar with the text in question, so these players are perhaps best placed to offer up critical analyses of their preferred format's content, context, and meaning, both as a standalone

piece and within the framing of the wider medium. Christopher A. Paul views player input into the academic sphere as essential, and also highlights the need for a meta-analysis surrounding the academic environment in which video games are studied: "Analyzing video games requires reaching beyond the games themselves to examine how they are discussed by those who play them and those who do not" (Paul, 2012:98-99). In his work – which, whilst not specifically geared towards video games, has much which is relevant to the medium – Jesús Martín-Barbero takes a similar view on the crucial importance of acknowledging and utilising more quotidian views and experiences: "[It] is important to develop a concept of consumption that moves beyond culturalist and reproductionist interpretations and offers a framework for research on communication and culture from the popular perspective" (Martín-Barbero, 2004:312). The fact that the currently emerging class of academics coincides with one of the first generations of truly lifelong gamers may go some way towards explaining the delays in the emergence of established critical theory for video games. Walter Holland *et al* reference the seminal work *Hamlet on the Holodeck* (1997), which lends its support to this trend; "Janet Murray has argued that the next generation of storytellers – the cyberbards – will be both artists and programmers; the same should be said of critics and educators" (Holland *et al*, 2003:43).

This generational question may also offer an explanation for the current boom in video game nostalgia; the past few years have seen the re-release or remastering of a number of classic video games, such as *Banjo Kazooie* (1998/2008), *Crash Bandicoot* (1996/2017),[7] and of course, in 2016, the *Pokémon GO* mobile game. Game designers seem to be indulging in acts of collective memory, at a time when video games are becoming more mainstream, increasingly capable of producing impressively immersive visual and emotional experiences, and having a wider social impact. We are witnessing a nostalgic renaissance in 16-bit on the one hand, and a race towards hyper-realistic graphics on the other.

Although it is necessary to exercise caution when analysing video games using any of the same critical devices employed for literature and film, it could be argued that the evolutionary trajectory of games has encompassed both of these genres. In the early years of game design, when computers were less powerful and modern graphics capabilities were beyond the wildest dreams of most designers, many games were almost entirely text-based. In particular, a genre of games known as MUDs (Multi-User Dungeon games) allowed players to navigate worlds using text-based commands on their computers, and would describe their options and the results of their actions, much as the Dungeon Master in a

[7] Original/re-release date.

game of *Dungeons & Dragons* (1974) would do with a group of physical players. These games are reminiscent of the series *Choose Your Own Adventure* (1979-), and many similar books aimed at younger readers, which give readers a measure of control over the route their story takes, rather than presenting them with a fixed narrative order. Now that video games are able to provide us with complete and visually spectacular digital worlds, one might question whether players would still be willing to accept games which require the user to mentally flesh out details using their own imaginations – as was the case with MUDs – or indeed, beyond this, whether a game that required this would be considered a failure. However, as mentioned above, there seems to be a steady demand for less graphically complex games, perhaps driven by nostalgia in older gamers, and there is always a place for the classic themes found in such games; after all, the internet sometimes seems to be nothing more than an extended game of *Dungeons & Dragons*, replete as it is with trolls and predators, as well as the almost limitless potential for exploration and adventure. Thanks to the advent of more advanced computer technology, video games are now able to do what films cannot: in Rehak's words, they convey "a sense of literal presence, and a nearly participatory role" (Rehak, 2003:121). Until fairly recently, one might have said that this key difference would always set them apart, and force innovation on the part of their critics and analysts. However, the 2018 feature length Netflix release of *Black Mirror: Bandersnatch* gave us one of the first instances of interactive, game-like television.[8] The creator of *Black Mirror*, Charlie Brooker, has long been fascinated by the 'gameification' of reality, and famously asserted that he views Twitter as a form of video game.[9] The nature of a player's participation will necessarily change the action of most games: diegetically, this could amount to choosing one quest over another; extradiegetically, a clumsy player might have a different experience due to their lack of skill with a controller. This adds an extra challenge to the complexity of analysing the experience which a game imparts, and further increases the potential for inter-generational alienation and misunderstanding, which will be discussed later on.

Defining the format

Whilst their potential (indeed, requirement) for participation on the part of the user is key to many definitions of the video game, Veli-Matti Karhulahti claims that the primary defining characteristic of a video game is that it evaluates performance (as opposed to

[8] The similarities to the *Choose Your Own Adventure* format are so striking that a lawsuit has now been launched against Netflix by the parent company, Chooseco (Goslin, 2019).
[9] Channel 4 News (2013).

physical games or board games, which provide rules allowing for performance evaluation, but do not themselves execute the evaluation) (Karhulahti, 2015). Whilst this evaluation has been programmed by a human being in the first instance, by the time it reaches the player it is (hopefully) fully automated, providing set rules and criteria within the game which cannot be bent or contravened (except in the case of bugs, or intentional 'cheats' left in by the creators), and leading us towards a "quantifiable goal or outcome" (Salen and Zimmerman, 2004:80). However, many video games test this definition, as they follow the model of a story or exploration of themes with very little actual 'play' involved, and this trend towards using video games as tools for exposition rather than entertainment is only increasing as time passes. Wolf and Perron assert that to be considered a game, the following elements must be present: "an *algorithm*, *player activity*, *interface*, and *graphics*" (Wolf and Perron, 2003:14; italics in the original). Wolf and Perron further state that "the nature of player activity is also necessarily ergodic... or nontrivial and extranoematic, that is, the action has some physical aspect to it and is not strictly an activity occurring purely on the mental plane" (Wolf and Perron, 2003:15). Whilst this was only written in 2003, it provides us with a perfect example of the speed with which gaming technology is evolving, and the challenges which this pace of change presents to academics; if a game must include physical activity, then this raises questions surrounding the implications for games developed using virtual reality (VR), and for future technology which might allow for games controlled purely using neurological signalling via monitors or receptors placed on our skin, or even by way of sub-dermal implants.

Whilst, as touched upon earlier, there is not a broad consensus regarding terminology in gaming theory, three concepts seem to recur: ludology, diegesis, and semiotics. The first term is simple enough: ludology refers to the study of games and play, and the cultural context surrounding them. The first person to use the term in the context of video games was Frasca in 1999, and it is now used as the name for his website (Frasca, 2001), on which he gives his own definition of ludology and its application to video games. It is also used by Jesper Juul – 'The Ludologist' – a prolific video game studies academic and advisory editor to *Game Studies*.

Diegesis is a concept borrowed from film theory, defined as "recounted story", or the "total world of the story action" (Bordwell and Thompson, 1997:70). However, there are irrefutably certain conventions which are not generally considered to be suitable for most film but which have become essential to many video games, foremost among them being

the first-person point of view.[10] In film, we find it challenging in the extreme to closely identify with a 'hidden character' which does not allow for any participation, but in games we have no problem embodying this perspective, because of the control afforded to us. Diegesis takes on an extra layer of meaning in the context of video games; according to Wolf and Perron, diegetic activity can be defined as "what the player's avatar[11] does as a result of player activity", whilst extradiegetic activity is "what the *player*[12] is physically doing to achieve a certain result" (Wolf and Perron, 2003:15). To clarify, playing the same game on a gaming console as opposed to a computer, which have different mechanisms of control with which to interact with the game world, would require slightly different extradiegetic (out-of-game) activities in order to achieve the same diegetic (in-game) result. However, it is possible that, with the emergence of virtual reality technology, the diegetic and extradiegetic will merge or morph beyond recognition, rendering this still nascent theoretical framework irrelevant. Indeed, there have already been a number of departures from more traditional styles of game play; Alison McMahan makes reference to the art installation *Osmose* (1995) by Char Davies, in which "users move from space to space by breathing or adjusting their balance", as one might do during scuba diving (McMahan, 2003:78). This introduces an entirely new play experience for most users, with the need for increased concentration bringing about the possibility of higher levels of immersion into the game and its virtual space.

The final concept named above is semiotics. Brought to the fore by such works as Umberto Eco's *Theory of Semiotics* (1979), and Roland Barthes' *Mythologies* (1987), it is possibly the most complex of the three, and it could also be said to be the one which has the most scope for interesting and cross-disciplinary analysis within gaming. In essence, semiotics is the study and analysis of signs and symbols, and their meaning in particular contexts. For Kaja Silverman (1983), semiotics are deeply linked to persuasion, and one of the most significant forms of persuasion in cinema – which, above almost all other cultural formats, has drawn the most comparisons to gaming – is that of suture. Suture is defined as "the procedures by means of which cinematic texts confer subjectivity on their viewers" (Silverman, 1983:195). Later on in her *Subject of Semiotics*, suture is further explained to consist of "persuading the viewer to accept certain cinematic images as an accurate reflection of his or her subjectivity" (Silverman, 1983:215). Here, then, is one of the few cases in which it could be deemed truly appropriate to borrow critical theory from cinema,

[10] Rehak suggests that what he terms "first-person presence" could be effective in film, but only if it were made to be less precise, and more reflective of the human experience (Rehak, 2003:120).
[11] An avatar is the digital, visual representation of the player. See: Turkle (1995); Waskul and Lust (2004).
[12] Own emphasis.

as persuasion has long been recognised as a central feature of many video games. However, the tools for this persuasion differ enormously across the two media, as video games rely far more heavily on immersion, encouraging (or, indeed, forcing) the player to participate in the action of the game. As Rehak states: "the disavowal necessary to gameplay is like the "Yes, that's what I see" of successful cinematic suture, but goes further: it is "Yes, that's what I do"" (Rehak, 2003:121). However, Rehak also highlights a number of instances of the notable convergence of artistic conventions within cinema and video games, including the fact that many of the most graphically complex video games aim to directly simulate cinematic camera work, through "thematics... aesthetics... visual traces... simulation of lens flares and motion blurs" (Rehak, 2003:103). Rehak further notes: "that video games are starting to resemble movies more than they do "real life" suggests that games, as a cultural form, are produced and consumed in phenomenological accord with pre-existing technologies of representation" (Rehak, 2003:104).

If games are becoming more cinematic in their conventions, as alluded to above, and games are aspiring to filmic grandeur, then perhaps film theory is at least partly applicable to the analysis of video games. This raises the question of whether game producers may merely have been influenced by critics and consumers who have searched for ways to relate them to existing media, such as film. Such games are imitating the familiar rather than running their own course, translating from screen to screen rather than life to screen, or indeed imagination to screen. The wish – or, perhaps, the need – to relate a new and unexplored technology to something more familiar is a phenomenon with which we might sympathise, and computers have this urge deeply embedded in their most basic and longstanding symbols; for instance, rather than creating entirely new icons for a computer's functions, we created a picture of a rubbish bin in which to dispose of our electronic waste. The fact that the 'save' icon retains the form of a floppy disk demonstrates that even updates within a technological ecosystem do not seem to encourage the adoption of new symbols, when the old and familiar still serve us.

The primary semiotic actor in video games is usually the player's avatar: "appearing on the screen in the place of the player, the avatar does double duty as self and other, symbol and index... they are supernatural ambassadors of agency" (Rehak, 2003:106). Frasca argues that, with the avatar, video games go beyond traditional semiotic analysis, as they are interpreted and understood through the simultaneous workings of both signs *and* behaviour (e.g. of the characters on screen), rather than through signs alone: "this is the ontological difference that makes me claim that games cannot be understood through theories derived from narrative" (Frasca, 2001). It is interesting to note that avatars have

long been analysed using well-established theories borrowed from psychoanalysis and child development; particular weight is given to the idea that the avatar is a repetition of Jacques Lacan's 'mirror stage' of child development (Lacan, 2007), during which an infant develops the ability to relate itself to the reflection which it views in a mirror. Wolf likens the process of familiarizing oneself with the console controls to the mirror stage process of infancy (Wolf, 2003a:60), and according to Rehak, video games "exploit" the dichotomy exposed in mirror stage, between participation and spectating (Rehak, 2003:123). Rehak discusses the mirror stage as an "entry point" (Rehak, 2003:104), and also asserts that players want a literal "reflection of personal agency" (Rehak, 2003:111). Further to this, he presents the possibility that avatars as "direct extensions of" the user could make direct psychoanalysis more relevant, as this concept "merges spectatorship and participation" (Rehak, 2003:103). Miroslav Filiciak also references the mirror stage, and asserts that "today, the mirror is replaced with the screen" (Filiciak, 2003:100), where adult gamers use their avatars as a way to seek out and explore different aspects of themselves. Taking this concept to its extreme, Christian Metz writes of the "primordial mirror": "everything may come to be projected, there is one thing and one thing only that is never reflected in it: the spectator's own body" (Metz, 1982:45). However, once again, rapid advances in VR technology have already begun to render this statement inaccurate.

The Postmodern and Post-colonial Implications of New Technologies

The manner in which content is presented within a game, as well as the ways in which meaning can be explored within it, can reflect the social and moral values of the society in which it is produced. However, the content which is transmitted is, of course, not the only element which distinguishes technologies across borders; perhaps just as significant are the subtler issues surrounding ease of access, intellectual property, as well as the legitimacy conferred upon the technological efforts of less 'developed' nations by their neighbours in the global North. In his 2005 essay examining the concept of "primacy of the origin", which explores the concept of granting not just conceptual but also legal ownership (e.g. intellectual property rights) to those nations which are deemed to have 'invented' technologies, Ivan da Costa Marques notes the Brazilian phrase, "technology is imported magic" (Marques, 2005:155). Marques critiques ideas of technological supremacy accorded to nations in the global North, and the notion that developing nations in receipt of imported technologies are necessarily "colonized" by these objects; "the one-dimensional or rather one-natural vision of a civilization that flows from Europe to the rest of the world" (Marques, 2005:156). This intangible, almost surreal quality of the 'flow' of

information within digital technologies, which is suggested by Marques' "imported magic", has been most famously explored by Manuel Castells (1996; 2001; 2004). Castells examines the changes in informational flow in what he terms to be the "network society", which he defines as follows: "the social structure that results from the interaction between social organization, social change, and a technological paradigm constituted around digital information and communication technologies" (Castells, 2004: xvii).

The increasing reliance on the digital as a mediator for traditionally analogue activities can lend an uncertain and insubstantial air to our actions, and just as life online, and virtual reality, provide unbalanced bases for 'real' life, so this feeling of instability permeates other facets of modern existence. Zygmunt Bauman's concept of "liquid modernity" holds that we are presently experiencing an age in which the traditional bonds of social cohesion have (been) liquefied, leading to disconnection, uncertainty, and a lack of empathy and purpose, all of which has been brought about by an almost compulsive, manic desire for perpetual improvement and modernisation (Bauman, 2012). For Bauman, existing inequalities are heightened by technological advancement; as he puts it: "Wetware [physical attributes, such as legs] made humans similar. Hardware made them different" (Bauman, 2012:112). This is reinforced by Celia Lury (1996) and Don Slater (1997), who hold the view that the consumerist ground upon which technological advancement plants its feet is privileged and unequal by definition. Whilst the internet is lauded in some quarters as being free and accessible to all (setting aside restrictions imposed by individual governments), this view presupposes a level of wealth or privilege which allows for unfettered access to the necessary intermediary technology, and there are various ways in which the egalitarian dream of the internet has already been sullied by capitalist interests. In *Enchanting a Disenchanted World* (1999), George Ritzer wonders whether the internet is just another means of consumption, and it is certainly true that, in the West, we now increasingly favour the online world as a source of consumption of goods and information. There is an air of almost fatalistic inevitability that, as the world becomes increasingly reliant on information technology, those with limited or non-existent access to the digital will be ineluctably exiled to social and global peripheries. However, this also means that what is currently deemed to constitute these peripheries – such as, perhaps, Cuba – has the potential to change rapidly. Indeed, as we shall explore, this is already happening at a local, national, and international level.

For many of us, even those who might consider themselves to be relatively technologically competent and engaged, the pace of change in the "technology-driven and image-saturated culture of the globalizing west" (Fredericksen, 2009:99) is somewhat

disturbing. For those who have grown up with the internet, it is easy to forget how quickly it has infiltrated, invaded, and conquered the world. However, the online world, although affected and controlled by different types of border, still reflects many of the more 'traditional', familiar geopolitical realities. Nations which impose restrictions on the political activities of their citizens and discourage dissent, sometimes by force, have found their attempts at controlling these same individuals online to be a far more challenging task.[13] Ien Ang speaks eloquently on this conundrum: "the structural changes brought about by the transnationalization of media flows are often assessed and officially defined in terms of a threat to the autonomy and integrity of 'national identity'...[this] tends to subordinate other more specific and differential sources for the construction of cultural identity (e.g. those based upon class, locality, gender, generation, ethnicity, religion, politics, etc.) to the hegemonic and seemingly natural one of nationality" (Ang, 1996:144). Here, Ang seems to suggest that, far from elevating us to a borderless, unified world, the internet has the potential to instead reinforce certain strains of nationalist identity politics, and this is certainly the case in nations where the internet is more actively curated and controlled by those in power. Such relatively limited exposure to diverse online environments can be an extremely prohibitive factor in acquiring 'literacy' in online etiquette, as well as the ability to effectively sift through the vast wealth of information available, and to treat it in a discerning and critical manner. This complexity has long been seen as a general feature of any relatively sudden technological advancement; writing eloquently on the subject in 1933, F.R. Leavis noted that "the task of acquiring discrimination is much more difficult. A reader who grew up with Wordsworth moved among a limited set of signals (so to speak): the variety was not overwhelming. So he was able to acquire discrimination as he went along. But the modern is exposed to a concourse of signals so bewildering in their variety and number that, unless he is especially gifted or especially favoured, he can hardly begin to discriminate" (Leavis, 1977:18). In the so-called 'information age', we are constantly bombarded with information (and misinformation), and this can be overwhelming for some; indeed, it could be argued that this very environment has led to the evolution of an entirely new approach to the consumption of information, and birthed a new breed of consumer. However, this saturation of information is not the sole preserve of the online, as long before the age of pop-ups and banner advertisements, television led the way in the spread of information and the advancement of consumer culture. Of course, television is an entirely different beast from country to country, and even between different regions within one nation; the technology used may be virtually identical, but the content of the

[13]China, for example, has in place a nationwide block on certain websites, such as Facebook and YouTube, somewhat ironically named The Great Firewall, but this is something which can be circumnavigated with relative simplicity by using a proxy or VPN (Virtual Private Network).

programming which is broadcast to a television in Cuba, for example, differs wildly from that shown in the US.

For some people, then, information technology is too new, too (literally) inorganic, and feels as though it has been thrust violently upon the world. Stuart Hall and Paddy Whannel pinpointed the difficulty of this particular set of historical crossroads when it was still in its infancy: "it does seem likely that when we have, on the one hand, parents occupied with making the adjustment to a new tempo of life, and, on the other, a young generation which is itself the product of those changes to which adults are adjusting, the gap in social experience and feeling between the generations can become dangerously wide" (Hall and Whannel, 1964:46). It can be extremely unsettling for both the parents and their offspring, who would traditionally look to their parents and teachers for knowledge, to now instead find themselves to be the experts, and to be more at home with technology than previous generations. This role reversal in the wake of new technology is not in itself new; the *Middletown* studies (Lynd and Lynd, 1929; 1937) were an examination of the effects of modern products such as the automobile on the town of Muncie, Indiana. In an analysis of *Middletown*, Leavis writes that in Muncie, "we see in detail how the automobile… has, in a few years, radically affected religion, broken up the family and revolutionised social custom. Change has been so catastrophic that the generations find it hard to adjust themselves to each other, and parents are helpless to deal with their children" (Leavis, 1977:13).

However, the nature of the real-world changes effected by digital technologies depends just as much on how they are implemented and regulated as it does upon their inherent qualities and uses. Ernst Cassirer observes: "we may bless technology or curse it, we may admire it as one of the greatest possessions of the age or lament its necessity and depravity – in judgements such as these, a measure that does not originate from it is applied to it" (Cassirer, 2013:280). Here, Cassirer identifies a seemingly perpetual struggle within the study of any technology: the battle between intrinsic and extrinsic uses and characteristics. Modernity is not the great leveller of mankind unless we choose to make it so, but many aspects of modern culture are so inextricably entwined with new technologies that it may now be difficult to use them to reverse existing inequalities. Castells writes:

> "The Internet, as all technologies, does not produce effects by itself. Yet, it has specific effects in altering the capacity of the communication system to be organized around flows that are interactive, multimodal, asynchronous or synchronous, global or local, and from many to many,

> from people to people, from people to objects, and from objects to objects, increasingly relying on the semantic web" (Castells, 2013:144-145)

Whatever the future might bring, it is critically essential not to separate new technologies from their human uses, and to also be conscious of the novel ways in which the online world affects our analogue lives.

Delving further into these perpetually evolving relationships between humanity and its inventions, Doris Bachmann-Medick makes reference to the established concept of cultural and historical turns, and discusses the concept of the turn in a computational and digital context. She defines this as: "the radical transformation that is aligning the humanities as a whole with new computer-based research practices" (Bachmann-Medick, 2016:288). Bachmann-Medick concerns herself with questions surrounding how the introduction of the machine into cultural research and production, thereby making it an endeavour which is not solely human, may affect its essential nature (Bachmann-Medick, 2016:293). David Berry also addresses these themes, asking: "what is culture after it has been 'softwarized'?" (Berry, 2011:5). Almost certainly, the answer can be at least partially extracted from notions of cultural hybridity. Taylor Rowe and Vivian Schelling take the view that the nature of popular culture is essentially hybrid, and cannot be reduced to any one category; they speak of how a "kaleidoscope of multiple intermingled realities, rural and urban, pre-modern and modern, local and non-local can be fruitfully studied" (Rowe and Schelling, 1991:45). Nestor García-Canclini added yet another perspective with his notion of "cultural reconversion": for him, "popular cultures do not necessarily die with the onset of modernity, they go somewhere else... this also involves processes of cultural mixing and "hybridization"" (cited and translated in Browitt, 2004:65).

This transformation and mingling between the digital and the analogue, the old and the new, is a subject of central importance to video gaming, and is doubtless a matter which will continue to dominate cultural studies for decades to come. Bauman asserts: "the memory of the past and trust in the future have been thus far the two pillars on which the cultural and moral bridges between transience and durability... all rested" (Bauman, 2012:129). This suggests that we must find a way for new technologies to peacefully coexist with surviving traditions; if one of these pillars is damaged, or, worse still, removed entirely, we must wonder what the implications might be for the future.

Technology and Myth

If video games and related digital technologies are contained within one or both of these pillars, representing some of the most recent developments in contemporary culture, then what might we find within the other? Just as pertinently, we might wish to begin by exploring what is contained within the "moral bridges" which link the two. Over the past 70 years or so, the ways in which we relate to our past (and future) have gained an added dimension with the arrival and widespread implementation of information technology. Whilst one could argue that the cold motherboards and flickering screens of the computer are about as far removed from the natural, the spiritual, and the traditional as it is possible to be, information technology is accompanied by a sense of almost mystical power (see Marques, above). Science fiction writer Arthur C. Clarke famously claimed that "any sufficiently advanced technology is indistinguishable from magic" (Clarke, 1973:21), and this does not seem to be diminishing with the passage of time; rather, as our analogue brains struggle to stay abreast of the constant advances being made, digital technologies can seem increasingly wondrous and impenetrable. The question of who shapes (and, indeed, owns) the personal and collective mythic narratives which develop within any given society has been complicated in novel ways by the increasing primacy of the digital, and the shift to the online. Indeed, when we look at Robert Ellwood's opinion of what constitutes contemporary myth, it is not difficult to see the digital realm reflected in his words: "the real mythic images of a society, those that are so fresh they are not yet recognized as "myth" or "scripture," are fragmentary, imagistic rather than verbal, emergent, capable of forming many different stories at once" (Ellwood, 1999:175). It does not take a great deal of imagination to see how Ellwood's words could be employed to aid descriptions and analysis of the medium of the video game.

Whether a myth arises organically, or is deliberately, consciously invented, the passage of time which embeds it in a collective cultural psyche lends it significant social weight. Malinowski, widely considered to be the father of the modern study of myth, defined it as follows:

> "Myth fulfils in primitive culture an indispensable function: it expresses, enhances, and codifies belief; it safeguards and enforces morality; it vouches for the efficiency of ritual and contains practical rules for the guidance of man. Myth is thus a vital ingredient of human civilization; it is not an idle tale, but a hard- worked active force; it is not an intellectual explanation of an artistic imagery, but a pragmatic charter of primitive faith and moral wisdom" (Malinowski, 1948:101)

For Malinowski, then, myth is a crucial, perpetual, natural, intangible component of all life, rather than a man-made indulgence, and it furthermore performs a vital role in the fulfilment of the social contract. Rubin Gotesky makes reference to Malinowski (1948), and his belief that myth was an essential element of any cohesive and well-functioning society. For Gotesky, all groups create and rely upon myths of one sort or another. He writes: "Pre-critical societies develop myths concerning magic and their culture-heroes; critical but pre-scientific societies develop myths concerning the miraculous and supernatural; scientific societies develop myths about experience, which is presumably what David Bidney means by "secular myths"" (Gotesky, 1952:523). However, it must be pointed out that these three forms of myth almost always build upon one another, rather than being replaced in sequence; the arrival of religious and 'miraculous' myths does not force hero-myths into obsolescence, as we see so clearly in Cuba – where the revolutionary 'myth' centres so tightly around individual heroes – and elsewhere. In fact, it could be argued that the more fantastical elements of the first two classes of myth are necessary devices in the construction of Bidney's "secular myths", allegorical narratives which reflect life and experience.

Rooting Myth

However we might categorise and analyse them, we must surely also scrutinise the origins of any given myth. Joseph Baumgartner *et al* cite Hermann Usener, who believed that "myth originates in momentary great upheavals which produce what he called "gods of the moment"" (Baumgartner *et al*, 1974:197). These "gods", as we shall examine shortly, need not be literal figures of worship, but instead may be concepts, ideologies, or human idols. Whichever form they may assume, their "sacred quality" (Cohen, 1969:337) remains, but it is always tempered by a more terrestrial, tangible facet. As Müller adamantly asserts: "people do not tell such stories of their gods and heroes, unless there is some sense in them" (Müller, 1873:379). For a myth to take hold in the popular consciousness, it needs to contain a familiar, relatable element. In some way, however small, it must provide a reflection upon, or analysis of, lived experience, accepted reality, or collective knowledge. In a similar fashion, if a video game (or indeed, any cultural object) is to gain acceptance and popularity, it must somehow obtain a foothold in our consciousness by way of an element of relatability. The completely unknown and unknowable cannot hold our interest for long, as it will be too frustratingly inaccessible; it is the discovery of the familiar within an alien environment which so delights us, and makes us feel accepted and understood.

In video games, just as in myth, we seek and find familiar characters and narratives which reflect our own lived experiences. Baumgartner *et al* credit Walter Friedrich Otto and Károly Kerényi with having first identified myth as allegorical narrative: myths give us ""Seinsgestalten"-figures portraying various forms of existence" (Baumgartner *et al*, 1974:197). Alexander Altmann asserts that symbol and myth "do not copy reality, but they are responses to reality" (Altmann, 1945:163), and Paul Ricoeur concurs, stating that they are nothing more than "secondary reflections and echoes" (Ricoeur, 2008:254). This exemplifies the ways in which myth and gaming, rather than faithfully reflecting our own experiences, often rather *refract* them in order to broaden our understanding, and allow us to experience fantastical stories which would normally be beyond our reach.

Contemporary understandings of myth are laced with implications of falsehood (Cohen, 1969; Baumgartner *et al*, 1974; Bidney, 1955). However, Gotesky defends the right of myth to depart from fact, and draws a clear and crucial distinction when he states that "myth is value-charged; mere false belief is not" (Gotesky, 1952:527). The obvious implication is that myth, in a similar manner to fable and parable, functions as either an example of ideal behaviour, or as a cautionary tale, clearly delineating the bounds of acceptable social behaviour; certainly, as we shall go on to see, this is how it has been employed in the Cuban context. For Josué Antonio Nescolarde-Selva *et al*, myth creates a multitude of social codes via demonstrations of deference to authority (Nescolarde-Selva *et al*, 2015:77), and Cohen speculates that myths "were originally devices for blocking off explanation" (Cohen, 1969:351).

Henri Bergson approaches this aspect of myth through his concept of "fabulation". Just as we have seen with Gotesky, Malinwoski, and Nescolarde-Selva, Bergson identifies fabulation as a device for controlling and influencing society through the construction of larger-than-life stories and characters, which loom large over the society and the individual. According to Bergson, fabulation "is exercised first of all in religions, but is freely developed in art and literature" (Deleuze and Guattari, 1994:230). The example of religion is perhaps one which we may be better trained to recognise: the concept of an omnipotent force which influences our thoughts and actions, in a way which can be almost unconsciously assimilated. Similarly, George Sorel contended that belief in myth was similar to a religious faith: "those who live in the world of myths are free from any kind of refutation and cannot be discouraged. It is therefore through myths that we should understand the activity, feelings and ideas of the public" (Sorel, 2002:28). For Deleuze and Guattari, who build upon Bergson's concept decades later, "all fabulation is the fabrication of giants" (Deleuze and Guattari, 1994:171). We may not immediately identify the

controlling elements of fabulation as present in video games, but they have been utilised to muster support for a whole host of (predominantly nationalistic) causes, with varying degrees of subtlety (Arnaiz, 2018; Delwiche, 2007; Rayner, 2012; Stahl, 2006).

José Carlos Mariátegui believed that myth is essential to constructions of nationhood; it provides roots with which people can anchor themselves to their homeland, but also helps to instil a sense of pride and hope for the future, and a belief in the possibility of overcoming challenges in the manner of their heroic forebears (Rowe and Schelling, 1991). For Mariátegui, myth "fulfils a need for transcendence, a 'need for the infinite'... and offers the 'deep self'... an identity as subject" (Rowe and Schelling, 1991:155). Mariátegui was, of course, Peruvian, and Latin America's post-colonial context requires that a separate set of considerations be brought to bear from those which we apply to Europe and North America: "popular culture, in the post-Independence period, cannot be separated from the process of state formation" (Rowe and Schelling, 1991:27).

In the post-colonial context from which Mariátegui writes, in which indigenous cultural myth has been all but abolished in mainstream societies, and replaced with ill-fitting colonial practices, the deliberate and conscious creation of autochthonous myth is a necessity. For many Latin American and Caribbean nations, Cuba among them, it was convenient for this myth to be constructed around revolutionary heritage and action, and Sorel was one of the most influential contributors to this way of thought. Sorel believed that intellectual reasoning is an insufficient impetus towards revolution, particularly since the masses do not have access to the requisite higher levels of education (Rouanet, 1964:67). For Sorel, the value of myth lay in the revolutionary action that it could inspire, and Ellwood identifies Sorel as the primary influence behind Marxist and fascist myth in the twentieth century, or what he terms "mythology in action" (Ellwood, 1999:32), which is of great pertinence to the Cuban case. Ellwood also points to Sorel as a direct source of inspiration for Mariátegui. This idea of mythology as a practical, vital force contradicts Nescolarde-Selva *et al* (2015:81), who suggest that myths do not have tangible, visible outcomes, or lead to any readily identifiable transformation.

National Myth and Personal Heroic Identity

When we play, we are engaging in not just collective but *personal* myth, as we explore the limits of our perceptions of ourselves and the world which we inhabit. Of course, if we assume that myth is not a reflection of our reality, but a product of the desires and

manipulations of a dominant (or aspirational) group, then this myth assumes an entirely different identity. Gotesky signals that Bidney believes myth to be a tool, the chief purpose of which is to "justify cultural beliefs and practices" (1950:23), a belief shared by Nescolarde-Selva *et al* (2015:77). For Bidney, myth is a consciously created instrument of cultural domination, which exploits the weight of existing cultural meaning in order to further a particular (usually political) narrative. For political and ideological purposes, a position can only be strengthened by drawing upon existing social and cultural beliefs, and the veracity of these beliefs is, to a certain extent, immaterial: "As influences upon political opinion… their verifiability is less important than their availability" (Nescolarde-Selva and Usó-Doménech, 2014:64-65). We see this truth reflected daily in modern social media, and the phenomenon of 'fake news', where individual confirmation bias leads to a state of blind faith and belief. Once again, we find fabulation, which, according to Ronald Bogue: "has as its goal the creation of hallucinatory fictions that regulate behaviour and reinforce social cohesion" (Bogue, 2010:16). Just as the presence of such myth surrounding a topic will provide "symbolic cues" (Nescolarde-Selva and Usó-Doménech, 2014:78) which bind society, the absence of myth would denote chaos and the disintegration of social cohesion: "in a sense, lack of symbolic capital or "symbolic decapitation" is equivalent to "demoralization" or the dissolving of the social group" (Nescolarde-Selva *et al*, 2015:93).

The struggle for supremacy between heroic individuals and the overarching bonds of society within myth – what Ellwood calls "the paradox of collective and heroic in myth" (Ellwood, 1999:28) – is complex. Ellwood writes: "salvation can only be individual, yet it must reflect values larger than the individual if the mythic dimension of the modern hero's calling is to have any meaning" (Ellwood, 1999:28). This dynamic is of particular interest in the Cuban case, which, despite being built around social responsibility and collectivism, could also be said to engage in a level of hero-worship of José Martí, Ernesto Guevara, and Fidel Castro (among others). In any nation which seeks to build a unified cultural identity around past events and national heroes, as is the case in Cuba, the concept of myth is key. Myth aids enormously in the construction and reinforcement of ideology; we can look here not solely at the more obvious mythologizing of Ernesto 'Che' Guevara and Castro as heroic figures within their own nation, but also at the myth surrounding Cuba on the global stage. In the US, these projected views seem to have vacillated between the myth of the 1950s expat paradise, and the grim image of the harshest years of 'Sovietisation'. In both cases, myth surrounding Cuba is being utilised in the construction of a national image, which is then superimposed and propagated to suit various political and cultural approaches. Myth has not disappeared from our modern lives, nor lost its significance and impact; instead, the types of myths which govern our existence have been modified, and

are played out in modern gaming. In a similar fashion to the way in which Christian myth has been directly and indirectly usurped and supplanted rather than being destroyed (Johnson, 1996:103-104), external (and internal) narratives about Cuba have merely supplanted previous myths; myth itself remains.

Out With The New: The Hierarchical Nature Of Traditional Cultural Studies

Such simplistic, reductive views are surely born from a shallow understanding of diverse cultural contexts. Recognising the importance of variations in culture and thought when analysing both the cultural context and content of myth is vital to ensuring a nuanced approach. The concepts and characteristics which generally accompany myth also tend to be associated with more traditional cultural forms – storytelling, folk music, poetry –, but they also apply to an increasing number of video games. Video games are, at their core, a narrative medium, and therefore lend themselves well to the transmission of political, cultural, and historical myth.

However, in order to begin to analyse individual cultural objects and extract meaning from them, it has traditionally been the case that a system of categorisation is required. Such a hierarchy could be said to emerge 'organically' from personal taste, but the reality is, naturally, far more nuanced: to prefer one object or style over another means not only to elevate it, but to debase that with which we are comparing it, and therefore implies a basic social tribalism. This brings into question how far a person can be assured that 'their' tastes are, indeed, their own, and how far they may have been imparted or imposed upon them, consciously or otherwise, by their environment. Roy G. D'Andrade and Claudia Strauss, for example, explore the relationship between a person's motivation to act in a certain way, and their cultural and value models being propagated within their environment (D'Andrade and Strauss, 1992). Perhaps, then, it would be most accurate to view a person's cultural views and affiliations as a complex and often contradictory blend of the individually formed and the socially accumulated, without a person necessarily being aware that this is the case.

This debatably innate tendency towards discernment was one of the central premises underlying the work of eminent sociologist Pierre Bourdieu: according to John Frow, Bourdieu maintained that "the primary business of culture is distinction" (Frow, 1995:85). Building upon Bourdieu's work, Frow writes eloquently on the practice of "cultural discrimination", which he defines as the constant struggle of the individual to define and

adopt their own unique set of cultural values, and to endeavour to foist those values upon other members of society, in order to acquire legitimacy by means of social standing and acceptance (Frow, 1995:85). Arguably, then, a central concern of culture is domination; the very language with which we discuss these matters is culturally imposed, and many of us, either consciously or not, engage in some level of 'code-switching'. This practice might involve adjusting our accents and vernacular, adopting different modes of dress, eating certain foods, or consuming certain cultural products in order to blend in more easily with the particular group within which we find ourselves, so as not to allow ourselves to be perceived as 'other' or inferior. Native speakers of a given language can communicate fluently, but most could not explain the whys and wherefores of their manner of speech, and, similarly, those who are born into certain cultural environments may intuitively understand what is correct within that context. In this vein, Hall mentions that which is "ideologically grammatical" (Hall, 2009:141), which addresses the phenomenon that, in a cultural context, we may know what constitutes a certain cultural category, but often we cannot pinpoint why. The lack of any thorough analysis here on the part of the individual could be because these questions simply do not occur to them; as Williams would have it, "culture is ordinary, in every society and in every mind" (Williams, 1997:6). For this reason, there may not be any discernible need to interrogate what is ostensibly ordinary and untroublesome. However, it could be said that submission to this system of segregation without a full understanding of its mechanisms is an act of acquiescence through which we tacitly agree to play into dominant cultural narratives. Furthermore, by categorising culture into narrow definitions of 'high', 'low', 'mass', 'popular', and so on, we ostensibly concede it necessary to deem certain cultures to be superior.

The term 'high culture' is most commonly used to refer to objects which are perceived to be of particular cultural value and importance, using criteria which are almost exclusively defined by the intellectual and economic elite of a particular society; as we see, then, it is a concept fraught with the potential for cross-cultural inaccuracies, and polemical assumptions, and it is therefore within this basic question of terminology which we find the first problematic aspect of high art. As alluded to above, for every high there must be a low, and the concept of high art is inherently dismissive of anything which falls outside it; "a vocabulary which places the high against the low, and so on, is obviously hierarchical" (Rowe and Schelling, 1991:193). To think in terms of high and low culture, or to fall into the somewhat careless habit of defining culture in terms of any general oppositional categories, as is so ubiquitous in critical and quotidian culture, "is to rigidify the cultural field, eliminating whatever is transitional, hybrid, multiple, or ambiguous" (Rowe and Schelling, 1991:193). High culture is a fluid concept, and mutates to suit contemporary

tastes. Frow argues that "within a modernist aesthetic the old and the low become equated, as 'most of the new concepts of art push their direct ancestors into the counter-concept, mass culture, the more radically the more they promote their own novelty'" (Frow, 1995:18, referencing Radnoti). Perhaps this is true in the specific context of a modernist aesthetic, but it is also possible to argue that, in broader artistic terms, the new is often the low, and the old, high art is revered. The new is as yet untested, and whilst certain movements succeed in breaking straight into the category of high culture, they are more often dismissed and discredited as unsophisticated merely by virtue of their age. Writing on the topic of the oft-maligned genre of popular culture, Herbert Gans holds that: "The apparatus itself is sociological but it rests on two value judgements: (1) that popular culture reflects and expresses the aesthetic and other wants of many people (thus making it culture and not just commercial menace); and (2) that all people have a right to the culture they prefer, regardless of whether it is high or popular" (Gans, 1974:vii). The underlying notion here is that, whilst there is an almost inevitable social element involved, cultural value must be determined based on individual assessments, and cannot be diminished or discarded by virtue of traditional consensus. Objects are only worth (in any sense of the word) as much as we agree them to be, and indeed the entire global financial system relies on a consensus that money, most of which now exists only in a virtual, more or less imaginary form, will be allowed to dominate. Art holds different value for different people, based on a wide range of factors, and it might be useful to view these in terms of individual and social value; this assists in distinguishing between the worth which is conferred upon it by any given person, and the value it holds for society at large, both of which can be held to be distinct from the question of meaning.

Whilst these multiple approaches to cultural action and engagement inevitably lead to different modes of development, it seems unlikely that anything could be created without drawing upon any form of existing inspiration whatsoever – as Frow points out, "aesthetic choices are not made in a vacuum" (Frow, 1995:35). Georges Canguilhem agrees with Frow: "We do not ascribe a human content to vital norms but we do ask ourselves how normativity essential to human consciousness would be explained if it did not in some way exist in embryo in life" (Canguilhem, 2000:339). However, whilst we may accept Canguilhem's pre-existing norms to some degree, it is also inarguably the case that all cultural objects are in some way created, either by their original producer, or by those who later adopt them and create or eke out meaning within them. If culture is constructed and created, then that has significant implications for the constructed (or otherwise) nature of individual identity; since we tend to elect to identify ourselves in relation to a range of cultural markers, and can change which ones we opt for almost daily, it could be argued

that identity is a consciously created and perpetually fluid value, rather than being an essential, immutable concept. However, whilst culture is used to construct parts of our identity, people may still select cultural forms and objects which they feel reflect their pre-existing nature. This, perhaps, then makes culture into more of a scaffold for identity formation, rather than being the bricks with which it is built. Yet another possibility is that culture and identity are mutually reliant; we draw our identity from the culture in which we are embedded, and the identities which we inhabit inform our cultural tastes and choices.

Returning to the question of personal versus social meaning, the latter will almost certainly be the one which has the greatest bearing on the monetary value of an object. One measure of value which arguably bridges the gap between the two, and again, will invariably impact upon price, is authenticity. Two paintings which are apparently identical can be either worthless or priceless depending on their artistic provenance. A forged Rembrandt sketch is only worth less than the real thing because cultural weight has been bestowed upon him as an artist; if it were down to the quality of the painting alone, then the forgery might be worth just as much, or even more. Another determining factor of value here is that of scarcity and demand. After an artist dies, there is a set limit on the amount of their work which exists in the world, and the economics of supply and demand place a premium price on that which remains. It is for this reason that so many manufacturers of all types of products use the marketing device of a 'limited edition' product in order to justify higher prices, and this practice is rife in the contemporary video-gaming market. A variation on this strategy is to release regular iterations of almost identical products, using small changes to explain vast leaps in price. Mobile phone manufacturers are particularly guilty of this, as they continually release slightly updated versions of their products at a far higher price, hoping to lure buyers with promises of desirable, elite lifestyles portrayed through their products. Many companies go a step beyond this; not trusting consumers to buy updated products for reasons of prestige and fashion alone, some have been accused of implementing planned obsolescence[14] in order to ensure that people are forced to remain within the cycle of capitalist consumption.

Given the above, the idea of a non-hierarchical culture may seem greatly appealing to some, but in practice it is fought against at even the most basic linguistic level, through the vocabulary which we use to navigate our experiences.[15] Everybody forms part of one culture or another, so what does it mean when a person is described as 'cultured'? For the most part, the word is used almost exclusively to refer to those with an extensive knowledge

[14] The practice of deliberately manufacturing a product to have a limited lifespan.
[15] In English, at least.

of supposedly 'high' culture, and who have a certain educational background, so we might infer that exclusivity alone can be a qualifier for 'cultured'. However, it would seem strange if applied to a person whose areas of expertise lay solely in niche, counter-cultural forms, without being supplemented by more 'legitimate',[16] supposedly less accessible knowledge, such as classical music or Renaissance art, and from this we must conclude that it is the aforementioned system of categorisation which provides us with, and indeed, forces us to inhabit, a cultural hierarchy.

However, whilst we may still believe that we require some system of categorization in order to identify preference and allow us to form a cultural identity, it is important to thoroughly interrogate hierarchical definitions where possible. Even when engaged in with the very best of intentions, such as by those who celebrate graffiti culture for its urban,[17] rough nature (essentially arguing that it is valuable by virtue of being unpolished, and on the social periphery in relation to high culture), hierarchical terms can damage the cultural credibility of a form, whilst needlessly elevating another. Highlighting and celebrating 'low' culture is often done by explicitly reinforcing its otherness, its perceived inferiority, and results in the strengthening of existing inequalities of class or race. For this reason, the mere reversal of the terms is not enough; instead, we must abandon them totally in favour of an entirely new cultural vocabulary.

Traditionally, there has been a correlation between high art and wealth, and many other cultural forms are often divided along class lines. Nick Stevenson is critical of this association: "it is the most class bound way of thinking which seeks to connect high culture with a privileged minority" (Stevenson, 2007:268). Such divisions often assume each class to be a homogenous mass, and overlook the existing struggles and cultural conflicts within social groups; "while 'culture' may indeed become formed through processes of struggle and oppression it does not mark its producer or consumer with an 'essential' identity" (Stevenson, 2007:270). In assigning class as a focal point of cultural identity we may therefore run the risk of obscuring other, perhaps subtler, but no less vital traits. Creating divides along class lines can also risk creating a culture of cross-class resentment; the poor may resent the wealthy 'other' as a whole for feeding into an unjust social system, whilst the wealthy and the middle classes (as is the case in the contemporary UK) may be actively encouraged to perceive the working classes as lazy, scrounging, and undeserving of any luxury items (think, for example, of tabloid headlines about welfare benefits being used to

[16] In Western terms.
[17] Often used as a euphemism for poor, squalid, or, most unpleasantly, to refer to people of colour; bizarrely far removed from urbane.

buy flat-screen televisions). Railing against these injuriously prejudicial viewpoints, Hall argues that: “working-class audiences are not empty vessels, on which the middle classes and the mass media can project, tabula rasa, whatever they want” (Hall, 1981:6). However, despite such problematic aspects as these, Frow cautions against discounting class entirely: “the various post-Marxist critiques of the category of class have been flawed by equating the concept of class with precisely the economistic and reductionist model they reject ... repeating the structure of its category of class and simply reversing the value and the explanatory force attributed to it” (Frow, 1995:99). Whether by way of class, religion, race, gender, or some other division, culture and society are generally fraught with inequality. This partly springs from a disparity in access to resources and opportunities, which in many cases is so deeply entrenched in societal structures that it does not always constitute an active, conscious process. However, the concept of inequality in the cultural realm could also be extended to apply to active elitism in the form of cultures and activities which are exclusive, and therefore exclusionary. It would appear, then, that we are not able to discount class entirely from any consideration of culture, as, despite the best efforts of many, it still informs most aspects of culture. Perhaps, as with cultural categories above, we might instead seek new, more complex definitions and applications of class, updated to take our modern, globalised realities into account.

Inequality does not always imply a fixed hierarchy; one child may have an apple, another an orange, but it could be said that whilst they are unequal, neither is identifiably better off. However, for Mariátegui much of the world employs a hierarchical cultural structure, a class-based system, with a privileged upper set at its peak controlling and dictating value: “the culture of any society is the ideological expression of the interests of the ruling class” (Mariátegui, 1981:150). Mariátegui’s view was that the education of the individual alone was not enough to disrupt this system, and indeed, that education could merely serve to embed existing inequalities yet deeper; “according to Mariátegui’s Gramscian interpretation, education was simply indoctrination to the belief that Indigenous people were naturally inferior to the bourgeoisie. Education only served to further bind Indigenous people to the subservient place they had been assigned in the feudal system” (Diaz, 2013:20).

Bourdieu felt particularly strongly about the role of education in the class dynamic, as summarised by Swartz: “Bourdieu maintains that the educational system – more than the family, church, or business firm – has become the institution most responsible for the transmission of social inequality in modern societies” (Swartz, 1997:190). To a large extent, our schooling forms our opinions and ambitions, and it subconsciously dictates

which facts and forms of knowledge are objectively more 'important' or 'valuable'. If, therefore, a student attends a school which does not teach the 'right' things, and they emerge with an education which lies outside the social norm, they will inevitably find themselves somewhat disadvantaged in that particular society, when compared to somebody with a supposedly more privileged education; after all, all privilege by definition exists as the counterpart to a lack of privilege. However, the deficit model of culture holds that: "the concept of 'deprivation' is itself unsatisfactory because it accepts as given the norms of high culture" (Frow, 1995:37). Privilege also has the potential to be damaging to the discourse surrounding class, because "an abstract concept of 'privilege' has been substituted for any more rigorous conception of class" (Frow, 1995:43). Indeed, it could be argued that we often fall back upon these simplistic terms for precisely that reason; to dig more deeply would be too complex, too challenging, or too labour-intensive.

Education, with its varying strata of privilege, is one of the many ways in which a government may attempt to levy some measure of control or influence over the lives of its citizens. In some cases, this has stretched beyond the proliferation of ideology, and is instead based in exercises of explicit hegemonic power. On the centrality of hegemony to questions of culture, Scott Lash comments: "hegemony was the concept that de facto crystallized cultural studies as a discipline. Hegemony means domination through consent as much as coercion" (Lash, 2007:55). Hegemony is a far more deeply embedded concept than ideological dictatorship; Raymond Williams writes:

> "hegemony supposes the existence of something which is truly total, which is not merely secondary or superstructural, like the weak sense of ideology, but which is lived at such a depth, which saturates the society to such an extent, and which, as Gramsci puts it, even constitutes the limit of common sense for most people under its sway, that it corresponds to the reality of social experience" (Williams, 2005:37)

Hegemony, then, is grounded in exceptionally complex social structures, and is incredibly difficult to analyse and extract from the socio-cultural setting with which it is intertwined. Dominant cultures are, by their very nature, self-supporting, as they are able to be "continually active and adjusting" (Williams, 2005:39) in ways which best suit their needs, principally through the control of cultural and political language and narrative. Language plays a central role in the ideological system of organising and regimenting culture and reality, and for this reason, when examining events which are constantly retold in the same way in accordance with an accepted narrative, we must assume that ideological power is involved in maintaining this dominant discourse. Rowe and Schelling argue that without

cultural allegiances – "an essential factor of social power" (Rowe and Schelling, 1991:152) – leaders must resort to manipulation or force, but cultural allegiances could themselves be perceived to be a form of manipulation, either of an individual or social reality. When a leadership is not supported by a favourable cultural narrative, that leadership is likely to collapse unless it resorts to physical force; as A.P. Elkin would have it: "Social revolution is one thing; cultural disturbance or modification is another; though they interact" (Elkin, 1949:18). If we follow this line of reasoning, we can conclude that culture is an essential component of social behaviour and control, and that groups use cultural markers in order to identify in- and out-siders. The study of any culture is, ultimately, a study of the people within it, and, as touched upon earlier with reference to D'Andrade and Strauss, this has as much to do with individuals as with society as a whole. Elkin has it thus:

> "Culture… is not a functioning whole. It is rather a pattern and a configuration of tradition, knowledge, achievement, values, ideals and behaviour. Again, society consists of individuals who have been socialized into personae of the society, so that each person is society. But the individual is not culture. He is cultured to the degree in which he comes into the heritage" (Elkin, 1949:16)

Much like D'Andrade's "information pool", Elkin's words seem to suggest that culture is an independent, self-sustaining entity, which cannot ever be fully embodied by the individual, but only by society as a whole. A person relies upon the cultural 'heritage' of their community for sustenance, a concept which compels them to conform in order to retain their cultural capital.

The issue of cultural capital and conformity are of particular relevance to the arena of mass culture. By expanding to cover almost all popular cultural output, mass culture slowly embeds itself in our society and psyche, which allows it to insidiously effect change from within. In an unsettling sense, rather than individuals choosing to incorporate elements of mass culture into their lives, they are absorbed into mass culture. Building upon the work of Baruch Spinoza (1994) and Thomas Hobbes (1994), Michael Hardt and Antonio Negri take the view that, when examining questions of large populations and cultures, it is vital to separate the 'people' from the 'multitude'. They define the multitude as follows: "The multitude is a multiplicity, a plane of singularities, an open set of relations, which is not homogenous or identical with itself and bears an indistinct, inconclusive relation to those outside it. The people, in contrast, tends toward identity and homogeneity internally while posing its difference from and excluding what remains outside of it" (Hardt and Negri, 2000:13). David Oswell explains it in another way: "If the people are defined by their

identity, relation to sovereignty and represented homogeneity, the multitude in contrast is defined through its absolute heterogeneity and through its being a congregation of singularities" (Oswell, 2006:97). The multitude, in other words, must be accepted as a teeming swarm of conflicts and contradictions, and therefore cannot be treated as a single body, whether that be from the point of view of culture, politics, religion, or any other focus of study. This view pulls us irresistibly away from the tempting tendency to treat any one cultural group as homogenous, and forces us to acknowledge and examine the multiple identities which exist within it. However, this alone is not enough; Couldry warns against the risk of settling into a view of interconnectedness which "simply repeats what we already know (things are complex and interrelated) without beginning to explain what sort of order cultures involve, and where and on what scale we should look for it" (Couldry, 2000:94).

Even if we were to conjure up a satisfactory response to Couldry's problem, there still remains the question of how to approach those who exist beyond the multitude. A person on the cultural fringes is usually classified as being 'outside' the mainstream, but Deleuze and Guattari dispute this view, suggesting instead that it is the system which is not providing an adequate or appropriate role: "If minorities do not constitute viable States culturally, politically, economically, it is because the State-form is not appropriate to them, nor the axiomatic of capital, nor the corresponding culture." (Deleuze and Guattari, 2005:472).

The internet has allowed for the almost unprecedented proliferation of 'niche' minority cultural groups, who are able to find kindred spirits online rather than in their immediate physical environment. Not only this, but people outside these groups who stumble upon them online often delight in the discovery of their unanticipated existence, finding great pleasure in the variety of cultures and tastes that the world has to offer.[18] It is also common to find people who derive great pleasure from the bizarre, and there is a vast amount of kitsch value to be found in films, paintings, or other cultural products which fall into the category of 'so-bad-it's-good'. This is particularly relevant to so-called 'cult' films, such as *The Room* (2003), which often develop a dedicated following based precisely on their rejection by mainstream audiences, and the implied absence of cultural value; as with so many aspects of cultural identity, cult films derive their value from existing in opposition, and being 'other'. For this reason, their fans are often those who belong to subcultures themselves, and extensive knowledge of certain films, including the ability to quote entire

[18] Reddit, the 36th most visited website in the world, has an entire group devoted solely to sharing the discovery of quirky, niche, or obscure facts, objects, and practices. The most popular post at the time of first drafting this footnote (22/02/17) was a gif of a toucan eating from a miniature box of Froot Loops cereal (u/spectrosoldier, 2017).

sections of dialogue, becomes a signifier of belonging within such groups; here, knowledge of the unpopular (in the contemporary sense) is converted into vital cultural capital. As Ang writes: "those who are excluded from legitimate institutional power create a meaningful and liveable world for themselves, using the very stuff offered to them by the dominant culture as raw material, and appropriating it in ways that suit their own interests" (Ang, 1996:139), an observation which perfectly reflects the process undergone by cult films and their followers. This is also of particular relevance to the context of gaming and computing in Cuba, where game developers are using pirated and bootlegged international software, often run on cannibalised hardware, to create products which adhere to their own cultural values.

However, fringe cultural objects are frequently re-appropriated by those in the centre of the aforementioned legitimate institutional power as a way to mark out their individuality whilst remaining within the secure confines of the mainstream; they adopt unusual cultural markers and use them for their own cultural performance. Whilst this may seem counterintuitive, it is merely the latest of many incarnations of the reaction against mass and popular culture, and the search for superiority through the possession of obscure, and therefore ostensibly valuable, knowledge. From a slightly more sinister viewpoint, the absorption of subcultures into the mainstream could also be interpreted as a deliberate display of domination by a hegemonic power. Those who seek to draw their identities from opposition to mainstream practices and narratives can often profit from this, either economically or culturally, with the most obvious route being through satirical performance. Others may engage in satire out of strongly held moral convictions, or from a wish to challenge what they view as a corrupt or incorrect norm. However, it is evident that there is a clear distinction involved in "whether a practice is alternative or oppositional" (Williams, 2005:41); whether it is a case of someone who simply chooses their own path, outside of the available norms, or whether it is the more complex example of somebody who wishes to alter the path of society at large. Strangely, one arena of counter-culture is built around rebellion through acts of nostalgic regression; that is, of rejecting the modern, the mass, and the popular, and instead engaging with older, more traditional practices, often with a spiritual aspect to them.

As the modern world increasingly encroaches on traditional cultural spaces, and threatens their viability, a strong counter-movement has sought to safeguard them. This drive toward cultural preservation, however, can present a somewhat paradoxical threat to the organic nature of folk culture. Whilst it is commendable to recognise the value of such endangered enclaves, and attempt to protect our cultural heritage, this sometimes results in a type of

formaldehyde preservation, rather than the sustaining of an active cultural practice; we revere the idea of tradition more than the tradition itself, and more than the lives of the people involved in it. These romanticised ideas of culture as almost separate from the people who belong to it (or to whom it belongs) can have damaging consequences for the ways in which certain groups of people are treated by others. In particular, the ways in which minority groups (which predominantly white Western cultures see as containing those qualities most associated with folk, such as the spiritual, natural, etc.), are reduced to being defined by stereotyped cultural practices and objects alone, rather than being recognised as complex individuals. The reverential attitude towards 'spiritual' cultures and peoples, whilst ostensibly flattering, can in fact have a devastatingly reductive and dehumanising effect, and is merely another manifestation of the fetishisation of exoticism. What is more, if a culture and a group are dehumanised in this way, then they can also be stripped of ownership over their culture, an issue which is currently much debated under the banner of cultural appropriation. Laying aside the highly problematic hypothetical scenarios surrounding the exploitation which this often entails, the usual implications of appropriation are twofold: firstly, that the appropriated cultures are more natural, more desirable for their perceived 'authenticity', and perhaps in some way even possessed of a measure of spiritual power; and secondly, that they can be essentialised, that that essence can be reduced into an object, that its value can be measured, and finally transferred to an eager buyer, usually for a price far beyond the reach of the originators of the culture. In the majority of such cases, the high monetary value which is placed upon the relationship between nature and tradition comes through clearly in the relevant lexicon; words which are used to describe folk culture and its traditions, such as 'wholesome', 'natural', 'earthy' etc., would seem more apt in describing coffee than culture. This language suggests that we consider folk to inherently belong to a rural, or at least minimally industrial, setting, and to be something far more closely linked with the earth; to have natural, spiritual 'roots'. Ellwood points to the work of Adolf Bastian and Wilhelm Wundt, who explored the idea of "rootedness" and native wisdom; "different folk... have diverse national or cultural ways of thinking, expressed in national myths" (Ellwood, 1999:22).

Culture, Capital, and Consumption

Such processes of commodification arguably affect all cultural products, and video games are far from being an exception. One of the most salient moments in the history of video games is the market crash of 1983 (Wolf, 2012); due to the increased popularity of games, and the growing number of programmers who were able to produce them, the video game

market was being flooded with rushed, poor quality games, created with the sole aim of generating profit. This saturation of infamously unplayable, badly made games led to a market crash, as millions of copies of games were produced and left unsold (Wolf, 2008:105). One of the most famous examples of this is the modern archaeological marvel known as the Atari video game burial, a New Mexico landfill site containing vast quantities of unsold Atari games and consoles from 1983.The crash forced a serious overhaul of video game production and marketing, during which game companies took the momentous (and, arguably, catastrophically damaging) decision to rebrand as 'toys', and to specifically target a young, male audience. Gaming journalist Tracey Lien writes:

> "In the 1990s, the messaging of video game advertisements takes a different turn. Television commercials for the Game Boy feature only young boys and teenagers. The ad for the Game Boy Color has a boy zapping what appears to be a knight with a finger laser. Atari filmed a bizarre series of infomercials that shows a man how much his life will improve if he upgrades to the Jaguar console. With each "improvement", he has more and more attractive women fawning over him. There is nothing in any of the ads that indicate that the consoles and games are for anyone other than young men" (Lien, 2012)

This decision was purely motivated by a desire for financial gain, and paid little heed to the collateral damage inflicted upon the content of video games, and their *cultural*, rather than financial, capital.[19]

Bourdieu provided the following definition of capital in a cultural context: "an energy which only exists and only produces its effects in the field in which it is produced and reproduced" (Bourdieu, 1984:113). In much the same way that a given denomination of currency may only be accepted in certain nations, so cultural currency only retains its value in the appropriate environment; profound knowledge of a subject will only be deemed to be impressive by those who also place value upon such knowledge, and to anybody else it will be, at best, irrelevant. Andreas Pöllmann argues that any form of cultural capital is, by extension, a type of *inter*cultural[20] capital, as all cultures are the product of some degree of intercultural cross-pollination (Pöllmann, 2013:2). For Pöllmann, the realisation of intercultural capital is the product of the combined input of individual practice and

[19] There are an increasing number of doom-saying theorists who hypothesize that we are currently speeding towards a second crash (or third, if you count the much overlooked 1977 crash (Wolf, 2012)). See, for just a few examples: Lien (2012); Dickerson (2015); Trautman (2014).
[20] Own emphasis.

characteristics, familial capital resources, group memberships, and fields of struggle over power, and its value can therefore fluctuate depending on the context (and the company) in which an individual finds him- or herself (Pöllmann, 2013:3). Pöllmann suggests that intercultural capital has a higher degree of "field-transcendence" (2013:2), and therefore preserves its value across a wider range of cultural environments. One aspect of this is that cultural capital may be valued based upon its ability to convert into monetary capital. Bourdieu asserts that cultural capital tends to function "as symbolic capital, i.e., to be unrecognized as capital" (Bourdieu, 1986:245), but if Pöllmann is correct, then an individual's cultural capital will have a direct effect on other forms of capital, whether or not this process is recognised; this certainly seems to have historically been the case for video games. Frow (1995:40) also suggests that cultural capital can be converted into economic capital, as can be seen through the earlier example of high art, but that the reverse is impossible. However, Stevenson contradicts Frow, using Bourdieu's body of work to support his assertion: "Bourdieu has consistently maintained that economic capital (in the final analysis) is at the root of the other forms of capital" (Stevenson, 2007:265). Modern magazines, newspapers, and reality television shows are peppered with celebrities who, in essence, fascinate us simply because of their luxurious and glamorous lifestyles, thereby creating a loop in which financial and cultural capital are sustained by one another.

The culture of capitalist consumption has become an integral aspect of almost all modern societies, and is in many ways self-supported and self-perpetuated. Slater states: "Consumption is always and everywhere a cultural process, but 'consumer culture' – a culture of consumption – is unique and specific... Consumer culture is in important respects the culture of the modern west" (Slater, 1997:8). As a small number of ever-wealthier companies and individuals controls more of the cultural output, particularly in terms of the press, cinema, television, and music, culture becomes increasingly centralised and homogenous, and, importantly, more "insistent" in its nature (Hoggart, 1958:24). This, then, is what Theodore Adorno warns of in *The Culture Industry*: "The culture industry intentionally integrates consumers from above... The customer is not king, as the culture industry would have us believe, not its subjects but its object" (Adorno, 1991:85).

Müller reminds us that language allows us to ascribe physical, often gendered characteristics to objects and phenomena which might otherwise lack such traits, thus increasing their desirability and agency, and further removing such agency from the consumers – the 'subjects' of the culture industry. This is a practice which is unavoidable in languages which assign gender to all nouns, as is the case in the Romance languages, but which has also permeated less obligatorily gendered languages, such as English (Müller,

1873:374). Whilst, as Müller concedes, this practice may have its origins in the conscious creation of language, when one is born into a linguistic environment one adopts the norms and traditions of that language almost unconsciously (Müller, 1873:375). Just as language is distanced from its deliberate and conscious roots, so too are cultural myths distanced from their origins and absorbed into a common cultural psyche, often with an altered meaning. In the case of consumer culture, we may find countless examples of the appropriation and exploitation of cultural myth for the purposes of financial gain, with advertisements abusing cultural beliefs in order to peddle the promise of belonging. Don Fredericksen sees this as the inevitable outcome of living in a culture which is not only rich in myth and symbolism, but which also orbits and obeys capitalism (Fredericksen, 2009:101). However, Cassirer asserts that myth could be seen as merely one of a number of symbolic languages, alongside art and science, "each of which produces and posits a world of its own" (Carriser, 1946:8), and each of which is no doubt vulnerable to different modes of appropriation and exploitation. A similar process can be seen even within less explicitly capitalist contexts, but for ideological or political gain, rather than with the goal of encouraging consumerist behaviour. National myths are often treated as the exclusive purview of government, and adopted in campaigns and public efforts to encourage obedience and unity, as has often been the case in Cuba.

For post-modern thinkers such as Bauman, traditional community identities and networks are being supplanted by this culture of consumerism. Bauman defines consumerist culture as "the peculiar fashion in which the members of a society of consumers think of behaving or in which they behave 'unreflexively' – or in other words without thinking" (Bauman, 2007:52). Bauman hypothesizes that consumers who flock to shopping malls are, ultimately, seeking a feeling of belonging and community which they are unable to find elsewhere (Bauman, 2012:99), perhaps because they feel as though they lack the tools with which to work towards its creation themselves. The creation of solid community networks is a time-intensive endeavour, but is essential to a collective culture, and 'instant' consumerism presents us with an efficient shortcut to an artificial feeling of common identity, something which Richard Sennett argues "is a counterfeit of experience" (Sennett, 1996:36). In consumer terms, we do not perceive added time to be of benefit, and we assume that time will not factor in to a process as long as there is sufficient money involved. Bauman writes: "'Instantaneity' apparently refers to a very quick movement and very short time, but in fact it denotes the absence of time as a factor of the event and by the same token as an element in the calculation of value" (Bauman, 2012:117). Indeed, the 'slow living' movement which emerged in the late 1980s was a direct, defiant reaction to this loss of time as a consideration in cultural value (Parkins and Craig, 2006).

The deleterious effects of instantaneity are perhaps best illustrated by the internet; as increasing numbers of people look online to find their news and information, newspaper sales have suffered. There are also a vast number of hosting sites for pirated films, TV shows, songs, and other media, and many people would rather torrent their entertainment than spend money on a cinema ticket, or wait for their favourite show to be released in their country. It is questionable whether the individuals who feel entitled to enjoy online content free of charge would feel comfortable walking into a shop and stealing a copy of a DVD,[21] and this brings into question the morality of our online comportment. There are many possible explanations for the disparity between our behaviour on- and offline, but it could simply be the case that the anonymity offered by a computer screen makes theft far easier, in that there is less risk of being caught, and it is also possible to simply neglect to realise that there are people in the physical world who suffer as the result of digital theft. It seems that for some, reconciling the digital with the physical, and incorporating reality into their online activities, is still a leap of imagination too far. Online, with our physical bodies obscured, we can become part of an anonymous digital mass, just another set of binary numbers, and this seems to encourage some people to temporarily abandon many of their human characteristics; think, for example, of online 'trolls', who might be perfectly comfortable levelling online abuse at other digital strangers, but would never dream of doing so in a face-to-face setting.[22]

Whilst challenging – and inflicting damage upon – traditional capitalist consumerism, this behaviour fits comfortably with Martín-Barbero's views on the changing nature of modern consumption. Martín-Barbero views consumption as a deeply entrenched struggle for supremacy; according to him: "[it is] a struggle that does not end with the possession of the object but extends to the uses, giving objects a social form in which are registered the demands and forms of action of different cultural competencies" (Martín-Barbero, 2004:313). García-Canclini and Rafael Roncagliolo take a similar view, asserting that consumption should be viewed "as the overall effect of the social processes of the appropriation of products" (García-Canclini and Roncagliolo, 1988:493). These viewpoints

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[21] As alluded to in the Singaporean "Piracy, It's a Crime" campaign (Intellectual Property Office of Singapore, 2004). This took the form of a short clip (which could not be skipped or sped up) which played at the beginning of a DVD, with the text:
You wouldn't steal a Car.
You wouldn't steal a Handbag.
You wouldn't steal a Mobile Phone.
You wouldn't steal a Movie.
Movie Piracy is Stealing.
Stealing is Against the Law.
Piracy. It's A Crime.

[22] For further reading on the problem of moral distance online, see: Rubin (1994); Conger *et al* (1994); Silverstone (2003); Dhillon (2002).

are convincing, and suggest that cultural consumption may be best understood as being a system for the creation and communication of meaning within a society, rather than merely the blind ingestion of mass-market products which it has often been seen to represent. This is certainly an enticing argument in the context of Cuba, where for much of the 20th century there was no dominant capitalist structure in place, and it would therefore be inappropriate to view consumption through a typical, market-driven, capitalist lens. However, the Brazilian researcher Eunice R. Durham warns against this: "A market perspective permeates not only society but also the explanations of society" (Durham, 1980:203, translated in Martín Barbero, 2004:311). As previously touched upon, then, it is vital to acknowledge and react to the specific context of the region and culture under examination.

The Interaction of the Real and the Virtual: Alternate Realities in Virtual Spaces

As we see then, art – and there are robust arguments against anybody who seeks to assert that video games are not an artistic endeavour – has a great and inglorious relationship with capitalism. The high art of the Renaissance was, for the most part, commissioned by the wealthy families of Europe, and 'great' works of art being bought and sold today are among the most expensive objects in the world; as touched upon earlier, we tend to reward objects which are perceived to hold cultural capital by assigning a high monetary value to them. Whilst most video games are not, at a per-unit level, extremely expensive, the industry which creates them is exceedingly profitable, and, especially since 1983,[23] games are mostly designed in order to have mass appeal and to maximise these profits.

The issue of government response to commercial art and culture is a complex one, and as far as video games are concerned it is still evolving. Randy Nichols notes that in the US and Canada, video game ratings are controlled by the industry, and that the current ratings body in both countries is the ESRB, which is modelled on the Motion Picture Association of America (Nichols, 2014:73). Given that the ESRB has been in place, and unchanged, since the 1990s, and that video games have evolved at such a rapid pace since then, it may perhaps be time for a revised organisation to take its place. In the US, ratings tend to focus on violence as a primary factor for deciding age restrictions, but Nichols notes that this is far from being a global norm: "in most other countries... games are not only more strictly regulated, but that regulation typically entails government involvement" (Nichols, 2014:74). The inherent implication is that, if given full control, governments are more

[23] At a global level, but not necessarily encompassing Cuba.

likely than independent public bodies might be to tend towards political or ideological censorship in culture, which could be extremely problematic for a format such as the video game, which relies so heavily on creativity and the freedom to explore without limits, but which also has such powerful potential to persuade and influence its users. The question, then, is whether it is possible – and desirable – to separate in-game influences and the real-world context in which they operate.

Original theoretical frameworks on gaming tend to refer back to Huizinga (1949) and his "magic circle", a theory which suggests that the realm of any game is a separate, sacred, self-contained area, which is distinct from any other space. However, capitalism complicates this; the introduction of in-game purchases and micro-transactions in mobile games, as well as DLC (downloadable content) in console and PC games, mean that in-game actions have real-world financial consequences. There is also the pressing question of artistic rights and copyright, and new cases are constantly being raised and fought in this field.[24] Even within gaming companies themselves, the environment has not been devoid of controversy surrounding creative rights; Robinett recalls his work on an early Atari game, and his struggle to be granted credit for it within a system where programmers and designers were not usually individually named. Eventually, Robinett designed a 'hidden room' within the game, which could only be found by negotiating a number of extremely difficult hurdles, and which, once discovered, revealed his name to the player. Robinett recalls: "for me, it was the meta-game I was playing with Atari management. They had the power to keep my name off the box, but I had the power to put it on the screen" (Robinett, 2003:xviii), and this battle is still being fought by contemporary Cuban desigers. The power of capitalism within the gaming world only continues to grow, as we increasingly identify ourselves upon the basis of our purchases, and shape ourselves via consumption; Filiciak argues that "today, image and identity are interchangeable notions" (Filiciak, 2003:95). If Filiciak's words hold any element of truth, then they compel us to examine the question of image and identity within video games.

As with most areas within video game studies, the terminology surrounding these virtual spaces remains, as yet, unconfirmed: "what Murray calls procedural and participatory can be mapped onto what Lev Manovich... identifies as algorithmic, whereas Murray's spatial and encyclopaedic aspects coincide with Manovich's idea of navigable space and the database" (Wolf and Perron, 2003:17). The line between the 'real' world and the virtual space is becoming increasingly blurred, at a rate that would have been difficult to imagine

[24] For example, when Atari sued Oman, or the case of the tattoo artist who sued EA for copyright when they depicted his work without his permission: Randazza (2012); Good (2016).

even a few decades ago; Rehak notes how fitting it is that *Space Invaders* (1978) was the first game to 'invade' the "domestic, and to that point uncomputerized, space" (Rehak, 2003:114). At the time of writing in 2019, laptops, tablets, and smartphones mean that there is almost no space which remains uninvaded, or at the very least vulnerable to invasion. As new technology is becoming increasingly embedded in our world, so too are we immersing ourselves in the technologies around us, and the boundaries between the real and the virtual are being crossed by games such as *Pokémon GO*, and by virtual feuds in games such as *Eve Online* spilling over into reality. *Eve Online* received such a high level of criticism for the crimes being committed within the game that its developers, CCP Games, formed the Council of Stellar Management, a committee of players who act as an elected body of overseers for the game. The exchange between the real and the virtual can also be of enormous social and scientific benefit. An accidental 'outbreak' of a deadly curse in *World of Warcraft* provided epidemiologists with an entirely safe but realistic model of the spread of disease within rural communities, and *Eve Online*, with its exceptionally complex online economy, has been examined for its potential role in testing economic models. The online game *Foldit* (2008) allowed thousands of players to take part and assist in experiments involving protein-folding, and led to a rapid breakthrough in HIV research (Coren, 2011). VR tools are also now increasingly being used as simulation and training tools for a diverse range of roles, allowing surgeons, for instance, to safely and repeatedly practice their skills. Following a line of thinking originated by Jean Baudrillard, and revisited by Castells, Filiciak states that "we are living in a culture of simulation" where the role of technology is increasing (Filiciak, 2003:88).

The concept of simulation, and by extension, of both exploration and immersion, are central to many of the most successful video games, particularly those within the MMORPG genre.[25] Mirjam Eladhari asserts that "most players of MMOGs do not role-play a fictive character but instead play themselves in another world" (Eladhari, 2007:174), whilst Filiciak stated, from a seemingly contradictory standpoint, that the game *The Sims Online* (2002) would be the "first MMORPG whose universe won't be a fantasy or sci-fi land, but a contemporary Western-style environment" (Filiciak, 2003:92). What, then, do players seek when they choose a video gaming world; do people stray towards complete fantasy, or do they prefer games which allow them to explore more realistic alternative lives? To a certain extent, the answer seems clear to be a mixture of both, but reality can

[25] Massively Multiplayer Online Role-Playing Game. These are games which allow multiple players to assume new identities, most commonly in fantasy worlds, and interact with one another within the game. As the name suggests, they require the players to be connected to the internet, and generally offer access on a rolling subscription basis rather than a one-off purchase.

be interpreted and reflected in such a vast variety of ways that definitions of 'realism' within games will cover a similarly broad spectrum.

According to the journalist Simon Parkin, video games reflect our reality because they borrow its rules (Parkin, 2015:67); this does not allude merely to the laws of physics, but also to a set of social rules. First, to the physics; a game which aims for realism must ensure that a player's avatar will, for example, fall if it walks off the edge of a cliff, or that if the game's physics dictate that the player can float, then this set of physics is consistent throughout the game. Secondly, the question of social realism, which McMahan defines as "the extent to which the social interactions in the VRE [virtual reality environment] matched interactions in the real world" (McMahan, 2003:75); video games can generally only be convincingly realistic if they portray actions and consequences, and again, if these consequences differ from those in the real world, then the rules governing them must still, at least, be consistent throughout in order to maintain a sense of immersion in the game reality. In games such as *The Sims*, the player can control the speed at which time passes, acting in a God-like role, but the action being played out in the game still adheres to a 'realistic' 24 hour day and night schedule. In *The Interface Envelope*, the academic James Ash argues: "there is no 'space' or 'time' in videogames... there are only processes of spacing or timing" (Ash, 2015:140-141). He also references the work of Jose P. Zagal and Michael Mateas, who argue that: "time in videogames can be understood through four specific temporal frames: 'real world', 'gameworld', 'coordination', and 'fictive'" (Ash, 2015:57), and that there can therefore be no fixed concept of 'real' time. In essence, a game without rules of a sort would be of little interest to most gamers, as on the whole those who seek to play video games do so with a desire to be challenged, and to explore and manipulate other worlds, but the nature of the in-game rules is almost entirely flexible as long as they remain consistent.

In pursuit of realism, game developers have strived to attain increasingly realistic graphics, defined by McMahan as "perceptual realism", or "how closely… the objects, environments, and events depicted match those that actually exist" (McMahan, 2003:75), which can almost give the illusion of photography. However, in *Joystick Nation* (1997) J.C. Herz dismisses graphical complexity as an ultimate goal: "hotshot digital cinematography doesn't make a digital story immersive. What makes it immersive is a world where no territory is off-limits, anything you see is fair game, and all your actions have consequences" (Herz, 1997:64-65). However, as we continue to move towards the incorporation of VR into video games, this trend seems unlikely to fade in the near future.

Beyond claims that graphical realism is unnecessary, some see it to be actively damaging to the creative potential of video games. Wolf asserts: "by limiting themselves to conventions established in other media, game designers have neglected the realm of possibilities which abstraction has to offer" (Wolf, 2003a:47). A video game has the ability to create limitless realities, and to give shape to concepts in a way which would not be possible in the real world, so Wolf argues that we should strive to develop a more abstract strain of games; "abstraction... can become an aid to identification, rather than something that alienates" (Wolf, 2003a:52). Wolf asserts that we retreat from the overly abstract due to "the default assumptions and diegetic structures that accompany them and make both the interface and gameplay more transparent and intuitive"; rather, games build on conventions from other media, and from previous games, in order to make themselves more familiar (Wolf, 2003a:52). In this way, they become more accessible, and almost by default, more marketable. According to Wolf, 1970-1984 was the Golden Age of the video game, and this was partly due to a tendency towards abstraction which was forced upon developers by technological limitations.

In video games today, 'realistic' graphics and other technological achievements are often seen as the benchmark for progress, but there is also an emerging movement of independent games, more commonly referred to as indie games, which focus on other criteria. This is not to say that they do not give great consideration to their visual style, but merely that the trend towards hyper-realism is often bucked by these games rather than by larger and more popular titles (possibly for financial reasons). These games are usually, as the name would suggest, produced by independent developers rather than larger studios, are often shorter, and explicitly explore specific emotional or political themes; 2013 saw two particularly striking and now infamous examples of this, with the controversial game *Depression Quest*,[26] and the more popular, Soviet-style border control game, *Papers, Please*.

For those studios more concerned with appealing to a mass market, hyper-realistic graphical styles still reign supreme. Wolf states that "representational graphics act as a means of visually benchmarking the computer's graphics against the visual experience of unmediated reality, while abstract graphics are unable to serve such a purpose" (Wolf, 2003a:53). Whilst we can identify that graphical realism has lasting appeal, the origins of this trend are more obscure. However, the German art historian Wilhelm Worringer makes a convincing argument. He states that: "the value of a line, of a form consists for us in the

[26] *Depression Quest* was at the forefront of the 'Gamergate' controversy, after it was alleged that a journalist who had been in a relationship with the developer, Zoe Quinn, had written a positive review without disclosing his interest. According to Parkin, "The journalist in question pointed out that he had not reviewed the game and had merely reported its existence" (Parkin, 2014).

value of the life that it holds for us" (Worringer, 1908:14). In simple terms, we could interpret this as meaning that we are more able to relate to, empathise with, and therefore be attracted to, objects or concepts which are more closely related to our own experiences and pre-existing values. Indeed, basic human themes are ever-present in even the most ostensibly simplistic video games; even *Pac-Man* (1980) experiences hunger and death.

However, Wolf does not completely surrender hope for abstraction, and suggests that more powerful computers and more complex graphical capabilities may aid in resurrecting the abstract game, as designers and programmers seek out new challenges beyond realism (Wolf, 2003a:62). A potential stumbling-block along this path may come from conformity within even the most basic of gaming concepts. Most games of a similar genre, when played on the same console or on a PC, will follow similar norms and patterns in their player controls (e.g. on an Xbox, press A to shoot/hit, press X to jump, etc.). In order to further encourage diversity in gaming, and to generate new challenges for the players, Wolf suggests introducing different gameplay styles for different games and to employ non-Euclidean spaces, forcing players to constantly re-learn their skills. This not only has the potential to make games more challenging, but also to give rise to innovation and diversity within game design. Wolf believes himself to be supported in this conviction by a number of high profile designers, and gives one prominent example: "Will Wright, the designer of the line of "Sim" games from *SimCity* to *The Sims*, believes abstraction to be a key design element, in the same way that Japanese rock gardens are an abstraction of nature" (Wolf, 2003a:64).

To those who have played *The Sims*, this revelation may at first seem to run counter to experience and accepted knowledge surrounding the game, but the more we examine the concept of abstraction, the clearer it becomes. *The Sims* may purport to simulate reality, but there are innumerable minor (and some major) differences which reveal it to be a distorted mirror image of the real world. Indeed, *The Sims* shares some of the unsettling characteristics held by AI machines and robots who are said to inhabit the 'uncanny valley', where robots exhibiting extreme similarities to humans are said to evoke discomfort and fear. That which is almost indistinguishable from our own reality is bound to unsettle us, as it makes us doubt how reliably we can trust our perceptions of the world around us.

It is perhaps for this reason that we so often opt for fantasy worlds in the realm of video games. The most popular MMORPGs, such as *World of Warcraft* and its ilk, allow us to gather, socialise, and explore boundaries in a safe environment, removed from our real lives. As touched upon in the previous chapter with reference to the globalising power of the internet, when playing games like *World of Warcraft* the physical boundaries which

constrain us in our everyday lives, due to political and financial situations, are rendered temporarily irrelevant. Filiciak speaks of a global process of "deterritorialization", stating: "today, people are no longer assigned to territories" (Filiciak, 2003:96).[27] However, it is important to point to the fact that this is by no means a universal truth. In Cuba's case, its *World of Warcraft* server connects to only the Cuban intranet, meaning that, even in a fantasy gaming world, real political boundaries remain, and players within Cuba are unable to communicate with those around the globe. However, for the most part it is true that the online world is becoming its own reality, with a corresponding set of digital 'natives', and a number of issues surrounding online colonisation and representation due to real-world issues and barriers. It is an environment in which one could easily become entirely immersed, and it is to the question of immersion which we now turn our attention.

McMahan provides us with three conditions which must be met in order for immersion to be achieved: firstly, user expectations must be in line with the environment; secondly, the user's actions "must have a non-trivial impact on the environment"; and finally, the conventions of this environment must be consistent, "even if they don't match those of "meatspace"" (McMahan, 2003:68-69). These rules are fairly intuitive, and were largely covered above. McMahan also mentions the concept of "deep play", which is a measure of engagement and emotional investment in a game (McMahan, 2003:69), and states: "[the US anthropologist Clifford] Geertz found the deepest investment of human meaning in matches where the odds are more or less even and the stakes "irrationally" high" (McMahan, 2003:69).

Fencott believes that presence is based on perception, and speaks of how this perception is reinforced within gaming worlds (Fencott, 2012). This immersive perception can arguably be interrupted, or even totally destroyed, by 'glitches', or malfunctions which force the game to break its own laws and defy its reality. Immersive perception could also be affected by influences and distractions from the real world. McMahan argues that interaction and affecting the environment are central to 'presence', in both the real and virtual worlds, and for virtual presence it is also often necessary to block out reality through ever larger screens, headphones, and now VR (McMahan, 2003:77). In order to be considered truly immersive, then, a game must shroud us in a reality so convincing that we are able to forget the nature of the illusion, and this is a concept much discussed by Ash, who sees gaming worlds as a form of envelope. Ash defines an envelope as "a carefully

[27] It is, however, undeniable that a certain level of colonialist sentiment, both cultural and otherwise, is attached to video games. Indeed, the medium finds its origins in the US military, with *Spacewar!* having been developed thanks to Pentagon funding (Penix-Tadsen, 2016:214).

designed object that covers, protects or immunizes its users from some set of more or less dangerous or unwanted forces or entities while, at the same time, affording the user new capacities to act", and something which simultaneously "discloses and encloses" (Ash, 2015:82). By his definition, games disclose new experiences whilst simultaneously enclosing and shielding us from the real world.

The final element for true immersion is that of the player feeling that they are an active participant in the world which they inhabit. Janet Murray sees immersion as being inherently participatory, requiring the user to be active in a different world, and 'realism' is not always necessary in order to achieve this (McMahan, 2003:68). In order to further the development of participatory realism, there has been a steady move towards the employment of 3-D, first person games over the past few years, and more recently, towards the use of VR technology. Indeed, Wolf traces the trajectory of this trend back to its earliest incarnations: "from the early 1980s on... character-based player-surrogates were by far the most common form of player-character in video games, no doubt due in part to the stronger identification they could engender" (Wolf, 2003a:51).

Video games, then, have historically sat well outside the traditional hierarchies of culture, but have still managed to gain an astonishing foothold in our cultural landscape. This chapter has explored some of the roots of contemporary video game theory, and examined the potential flaws in the existing literature; having examined gaming in this way will allow us to address the central questions surrounding the relationship between Cuba and gaming, and to see how Cuba might contribute to existing scholarship. Additionally, we have seen how new technologies in general, and video games in particular, have a close relationship with the processes of myth creation and sustainment which have traditionally been more closely linked to other forms of traditional culture. Myth itself has been explored throughout this chapter as a mechanism through with social cohesion is constructed and understood, mostly by providing the shared narratives which aid in the creation of national and personal identities. We can therefore begin to understand how video games, far from being a purely disruptive force, can rather become a vital tool for the preservation of identity and history, and for interpreting modern myth. Having examined the roots of the structures of myth which underpin such concepts, we can go on to interrogate how video games might be used for such purposes in Cuban culture; indeed, whether they might be a vital tool in the perpetuation of older cultural ideas. However, there are also a number of potentially deleterious effects associated with video games, and we must examine these closely before we can reach a conclusion on the issues above. In the next chapter, we will

begin by exploring some of the more controversial issues which surround video games as a medium.

Chapter 2

Courting Controversy: Moral Distance, Persuasion, and Real-world Behaviours

Placing our entire life history, personal information, our opinions, and our work online, inevitably forces us to relinquish some measure of control over this content. As a result, the morality and safety of the online world is called constantly into question. This, in itself, is not particularly remarkable or novel, as history is littered with examples of concern over the moral fortitude of one new technology after another.[28] However, the debate around technology extends beyond the issue of moral or spiritual corruption, and into the more tangible question of mental and physical health (Olsen, 2016). There is certainly an argument to be made that heavy use of television and computers encourages a sedentary lifestyle, but it is important to draw a distinction between the two mediums, as some research suggests that, whilst television can be linked to weight gain, no such tangible correlation exists between video games and excess weight (Marshall *et al*, 2004; Yang *et al* 2008; Kowert and Quandt, 2016), and it has even been suggested that video games can be of great physical benefit under certain circumstances (Staiano *et al*, 2018; Bonnechère, 2018). Moreover, the 'sedentary' argument could be applied to the lifestyle of a voracious reader, spending hours at a time, immobile, engrossed in a novel, and there are few people who would argue that reading is an 'unhealthy' pursuit. It is true that a computer or television can offer practically unlimited content, and therefore allow one to use them for much longer without the need to seek other distractions, but they can also be harnessed to provide great physical and mental health benefits (Brox *et al*, 2011; Kharrazi *et al*, 2012; LeBlanc *et al*, 2013; Mandryk *et al*, 2014; Olsen, 2016). From where, then, does the unease surrounding technology spring? It could be more a question of mental health than physical; many parents may worry that their children will become isolated, withdrawn, or might have access to dangerous, corrupting information, or worse, that the time their children spend online will make them vulnerable to manipulation by predatory people, or expose them to potentially addictive behaviour patterns. Ultimately, concerns around technology as a cultural form do seem to be driven by fear; fear of the unknown, the uncontrollable, and, at least in part, fear of this new, youth-driven cultural form, which is still evolving at startling speed. The increase in possibilities which this evolution brings is accompanied by a simultaneous decrease in control, which, as discussed in the previous chapter, is something which can also increase the alienation felt between generations. The internet allows for

[28] See Introduction.

almost unlimited exploration – Castells refers to it as one of Ithiel de Sola Pool's "technologies of freedom" (Castells, 2013:135) – and whilst many would celebrate this, it goes hand in hand with a vast amount of unregulated information, and it is impossible for a parent to police this content and control what their child engages with at all times.

It is the immediacy of video games and online culture, and by extension, their volatility, which makes them so difficult to control and police; perhaps an extension of the controversial concept of 'instantaneity' discussed in the previous chapter. Games are often developed, released, and played in a very short space of time, and their evolution has occurred exceedingly quickly, almost too quickly to gauge and modify public reactions. Furthermore, in contrast to television, film, and literature, a video game requires the user to participate in, and therefore legitimise, the in-game action; most people will probably be acquainted with the feeling of having suddenly 'woken up' whilst reading a book, realising that they have not taken in the past few pages, and a viewer can leave the room whilst a television programme is playing, but the same is not true of a video game. Video games require you to be present and active, and their potential to immerse, engage, and influence us is therefore all the greater and more threatening. However, the advent of 'persistent' online gaming worlds, which exist in a constant state whilst awaiting players to join, have arguably changed this, and present the fascinating possibility of alternate 'realities'. Video games are trailblazers in many areas which might reasonably have been considered utterly fantastical until very recently; for example, Wolf and Perron point out that the persistent nature of MMORPGs presents us with "the first instance of individualized mediated experiences within a mass audience" (Wolf and Perron, 2003:11). This calls into question one of the central ideas surrounding video games: that their existence requires participation and interactivity, and that, in effect, games rely on the players in order to exist. Filiciak also posits that MMORPGs are the "best argument against current views that perceive video games as a medium that alienates people", and the "first interactive mass medium to unite entertainment and communication" (Filiciak, 2003:88).

Despite the possibilities of an increase in moral distance, as discussed in the previous chapter, it cannot be denied that the rapid advancement of information technology also has the power to increase participation through widening access; when it is effectively implemented, this is one of its greatest triumphs. It allows us to connect with other users across the globe, express our views via websites such as Twitter (which allows almost direct access to celebrities, politicians, and other people of great social influence), and search engines provide us unprecedented access to the information with which we shape our opinions and decisions. However, as it becomes increasingly ubiquitous, and we

assume that everything that we need can and does exist on the internet, those who exist outside the online/technological realm fade further into the shadows, and become further isolated than might have been possible in the past; as Rowe and Schelling warn: "the effect [of modernization] is often to reinforce the partial marginalization and super-exploitation of pre-capitalist sectors of the economy, especially those involving the peasantry" (Rowe and Schelling, 1991:30). Ang explores this particularly insightfully, and is worth quoting at length:

> "Ethnographies of media audiences emphasize, and tend to celebrate, the capability of audience groups to construct their own meanings and thus their own local cultures and identities, even in the face of their virtually complete dependence on the image flows distributed by the transnational culture industries. However, this optimistic celebration of the local can easily be countered by a more pessimistic scenario, pictured by Manuel Castells, who foresees 'the coexistence both of the monopoly of messages by the big networks and of the increasingly narrow codes of local microcuItures around their parochial cable TV's'" (Ang, 1996:143)

Ang's words bear great relevance to more rural societies and cultures, and the theory above will be explored more fully in the context of Cuba in during Chapter 4.

Almost from their inception, and as is the case for any new cultural form, video games have courted suspicion and controversy (Kowert and Quandt, 2016); they are sometimes seen as violent, at times corrupting, and they seem to be almost universally perceived as a diversion at best, and more often a straightforward waste of time. Part of this is undoubtedly related to the fact that video games are still in their relative infancy; Parkin comments upon the impossibly high moral and cultural standards imposed upon video games, stating that "what literature learned in four millennia, cinema was forced to learn in a century, and video games are now expected to have mastered in three decades" (Parkin, 2015:144). This is, of course, nothing new, in the sense that 'high art' has always been defined by exclusion, and it is merely the nature of that exclusion which evolves. Reflecting upon the contemporary circumstances under which certain books and films are banned, and the motivations behind past instances of censorship, it becomes uncomfortably clear that this same behaviour, which enlightened modern onlookers vociferously condemn in retrospect, is not so far removed from the current moral panic which often surrounds video games. Video games are only now beginning to be seen as a 'serious' cultural form, rather than being an infantile pastime or a dangerous corrupting influence, and in many circles they still have some way to go towards establishing their legitimacy and worth.

Another factor underlying a mistrust of video games may be their visually and mentally stimulating and engrossing nature. Fencott *et al* assert that "we need to understand the very nature of gameplay, the kinds of pleasures people experience in playing games, the reasons why people recognise a bunch of flickering pixels and digitized sounds as a realistic world in which we can get frightened or feel elated, and, most importantly, why we are so willing to devote so many hours of our lives to such artificial deceptions" (Fencott *et al*, 2012:7). The question of motivation, of what drives us to dedicate so much time to video games, does not yet appear to have yielded a broad academic consensus, although works such as Steven Poole's *Trigger Happy* (2000) offer us a working theory that games provide us with real, chemical pleasure.

The vast amounts of money invested in promoting video games and ensuring their commercial viability also, inevitably, lead to a great deal of media scrutiny, which, in the case of video games, seems to be heavily weighted towards negative portrayals of the effects of gaming (Ivory, 2016:16-17). Amongst the many possible reasons for this – including media inclination towards the sensational – is that, as previously alluded to, much of the narrative surrounding video games has been led by an academic and political class who were not necessarily gamers themselves. The debate has so often been steered by non-players, commenting on a world of which they have precious little first-hand knowledge, and at the forefront of this debate has been a narrative which takes the moral corruption of children as a focal point. This could be because, as mentioned earlier, video games are still strongly perceived as being a juvenile pursuit, and the acceptance of this 'fact' grants tacit permission for its regulation to be controlled by those who state a wish to protect children from harm. If we generally see video games to be the domain of the young, then it is little wonder that there is such apprehension over violent or graphic content within certain games, and there is a growing amount of reputable scholarship which lends support to the theory that violent gaming behaviour can indeed beget violent tendencies in players who are already vulnerable to violent stimuli (Coulson and Ferguson, 2016; Huesmann *et al*, 2013). Parkin asserts: "unlike depictions of death in cinema… game violence is principally systemic in nature; its purpose is to move the player towards a state of either victory or defeat, rarely to tears or reflection" (Parkin, 2015:123). There are, however, a growing number of exceptions to this trend, most notably in some strikingly unconventional war-based games such as *Under Ash* (2002), *This War of Mine* (2014), and *1000 Days of Syria* (2014), all of which explore war from the perspective of civilians, rather than heavily-armed soldiers.

When exploring the power of games such as these to influence and persuade, particularly with regard to violent behaviour, it is essential to explore the role of the player, and the levels of agency granted to them. Sarah Worth argues that video games are not capable of forcing us to suspend our disbelief; rather, that they allow us to exercise creativity without distorting our relationships with the 'real' world and our existing moral attitudes (Worth, 2004:447). We saw earlier how the idea of moral distance has led to concerns about online ethics, and this also applies to gaming. However, Miguel Sicart places the burden of ethical responsibility squarely at the feet of the players themselves:

> "As designed objects, computer games create practices that could be considered unethical. Yet these practices are voluntarily undertaken by a moral agent who not only has the capacity, but also the duty to develop herself as an ethical being by means of practicing her own player-centric ethical thinking while preserving the pleasures and balances of the game experience. The player is a moral user capable of reflecting ethically about her presence in the game, and aware of how that experience configures her values both inside the game world and in relation to the world outside the game" (Sicart, 2009:17)

Garry Young agrees with Sicart, stressing "the importance of psychology rather than morality as a measure of what should be permitted within video games" (Young, 2013:3). The suggestion implicit in both of these arguments is that moral responsibility should lie with the user and their own moral boundaries. Given the increasingly globalised market in which video games operate, and the diverse cultural contexts in which they are inevitably distributed – with correspondingly diverse views on what constitutes morally acceptable behaviour –, this would appear to be an approach with some merit.

The Question of Context

The question of agency and personal responsibility is of particular consequence in the perpetually popular market for war games. In the example of *Tom Clancy's Ghost Recon: Island Thunder* (2002), an expansion pack for *Tom Clancy's Ghost Recon* (2001), the player forms part of an elite group of soldiers who are sent to contemporary Cuba to help bring down the government. The game consistently portrays Cuba, its people, its government, and even its landscape, in an unrepentantly damning light; citing the language used in the game's official strategy guide, penned by Mike Searle, Rafael Miguel Montes

tells us that "Searle's imagined player is propelled into an American military scenario that assumes... the U.S. Army's principal role in the liberation of Cuba from years of authoritarianism" (Montes, 2007:159).

Writing on the game, Montes ponders that he, as a Cuban-American, feels hugely conflicted whilst playing it; "movement through the multiple missions entails the systematic and strategic killing of those Cubans unwilling to openly embrace an American-prescribed and militarily-installed democratic process.... Cubans in the game, far from being the populace to be liberated, are transformed into the enemies who impede the [player's] potential advancement" (Montes, 2007:159-160). He then asks, "what happens when the player identifies more with the enemy than with the avatar?" (Montes, 2007:155). When explored further, this is a question which leads us to interrogate whether or not these sorts of games do indeed have inherent meaning, or whether that meaning is entirely culturally imposed. Parkin writes enlighteningly about *Quest for Bush: Night of Bush Capturing* (2006), a game produced by a media arm of Al Qaeda, which was widely condemned and branded as a terrorist recruitment tool; however it emerged that the game was nothing more than a modified re-release (or "straightforward re-skin") of *Quest For Saddam* (2003), a game produced by US company Petrilla Entertainment (Parkin, 2015:162-163). What, then, can be gleaned about the content of such games, when the original release garnered almost no attention, and the remake was deemed to be terrorist propaganda, and even a recruitment tool? It would be fair to assert that context is, as ever, paramount, and that just as with the example of *Call of Duty: Black Ops*, one man's terrorist is another man's heroic freedom fighter.

Controversy around participation and the sanctioning of violence surrounded another culturally notable – albeit not particularly well known – video game. *Super Columbine Massacre RPG!* (2005) is a game which guides the player through the events leading up to, and during, the 1999 mass shooting at Columbine High School, from the perspective of the perpetrators. Very little active participation is requested of the player, and the graphics are intentionally basic so as not to depict excessive gore. Parkin interviewed Danny Ledonne, the creator of *Super Columbine Massacre RPG!*, who stated that: "'I wanted to connect the limited graphical reality of the "game" with the deeply serious consequences of the game's subject matter'" (Parkin, 2015:136). This is echoed in the design of games such as *Papers, Please*, in which a dismal and, at times, deeply unsettling situation (acting as an impoverished and desperate border guard for a repressive, Soviet-style state) is rendered in a highly simplistic, 8-bit aesthetic. In a 2007 article for *Eurogamer*, Parkin also interviewed the academic Ian Bogost to hear his thoughts on *Super Columbine Massacre RPG!*. Bogost

pondered: “Isn't it about time we played the role of the weak, the misunderstood, even the evil? If videogames remain places where we only exercise juvenile power fantasies, I'm not sure there will be a meaningful future for the medium” (Parkin, 2007). In other words, if we do not harness the empathetic power of video games in order to enhance our understanding of the human experience, then they become nothing more than frivolous pastimes. Video games, it seems, are struggling to strike a balance which is deemed to be acceptable by all sides: when they are too realistic they are deemed to be dangerously immersive and persuasive, particularly when violence is involved; conversely, they can often be seen as a juvenile pursuit, and unworthy of serious critical study. Parkin notes that whilst two films about the Columbine shootings (Gus Van Sant’s fictionalised *Elephant* (2003) and Michael Moore’s documentary *Bowling For Columbine* (2002)) won the Cannes Palme D’Or in their respective years, Ledonne’s game was banned from a number of gaming award ceremonies. Ledonne asks: “‘entertainment aside, is it “wrong” to make a film that centres on another’s suffering?... If there are films about the suffering of Christ, why could there not be video games?’” (Parkin, 2015:138). The answer to this perhaps lies in the FPS (First-Person Shooter) genre, which has enjoyed such overwhelming popularity amongst gamers. This style of game places the player in the shoes of the perpetrator, and thus, it could be argued, encourages engagement in violent action. This not only reflects on the player’s moral standing, but potentially glorifies the perpetration of such acts.

In cases where violence is linked to video gaming habits, it could reasonably and convincingly be argued that such violent outcomes cannot be laid at the feet of the designers; after all, the board game *Monopoly* (1935) was originally designed as a warning against the negative consequences of land monopolies (Pilon, 2015), but few modern players would be inclined to dwell upon this aspect, enthralled as they are by the desire to embody the game’s intended villain. In cases where video games are implicated in violent incidents, focusing on the games as being a root cause can often detract from more legitimate triggers, such as unaddressed mental health issues or social isolation. Of course, this is not to say that video games do not play their part in violent behaviour, and one of the most disturbing recent examples can be seen in the case of Norwegian mass-murderer Anders Breivik, who referred to the game *Call of Duty: Modern Warfare 2* (2009) as a “training simulation” (Parkin, 2015:129). However, those who raise serious and persistent concerns about video game violence overlook the fact that the more violent games carry age-related ratings, and are therefore clearly intended to be played by a more mature audience, who should be better able to separate the relative moralities of the real and virtual worlds. Moreover, whilst violent games may be the blockbuster sellers and garner the most attention, there is a wealth of available games which offer roving adventures, simple stories,

and non-violent in-game challenges. We might question, then, whether the media simply pay too much attention to a small selection of games, creating controversy and finding meaning where none exists, in order to reinforce the status of gaming within the traditional hierarchy of culture.

Perhaps as a consequence of its close relationship with digitised conflict, one aspect of gaming which seems to enjoy a degree of international consistency is this condemnation by some observers, who view all games as a negative moral/spiritual/educational/insert-as-you-please force. Of course, as we touched upon earlier, this is by no means unique to video gaming, and is a critical process experienced by all cultural forms during their infancy. However, it could be argued that these concerns are being raised more vociferously now than before, due to the invasive nature of globalisation; in other words, there is more fear surrounding modern technologies because of their immersive and pervasive nature, and we also hear this fear more clearly because more people are able to make their opinions public via social media. All of this raises a core quandary: why do we see new technologies as threatening, as signalling the death of old ways, rather than as simply the next point on our evolutionary advancement? At its core, the mistrust surrounding new technologies appears relatively easy to unpick. Our children are born in order to replace us, but still we fear the obsolescence which we ourselves bring about by training new generations to thrive and to innovate. In the abstract, we wish to advance as a species, but as individuals, on a practical level, we do not wish to be left behind. Moreover, new technologies now are more inclined to malfunction, and are generally easier to manipulate to catastrophic effect, than those in the past. New technologies can also seem cold, and their functions more difficult to intuit, to those who are not digital natives. As technology advances, then, the aim must surely be for it to remove some of the impersonal or inhuman elements of its predecessors; indeed, to enhance human interaction, to allow for more seamless face-to-face interaction at a distance, interaction which does not suffer from interference by technological bugs. However, for the moment, interaction with or via a machine is still seen by many as being less meaningful, and even less healthy, than face-to-face human contact. In fact, advances in internet speed and the wealth of resources online could be argued to pose an ever greater threat to human interaction. When a person is alone with a computer, and they have the almost infinite possibilities of the internet at their disposal, they could potentially pass a lifetime without exhausting these diversionary resources. Indeed, it is exceedingly easy to pass many hours online without any true awareness of time. A term coined by a friend of Parkin, “chronoslip”, is defined by him as the very specific form of lost time experienced whilst gaming (Parkin, 2015:20). According to Parkin: “games achieve chronoslip because they replace the real world with a new one that moves to its own laws of physics and time.

This reality engages us totally, and we synchronise with its tempo" (Parkin, 2015:20-21). Games, then, can have the power to supplant and supersede our physical environments, drawing us into a virtual space in which we can become utterly absorbed.

Heritage, History, and Memory In Gaming

Given this immersive potential, the intense and consistent popularity of more violent games, particularly those with a focus on historical (or fictional) warfare, does bear examining in more depth, as from them we may glean much about with the way in which a given society views, or wishes to view, both historical and contemporary geopolitics. Montes asserts the following: "it seems that with every scientific breakthrough, especially in the 20th century, technology has either been created or appropriated for military use. A major consequence of this intersection between military policy and technological progress has been the creation of contested, imaginary nation spaces – battlescapes – where potential wars can be acted out practiced, rehearsed, and (given the advent of gaming technology) started over for the sake of understanding the consequences of military intervention" (Montes, 2007:162). However, rather than war games being used as a tool with which to understand the past and to avoid the repetition of military and political errors, they seem rather to be exploited as a way to rewrite history, or to revive conflicts (especially in the case of the Cold War), and this trend places these video games in the academic territory of memory studies. In their article *Working out Memory with a Medal of Honor Complex*, Laquana Cooke and Gaines S. Hubbell state that "a videogame does memory work if it attempts to represent past events through historical, functional, and mimetic realism" (Cooke and Hubbell, 2015), and this is something which has been attempted by a vast number of war games. Exploring memory through play is an interesting and engaging idea, and one which has the potential to not only be utilised for educational purposes, but also to explore the manner in which we construct set narratives around historical events. In the specific case of the *Medal of Honor* (1999-2012) series, Cooke and Hubell state: "In MHO the site of memory operates across the gamic action of the game to locate a distinct middle position between official and popular memory. *Medal of Honor* stands out as a particularly good example, not because it is a military FPS, but because it has attempted a clear historical realism" (Cooke and Hubbell, 2015). Esther MacCallum-Stewart also comments on the bellicose origins of *World of Warcraft*, a game which will be of great significance to this thesis, and which has a publishing timeline which sits alongside the dates of the Iraq War. MacCallum-Stewart suggests: "The tension within *World of Warcraft* – presenting the war as a naturalized part of society, but at the same time questioning its underlying

concepts – may be an attempt to address some of these issues" (MacCallum Stewart, 2008:loc759). Here, then, we see a game which has been produced in a way which responds to real-world contemporary conflict.

If young people around the world find a compelling site of engagement in video games, then a country which wishes to promote a particular historical narrative, as is undoubtedly true in Cuba's case, would do well to produce educational material in video game form. The fact that one of Cuba's first major games, *Gesta Final*, has been condemned by some, particularly in the US, as propaganda, seems to follow Maurice Halbwachs' thoughts on collective memory, summarised here by Cooke and Hubbell: "Halbwachs (2007) proposed "collective memory" as a counterpart for history, specifically to allow for a consideration of historical events as perceived — a question of the relative accuracy of history" (Cooke and Hubbell, 2015). We all, in this scenario, follow the path laid out for us by our national myths, and seek to find them reflected in other areas of our lives. There are also links to be drawn with Alison Landsberg's (2004) work on imposed or "prosthetic" memory, which involves the artificial acquisition of, and attachment to, memories which are not actively experienced. This concept, again, is worthy of particular attention in Cuba, where so much emphasis is placed upon the commemoration of, and respect for, historical events and figures. Doubtless, history is a crucial element in cultural production; without it, we would experience what Montes terms "the creation of a fictive landscape completely bereft of a local history and national history so vital to the exposition of a country's identity" (Montes, 2007:163). However, an overly reverent or puritanical attitude towards history in a gaming context can be just as corrupting as ignoring historical context altogether.

Traditional Sites of Heritage

Laying aside these more recent digital advances in heritage for a moment, the most salient question must be: why do we so often choose to explore our history through physical shrines, whether they be museums, monuments, or archaeological sites? Andreas Huyssen describes what he perceives to be "a voracious and ever-expanding memorial culture" (Huyssen, 1999:191) on a global scale, and also raises two intriguing terms: "inflation of memory" and "memory-mania" (Huyssen, 1991:191). Huyssen's language seems to imply a frenzied and obsessive contemporary attitude towards memorialising the past and preserving heritage, which he suggests may conceal paradoxical repercussions. By paying frequent lip service to an event, we allow ourselves to feel that we have fulfilled our obligations towards it, and need not conduct more than a superficial exploration of its

content and implications. Huyssen reinforces this point, asserting that: “the more monuments there are, the more the past becomes invisible... redemption, thus, through forgetting” (Huyssen, 1999:193).

Collective cultural memory is a complex and often distressing phenomenon, inasmuch as a will towards the negation of memory *en masse* usually relates to widespread societal trauma; for example, the Pact of Forgetting in post-Franco Spain. Its complexities arise from the fact that memory is not clear-cut and linear, but composed of a tangled, fragile web of constantly fluctuating component parts; moreover, as alluded to during the previous chapter in the context of cultural identity, the memories of the individual can never be entirely extricated from shared cultural experience (Sturken, 1999:238). However, although we readily recognise the imperfect nature of memory, we still treat it as “a sacred and pure text” (Sturken, 1999:234). Marita Sturken references “the true-false binary of memory... the cultural equation of memory and experience, and the cultural code of forgetting as a loss or negation of experience” (Sturken, 1999:232). This “true-false binary” in which society treats memory as a factual account of a lived experience, rather than as a complex expression of personal interpretation, is inherently problematic, and needs to be unravelled and deconstructed, in a similar way to the binary which exists between remembering and forgetting. Great emphasis is placed on the preservation of memory, and memory loss is regarded as a devastating event. It can be argued that memory and memorialisation are closely tied to a feeling of production, and that, whether consequently or merely simultaneously, forgetting is seen in terms of destruction and denial (Sturken, 1999:243).

In her analysis of the work of Michel Foucault, Ann Burlein lends strength to this argument, asserting that “for Foucault, memory emphasized continuity and identity” (Burlein, 1999:216). Perhaps as an anarchic antidote to regimented social remembering, Foucault proposes the concept of countermemory, of deliberate divergence from accepted collective memory. Foucault lauded countermemory as “liberating divergent and marginal elements”, “uprooting its traditional foundations”, and “relentlessly disrupting its pretended continuity” (Foucault, 1977:153-154). According to Foucault, countermemories are enacted through “substitutions, displacements, disguised conquests, and systematic reversals” (Foucault, 1977:151).

Forgetting and countermemory are essential to the social wellbeing of any group. As previously alluded to in this essay as part of the issue of cultural ownership, thanks to the endless caches of information online we are now haunted by our pasts in an unprecedented manner; “in the context of the psychic life of contemporary digitalized culture, ‘loss itself

is lost'" (Jacobs, 2015:138, quoting Fisher, 2014:2). This concept of the loss of concrete actors and justifications was explored by Barthes; "just as bourgeois ideology is defined by the abandonment of the name 'bourgeois', myth is constituted by the loss of the historical quality of things: in it, things lose the memory that they once were made" (Barthes, 2009:268). Barthes' statements raise an important question in the context of cultural 'authenticity' and 'legitimacy'; how far removed from historical fact can a cultural object become before it is first delegitimised as an inaccurate imagining, and then eventually praised as an artistic interpretation? Where are the borders of cultural reality, and by whom are they dictated? This is a particularly important question when examining any instances of cultural censorship, as these have often been enacted based on fears that the cultural may blur into, and act as a destabilising agent towards, the political reality. The implications of historical and political myth bear examining here, as either limiting or enabling the freedom of cultural expression; Barthes seems to view it as both. Describing the world after passing through the process of becoming mythical, he states: "it has turned reality inside out, it has emptied it of history and filled it with nature, it has removed from things their human meaning so as to make them signify a human insignificance. The function of myth is to empty reality" (Barthes, 2009:269). Here, Barthes is arguing that the process of mythologizing in some ways so far removes the object from reality that it is rendered apolitical, and will therefore lose any meaningful (or, perhaps more relevant to a political context, harmful) impact. He reinforces this when he argues that in a bourgeois society, "myth is depoliticized speech" (Barthes, 2009:269). One could argue that, in the same way, heritage is a manner of depoliticising memory and history; however, it would be difficult to make such an argument for the Cuban case, where heritage has been utilised as a vital political tool.

Setting in Stone

The more zealous acolytes of historical memory would seek to preserve and venerate all that which relates to it, and to elevate the narrative which supports their view of it. One of the most common ways in which to do this is through the construction of monuments and the cultivation of tangible heritage; increasingly, there is a catalogue of video games, set during a variety of conflicts, which serve this very purpose. According to Alois Reigl, the purpose of a monument is that of "keeping particular human deeds or destinies (or a complex accumulation thereof) alive and present in the consciousness of future generations" (Reigl, 1996:69), and he writes of the various measurements of value attached

to monuments, namely: age value, historical value, deliberate commemorative value, use value, and newness value.

Just as in the case of other traditional cultural forms and objects, Reigl asserts that, for certain works and monuments, signs of age and decay are precisely what prompt us to assign value to them, and that any action beyond basic maintenance robs them of this value (Reigl, 1996:73); think, for example, of the yellowing pages of an ancient manuscript. Reigl points out that monuments which have arisen around historical sites or objects differ from what he calls "deliberate monuments", but that even deliberately created monuments can have assume unintentional and unforeseen historical significance (Reigl, 1996:72). Reigl states: "the modern viewer of old monuments receives aesthetic satisfaction not from the stasis of preservation but from the continuous and unceasing cycle of change in nature" (Reigl, 1996:73). However, he argues that the degradation of these monuments must be allowed to occur gradually – or, as he terms it, "lawfully" – in order to be accepted, rather than taking place "in sudden violent destruction" (Reigl, 1996:73). Reigl acknowledges that there exists an inherent paradox in this approach, which is whether one can preserve a valuable monument without somehow tainting or disrupting the value bestowed upon it by age (Reigl, 1996:74). He argues: "the purpose of deliberate commemorative value...is to keep [a moment] perpetually alive and present in the consciousness of future generations" (Reigl, 1996:77). For Reigl, therefore, age value and deliberate commemorative value are constantly at odds; age value requires that the monument be allowed to decay and corrode, and to be 'reclaimed' by nature, whereas deliberate commemorative value demands that, as above, a monument be maintained in as contemporarily relevant and relatable a state as is possible. There is also an inescapable natural expiration point to what Reigl calls "present day value" as it fights against the inevitability of being converted into age value; since the two are mutually exclusive, they must both perpetually struggle for supremacy.

The beliefs, figures, and geographical sites of which a national heritage is composed are not necessarily important and significant in and of themselves; rather, in an act of historical metonymy, they represent crucial national and local characteristics, thereby seeking to invoke patriotism and pride. For this reason, heritage is exceedingly vulnerable to exploitation for the purposes of propaganda. David Lowenthal writes of the example of the supposed landing site of the pilgrims at Plymouth Rock: "All the past is made one, the Planting of New England merged with the Discovery of America, medieval legend and biblical lore. As history this is absurd; as heritage it's hugely symbolic. The Rock and the Mayflower stand for all beginnings, all voyages to new worlds, all paths to new ways" (Lowenthal, 1998:12).

As Lowenthal illustrates, the site of Plymouth Rock is now sacred, and any attempt to call its sanctity into question would therefore constitute an act of blasphemy and sacrilege against all that for which it stands. Resonant of our recent examination of myth, Lowenthal claims: "like the medieval cult of relics, heritage today is a popular cult, almost a religious faith" (Lowenthal, 1998:6). Just as certain cultures engage in very literal ancestor worship, so a society which 'practices heritage' in the way that Cuba does reifies the past. However, such an ardent attachment to the past can have negative consequences in the present; Lowenthal calls devotion in the defence and pursuit of national heritage "a dilettante pastime", and compares it to the Crusades: "bitter, protracted and ruthless" (Lowenthal, 1998:7). An insistence upon the veneration of a given period of history can lead to the rejection or neglect of any modern narrative which contradicts it. A society can become so engrossed in the past that it does not place significant value upon contemporary life. This is observed within historical pseudomorphosis as explored by Oswald Spengler: "an old culture blankets the land so heavily that a young culture cannot achieve expressive form or even self-consciousness" (cited in Morse, 1995:55). This concept is crucial to examinations of contemporary youth culture in Cuba, where the sense of an ever-present, overbearing history permeates almost all facets of public life.

Of course, for a cultural myth to be sustained long after the moment or person which it commemorates has passed requires a considerable amount of exertion, and, beyond this, a significant effort of creation. For a myth to enjoy any longevity it must be repeated, and given the imperfect state of human endeavour, this will ineluctably involve a level of imperfect recall and, consequently, whether consciously or not, an act of creation. Lowenthal comfortingly reminds us that our limitations and flawed recollections are an integral part of our collective consciousness: "To reshape is as vital as to preserve... we add by fabricating" (Lowenthal, 1998:19). It is also through varied and inconsistent repetition that we are able to identify and trace the roots of a cultural myth. The inconsistent and unreliable nature of memory shall be returned to shortly, but for now let us examine the notion of fabrication and falsehood.

Fabricated Heritage, Mythologised History

The mere fact that an object of heritage may not be entirely genuine does not necessarily pose a problem; indeed, given how widespread and pervasive is the practice of fabrication, with Freud claiming that "a "mountain of false information" sustains all societies."

(Lowenthal, 1998:9, quoting Freud), we must hope that it does not. Lowenthal fervently believes that history and heritage should not be conflated:

> "History seeks to convince by truth, and succumbs to falsehood. Heritage exaggerates and omits, candidly invents and frankly forgets, and thrives on ignorance and error... Heritage uses historical traces and tells historical tales. But these tales and traces are stitched into fables closed to critical scrutiny. Heritage is immune to criticism because it is not erudition but catechism – not checkable fact but credulous allegiance. Heritage is not a testable or even plausible version of our past; it is a declaration of faith in that past. Loyalty and bonding demand uncritical endorsement and preclude dissent. Deviance is banned because group success, even survival, depend on all pulling together" (Lowenthal, 1998:7-8)

Building upon this, and in a manner which is closely tied to our earlier explorations of myth, Lowenthal suggests that the essentially fabricated nature of heritage should not necessarily be viewed as a flaw. Indeed, he reminds us that the concept of fabrication, or, literally, making something up, only acquired its modern negative connotations during the 18th century, and that before this time it was linked to acts of divine creation (Lowenthal, 1998:5). For Lowenthal both heritage and history are inherently biased, but they differ in their attitude towards this bias: "Historians aim to reduce bias; heritage sanctions and strengthens it" (Lowenthal, 1998:8).[29] As Lowenthal signals here, in order to fulfil its function of instilling national pride and a sense of ownership over history, heritage must necessarily be exclusionary, display preference, and present a positive and inspirational view of the people and events to which it pertains. Lowenthal further argues that heritage is alone in this exclusionary aspect, since factually accurate information requires no 'faith' or 'belief' in the way that heritage does. (Lowenthal, 1998:9). Appleby *et al* remind us that this weighted re-telling is something in which we all engage when we recount our own lives to others, and is not necessarily an act with sinister motivations behind it (Appleby *et al*, 1994:307). In the same way that we wish to present a favourable 'highlight reel' of our own lives, heritage is a celebration of choice cuts of history and culture, but is also partly about conforming to expectations of historical (un)reality by reinforcing pre-existing views and familiar tropes. The falsification of heritage is not a mockery of the past, but a way in which it can be rendered more widely accessible and relatable (Lowenthal, 1998:15). There exists an almost universal yearning to believe that it is possible to have "a life worth

[29] Indeed, Cohen suggests that the term 'myth' might be more accurately replaced by "ideologically interpreted history" (Cohen, 1969:352).

remembering, a drama worth having lived for" (Menninger, 1991:149), so we create historical myth, to some extent, in order to reinforce this belief and to inspire greatness within ourselves.

In the realm of monument and memorialisation, Lowenthal speaks of how it is possible to 'create' relics and treasures through the construction of false histories surrounding them, and how one can thereby beget "great value from wishful fantasy". He also argues that, once such a narrative has been propagated and widely accepted, even the revelation of its falsehood cannot rob it of its value, just as explored above in the context of political narratives (Lowenthal, 1998:6). Once more, it is the symbolic and emotional value of the object or story at hand which is of greatest significance, rather than the object itself; the object is no more than an illustrative device, a vehicle for symbolic value, which carries with it the emotional charge. The belief that we can view the Great Wall of China from outer space is easily disproved, but it is nevertheless a persistent conviction which may represent any number of significant cultural myths surrounding the might of humanity and its creation.

In contrast to Lévi-Strauss' view, which holds the narrative aspect of myth to be of only minor significance, Cohen argues that narrative allows myth to realise one of its primary roles, which is "that it anchors the present in the past" (Cohen, 1969:349), and thereby allows for more confident construction for the future. However, this anchor is under constant threat, as the grip of history is loosened by dint of its very nature; Guy Debord states that "men resemble their times more than their fathers" (Debord, 1990:16). As our gaze is drawn ever outwards to the global stage, and our surroundings are 'invaded' by external cultural objects and practices, physical representations of heritage are arguably of increasing importance as a device with which to tie us to our immediate geography; "In conditions of modernity, place becomes increasingly phantasmagoric: that is to say, locales are thoroughly penetrated by and shaped in terms of social influences quite distant from them... the 'visible form' of the locale conceals the distanciated relations which determine its nature" (Giddens, 1990:19). Heritage is the foundation of myth upon which we build our lives, and is something which belongs exclusively to 'us' as opposed to 'them'. Lowenthal argues that people must be allowed to feel a sense of ownership over heritage, and that as soon as it has been appropriated by other groups or nations it loses its value to the original group, as it ceases to exclude outsiders (Lowenthal, 1998:18).

One of the principal ways in which we express heritage is through museums, either as a site of reconstruction, display, or preservation. However, the fact that our primary sites of exploration for heritage and culture are so deliberately and overtly curated, usually by an

elite group, is troubling to some. Mieke Bal writes: “the actual museum situation...is also the institutional setting in which the history of art can be accessed and pressured to mean what the authorities who manage culture for us want it to mean” (Bal, 1999:173). Museums ostensibly allow universal access and promote an egalitarian cultural approach, but they are inherently exclusive, almost by necessity. As we will explore in Chapter 5, video games are providing a novel, interactive, and in some ways far more inclusive environment in which to explore history and heritage.

The absorption of myth into our cultural character, and thus the effect that it has upon the formation of our identity, is central to its functioning. The bias of heritage is not accidental, but entirely deliberate, and has as its aim “not that the public should learn something but that they should become something” (MacGregor, cited in Lowenthal, 1998:19); in other words, the desired outcome is that a person should take ownership over their own heritage and use it as the foundation upon which to begin forging their own future, thereby perpetuating the value of that which they have inherited. This last view is of particularly central importance to Cuba’s approach to culture and cultural policy.

Personal Heritage and Identity

Of course, the immersive qualities which video games provide, and which are so desirable for the propagation of education, are accompanied by a number of slightly murky and uncomfortable moral questions; is it desirable for a person to be fully immersed in a gaming world, particularly one in which violence is possible, or even encouraged? Will such simulated behaviours impact their real-world thoughts and actions? Central to this question is the concept of player avatars, and how they are viewed by the players who sit behind them off-screen. How a person relates to their avatar can reveal a great deal about their level of immersion; do they see their avatar as a separate entity, controlled by them, or do they see it as an extension of themselves? We can sometimes blame avatars for mistakes which we make whilst playing, which raises questions surrounding moral detachment and a diminished sense of responsibility. Examples of this can be seen in certain sorts of online behaviour, where people are seemingly emboldened by the anonymity or protection granted to them by the virtual world, and their physical distance from the impact of their actions often translates to a lack of empathy or comprehension of consequence. We are all familiar with the concept that social media sites such as Facebook present users with false images of the lives of others, leading us to believe that a person’s life is accurately represented by a selection of painstakingly curated highlights shared on social media, and thereby

increasing levels of dissatisfaction with our own lives. Indeed, as we have seen in recent years, sometimes the profiles themselves go one step beyond a false representation of a real person, and are nothing more than empty 'bots', controlled and designed in order to fulfil corporate or political ends.

Given, then, that our lives are only tangentially connected to our Facebook profiles, and that they only serve as partial representations of our true selves, it could be argued – and indeed, as we saw earlier, Charlie Brooker has done just that in the case of Twitter – that our social media profiles could be interpreted as avatars of a sort. MMORPGs represent an interesting intersection of gaming and social media, as they are games which enable and encourage social connections and networks online. Just as with a video game, the creators of social media sites provide users with a finished product bound by very specific rules for use; if you do not follow the required steps in a game then you will not progress, and if you contravene the regulations on social media then you can be excluded. However, unlike a video game, the rules for success on social media are dictated by groups, and by public opinion, which can be difficult to predict and interpret. In an effort to be successful, both online and in the physical world, most people will engage in a constant role-play of sorts, adapting and moderating their mannerisms, speech, and behaviour in order to conform to the perceived rules of each situation; at one level or another, whichever route we choose, most of us are presenting the world with carefully crafted avatars.

Rehak and Filiciak have written eloquently on the psychological aspects of the avatar. From Rehak's perspective, "the crucial relationship in many games... is not between avatar and environment or even between protagonist and antagonist, but between the human player and the image of him- or herself encountered onscreen" (Rehak, 2003:104), implying that, as touched upon earlier during the discussion of abstraction, we tend to build empathetic relationships with familiar, relatable images. On the concepts of self and other in a gaming context, Rehak writes: "each contests its counterpart's privileged wholeness even as it depends on the counterpart to confirm those qualities" (Rehak, 2003:106); in this way, the avatar (or mirror image) must be recognisable, but different enough that the player can separate themselves from it, and confirmation of the self can occur. The differences between the player and their avatar allow "players both to embrace the avatar as an ideal and to reject it as an inferior other" (Rehak, 2003:107). Ultimately, alongside immersion, players wish for total control of, and mastery over games. This is what makes the 'God view' model of games such as *The Sims* (2000), where the player surveys the action from a detached aerial view, so popular and effective.

Rehak argues that the increase in the use of first person perspective in games, which was explored earlier on, marks "an obsessive concern with the avatar's function as acting stand-in for the player" (Rehak, 2003:107). This might suggest that the relationship between player and avatar is becoming more intricately snarled, and there is a growing interest in areas of law and ethics which explore personhood and agency in the virtual world. Rehak warns against this, as he asserts that players and their avatars inhabit an "unstable dialectic", and that "to blur the distinction between players and their game-created subjectivities is to bypass pressing questions of ideological mystification and positioning inherent to interactive technologies of the imaginary" (Rehak, 2003:104). However, the idea that identities can blur and shift is by no means new; Hall stated firmly that "if we feel that we have a unified identity from birth to death, it is only because we construct a comforting story or 'narrative of the self' about ourselves" (Hall, 2000:170). Filiciak also argues against Rehak's assertions, and states that in the electronic age "we cannot talk anymore about a single identity that produces temporary identities subordinate to itself"; Filiciak instead discusses the concept of "hyperidentity, which is related to identity as a hypertext to a text" (Filiciak, 2003:97). Avatars, then, might be interpreted as a branch of our own identities, their meaningful connection to their players not debased by dint of being virtually experienced. Filiciak goes on to speak of avatars as being not an escape from reality, but rather an expression of a more liberated iteration of the self (Filiciak, 2003:100). This would be in keeping with the idea that our cyberidentities are where we explore and test our limits, act out our more exaggerated selves; arguably, due to the absence of life's usual restrictions, a virtual identity or avatar allows a user to realise their true self "in the most complete way" (Filiciak, 2003:92). Filiciak references the 1994 PhD thesis of Elizabeth Reid, who argues that avatars "are cyborgs, a manifestation of self beyond the realms of the physical, existing in a space where identity is self-defined rather than pre-ordained" (referenced in Filiciak, 2003:89). It could be argued here that identity is very commonly self-defined rather than pre-ordained, and, consciously or not, artificially constructed, although perhaps not to the same extent as in the case of designing a character on *The Sims*.

As well as enhancing a sense of immersion, Rehak suggests that a close relationship with an avatar has the potential to disrupt a player's experience. He argues that suspension of disbelief is not a realistic possibility for most games, as they are subject to "systemic rupture of the agential and identificatory linkage between players and avatars" (Rehak, 2003:110), brought about by repeated in-game 'deaths'. However, in most games, the death of your avatar does not mean that you are forever barred from the game, but you are instead offered limitless opportunities for reincarnation; your avatar is, in effect, immortal. The

player can repeatedly return to the same challenges to perfect a technique or strive for a higher score, and in some games (such as *Tetris*) eventual death is an inevitability and the aim is simply to score as highly as possible before your demise. Similarly, the advent of online storage and enduring internet footprints means that most people will have digital traces – a form of hyper-personal heritage – which are preserved long after their death, and digital rendering technology allows us to 'resurrect' the dead,[30] meaning that the idea of death as a definitive ending to existence is becoming increasingly complex. The process of saving games, trying to ensure that proof of our achievements remains, is described poetically by Parkin as an "immortality project" (Parkin, 2015:55). Moreover, in the context of video games, it is possible that being given the opportunity to explore our limits and test boundaries within a physically safe space in which death is not a threat could be psychologically beneficial, and aid in reducing risk aversion, but this has yet to be definitively proven. One writer who supports this theory is Parkin: "just as humans attempt to make sense of the world around them, to find their own place within the systems both natural and human-made that control the ebb and flow of existence, so video games encourage us to wrestle with life and our place in the world. They are a manageable, safe and usually reliable environment in which to play with ideas about our existence or the systems in which we live" (Parkin, 2015:67). However, Rehak sees the 'mortality' of an avatar as desirable, and argues that its greatness lies in its vulnerability: "we create avatars to leave our bodies behind, yet take the body with us in the form of codes and assumptions about what does and does not constitute a legitimate interface with reality – virtual or otherwise" (Rehak, 2003:123).

Our final word from Filiciak is his uncontroversial assertion that postmodernism "favors a lack of strictly defined identity" (Filiciak, 2003:94), and it is true that, for example, we are no longer expected to choose a single career and stick with it for life. In some respects, having multiple personalities is almost encouraged; we are expected to maintain different personae on Twitter, Facebook, and face to face, and versatility of personality is almost a key requirement for negotiating the online world. McMahan addresses this point when she states: "the effectiveness of avatars as a way of facilitating social interaction has not received much in the way of academic attention" (McMahan, 2003:74). Do our social interactions, when sheltered by a screen, become more honest, or more aggressive? Does online interaction facilitate or impede social cohesion? And, given that our human tendency towards empathy is most directly prompted through the familiar, how does viewing and communicating with others via their avatars affect our treatment of them? These are

[30] See: the 'live' hologram performances of deceased artists Tupac Shakur (at Coachella festival in 2012) and Michael Jackson (at the Billboard music awards in 2014).

extremely complex questions, and, whilst this thesis does not have the scope to explore them fully, Chapter 5 will take a closer look at questions surrounding the relationship and interplay between our physical and virtual environments in the Cuban context.

Abandoning the Centre: Networked Cultural Structures

This concept of participatory immersion is especially vital when examining post-colonial and transnational cultural practice, and only becomes more so as the world becomes increasingly interconnected, meaning that people and groups who might previously have had no knowledge of each other are able to communicate directly through new technologies. These new connections, despite the current inequalities which exist within and across them, mitigate the physical separation between cultural spaces, and have the potential to create a unified digital region. The idea that a culture would define the space it inhabits, rather than the reverse, is an interesting one; after all, the traditional view is that "cultures organise themselves spatially" (Bonnemaison, 2005:83), with separate cultures arising in defined geographical areas, even if they then later spread beyond their initial borders, creating metacultures and "network-shaped cultural worlds" (Bonnemaison, 2005:99).

David Morley and Kevin Robbins write of the effect of digitisation and globalisation on space, which they view as creating a greater number of connections, but an almost proportional increase in inequality: "what appears to be emerging in this process is a new articulation of spatial scales – of global, continental, national and the local spheres – associated with the increasing transnationalism of accumulation... Particular localities are drawn into the logic of transnational networks. What appears to be developing through this process is a new global matrix of unevenly developed regions, cities and localities" (Morley and Robins, 1989:22). For Hardt and Negri: "In this smooth space of Empire, there is no place of power – it is both everywhere and nowhere" (Hardt and Negri, 2000:190). Anthony D. Smith believes that "the idea of a 'global culture' is a practical impossibility" (Smith, 1990:171); however, he does speak of larger "'families of culture' which portend wider regional patchwork-culture areas" (Smith, 1990:188). This line of thinking appears to be the most universally applicable to modern cultural networks; that there is no one homogenous global culture, but that cultural spaces and practices worldwide are becoming increasingly enmeshed and influencing one another in unpredictable ways. Despite the fact that this interconnectedness is creating larger global groups, each group is still tied to multiple, physical locations, which behave in their own complex ways; perhaps for this

reason, Oswell suggests: "it might be a mistake to think about the global as if it were somehow bigger than the local" (Oswell, 2006:184).[31]

Modern culture as a system "does not have one centre, or no centre, but multiple, simultaneous centres" (Collins, 1989:25). This brings into question the notion of what may traditionally have been viewed as peripheral or marginalised cultures. The larger and more complex a system becomes, the more 'centres' will be created, and it becomes increasingly challenging to clearly define the most significant centres of influence. This could be seen in a positive light, as it encourages us to move away from the traditional hierarchical views discussed earlier – which in themselves have been responsible for creating subaltern groups – and onwards to novel views of culture and difference. The vertical, arboreal structure of a traditional hierarchy is closely linked to that of a centre-periphery model. By design, they both ineluctably favour those at the top/centre, both in terms of resources and prestige, leaving those on the outer fringes/at the base of the tree at a severe disadvantage, forcibly distanced from a great deal of opportunity and privilege. Those on urban fringes are arguably more peripheral than those in rural centres, who may not be aspiring to metropolitan standards, but rather focusing on the centrality of their immediate surroundings.

However, Umberto Eco finds this traditional structure to be severely deficient as a lens through which to view culture: "there is no bidimensional tree able to represent the global semantic competence of a given culture. Such a global representation... takes the format of a multidimensional network" (Eco, 1984:68). Deleuze and Guattari caution against mimicry, and thereby against an arboreal, evolutionary model of culture and thought: "The tree and root inspire a sad image of thought that is forever imitating the multiple on the

[31] These multiple local centres might usefully be viewed through the lens of actor-network theory (ANT). ANT is a vast and complex theory – almost a network of theories within itself; "from its humble beginnings in the sociology of science and technology, the ANT diaspora has spread to sociology, geography, management and organization studies, economics, anthropology and philosophy" (Cressman, 2009:1). Our interest here lies in its application to new technologies, which is described by Oswell as follows: "how a technology is made to appear as if it worked on its own without the help of a series of networks that facilitate its invention and use" (Oswell, 2006:143). Cressman believes that ANT provides an invaluable tool for the analysis of these networks, both in terms of their structure and the ways in which they are expressed and interacted with ("form and process" (Cressman, 2009:11)). Part of this is what is known in ANT terms as punctualisation: "the process of punctualization thus converts an entire network into a single point or node in another network" (Callon 1991:153). Punctualisation, then, appears to force us to acknowledge and examine the complexity of a given network by converting our view of it into a form of three dimensional fractal pattern, rather than as a two dimensional map. A direct comparison can be drawn with the rhizome, below, which encourages us towards a more complex, multi-centred view of cultural structures.

basis of a centered or segmented higher unity." (Deleuze and Guattari, 2005:16). In an attempt to deviate from the above, and to more faithfully reflect what they perceived to be the reality of cultural development and interconnection, they instead propose a rhizomic model of culture. For Deleuze and Guattari, the dominant Western trend towards viewing cultural structures in the form of a tree is inherently flawed, and they view their rhizome to be infinitely more fitting to the complex, almost random interconnectedness of culture: "any point of a rhizome can be connected to anything other, and must be. This is very different from the tree or root, which plots a point, fixes an order" (Deleuze and Guattari, 2005:7). Their assertion that "a rhizome is made of plateaus" (Deleuze and Guattari, 2005:21) also stands in stark contrast to the arboreal (read also, capitalist) model of culture, which is constantly evolving, modernising, and stretching ever skyward, with little regard for what might remain on the ground below, and often without acknowledgement to the roots which bear its weight. In theory, then, the rhizomic model of culture seems to carry significant advantages over the arboreal, one of the principal points being that, due to the lack of a vertical hierarchy, a rhizomic model might be more practically applicable to widening participation and cross-cultural engagement. A rhizome has no centre, no focal point, and therefore no periphery, no marginalised exterior: "There are no points or positions in a rhizome, such as those found in a structure, tree, or root. There are only lines" (Deleuze and Guattari, 2005:8). However, the lack of centrality does not entirely negate the existence of power differentials; it would be dishonest to negate their existence in favour of some egalitarian vision of culture, as the unavoidable truth is that the nature and quality of these connections is, in some ways, more important than their quantity. In exploring the power differentials at play in information technology, for example, we might identify accessibility as the most influential factor, both in terms of affordability of hardware and access to education surrounding information and training. We can consider that there are, then, still more or less significant clusters of activity within a rhizome, and still roots which link one node to another, but the differentiating factor which sets it apart from the tree is that there are multiple routes (and roots) by which to travel through the network, and a whole host of 'centres' from which one can choose. Oswell sees the rhizome as a form of map: "in the sense that a map enables ones to move through territories, to find new architectural sites, to meet new people, to travel to different places" (Oswell, 2006:36). In order to avoid the oversimplification of the rhizomic map, it might be fruitful to attempt to view the rhizome in conjunction with the fractal 3D ANT, footnoted above. This allows us to view our rhizome as intricately formed and almost impossibly complex, which is a much more faithful representation of cultural practice.

In the rhizome, we see not only the complex web of modern technologies, but also the multi-rooted nature of memory, as explored earlier in this chapter. Crucially, we also gain insight into a different approach to myth: Lévi-Strauss' approach to myth is that it can and should be interpreted both "diachronically" and "synchronically" simultaneously. He furnishes us with the example of an orchestra score, which must be read diachronically (page after page) and synchronically (taking in multiple staves at once) (Lévi-Strauss, 1955:432). He also states: "myth grows spiral-wise… we should consider that [myth] closely corresponds, in the realm of the spoken word, to the kind of being a crystal is in the realm of physical matter" (Lévi-Strauss, 1955:443). We may find a precursor of Deleuze and Guattari's rhizomic model within his approach: for Lévi-Strauss, myth cannot be treated as a linear, arboreal accumulation of belief and information. Lévi-Strauss writes: "the true constituent units of a myth are not the isolated relations but bundles of such relations and it is only as bundles that these relations can be put to use and combined so as to produce a meaning" (Lévi-Strauss, 1955:431). Such interconnected bundles would seem to bear more than a passing resemblance to the relationship between the "constituent units" of a rhizome.

Many among us might clearly recognise a description of the modern internet in Oswell's description of the rhizome as a map. However, the dilemma for emerging cultural forms, which utilise digital technologies, is whether the rhizome is, in fact, the exemplary model which it appears to be. The greatest vulnerabilities of information technology can be found in both the arboreal and rhizomic aspects of its nature; a centrally controlled computer, for example, which relies upon a motherboard (the trunk of the computing tree) to control and allow all of its basic functions, will be rendered useless if the motherboard fails. The roots may continue to absorb moisture, but the leaves will dry up without the means to transmit this life force. At the same time, many levels of interconnectedness within technology can also be exploited, as is the case with DDoS attacks using the Internet of Things.[32]

This interrelated view of contemporary networks also provides us with a valuable perspective on the development of modern cultural theoretical backgrounds. As has been explored extensively above, the theories which have traditionally underlain video games have been borrowed from other disciplines, and video games have been studied in a comparative manner which sees them building upon the cultural legacy of literature and

[32] Distributed Denial of Service. These make use of a large number of interconnected smart devices, from computers to printers to wi-fi enabled kettles, in order to launch simultaneous demands which overwhelm their targets by virtue of the sheer volume of devices involved. To visualise this, picture a small village shop, accustomed to accommodating 3 or 4 people at once, being suddenly inundated by a few coach-loads of visiting tourists.

cinema. Whilst, for a wide variety of reasons, this approach is arguably deeply flawed, it has nonetheless been important to analyse it in detail here.

To conclude this section, let us return to the words of Ang, who observed that: "'culture' in mainstream communication research is generally conceptualized in behavioural and functionalist terms, about which 'objective' knowledge can be accumulated through the testing of generalizable hypotheses" (Ang, 1996:133). The implicit assumption in this attitude is that culture is a quantifiable concept which can be neatly encapsulated, treated scientifically, and translated into simple data rather than explored as complex human experience. It is perhaps the case that this attitude might be taken by 'outsiders' to a culture, who assume that cultural theories and concepts with which they themselves are familiar can be easily transposed and applied to others.

When Hall spoke of the "re-translation" of cultural studies, he took care to offer the following clarification: "I use "translation" in quotation marks too: translation as a continuous process of re-articulation and re-contextualization, without any notion of primary origin. So I am not using it in the sense that cultural studies was "really" a fully-formed western project and is now taken up elsewhere. I mean that whenever it enters a new cultural space, the terms change" (Hall, 1996:394). Here, Hall dismisses the notion of directly suturing one set of cultural ideas and practices onto a new and unfamiliar host; rather, the process he describes is one of sensitive analysis and appropriate adjustment of terms. Just as there must be a process of translation of experience, information, and meaning, across disciplines and cultures, so in the same way we have in the past translated our experiences and identities from one time and generation to another; we must now concentrate on translating our cultural world from the analogue to the digital.

This chapter has examined how the inclusion of heritage issues within gaming explicitly allows players to inhabit and explore personal and national narrative and myth. Rather than clashing with existing culture and heritage, gaming allows for new approaches to allow us to understand and engage with historical and national identities, which, ultimately, form part of personal myth. In this chapter, we have journeyed through some of the concerns and controversies which have been associated with video games, in both the past and the present. However, we have also seen that *context* – both the real-world context in which games are played, and the internal context of the games themselves – is of vital importance to determining outcomes for players. Recognising this, we can now begin to see how the case can be made for Cuba to make a distinctive contribution to our understanding of video games. Cuba's cultural, political, and technological landscape since 1959 are entirely unique, and, since the Cuban gaming context is almost entirely unstudied in an academic

setting, it can be tentatively concluded that there is a great deal to glean from exploring it in more detail. Additionally, we have examined how new ideas of cultural structure have been created and reinforced by digital technologies, and we can therefore begin to question whether these innovative cultural approaches may have something to offer more traditional arenas of culture in Cuba; or, indeed, whether Cuba may be able to provide fresh approaches of its own to such structures. In order to do this, let us begin to examine this tiny island nation, and its engrossing, multi-faceted technological history.

Chapter 3

An Overview of Cuban Technology

> "Technologies are the product of the people involved in their creation and the political and economic moments in which they are built" (Medina, 2011:211)

Whilst modern technologies might not be the first association which outsiders might draw with the island, Cuba has a long-standing and complex romance with computing. When examining information technology in a nation like Cuba, there seems to be an almost irresistible temptation to focus on the topic of the internet, and on the highly politicized questions of censorship and free access to information. This thesis will not be exploring these questions in any great detail, but since they are so closely tied to computing and gaming in general, particularly online gaming such as *World of Warcraft*, a brief overview will be provided here.

Since 1959, the Cuban leadership's general attitude towards technology could be interpreted to fit within the framework of "technopolitics", which Gabrielle Hecht describes as: "the strategic practice of designing or using technology to constitute, embody, or enact political goals" (Hecht, 1998:233). This line of thought is reflected in various pronouncements by Castro, who was unashamedly enthusiastic about the possible contributions which new technologies might be able to make to the Cuban dream, and was keen to ensure that Cuban technologies were brought up to date with the rest of the world. However, he was also conscious of their disruptive potential, and this is particularly true in the case of the internet.

Whilst having stated openly their desire to "socializar la computación" (Uxó, 2009:122), the government also still wishes to maintain a certain level of control over it for the moment. The theoretical background underlying this delicate balance is explored by Taylor Boas (2000), who discusses what he terms to be the "Dictator's Dilemma" (which is arguably the dilemma of any nation) of maintaining control and stability versus allowing freedom, and thereby possibly increasing prosperity. Given that the Cuban government recognises the internet's vital role in the nation's future on the global stage, the quandary that presents itself is how they can create and maintain an online space which adequately reflects Cuba's values and identity. Over the past half century, Cuba has on many occasions

defined itself in opposition to certain nations and ideals, in particular those which it considers to be imperialist, and this has also proved to be the government's approach with much of the online realm. There are strict laws surrounding the legality of accessing certain materials (all forms of pornography, for example, both on- and offline, are prohibited), and the government is highly resistant to anything which could be perceived as an external attempt (particularly by the US) to influence or control their cyber territory.

Key to the Cuban case, both in terms of internal development and external criticism, is the point of accessibility. Cuba's government does indeed engage in a certain amount of censorship, but the true limiting factor for the general populace is arguably not the blockage of existing resources, but the lack of those resources to begin with; lack of money to buy a computer or purchase credit to access the internet, lack of sufficient connection speeds to be able to download large files or make decent VoIP[33] calls, and to be able to implement proxies or use TOR,[34] both of which would cripple any contemporary Cuban connection.

Whilst government controls and policies do inevitably shape the Cuban cyberspace, the process is also inexorably reciprocal, as the Cuban authorities respond to technological developments. Brian Loader makes the case that the internet is "responsible for producing new formulations of governance at the local level which are expressed through the notions of enhanced participatory democratic activity…and the re-emergence of local cultural identities" (Loader, 2012:9). Paul Frissen argues that, as the world burrows further into the web, governments around the globe are drifting further from total control and closer towards "'broker'-politics", acting more as shepherds than as absolute rulers (Frissen, 2012:118). This idea that politics will be an inextricable element of quotidian life is ideally suited to Cuba's ideas of participatory politics, and the desire to create citizens who interact with and contribute to the political process at all levels. This is reflected in the words of Castro, who in 1991 spoke of the "indispensable" nature of the internet in transmitting "justas" and "sólidas" ideas to as wide an audience as possible (Castro Ruz, 1998:1):

> "Otra cosa: Internet. Ha aparecido Internet y el valor de las grandes cadenas ha ido disminuyendo. Los grandes órganos que antes estaban monopolizados han ido disminuyendo su influencia monopólica, porque al surgir y masificarse Internet, que está en manos de muchas personas de las capas medias, en realidad las posibilidades de trasmitir otros mensajes son

[33] Voice Over Internet Protocol, for example Skype.
[34] The Onion Router. This is a browser system which masks IP addresses by re-routing them through a large number of other addresses, which, when used correctly, creates layers of security which make a user almost impossible to trace.

> hoy enormes. […] Ya hay muchas formas en que la gente sabe de ciertas prerrogativas; ya Internet está por todas partes y las posibilidades que tienen de trasmitir un mensaje, es algo real. Se lo digo por Cuba. Las posibilidades que hoy tenemos nosotros de trasmitir mensajes, ideas, argumentos, no existían hace algunos años" (Castro Ruz, 2003:13)

Despite such optimism and enthusiasm, the Western style of democracy upon which most of the global net is built, and which is spoken of by Loader above, is not necessarily a desirable outcome for the Cuban authorities, nor indeed is it viewed as such by many academics. As Carlos Uxó writes:

> "considero un error reiterar la glorificación típicamente primermundista de Internet como supuesta herramienta de participación inherentemente democrática, glorificación que prefiere olvidar los muy diversos niveles de acceso a Internet" (Uxó, 2009:135)

This sentiment is echoed by Castro's words a decade earlier:

> "Para acceder a Internet es necesario al menos saber leer, tener una línea telefónica, una computadora y dominar el idioma inglés, en el que aparece el 80 por ciento de los mensajes contenidos en la red. Cualquiera de esos requisitos, y más aún todos a la vez, es difícil la realización en muchos de los países del Grupo de los 77" (Castro Ruz, 1999:4)

However much they may lament a lack of access to technologies, and place the blame for this at the feet of the embargo, one of the revolutionary government's most longstanding fears has been that unbridled exposure to Western media, via the internet or otherwise, may leave the nation vulnerable to manipulation or control by foreign powers, particularly the US. The government recognises that the internet is too vast and complex to be fully controlled and censored, as demonstrated by other nations' failed attempts to do so elsewhere; see, for example, China's 'Great Firewall', which is regularly flouted by simple VPN software. However, the Cuban leadership are still adamant that they will allow progress only at their own pace, and not be dictated to by external forces. Any perceived attempts to sabotage this or threaten Cuba's sovereignty can be dealt with severely, as demonstrated by the imprisonment of US government contractor Alan Gross from 2011 to 2014. Ted Henken and Sjamme van de Voort provide us with an apt and poetic description of the delicate situation in which the government finds itself when they state: "it is nearly impossible to navigate without being co-opted by the Scylla of state capture or beholden to

the Charibdis of foreign support" (Henken and van de Voort, 2015:101). Nicola Miller rightly cautions that, in Cuba's case, "policies of state control and repression have to be set in the context of five decades of investment in an extensive network of cultural activities and organisations" (Miller, 2008:692), implying that Cuba has nurtured cultural development even whilst implementing restrictive policies. Human rights advocate Miriam Leiva steers us across the waves in search of the source of some of the leadership's more oppressive attitudes: "the irony of the situation is this: extremism in Miami and extremism in the White House ultimately serve to fuel extremism in Havana" (Pérez, 2005:329).

All of the above is useful to bear in mind, and indeed, necessary to consider when studying Cuban technology; after all, the nature of modern production means that any nation's technological developments are closely linked to their geopolitical relationships, and part of this is how they are viewed through a popular media lens. Since contemporary Cuba has been almost universally defined in terms of the Revolution, and in terms of the government which has held power since 1959, it is necessary to now review the past 6 decades of its history, always with a view to defining the role of new technologies within the Revolution, and particularly in relation to culture. In order to do so, we will examine not only the better-known occurrences and policies which have shaped the nation, but will also see how information technology has informed and interacted with that broader historical tapestry.

Cuba on the Global Stage

It may sometimes seem as though Cuba has been almost perpetually viewed through a lens of external labels bestowed upon it by other nations; if it has not been the Cold War relic, or the communist dictatorship, then it has been the tropical island paradise (Ogden, 2015). Indeed, prior to the Revolution, Cuba was often exploited as the latter by hordes of US tourists, who were lured by the promise of sun, cigars, casinos, and of course, the supposedly exotic and passionate men and women who inhabited the island (Schwartz, 1997). Cubans have lamented "the reduction of our country to erotico-tropical stereotypes" (Otero and Martínez Hinojosa, 1972:39), but this is an image which has enjoyed considerable durability, and to some extent persists to this day. External analyses of Cuba have at times leaned towards the portrayal of Cuba as a Soviet outpost; Antoni Kapcia notes that from the late 1970s onwards, US writing on Cuban culture has "tended to retain an essentially Cold War perspective" (Kapcia, 2008a:645-6), much more so than in other spheres. Whilst it is true that Cuba became Sovietised to a certain extent, particularly in the

wake of the *quinquenio gris*, it is vital that commentators recognise that there was always internal resistance to this process, and that even the most extreme years of Sovietisation are just one part of Cuba's exceptionally complex modern history. In a 2005 essay, the Cuban academic Rafael Hernández described some of the pitfalls of foreign scholarship on Cuba, particularly regretting the tendency towards the application of "Sovietology rather than Latin Americanism" (Hernández, 2005:141), when the Cuban geopolitical reality "clearly did not correspond to any Soviet province… its society and culture even less so" (Hernández, 2005:141). Indeed, with the benefit of hindsight, it is difficult to determine any legitimate justification for such an approach, and it is tempting to conclude that the principal impetus was the contemporary political climate, particularly for US academics.

The nuances of the Cuban case have, however, been explored more faithfully by many. Miller reminds us of the idiosyncratic nature of the Cuban socio-political model: "there is a long history in Cuba, dating back to at least the late nineteenth century, of a different understanding of the relationships between culture and politics and between civil society and the state, an understanding of both relationships as more intertwined than the liberal ideal" (Miller, 2008:681-682). It is essential that this history be borne in mind when discussing modern Cuba, but it is equally necessary to be cautious not to fall into the trap of portraying Cuba as an isolated or alien case, and examining it through a lens of paternalistic alterity. Cuba has often been labelled an 'exceptional' case (Kapcia, 2008; Whitehead and Hoffman, 2007; Centeno, 2004), sitting as it does between North and South America, part Latin American and part Caribbean, and, since 1959 at least, successfully resisting US attempts to seize control.

In the 60 tumultuous years since the revolutionary government assumed power[35] in Cuba, the one aspect of Cuban life on which most importance seems to have been placed by the government is also one of the most intangible and indefinable: culture. It was constructed as a culture of the people, with workers, peasants, and particularly students forming integral parts of the cultural machine. Robin Moore notes that "beginning in the late 1960s, revolutionaries made cultural activities a concern of the state" (Moore, 2006:106), and Armando Hart, the first Ministro de Cultura upon the Ministerio's founding in 1976, espoused the idea that culture was the only societal space in which all people could exist

[35] Whilst it may initially seem more appropriate to phrase this as 'since the Revolution', it is important to note that, in Cuba, the Revolution is seen as an ongoing process, and does not refer simply to a single period of conflict or change, as is the case in many other countries and contexts. This is something which shall be discussed at length later in this chapter.

without limitation or exclusion (Hart, 2001:22). Crucially, Hart further stated that "la cultura se vincula con…la formación moral ciudadana" (Hart, 2001:22).

In order to attempt to understand culture in modern Cuba, it is essential that this seemingly straightforward statement be broken down and examined: firstly, as has already been undertaken at length in previous chapters, we must examine definitions of culture in its various forms; secondly, it is vital to explore the even more complex question of Cuban moral values- what are they, from where do they spring, and by whom are they dictated? When examining these issues, it is essential that we take care not to do them the injustice of imposing unsuitable models upon them, and instead see them in the context of Cuba's own social and political history, and perhaps the wider context of the Caribbean or Latin America; analysing them through another, inappropriate lens might well lead to inaccurate or unhelpful conclusions. A potential barrier to this is the scarcity of Cuban academic work outside Cuba, and, indeed, the problematic logistics of circulating publications on the island itself. Economic austerity and the paucity of resources mean that lavish print runs, such as the 100,000 copies of Don Quijote which were the first product of the National Publishing Office in 1960 (Salas González, 2015:329), have not been feasible for quite some time. A combination of limited publishing numbers and – until recently, at least – restricted and expensive internet access have made the diffusion and exchange of academic works within Cuba a problematic pursuit.

However, this should not be taken as a suggestion that Cuban academic thought and culture are dormant or stagnating; rather, the island's economic and logistical difficulties are a stumbling block to be worked around in inventive ways, such as by the widespread ownership of personal USBs to store and share work. Miller writes of the Latin American "alternative version of modernity",[36] explored and refined by Mariátegui,[37] which she believes to be the reason why contemporary Cuba retains what she terms "a substantial and successful community of cultural producers, despite all the material and political difficulties life on the island entails" (Miller, 2008:693). She notes Graziella Pogolotti's observation: "Since the nineteenth century, the crystallization of our national consciousness

[36] See also: Miller (2008a).

[37] Becker dedicates an entire chapter to an exploration of Cuba's relationship with Mariátegui, (and vice versa) (Becker, 1993:57-89). Becker's contention is that Mariátegui was key to "the Cuban understanding of a flexible approach to Marxist theory" (Becker, 1993:58), and that he was responsible for transmitting the "subjective voluntarism" of Gramsci and Sorel to Cuba (Becker, 1993:78). Judson concurs, asserting that Mariátegui's attitude towards "the redemptive power of the myth of social revolution... foreshadowed Fidel Castro's call in the 1950s for the youth of Cuba to lead the revolt against Batista and redeem the heritage of Cuba's past heroes and struggles" (Judson, 1984:13).

had required us to rummage around in history in order to collect up all the loose pieces of the jigsaw puzzle" (Pogolotti, 2004:59). Without acknowledging and absorbing Cuba's unique and complex roots, we run the risk of following in the footsteps and attitudes of 19th century European anthropologists, who tended to follow a standardized, inherently othering path: "Seleccionan los rasgos tradicionales, "primitivos", de una comunidad aislada y reducen su explicación, cuando la buscan, a la lógica interna del grupo estudiado" (García-Canclini, 1987:2). It is essential that this hermeneutic reasoning be avoided, and in Cuba's case this can be achieved, in part, by examining its history, philosophy, and the wider global context in which the Revolution began and developed.

As a final note, it is necessary to briefly address the structure of this chapter. This chapter will examine significant social, political, and cultural events in Cuba since 1959, and, using this framework as a reference, it will simultaneously address the evolution of information technology on the island. Kapcia cautions against the now almost instinctive tendency amongst historians to compartmentalise Cuban history into a number of standard blocks of time (1959-60, the *quinquenio gris*, the Special Period, and so on), as, whilst they provide a useful template for overarching themes in Cuban culture and politics, they cannot be universally applied to all areas of Cuban life; he raises the particular example of if and when the Special Period, a time of austerity following the collapse of the Soviet Union, truly came to an end (Kapcia, 2014:61). In spite of this, the following chapters will roughly adhere to this widely-adopted order to begin with, as the fortunes of computing and gaming in Cuba are strongly correlated with these traditionally-recognised periods of economic and political change.

Positioning Cuba

Since 1959, and particularly since the imposition of full sanctions and the 1961 Playa Girón (Bay of Pigs) attack, Cuba has perceived itself to be under constant threat from many dangers, either "reales o imaginarios" (Castro Ruz, 1961), both internal and external. An early example of enemy-creation (or simply identification, depending on one's view) can be seen in Castro's description of some of those involved in the Playa Girón offensive: "Latifundistas, 100, con 16 322 caballerías de tierra; propietarios medios, 24; casatenientes, con miles de casas, 67; comerciantes, 112; industriales, 35; ex militares de la tiranía, 194; acomodados, 179; altos empleados, 89; empleados, 236; lumpen, 112… Y estos son los que vinieron en representación de los demás, que eran los dueños de todas las demás cosas. Porque estos invasores mercenarios realmente representaban a su clase" (Castro

Ruz, 1963). Here Castro extrapolates from some of the invaders' clearest and most digestible identifying characteristics, creating a clear image of a typical enemy of the Revolution. This is all part of Cuba's 'siege mentality', which has long been central to the revolutionary government's rhetoric (Bolender, 2012).

As well as the idea of the brave revolutionary fighting for global equality against the odds, much of Cuba's national cultural identity is constructed around inherent ideas of Cuban-ness, including the concepts of '*cubanidad'* and '*cubanía'*, which have been employed by the authorities to serve the revolutionary purpose.[38] However, according to Ariana Hernández-Reguant, modern Cuban-ness might now be more accurately defined "as a matter of culture and heritage, rather than as an ideological commitment to revolution" (Hernández-Reguant, 2009:70). This assertion would seem to bring it full circle to pre-revolutionary ideas, whilst simultaneously rooting contemporary Cuba in its heritage and history. Fernando Ortiz, one of the pre-eminent Cuban academics of the revolutionary era, has devoted much time to the contemplation of *cubanidad*. Ortiz asserts that *cubanidad* is not simply to be found in the Cuban – the end product, as it were – but in the entire process of becoming (Ortiz, 1973:157). Ortiz states:

> "*Cubanidad* es "la calidad de lo cubano", o sea su manera de ser, su carácter, su índole, su condición distintiva, su individuación dentro de lo universal. Muy bien. Esto es en lo abstracto del lenguaje. Pero vamos a lo concreto. Si la cubanidad es la peculiaridad adjetiva de un sustantivo humano, ¿qué es lo cubano?" (Ortiz, 1973:149)

Here Ortiz suggests that the more abstract idea of *cubanidad* may be less complex and problematic to define than the question of what it means to combine all of these characteristics and be Cuban.

A nation which has been colonised or controlled by external forces in such ways as Cuba has been, both culturally and politically speaking, might well feel the compulsion to reclaim and redefine aspects of its identity. Much has been written on this protracted process of post-colonial nation-building, both in Cuba and elsewhere (Kapcia, 2000; Kapcia, 2014; Schulman, 1992; Pérez Jr, 1999). In the case of Cuba, Pablo Alonso González describes: "a postcolonial nation-building Socialist process that is difficult to locate within any broader paradigm, either Latin American, post-Socialist, or postcolonial" (Alonso González, 2018:283). Here, again, we see an allusion to the idea of Cuba as a global

[38] See Kapcia (2008) for an exploration of these ideas.

exception. More broadly, nation-building may include seeking an identity which grants the country in question legitimacy and admiration in the rest of the world; rather than cocooning itself and excluding the outside world, a nation may strive for a position of global political significance, something which Cuba has indisputably achieved. Cuba's pride in, and focus upon, its own cultural traditions is another way in which it has sought to reclaim, rebuild, and reinforce a strong national identity, often using direct opposition to its modern enemies as a tool with which to do so, as demonstrated above. As well as employing more abstract concepts, such as that of 'tradition', Cuba has a legacy of drawing inspiration from paternal historical figures, beginning in earnest with the heroes of the long campaign for independence from Spain. Judson believes that a few key factors converged in post-1898 Cuba to birth this emphasis on something akin to the 'great man' view of Cuban history: "After independence, the increasing weight of imperialism in Cuban life and the near-total failure of Cuban political elites to realize the promise of the nationalist movement enhances the stature of nineteenth century heroes" (Judson, 1984:15). It should be noted that the most revered Cuban historical leaders are seen very much as men (and, in the case of female revolutionaries like Celia Sánchez, women) of the people, and that no small part of their heroic image is their absolute dedication to a greater social cause.

The Cuban Mythic Narrative

Classifying Cuban-ness as a quality which is on some level innate provides us with the opportunity to examine it through the lens of myth. Kapcia defines myth as follows: "the cohesive set of values seen to be expressed in an accepted symbol or figure, which is perceived by a given collectivity … to encapsulate the 'essence' of all, or a significant component part, of its accepted ideology" (Kapcia, 2008:25). A mythical concept, that which has endured the passage of time, perhaps by way of constant reinvention and appropriation, is often also considered to be more closely linked to nature. Aspects of heritage and identity which become a matter of myth often cease to be consciously considered and analysed, as is often the case with traditional cultural forms. García-Canclini writes that what is now considered to be folk culture would once have been popular culture, which would seem to fit with previously discussed ideas of the traditional and folkloric being defined, in large part, by the passage of time and intergenerational transmission (García-Canclini, 1987:1). The fact that traditional culture is a well-established, minimally controversial, and familiar entity might also make it more desirable to the revolutionary government, who have long walked the tightrope between fuelling revolutionary ardour in their people and seeking to keep them within the structures of the

Revolution itself. It could be argued that uniting the populace around the need to preserve the traditional realm is also a way to ensure that their focus remains inward, fixed on Cuba and the work that is to be done by them and their compatriots to improve the country from within, and that it also serves to anchor them in the past, and therefore in the ideals of the Revolution. This point is deftly illustrated by Cohen: "myth, by establishing a narrative, locks a set of circumstances in an original set of events. And the effect, and perhaps the unconscious motive for this, is to provide a point of reference in the past beyond which one need not go. This possibly suggests why myth is so significant in traditional societies. For in these there must be constant reference to the past, at least to legitimate existing social practice" (Cohen, 1969:350). Judson concurs, and argues that, just as with Ortiz's famous *ajiaco* in reference to *cubanidad* (Ortiz, 1973), the nation's myths are a complex and gradually-formed melange of historical occurrences, movements, and collective emotions: "Cuban myths appear to be cumulative" (Judson, 1984:16).

Alonso González asserts that the "fascination with authenticity and the past", upon which a national myth is built, is an identifiable characteristic of the contemporary Western world (Alonso González, 2018:270), and that, for this reason, we must scrutinise and diversify our understanding of myth in a post-colonial context. However, in Cuba's case, a 'fascination' with the past has been a core part of the Revolution, whether by lauding and reinforcing the image of significant figures from the nation's past, as will be explored below, or through reminders of Cuba's historic conflicts; both of these have served as a call to arms for the revolutionary cause. In either case, the creation of a bellicose national narrative has been essential to the Revolution's success, and this could be argued to be linked to the nation's post-colonial status, and history of armed uprisings and bloody oppression. Judson identifies redemption and independence as two of the foundational building blocks of Cuban myth and national identity (Judson, 1984:16), both of which have close conceptual associations with military action. Judson further noted that the alteration of existing myths and the creation of new myths will either be born of "the experience of struggle", either armed or otherwise, or from an existing tension from which an oppositional position can be created or strengthened (Judson, 1984:16-17). For our purposes, these struggles could be framed in the context of the disruption (both positive and less so) which is brought about by new technologies. Rafael Rojas argues that: "the principal actors of Cuban culture are still in a state of memory-war, a struggle for historic legitimacy that derives from exclusive and irreconcilable narratives of a common past" (Rojas, 2007:237). Closely tied to the role of a cogent historical narrative is the role that such myths play in motivating present and future actions; as we will go on to explore, mass mobilisation has played a central role throughout the Revolution, and particularly during

the 1960s. The idea that a nation's conception of its past can motivate its future is alluded to by Sorel: "myths are not descriptions of things, but expressions of a determination to act" (Sorel, 1925:29). In the Cuban mythic narrative, myths have been used to inspire action and instil a sense of revolutionary purpose, laid on a foundation of historical values.

The Cuban Mythic Canon

Without question, the figure who is most often brought forward as embodying these ideals, and who also occupies pride of place in Cuba's cultural myth and heritage, is the revolutionary leader José Martí – popularly known as 'El Apóstol' – who died in 1895 whilst fighting for Cuba's independence from Spain. The pre-eminent figure in Cuba's mythic canon, José Martí was used as a moral example in Cuba well before the Revolution, and as such a long-standing figure in the Cuban historical narrative, Martí provides us with a useful view of how histories are appropriated and adapted in the service of contemporary interests. Alonso González identifies this very same concept when he states: "heritage is a present-centred process that is always in the making" (Alonso González, 2018:268). Heritage, then, is necessarily dynamic, and its centre of focus will shift in response to the political and cultural realities of a nation, or to reflect what those in power would like to emphasise. In the case of El Apóstol, John Kirk has explored, in great depth and detail, the sanitised image of Martí which was propagated prior to the Revolution, which he argues was part of an attempt to quell a growing animosity towards the US (Kirk, 1979; 1983). Kirk notes that no side has ever managed to present a historically 'neutral' Martí, but then, it must surely be close to impossible to adopt a truly neutral approach to any historical figure or event; the idea of true neutrality is nothing more than an illusion brought about by a lack of awareness of one's own biases. Cuba's largest monument to Martí, which stands in Havana's Plaza de la Revolución, was begun in 1953, but Alonso González reminds us that Martí under Batista signified something very different to the Martí of revolutionary myth: "In the context of a dictatorship, Martí could provide a usable past only as a silent and reified icon, not as a guiding mystic or apostle and even less as a modest revolutionary" (Alonso González, 2018:41). As if to reinforce the inherently mutable meaning of figures such as Martí, Alonso González tells us the saga of yet another Martí, which stands in Havana's Parque Central; in 1960 a visiting Soviet dignitary laid an overtly socialist offering at the statue, and a group of catholic students protested this perceived appropriation (Alonso González, 2018:78). This is a pithy demonstration of the fact that, not only are historical figures repeatedly recruited in support of a variety of opposing causes, but that often these groups will fiercely oppose this appropriation on the grounds

that they see the place of these figures, as belonging to one side or the other, as incontrovertible. Kapcia asserts that "Martí's exaltation by the 1950s rebels was both politically opportune and organic, and the moralistic dimension to dissent created its own radicalising tendency towards a political Manicheanism" (Kapcia, 2005:404). Martí was employed to represent not only the indomitable Cuban revolutionary spirit, but also the values surrounding education and social responsibility so prized by Castro's revolutionary government. The Cuban-born son of Iberian parents, Martí also typified Cuba's cultural melting pot. In his renowned essay *Calibán*, Roberto Fernández Retamar refers to José Martí as having been "the first among us to understand clearly the concrete situation of what he called... "our mestizo America"" (Fernández Retamar, 2003:452), and Martí's work is still held in the highest esteem, not only in Cuba but throughout Latin America.

The question of ownership and control over the narrative of national myth, as explored above within the framework of multiple Martís, is a complex one, and something with which the revolutionary government has struggled. Of their relationship with and treatment of Martí, Lilian Guerra states: "On one hand, [the Revolution's] leaders recognized that all Cubans possessed a right to a private Martí of their own. On the other hand, they desperately wanted to centralize the process by which Cubans arrived at that right as well as to monitor its results" (Guerra, 2005:256). Guerra traces how, outside official narratives, Martí's image was sometimes the subject of irreverence in popular culture, such as in the 1966 film *Muerte de un Burócrata* (Guerra, 2005:255-6).

El Che and Fidel Castro

One of the key contemporary successors to Martí's place in Cuban myth was Ernesto Guevara.[39] According to Kapcia, "[Guevara's] self-sacrificing death recalled Martí's and [his] image was enshrined in a number of things, especially in the huge portrait in the Plaza de la Revolucion, the centre of political ritualisation" (Kapcia, 2005:404). The idea discussed above, that Cuban-ness is an innate, almost spiritual quality rather than a question of documented nationality, finds its incarnation in Guevara, the nation's most famous adopted progeny. Although neither born nor raised in Cuba, Guevara came to exemplify (indeed, to mould through policy) some of the foundational concepts behind the modern Cuban revolutionary; evidence of this can be seen throughout the island to this day, not least in the motto of the youth organisation, the Pioneros: "¡Seremos como el Che!". Kapcia

[39] Of course, Guevara's ideological position was drawn from a diverse and thoroughly international range of sources, not just the likes of Martí. See particularly: Kapcia (1989).

asserts that adopting Guevara rather than Martí as their idol allowed younger Cubans "to be both revolutionary and dissenting" (Kapcia, 2005:408), and also speaks of what he calls a "martiano morality", which takes as its example the life and actions of Martí and Guevara, rather than their writings. (Kapcia, 2005:410); Kirk believes that this neglect of a close, context-conscious reading of Martí's writings to be one of the primary reasons for the seeming ease with which his image is appropriated to stand behind apparently contradictory causes (Kirk, 1979:100). Indeed, Guerra notes that Guevara was vaunted by the Cuban leadership as being almost a direct product of Martí's ethos and ideologies: "The Revolution's leading intellectuals fostered the idea that Martí's spirit had reincarnated first in the life and then in the death of the Revolution's most famous martyr" (Guerra, 2005:256).

Guevara has achieved almost mythical status, not just in Cuba but on a global scale (Casey, 2009). However, in Cuba, Guevara's most lasting bequest to social and cultural policy was his concept of the *hombre nuevo*, which focused heavily on voluntarism and social and moral responsibility (Guevara, 2010). The idea of gifting one's talents, time, and resources was one of the reasons behind the enormous success of the 1961 Literacy Campaign, which relied in large part on the youth volunteers who travelled to the more remote parts of the country to teach and engage with the nation at large. Groups founded upon this spirit, such as the Movimiento de Aficionados, were of particular importance to more rural communities, who had less contact with Havana and often did not enjoy the same economic privileges (nor the same expectations, nor the same drastic reduction in quality of life during times of economic hardship) as those in the cities.[40] There were a number of important policies overseen by Guevara which were influenced by this spirit of fairness, perhaps most notably the widespread agrarian reform, which began in May 1959, and which restricted the size of individual property to 402 hectares (Cantón Navarro and Duarte Hurtado, 2006:33). This was followed in October 1960 by a sister law relating to urban reform (Pérez Jr, 2015:252).

Seeking to define the characteristics of the *hombre nuevo* which was to emerge in Cuba's new socialist landscape, Guevara first and foremost spoke of "su cualidad de no hecho, de producto no acabado" (Guevara, 1965), which ties in with the concept of "apocalyptic renewal" identified by Miller (2008), as discussed above. Paradoxically, instability and upheaval are some of the few reliable constants in Cuban history, and whilst this may ostensibly seem to be a condemnatory evaluation, it could also be seen in a more positive

[40] Sadly, the Movimiento has been more or less defunct on a national level since the 1990s (Moore, 2006:86).

light. The Cuban writer and literary critic Ambrosio Fornet speaks of the tendency to see 'nation' as a completed process rather than an ongoing project, and in general terms the same is true of 'revolution'; a single, explosive, often violent moment in time (Fornet, 2016). However, as discussed at the start of this chapter, this is not the case in Cuba's Revolution, as evidenced by the signs, letterheads, and announcements which declare that you find yourself (in 2019) in "el año 61 de la Revolución". In Cuba, revolution, just like nation, is a living, active concept, which requires the input and participation of the populace. The Revolution is promoted as an ever-present entity, one in which the nation's youth should have pride and active involvement, and part of this is the concept of revolutionary culture. This sense of constant evolution, of being almost perpetually under construction and striving for continuous change, is something which has been consistently reinforced over the course of the Revolution. Guevara acknowledges that, to his mind, the image of the *hombre nuevo* will never be complete, as it will necessarily continue to evolve alongside the nation's changing economic structure and status (Guevara, 1965).

At the dawn of the Revolution, Cuba's more recent past was, to the mind of the government, a dark and shameful period, and the idea of evolving and breaking away from the past was essential to the success and popularity of the Revolution. According to Judson: "The inspiring myth at the beginning of armed struggle was that of a new and redemptive revolutionary generation, linked and identified with past martyrology, but untainted by associations with traditional political parties" (Judson, 1984:16). Guevara speaks of the need to eradicate "las taras del pasado" (Guevara, 1965), and describes the manner in which he sees the new Cuba to be engaged in a struggle against the past. By contrast, at the time of writing, now that sufficient time has elapsed for the early years of the Revolution to be history themselves, the authorities have somewhat altered the message, and now seek to *engage* Cuba's youth with their recent history, and encourage them to internalise and connect with the country's revolutionary past.

Guevara emphasises the need to combine participation, production, management, and "educación técnica e ideológica" in the mind of the *hombre nuevo*, so that it becomes clear how inextricably they are all linked; this 'new' man is a complete man, and the unification within him of all aspects of mental and physical labour could be interpreted as a reflection of Guevara's vision for a more utopian future for Cuba. His belief is that once man is productively and contentedly working, what naturally follows will be "la expresión de su propia condición humana a través de la cultura y el arte" (Guevara, 1965). Guevara also expresses his belief that it will ultimately be the combination of a new sense of duty and social responsibility which would, hand in hand with technological development, lead to

greater freedom (Guevara, 1965), presumably as it will allow for work to be completed more efficiently, and therefore grant more time for the aforementioned exploration of cultural and artistic expression. What Guevara probably could not have imagined is the central role which modern information technology often assumes in debates surrounding social and democratic freedoms – not least in Cuba –, as well as the ways in which the government would be forced to adapt and respond to the unique challenges which it poses.

Whilst emphasising the virtues of a revolutionary mentality, Guevara particularly stresses the importance of the integration of the individual into society, and of ensuring that each individual was clear about their role: "Lo importante es que los hombres van adquiriendo cada día más conciencia de la necesidad de su incorporación a la sociedad y, al mismo tiempo, de su importancia como motores de la misma" (Guevara, 1965). Crucially, however, he still speaks of the need for leadership, for a "vanguardia, constituida por el partido" (Guevara, 1965). Statements of this nature reinforced the importance of his own position, and that of Castro and others, and helped to cement the authority of the party. Judson identifies that this was part of a broader picture in which the Revolution was inextricably associated with its charismatic figureheads, just as with Martí before them: "in the symbolism of revolutionary mythology, loyalty to Castro meant adherence to the process of revolution" (Judson, 1984:226).

However, Kapcia warns against crediting too much of Cuba's moral cause to Castro's personal influence (Kapcia, 2005:410-411), and indeed, there is good reason to shy away from this line of thought, at least for the present. After 90 years on earth, and having led a life which presents an almost Sisyphean challenge to any would-be biographer, Castro died in November 2016. Although he governed Cuba under one title or another from 1959 until stepping down in 2008, his image appears on only one monument in Cuba.[41] Law 174, passed in March of 1959, prohibited the erection of monuments to any living person, but on December 27th 2016 a further law was enacted specifically banning any monuments or commercial products bearing Castro's likeness, or the naming of any streets, squares, or public places after him (Elizalde *et al*, 2016). In a nation where monuments abound, and where memorialising and honouring the revolutionary past is central to the contemporary narrative, this action may prove perplexing to some. It could be that Castro was certain that his legacy would continue, and that physical memorials would therefore be unnecessary; it could also be the case that his wish to avoid the formation of a cult of personality was a sincere one. At a point in history at which the Cuban authorities are seeking ways in which

[41] An unobtrusive Fidel can be seen, amidst a host of other figures, on the monument to the Granma in the Plaza de la Patria, Bayamo, Granma.

to engage young Cubans and instil in them a stronger sense of patriotism, such a seemingly humble and unselfish act on the part of Castro may well prove to have been of help to the cause. Of course, it could also be argued to be the case that his professed desire not to be memorialised was a calculated tactic to present a humble image of himself which would be worthy of being remembered in other ways. In the year preceding his death, the 'Fidel entre nosotros' campaign was launched, aimed at highlighting key moments in which the *comandante en jefe* had walked amongst his compatriots all around Cuba. Arguably, a localised campaign such as this, which ostensibly seeks to embed Castro in local history across the island, goes farther towards memorialising him than any number of statues might do.

Castro's passing marks the end of a gradual period of transition, or at least a turning point within it; the Castro brothers expressed markedly different public attitudes towards Cuba's new relationship with the US. Most notably, after the visit of Barack Obama in March 2016, Fidel Castro published an impassioned warning against embracing their North American brothers too eagerly (Castro Ruz, 2016). With Fidel now deceased, Raúl Castro having stepped down in 2018, and a decidedly hostile administration across the Florida Strait, Cuba is finding itself at yet another point of historical upheaval, which is perhaps part of the reason why the government has been so intent on engaging its citizens with the legacy of the Revolution, by way of an increased focus on cultural heritage. Awareness of the implications of heritage, and a sense that the government's actions will form a part of the future history of Cuba, is a concept which is being given increasing weight in contemporary Cuba. However, this is in many ways nothing novel within Cuba's contemporary history, as a sense that the Revolution was constantly creating a future heritage is a concept of which Fidel seems to have been acutely aware from the outset: we see it in *La Historia Me Absolverá* (1953), in *Palabras a los Intelectuales* (1961), and through a fairly consistent set of messages throughout the Revolution which target the youth and their future potential. Mindful, now more than ever, that it would be all too easy for future generations to lose sight of their revolutionary past, the contemporary Cuban government is seeking to embed itself in the future past, or put another way, to ensure that it forms a prominent part of future discussions around history and heritage. Intricately and inextricably bound up in this mission is a sense of the values and morality behind various cultural forms, and a real sense that the establishment considers certain cultural forms to be inherently more wholesome and worthwhile than others, as is the case throughout the world.

Writing in 2014 on what he views as a revival of Cuban national identity and ideology since the Special Period of the 1990s, propagated by museums and an emphasis on heritage, Alonso González bears quoting at length:

> "Heritage no longer functions as a means to convey ideological content; rather, new ideological contents are rapidly materialized to achieve heritage status… The underlying logic of this process is to provide legitimacy to the regime by compressing time and history into heritage with the aim of conveying a sense of historic depth" (Alonso González, 2014:11).

Alonso González, then, suggests that history and heritage in modern Cuba are not merely memorialised representations of past events, but are rather being used in the service of contemporary ideologies. Official approaches to culture, of which heritage is a large part, are almost inevitably infused with political ideology. In the case of Cuba's official contemporary historical narrative, beginning in 1959, Miller argues: "the government's proclamation that the revolution was the culmination of Cuban history paved the way for it to appropriate a variety of aspects of the country's past" (Miller, 2008:685). Further, she states that: "the revolutionary government itself has consistently made (selective) claims to continuity in Cuban history" (Miller, 2008:686). Reinforcing the narrative that Cuba's turn to socialism was an inevitable and natural progression, starting at least with Martí – if not before –, lends the government a level of legitimacy which makes it seem almost unshakeable.

The Early Years (1959-1970)

The early years of the Revolution were filled with positive, exciting, and dynamic changes to the social and cultural fabric of Cuba, and Judson notes that, over the course of its first few years, a number of supposedly competing revolutionary, liberal, and reactionary myths were amalgamated without too much difficulty (Judson, 1984:226). The revolutionary government made great efforts to increase access to, and appreciation for, artistic and cultural output, as well as creating many official bodies to support the process of institutionalisation and aid in the proliferation of art and culture throughout the nation, such as the CNC (Consejo Nacional de Cultura), which was founded in January 1961.

In order to thoroughly interrogate the cultural and technological context of early revolutionary Cuba, it is necessary to understand its geopolitical position and international

relationships, as these have affected Cuba's cultural policy and output throughout the Revolution. In a similar manner to many other 'non-aligned' nations throughout the course of the 20th century, Cuba has defined itself on the international stage not only through its alliances with certain foreign powers, but also by standing in opposition to others; most notably, the US. By encouraging a maximum level of ideological separation between the two nations, Cuba has made use of the US as a scapegoat in times of trouble, and the US has more than reciprocated this attitude. This combative relationship has arguably served the governments on both sides; it is, after all, far easier for a nation to unite against a common, easily identifiable enemy than to dwell too deeply on more complex and divisive domestic issues. Indeed, Kapcia alludes to it as one of four key mechanisms in the internalization of an ideological system, namely: collective empowerment, individual ideological identity, siege mentality, and internalisation via historical myths (Kapcia, 2008:105; Kapcia, 2000).

A substantial portion of Cuba-US relations since 1959 can be framed as a seemingly perpetual battle of tit-for-tat. By October 1960, all US businesses in Cuba had been nationalised, thereby almost entirely removing the economic grip which the US had held on the island. This sort of anti-capitalist activity might have been met with less consternation had they taken place in another country; however, Cuba is not only extremely physically close to the US, but had also enjoyed a long history of collaboration with (or subjugation by) its neighbour to the north. By January of 1961, the US had broken off all diplomatic ties with Cuba, and in April of that same year they undertook the infamously failed invasion at Playa Girón. This was to become one of the most embarrassing incidents in the history of relations between the two nations, and one of Cuba's crowning victories. Indeed, as noted above, the opportunity to unite over a common enemy and over the joy of victory only served to further embed Cuban faith in the Revolution; not for the first time, the US had not only failed to overthrow the Castro government but had actually aided it. Having been unsuccessful in its armed endeavours, in February 1963 the US government imposed full sanctions on Cuba. Later on, in 1983, a time during which Cuba was striding confidently towards prosperity – and also, significantly, when Nicaragua experienced its Sandinista revolution – the US passed the Radio Broadcasting to Cuba Act, otherwise known as Radio Martí, followed in 1990 by the Television Broadcasting to Cuba Act (TV Martí) (Venegas, 2010:75). These stations offer up carefully curated programming, the stated aim of which is to provide Cubans with unbiased access to censored content, but which, given the history of the relationship between the two nations, must surely be seen as an attempt to subvert the Cuban government. The very fact that both stations have made use of Martí, who to some is the father of revolutionary Cuba, is very easily interpreted as

a snub to the government, and an assertion that they are not the true representatives of modern Cuba. In addition, their funding can be directly attributed to an increase in the influence of the right-leaning, anti-Castro Cuban émigré voter bloc, and a desire by successive US administrations to secure their votes (Kapcia, 2008:169).

The efforts of Radio Martí and TV Martí are two small footnotes in the complex history of US-Cuban relations since the Revolution began. Whilst the Cuban government has held fast throughout, it is undeniable that the nation and its people have faced times of extreme hardship for which the US embargo has been at least partially responsible.[42] For their part, the Cuban government did their best to reduce the 'negative' influences of US culture and politics (Dorfman and Mattelart, 1975). The ICAIC (Instituto Cubano del Arte e Industria Cinematográficos, founded in 1959) even began broadcasting a weekly television show explaining "all the gimmicks used to attract the viewer's attention" (Myerson, 2014:21). Travel restrictions were also strictly enforced to limit the risk of defection by dissatisfied Cubans, particularly artists and sports personalities travelling for work; in fact, Robin Moore claims that "established musicians found themselves subject to more travel constraints than the average Cuban because their defections could prove embarrassing" (Moore, 2006:70). However, the Cuban cultural exports which did make it out of the country and were available for foreign consumption greatly aided Cuba's image abroad.

In 1964, in the wake of full sanctions by the US, Cuba entered the Non-Aligned Movement at the Cairo summit. As was the case with a number of other nations at the time, it also involved itself in foreign conflicts which it felt represented a greater struggle against imperialism. However, where some countries, such as China, showed their support domestically through propaganda posters and speeches intended only to inspire nationalist and anti-Western sentiment in their citizens, Cuba sent troops to fight on a number of occasions; most notably, during the 1970s, it fought with Angola against South Africa, and with Ethiopia against Somalia. There can arguably be no stronger show of cultural and ideological alignment with a cause than sacrificing lives for its sake.

A focus on enriching the poor, the undereducated, and others with limited opportunities, is a common theme throughout the Revolution, and this found expression in Cuba's

[42] The most infamous case of this kind is the Special Period, which was triggered by the collapse of the Soviet Union, Cuba's single largest source of economic and political support from 1959 onwards. This will be covered at length later on, but suffice it to say that the extent of the economic and psychological damage wrought by the privations of the Special Period would be impossible to measure accurately. The effects are still felt in the country today, and every Cuban has either their own story of hardship and privation, or one which has been related to them by their parents or grandparents.

aforementioned international alliances. The new government wasted no time in engaging with its international allies, and in April 1959 Cuba took the opportunity to strengthen its ties with Latin American nations. It achieved this through the newly founded Casa de las Americas, which was to serve as a point of exchange for Latin American and Caribbean cultural thought and practice, and which still stands strong as one of the nation's most significant cultural institutions. Cuba continued to nurture an internationalist approach to culture, and throughout the 1960s it used film as a pro-third world, anti-US medium, and simultaneously as a tool for nation-building. The government and the ICAIC produced and funded a relative wealth of foreign-focused films as anti-US solidarity propaganda, focusing on countries such as Guinea Bissau, Vietnam, and Laos. However, it also produced a great number of films for domestic consumption, which dealt with Cuban history and contemporary social reality, one of the most famous and enduring of which was *Memorias del Subdesarrollo* (1968) (Chanan, 2004).[43] All this was a marked boost to an industry which "never achieved much recognition prior to 1959" (Moore, 2006:41).

The political ideals of the new Revolution were reflected not only in the content of artistic output, but also in the structures of cultural industries. In August of 1960 the government set up the Instituto Cubano de Derechos Musicales, which initially fought for royalties owed to domestic record labels by international companies. However, although individuals could 'own' their own work, copyright was eventually deemed to be a capitalist device which was not in line with the ethos of the Revolution, so artists were prevented from profiting through their work (Hernández-Reguant, 2004:9). Artistic and cultural products were viewed as any other "wage labor", and were considered to be a 'gift' to the *patrimonio del pueblo cubano* (Hernández-Reguant, 2004:15). In 1967, UNEAC (Unión de Escritores y Artistas de Cuba) voted to abolish copyright entirely, and whilst this could be argued to be damaging to the artists' wellbeing and prosperity, it can also be interpreted as a significant advance in artistic freedoms; if unrestricted by copyright costs, artists are able to manipulate and exchange existing works and give rise to new works. Art continued to hold this 'gift' status until the 1970s, when, after the First Party Congress of 1975, the newly-founded Ministerio de Cultura began to permit visual artists to sell their work from galleries for a private profit. Removing (or, indeed, banning) monetary value as a component of culture could be expected to alter the place of certain cultural products within the hierarchy, but Cuba seems, for the most part, to have retained a model of value which adheres to a global standard; ballet, classical music and art, and literature are all still highly

[43] See Chanan (2004), and Myerson (2014), for a comprehensive exploration of the trajectory and content of Cuban cinema.

prized cultural commodities, and minimising the place of pecuniary concerns does not seem to have altered this state.

The Literacy Campaign

Central to the concept of a cultural hierarchy is the provision of an adequate cultural education; without this, how is a person to acquire the skills to discern cultural 'worth', and to adequately 'appreciate' cultural output? Ideas of high and morally superior culture certainly have the potential to be restrictive and repressive, but in Cuba's case they also gave rise to one of the Revolution's most impressive cultural achievements.[44]

The 1961 Literacy Campaign saw illiteracy rates plunge from 23.6% to 3.9% in less than a year thanks to the efforts of hundreds of thousands of educated volunteers, most of whom were young, urban Cubans, who journeyed to the countryside with the aim bringing universal literacy to Cuba (Fagen, 1969:54). The Literacy Campaign affected Cuban cultural output on a scale which went beyond individual literacy; Moore asserts that "book publishing received far stronger government support than music recording from the outset because of its associations with the literacy campaign" (Moore, 2006:75), and by radically improving literacy rates, the Campaign transformed the cultural landscape in Cuba, giving its citizens access to literature and educational resources which might previously have been out of their reach. This was the first major act of revolutionary solidarity and mass mobilisation in a nation which was not to be declared officially socialist or communist until later that year, in the wake of the failed invasion at Playa Girón (Castro Ruz, 1983:446-7). Interestingly, Pérez Jr posits that the government found themselves being guided naturally towards socialist structures by the specific reforms which they were implementing, rather than intentionally following a deliberately considered socialist ideology from the outset; he maintains that Castro's 1961 declaration of allegiance to Marxism-Leninism "must be seen as a function of North American policy" (Pérez Jr, 2015:253). Judson reminds us that although anti-imperialism was consistently present in the Cuban revolutionary ethos from the start, the same was not true of explicit anti-capitalist sentiment: anti-capitalism made a

[44] The Literacy Campaign, as with any given moment in contemporary Cuban history, is not without its critics: see particularly Anna Serra (2001), who asserts that the main achievement of the Literacy Campaign was to make "docile citizens" of Cubans: "if the Literacy Campaign did succeed in radically reducing illiteracy in Cuba, it did so at the cost of the possibility of remaining at the margins of the gigantic pedagogic machine of the state" (Serra, 2001:139).

relatively delayed appearance, "entering the mobilizing myths openly only late in the revolutionary process" (Judson, 1984:14).

According to Fagen, the Literacy Campaign brought forth 271,000 volunteers, and there was also an interesting generational twist to the Campaign; a huge number of the *alfabetizadores* were teenaged Cubans, who assumed the role of teachers with both younger children and their elders. Of the 100,000-strong band of *brigadistas* who comprised the ranks of the Conrado Benitez Brigade,[45] the largest group of student volunteers, 87.5% were 19 and under (Fagen, 1969:45; Kapcia, 2005:402). Fagen states that whilst younger volunteers were still the minority overall amongst the *alfabetizadores*, the inspirational image of the young revolutionary educator was a key part of what distinguished this period from previous Cuban or Latin American campaigns (Fagen, 1969:42). This young task force played other roles besides, such as aiding in the spread of more general education and in the running of the *escuelas al campo* from 1965-73, which were rural schools set up to give promising urban students an education in agriculture and rural life (Kapcia, 2014:49). Another key success factor for the Literacy Campaign were the Ediciones Revolucionarias textbooks, which were pirated from the US and other countries, and copied for domestic distribution, saving the government vast sums of money and also providing vital educational resources (Kapcia, 2014:48-49).

The Literacy Campaign has strong ideological ties to Guevara's *hombre nuevo*: in a testimonial account, one young Cuban woman stated her belief that not having joined the Literacy Campaign would have been "downright immoral", and that the thought of having to explain her non-participation to her grandchildren was embarrassing enough to motivate her to join (Lewis et al, 1977:67). This highlights the element of morality which undeniably formed a part of the 1961 Literacy Campaign, and demonstrates how it appealed to and exploited the Cubans' sense of social responsibility and solidarity.

In addition to the moral dimension of the Campaign, Kapcia highlights the fact that it was "organized along military lines" (Kapcia, 2008:47). Kapcia addresses the prevalence of military rhetoric in Cuban civic life, which he suggests is closely tied to the formation of moral values within the setting of the Revolution. Pérez Jr reinforces this idea: "Mobilization strategies after 1965 were based on appeals to selflessness and sacrifice. Cubans were exhorted to subscribe to a new code, nothing less than a new morality" (Pérez Jr, 2015:259). Whilst Pérez Jr is referring to the years following the Campaign, we can see

[45] Named for an 18-year old volunteer teacher, who had been kidnapped and murdered by counterrevolutionaries in January of 1961 (Luis, 2008:101-102).

the foundations for what he describes being laid in 1961. Kapcia emphasises that the popular Cuban view of militarism immediately following 1959 – and, indeed, in much of the time since – was more a reflection of the virtues *guerrillerismo* than of a more traditionally organised army, which may go some way towards explaining why it was so successful in instilling a sense of solidarity and community responsibility. He notes:

> "Cubans' mobilizations for labour, production, defence or education in 'brigades', 'battles', 'struggles', 'campaigns', 'columns', 'offensives' and 'armies' all helped to reinforce the mobilizing power of this discourse and those bodies, not least as it helped convince many that, even by building a new school, learning to read or sowing potatoes, they were not only 'defending' the Revolution but also being part of a long patriotic tradition" (Kapcia, 2008:102).

Many mobilisation activities were also linked to the embedding and reinforcement of heritage in the national consciousness, as parades and demonstrations would often be centred around monuments and heritage sites (Alonso González, 2018:272), and the schools which were built almost always bore the name of a figure in local or national history. Some are sceptical of this ethos: Slavoj Žižek is critical of this perpetually galvanized approach, as he asserts that a state of ostensibly constant mobility within Cuba merely masks "social stasis" (Žižek, 2001:7). Judson appears to concur, exploring the manner in which once-dynamic revolutionary ideals and their underlying myths were, in his view, co-opted and institutionalised in the service of stability and loyalty to the Revolution:

> "In Cuba, as in other countries with a successful insurrection and the subsequent establishment of a socialist regime, the role of myth is changed after victory. It must aid in sustaining the revolution, particularly in poorer countries where continuing sacrifices are required, and where imperialism and domestic capital threatens counter-revolution. Continuing revolutionary vigilance and the need for sacrifices on the part of the population result in the virtual institutionalization of revolutionary mythology in such a situation as Cuba's in the 1960s" (Judson, 1984:15)

Palabras a los Intelectuales

As the young government explored its powers and experimented with new measures, mistakes and failures were inevitable, and the first significant cultural crisis of the Revolution came in the same year as the Literacy Campaign. *P.M.* (1961) was a short film documenting some of Havana's nightlife at the time, which attracted significant displeasure from the Cuban political elite, culminating in an outright ban on the film. In the midst of the controversy surrounding it, Castro delivered perhaps his most famous oration to date, the *Palabras a los Intelectuales*. The *Palabras* came about during a period of intense debate surrounding the future and nature of culture in Cuba, and within this one of the most significant happenings was a series of meetings of creatives and intellectuals which took place in the José Martí National Library in Havana; it was during the final meeting that the *Palabras* speech was given. Julio García Luis writes in no uncertain terms about the seminal nature of this period of discussion: "The conclusions reached through this fruitful collective dialog were so profound that it has not been necessary to add anything major to that perspective over five decades" (Luis, 2008:113).

The *Palabras* contained a number of key pronouncements which denoted Castro's attitude towards culture. Par Kumaraswami writes of the environment in which they were delivered: "the Palabras can be read as a product of, and response to, an era of siege–a heady mixture of national euphoria, national security threats and the economic threat of a complete US embargo" (Kumaraswami, 2009:529). In the *Palabras*, Castro stressed the importance of nurturing culture, proclaiming: "la Revolución no puede pretender asfixiar el arte o la cultura cuando una de las metas y uno de los propósitos fundamentales de la Revolución es desarrollar el arte y la cultura, precisamente para que el arte y la cultura lleguen a ser un real patrimonio del pueblo" (Castro Ruz, 1961). This pronouncement also made reference to the belief held by the government that artistic products should be free from copyright fees, and belong not only to their creator but to the entire Cuban nation. Infamously, as explored below, Castro also declared that artists would enjoy the support of the state, as long as they were working "dentro de la revolución". This "asymmetrical binary" (Kapcia, 2014:190) within the *Palabras* speech allowed for a measure of flexibility, meaning that artists and cultural actors were not required to be manifestly 'revolutionary' in their work, as long as they were not acting against the interests of the Revolution (although, of course, there is still much room for interpretation about what exactly this could mean).

However, the *Palabras* have also been interpreted by some as being a declaration of oppression, particularly by those who have misquoted the most famous line: Castro stated

"dentro de la Revolución, todo; contra la Revolución, nada" (Castro Ruz, 1961), but this has been reported as "dentro de la Revolución, todo; fuera de la Revolución, nada" (Weiss, 1985:121; Franco, 2002:89). This single substitution makes the tone of the speech altogether more sinister, and certainly more authoritarian. The banning of P.M. and the events and discourse which surrounded it were a pivotal moment in the Revolution, and marked a turn towards centralisation and institutionalisation on the part of the government; 1961 saw the founding of the Escuela Nacional de Arte and the Consejo Nacional de Cultura, and in 1965 over a thousand graduates from drama, music, and dance teaching courses were deployed nationwide to bring their skills to those outside Cuba's urban centres. This professionalization of the arts could be seen as a positive step, ensuring government support and funding, but it could also be interpreted as a move towards the institutionalisation of all artistic output, and perhaps therefore ossification and loss of freedoms. There were also some more overtly sinister policies, such as the camps of the UMAP, which were active between 1965 and 1967. According to Pérez Jr, the camps were "designed principally to draft dissidents and "social deviants" into the army for "rehabilitation"" (Pérez Jr, 2015:266), and were something akin to forced labour camps.

A crucial cultural and political tool used in the service of the revolutionary authorities, especially after the nationalisation of the media and founding of the ICRT in 1962, was the medium of newspapers and newsletters. Newspapers were an inexpensive and effective way of spreading messages to the wider populace, and a large number of newspapers and newsletters went in and out of production over the years, each aimed at its own sector of society: there was the Guevarist *Pensamiento Crítico*; *Juventud Rebelde*, the magazine of the UJC, which is still in publication today; *Trabajadores* for the trade unions; the weekly comment and analysis magazine *Bohemia*, and a litany of others. During the early years of the Revolution, the sheer number of publications stood in stark contrast to the state of journalism during Batista's years in power. Moore states that "the reputations of major newspapers had been tarnished in the mid-1950s: all accepted bribes from Batista in order to remain silent on controversial subjects" (Moore, 2006:67). Instigated by Guevara (Yaffe, 2012), between 1963 and 1965, the so-called 'Great Debate' encouraged discussion surrounding the feasibility and practicalities of successfully installing a communist system in a developing country without the need for a phase of capitalism (Silverman, 1971; Gainsbury, 2005). Despite the volume of work available, critics have argued that the content in state-run publications is not as varied as one might hope; María López Vigil contends that even contemporary Cuban media presents Manichaean content, and that this is reflective of a wider lack of debate throughout Cuban society (López Vigil, 2008:386).

A constant source of conflict for the Cuban government has been that which arises from the nature of revolutionary rule: how can they reconcile their wish to inspire their populace to embody the ideals of revolutionary thinking, whilst simultaneously maintaining a stable and peaceful society? Events such as the 1967 Primer Encuentro Nacional de la Canción Protesta provided a demonstration of their attempts to unite these divergent interests, as did the co-optation of hip-hop and rap groups in later years (Fernandes, 2006). However, it is undeniable that at various stages the government has engaged in what undeniably amounts to censorship. Discussing the effects of censorship on Cuban culture, Moore notes that, rather than discouraging interest, "the prohibitions that existed for years against foreign culture…tended to provoke negative reactions, especially on the part of younger Cubans" (Moore, 2006:105). As explored earlier in this chapter, this issue of censorship has also been central to discussions surrounding Cuban technology, and younger Cubans, who have been at the forefront of ICT development, have been on the front lines during these debates. However, censorship would not become an issue in the realm of ICT until much later on in the Cuban story.

In this chapter, we have closely examined the characters and narratives which lie beneath Cuba's enduring contemporary myth, and its ideas of what it means to be Cuban in the world. This gives us a good platform from which to examine, in the next two chapters, whether there is a positive relationship between such myth and modern gaming culture within Cuba. We have further developed how history and myth have traditionally been approached in the specific Cuban context, which sets us up to fully interrogate whether video games might provide us with new tools with which to explore these traditional ideas. Finally, we have begun to explore Cuban attitudes to technology and key events such as the Literacy Campaign. By doing so, we have highlighted both the attitude of the Cuban leadership towards the importance of education, and one of the key national narratives – that of mass mobilisation and solidarity – which, as we will now explore in more detail, contribute to contemporary Cuban technology.

Chapter 4

Digital Revolutionaries

From a Western vantage point, Cuba does not seem to figure prominently, if at all, in the history of global computing. As with most other disciplines, the attention of Western academia has been principally focused on the innovation and output of Europe and North America; this attitude finds its apotheosis in modernization theory (Rostow, 1990; Huntington 1976). According to Eden Medina: "Modernization theory posits that technological development follows a universal trajectory and that this trajectory is pioneered by advanced industrialized nations such as Germany or the United States" (Medina, 2011:183). On the surface, Cuba does not appear to do much to subvert this expectation, but, as we shall go on to explore, it has developed a unique relationship with information technology which displays an innovative attitude in the face of great privation. Prior to the Revolution, however, its links with the US actually granted it privileged access to early computers.

According to Luis Casacó, early data processing equipment arrived in Cuba during the 1920s, courtesy of IBM, and throughout the early 1960s the government acquired a handful of first- and second-generation mainframe computers from abroad. However, it was the arrival in 1963[46] of the UK-made ELLIOTT 803B which, according to Casacó, "marked the beginning of computer science as a professional discipline in Cuba" (Casacó, 2014:172).[47] By 1969, Cuba was designing its own series of minicomputers (the CID, named for the Centro de Investigaciones Digitales, which was founded with the primary aim of creating a Cuban computer); by 1970 that first computer, the CID-201, was in operation, and in 1973 a CID factory was established in order to manufacture the minicomputers (López Jiménez, 2011:253-4). With new machines came the need for an adequate education, in order that Cuba could become self-sustaining in the longer term. To

[46] Or 1964 (López Jiménez, 2011:252). Casacó has the ELLIOT 803B as being bound for the Centro Nacional de Investigaciones Científicas, whereas López Jiménez has it as the property of the University of Havana's calculus centre. It is, of course, possible that it was passed from one place to the next, but given the extraordinary labour involved in the installation of these early computers, this seems doubtful.

[47] Since only around 200 of these computers (unrecognisable as such to most modern computer users) were made, it is possible to view a "best guess" list of their buyers. Cuba is notable by its absence, but we might plausibly speculate that, as is sometimes the case even today, the government acquired the 803B via a third party group or nation. Looking at the list of those purchases listed before 1963, and taking into account Cuba's trade relationships in the early 1960s, the USSR, Hungary, Poland, and Czechoslovakia all seem potential candidates (Our Computer Heritage, 2011).

this end, basic computer science courses were launched at university level in 1971, with a full MSc arriving later that same year (López Jiménez, 2011:254); G.M. Mesher *et al* note some of the earliest adopters of these courses: "the University of Havana, the ISPJAE (Instituto Superior Politécnico José Antonio Echevarría, Havana's technical university), and the University of Las Villas in Santa Clara" (Mesher et al, 1992:28).

International relationships were crucial in the formation of Cuba's fledgling computing industry. With almost no qualified personnel on the island, Cuba relied on East Germany and the USSR to train its first wave of technical specialists (Mesher et al, 1992:28). France soon became Cuba's primary source of new machines, and continued in this role throughout the 1970s; in 1970, it was the task of two French computers to compile and process the data collected during that year's census (Casacó, 2004:172). The ELLIOTT continued to play a key role, and was even implemented in support of the infamous failed *zafra* of 1970; it was used to design programmes to: "optimize the harvest period and the composition of sugar cane varieties per plant, the operational control, as well as the optimization of the transportation of the sugar cane" (López Jiménez, 2011:253). Whilst the *zafra* turned out to be a devastating failure, we can speculate that even its eventual output may well have been further hampered without the support of the ELLIOTT.

In light of other Latin American nations' efforts towards a different political approach to computing,[48] Castro was concerned by the lack of egalitarian ideals in Cuba's computing industry. In 1972 he paid a visit to the CID, and whilst he was clearly deeply impressed by the centre's French IRIS 50 computer, he also lamented the fact that, for most Cubans, access to such machines was an absolute impossibility, and emphatically stated that this needed to be remedied:

> "Compañeros, he venido aquí después de ver aquella computadora, adonde casi no se puede entrar, donde el pueblo no tiene acceso, para solicitarles que hagan muchas computadoras para que el pueblo, los estudiantes puedan tener acceso a ellas, estudiarlas, aprender la computación. Somos un país sin recursos naturales; pero tenemos un recurso muy importante, la inteligencia del cubano, que tenemos que desarrollarla, la computación logra eso y estoy convencido de que los

[48] Particularly Chile's Proyecto Synco, or Project Cybersyn. Assisted by the British cybernetician Stafford Beer, Chile launched Cybersyn as an attempt to bring about a more egalitarian system of production in the nation, facilitated by information technology and cybernetic theory (Medina, 2011).

> cubanos tenemos una inteligencia especial para dominar la computación" (Castro Ruz, cited in Pérez Salomón, 2016)

Whilst this "inteligencia especial" has been attentively nurtured, economic factors have meant that Castro's dream of more widespread access was not achieved for many years. However, during the 1970s and 1980s, Cuba continued to produce, enjoy, and export a number of different products, and the exportation of such goods to other COMECON nations also provided a welcome financial boost (Mesher et al, 1992:28).

The *quinquenio gris*

However, alongside the continued advances in information technology and the culture of computing, for many chroniclers of Cuban history the 1970s and 1980s represent some of the nation's most troubling times in living memory. As explored earlier, in order to unite the country under a shared vision, the cultural structure during the 1960s was state-led. This system represents a repeated dilemma in Cuba which persists to this day: should the government centralise in an effort to unify the country, and thereby risk the stagnation of homogeneity and the neglect of provincial and individual cultural idiosyncrasies, or should it grant more regional autonomy, and compromise on a cohesive national vision? The risks inherent in enforced compliance with a streamlined cultural vision are apparent (and numerous), and in Cuba's case they came to the fore during the early 1970s.

In the long stretch since the revolutionary government assumed power in 1959, the *quinquenio gris*, which lasted for roughly five years from 1971 to 1976, has been characterized as one of the Revolution's darkest cultural phases. The tightening of restrictions could be argued to have been triggered by insecurity and crisis (in this case, the loss of a driving ideological force in the 1967 death of Guevara, and the economic blow of the failed *zafra* of 1970), but Kapcia asserts that, as far as culture is concerned, a more relevant aspect of the *quinquenio* was that it signalled a return to the more prescriptive attitudes towards culture which had been signalled by the *Palabras* in 1961 (Kapcia, 2008:85).

In April of 1971, Cuba held the First Congress on Education and Culture; Rebecca Gordon-Nesbitt states that "it is universally recognised that a shadow fell over Cuban creativity in the wake of the 1971 congress" (Gordon-Nesbitt, 2015:29). The congress,

along with the Padilla affair ('*caso Padilla*'),[49] marked the start of the *quinquenio gris*. After the congress, the government began the process of further institutionalising the Revolution (Alonso González, 2018), as well as politicising its cultural output, and, consequently, censoring that which was perceived to work against the Revolution. Indeed, throughout the *quinquenio*, the government leaned towards more rigid styles of cultural policy, which were "typified by an autocratic, dogmatic approach to culture, administered by functionaries who were more concerned with ideological purity than anything else" (Brenner, 2015:341).[50] Kapcia summarises the immobility brought about by the widespread institutionalisation of the late 1970s as follows: "Quite simply, 'permanent revolution' had given way to a consolidation that provided welcome relief but had lost the spark of activism and constant involvement" (Kapcia, 2008:39)

The *quinquenio* undoubtedly cast a long, dark shadow across Cuban cultural practices, but as Moore points out, "policies restricting artistic activity are difficult to investigate…wide discrepancies often exist between official pronouncements on the subject and the day-to-day experience of the people" (Moore, 2006:15). Gordon-Nesbitt states that during the *quinquenio*: "contemporaneous discourse among artists and writers, often centred on more open-minded cultural institutions, offered some resistance to the prevailing strictures" (Gordon-Nesbitt, 2015:29). This resistance was eventually rewarded; Gordon-Nesbitt writes that, following the December 1975 PCC Congress, "state control of culture was loosened" (Gordon-Nesbitt, 2015:29-30). In addition to the congress, Alonso González identifies two further key events which signalled the shift towards state institutionalisation: the introduction of the System of Economic Management and Planning (1975), and the Constitution (1976) (Alonso González, 2018:123).

The *quinquenio* and the USSR

The *quinquenio* has often been characterised as the launching point for a period of Sovietisation, or even Stalinism (Farber, 2011; Bunck, 1994), and it is therefore necessary to briefly examine the nature of the relationship between Cuba and the USSR during this period. It could be the case that Cuba's oppositional stance towards the US naturally allied

[49] The imprisonment of the poet Heberto Padilla for his criticism of the government.
[50] It bears noting, however, that there exist significant cultural actors who do not characterise the *quinquenio* as the most negative phase of Cuba's cultural history; Silvio Rodriguez said that he believed that "the 1960s were a more difficult period, among other things because it was the time when the class conflicts in the country reached their peak. And it was class struggle to the death." (Kirk and Padura, 2001:10-11).

it with the USSR, and that their relationship was based not upon shared cultural or political attitudes, but more upon the experience of being vilified by a common enemy. Indeed, Kapcia asserts: "in order to understand post-1959 Cuba better one should ideally compare Cuba not so much with 1945-89 Eastern Europe as with the post-1945 decolonisation experiences [of many African nations]" (Kapcia, 2014:215). Cuba's close adherence to the USSR can be attributed as much (if not more so) to the US embargo and the resulting siege mentality as it can to any real sense of allegiance to Soviet ideology at the time, and indeed this same sense of threat and encirclement could be argued to have significantly contributed to Cuban solidarity and mobilisation. Starting in the late 1960s and enduring into the *quinquenio*, and doubtless partly triggered by the continued efforts of the US to destabilise or overthrow the Cuban leadership, there was an increased level of suspicion and paranoia directed towards Western cultural markers: Kapcia specifically mentions "a suspicion of long hair and western rock music" (Kapcia, 2008:52). This anti-Western sentiment should have come as no surprise, given Cuba's protracted struggles for independence from, first, the Spanish, and then the US. Alonso González reminds us that the debate around the acceptability and desirability of various facets of Western thought were not solely confined to the realm of popular culture, and that Cuban attitudes were not universally condemnatory: "throughout its postcolonial trajectory, Cuba has reproduced and institutionalized, but also rejected and challenged, Western epistemic categories and the hierarchies of knowledge, value, and culture that they imply" (Alonso González, 2018:271).

However, the official mistrust of Western culture propagated by the Cuban leadership during the 1960s, and disapproval of US cultural exports in particular, meant that Cuba was aligned with the USSR almost by default. Commenting on sustained efforts by the US government to undermine Castro and the Cuban leadership, Pérez notes that such attacks had the opposite effect: "Rather than promoting internal discontent and dissent, U.S. policy served to forge a unanimity and resolve among the Cuban people almost impossible to create in any other way. Cubans responded to siege with solidarity" (Pérez Jr, 2015:265).

However, there is a view which holds that Cuba was subject to a significant level of control by the Soviet Union until its eventual collapse, due to its extreme economic dependence on the Soviet states. Herzfeld suggests viewing the Cuban-Soviet relationship as one of 'crypto-colonialism',[51] which he defines as follows:

[51] Not to be confused with another breed of crypto-colonialism, which relates to the strain placed on developing nations whose power grids are harnessed in order to mine cryptocurrency (Yarovaya and Lucey, 2018).

> "the curious alchemy whereby certain countries, buffer zones between the colonized lands and those as yet untamed, were compelled to acquire their political independence at the expense of massive economic dependence, this relationship being articulated in the iconic guise of aggressively national culture fashioned to suit foreign models. Such countries were and are living paradoxes: they are nominally independent, but that independence comes at the price of a sometimes humiliating form of effective dependence" (Herzfeld, 2002:900-901).

Further, Herzfeld holds that the symbolism and oratory of heritage is a key constituent of crypto-colonialist strategies (Herzfeld, 2012:216). When viewed from a crypto-colonialist position, then, the 1970s held nothing novel; rather, they were a predictable perpetuation of the crypto-colonial trajectory of Cuban-Soviet relations up to that point (Alonso González, 2018:186). Both Hennessy (1988) and Lambie (2010) argue that, if Cuba experienced Sovietisation at all during the 1970s, it was at most a partial transformation, with Cuba maintaining a degree of separation and independence from the USSR in matters of foreign policy and trade (Lambie, 2010:159). However, Lambie does also believe that the 1970s marked a turning point, beyond which the Cuban government pursued a "Sovietised developmental model" (Lambie, 2010:2). Miller notes that there was a fierce anti-Soviet, anti-institutionalisation feeling amongst many in the general Cuban populace, possibly as a result of a growing awareness of the crypto-colonialist tendencies suggested above; she argues that, at least initially, "it was not just capitalist alienation against which the Cuban revolutionaries rebelled, but also Soviet-style communist culture" (Miller, 2008:687). She further writes about the criticism which emanated from Cuba towards the overly-theoretical and dogmatic politics of the Eastern bloc, which Cuba considered to run counter to the lived experiences of Cuban people.

Rectification (1976-1989)

After five years of censorship and cultural stagnation, the government began the slow process of adjusting its course in 1976. One of the first and most important steps along this road was the founding of the Ministerio de Cultura, which was created with the explicit intention of "redirecting" culture in Cuba (Brenner, 2008:318). Under the leadership of Armando Hart until his retirement from the post in 1997, his immediate successor Abel Prieto, and now Alpidio Alonso, the Ministerio continues to play a vital role in Cuba's cultural activities and in the *apertura* of Cuban society and culture, and freedoms

surrounding cultural expression in Cuba were greatly improved by its creation (Miller, 2008:679). According to Alonso González, both the Ministerio de Cultura, and Hart in particular, were vital cogs in the process of restoring faith in the state, particularly amongst those artists and creators who had suffered most during the *quinquenio* (Alonso González, 2018:124). However, the effects of the period were enduring, and heritage had been cemented as "a central instrument of governmentality" (Alonso González, 2018:182).

In January 1978, Resolución No.8 officially brought into being one of the young Ministerio's first great works. This resolution marked the creation of a national network of Casas de Cultura, whose objective was to offer government-sponsored cultural services to the entire populace. Later on, in 1979, the Dirección Nacional de Aficionados y Casas de Cultura was created, to provide links with and support for the Movimiento de Artistas Aficionados. Finally, in 1991, the Ministerio de Cultura set up a separate coordinating body for the Casas, which would become known as the Consejo Nacional de Casas de Cultura. The Casas were and are concerned with the teaching of values, especially those associated with cultural identity, and also serve to support traditional cultural expressions which have endured across many generations. The firm guiding hand of the government can be clearly seen in the Casas; the *instructores* are all trained and evaluated by the Ministerio de Cultura, but their aim is also to contribute to a sense of local and national identity, and of community belonging. The *instructores* and *promotores culturales* organise a vast array of activities for the local communities, especially for children, and there is also a great deal of cooperation between the Casas and other organisations, particularly INDER (Instituto Nacional de Deportes, Educación Física y Recreación). This cooperative spirit is of great benefit to both the *instructores* and the communities which they serve, but it is often born out of necessity, as organisations are sometimes compelled to share resources due to extreme material shortages. During the Special Period, when construction materials were hard to come by, many buildings crumbled and fell into disrepair; according to one of my interviewees, this was only "el síntoma más visible del abandono en que quedaron" [Anon, 2016], possibly implying that morale and the human element of the Casas also suffered. All this forced Casas to evolve and become more focused on the local, and on their immediate surroundings, which included working with other organisations in their area.

At the time of writing in 2019, each of the 327 Casas de Cultura provides a focal point for local cultural life, and are one of the beneficiaries of the drive towards an emphasis on celebrating the local culture of each of Cuba's provinces and municipalities. They host regular workshops and events which cover a wealth of cultural forms, including art, film, poetry, literature, music, and dance, and, the Casas system helps to "contener la avalancha

de seudo cultura que frecuentemente nos llega" (Mejuto Fornos, 2015:46). Cecilia Linares *et al* point us to the fact that the age group which enjoys the highest attendance rate at the Casas are those under 20 years old (Linares *et al*, 2010:46), which is a testament to their efforts to maintain the attention of Cuba's youth, and to appeal to their ever-evolving interests. Kapcia notes that, in around 1980-1985 (a period of crisis triggered, at least in part, by a recession in the West), it became apparent that many in Cuba's younger generations did not share their elders' revolutionary fervour, something which he attributes to "a context of greater material comfort alongside greater political stagnation" (Kapcia, 2008:39).

In the wake of this crisis, and with a growing awareness of the widening ideological gap between young and old, the government embarked on a period of reflection and redirection. Just as they had done after the *quinquenio*, they recognised the need to regroup and remobilise the populace behind the revolutionary cause, and so began the period known as Rectification.

The 1986 Third Party Congress saw the official birth of the process of the 'Rectification of Errors and Negative Tendencies' (Azicri, 2000:49). Castro himself admitted that, in the years preceding Rectification, "we began to go off course" (Castro Ruz, 1987:225), so 1986 onwards was framed as an all-encompassing change of course for the entire nation. Rather than an entirely new direction, however, the government decided that what was urgently needed was a return to the vigour and passions of the 1960s, "including a re-emphasis on political consciousness as a means of dealing with change" (Lambie, 2010:171). This echoed what had been decided post-*quinquenio*, and it would later be repeated in the early 2000s. According to Lambie:

> "The economic and political agenda for the 'rectification' process was to eliminate wastefulness, improve participation and reduce bureaucratic planning procedures... But more than a set of economic and political measures, the campaign was an attempt, in part, to return to Guevara's 'moral economy' and the social consciousness building of the 1960s" (Lambie, 2010:172)

Conscious of the fact that some of its most enduring troubles had sprung from periods of adherence to policies influenced by the USSR the leadership deliberately and openly rejected a *perestroika* model for this period; "Perestroika is another man's wife. I don't want to get involved" (Castro Ruz, cited in Lambie, 2010:172).

In general, then, the period of Rectification beginning in 1986 saw the start of a widespread recognition of, and atonement for, the errors committed during the 1970s, and had it not been for the fall of the Soviet Union and the resulting Special Period in the 1990s, the nation may well have continued to develop in a way that had not been possible during previous times in its history. However, as we shall shortly see, this was sadly not to be.

Post-Rectification Computing

> "Creo que el socialismo va a ser muy difícil de construir plenamente sin la computación, porque la necesita todavía más que la sociedad capitalista, y la sociedad capitalista hoy no podría vivir sin la computación." (Castro Ruz, 2012a)

Alongside the political and cultural optimism of Rectification, the 1980s were also a time of burgeoning development for Cuban computing, with the founding of multiple software companies, computing labs, factories, and technology plants, and, most pertinently to this thesis, as well as to the formation of thousands of young Cubans' minds, the Joven Club. Established in 1987, the Joven Club centres today are located in every province and municipality across Cuba, and in 2016 there was roughly one Joven Club per 18,670 Cubans (Oficina Nacional de Estadística e Información, 2017). The centres exist in order to give young people training in technology in a social environment, and equip Cuba's youth with the skills and knowledge to be technologically competent citizens at both a national and global level. At the meeting which marked the founding of the Joven Club in September of 1987, Castro proclaimed that "el Joven Club debe ser popular…la computadora de la familia" (Sánchez, 2015), and the official slogan of the Joven Club ("la computadora de la familia") was borrowed from this pronouncement. The Joven Club is a direct product of modern adaptations of revolutionary ideas; the values espoused by them work directly with those which have long been promoted by the government. Tino, the official mascot of the Joven Club, carries this description on their website:

> "La palabra Tino…significa juicio y cordura, moderación y prudencia en una acción, sin embargo para muchos, trabajadores, colaboradores, visitantes y amigos de la familia de Joven Club no es un simple vocablo más…tras esa imagen hay mucho simbolismo de identidad" (Joven Club de Computación y Electrónica, no date)

Casacó notes the following startling fact, which highlights the speed of the growth of Cuba's computing sector: "in 1985 there were just two desktop computers in the Havana Institute of Technology (ISPJAE), the most important technical university in Cuba. A year later, there were computer labs in each of its departments and programs, plus a large computer centre" (Casacó, 2004:173). Cuba seemed poised to embrace and exploit the global possibilities offered by ICT, and was making significant inroads into establishing a domestic industry.

Indeed, it would appear that Cuba since 1959 had made consistent efforts to keep in step with global technological standards, and had enjoyed relative success in this field; why, then, does access to ICT continue to be problematic for most Cubans, even in 2018? The answer, as with so many contemporary Cuban predicaments, may lie in the Special Period.

The Special Period

When the Soviet Union fully dissolved in 1991, an already fragile Cuba felt the full force of the loss of its greatest trading partner, and the nation fell into an era of extreme hardship which lasted well into the 21st century. Much has been written on the effects of the Special Period in Time of Peace, on not just an economic but also a psychological and spiritual level: Ambrosio Fornet spoke of "el viscoso lastre" left in the wake of the Special Period, referring to prejudice, bigotry, corrupt bureaucracy, and other social issues (Fornet, 2012). Alonso González posits that, since the Special Period, the Cuban government have shifted from an emphasis on the powerful potential of a "utopian Socialist future" to a more grounded vision which accentuates the importance of history and heritage "as a way of naturalizing its own roots and deriving a sense of legitimacy" (Alonso González, 2018:187, 206). Taking a somewhat more condemnatory tone, he suggests that Cuba is "running out of not only pasts but also prospective futures" (Alonso González, 2018:221). When we have no energy to dream of a better tomorrow – or indeed, when we fear what the future might hold – we comfort ourselves instead with a nostalgic pride in our past.

During a time of such economic depression, it is inevitable that 'non-essential' sectors, such as culture, would have their funding cut, and in Cuba's case this funding has never been fully restored; a theatre director at the Casa de Cultura in Bartolomé Masó in 2016 spoke proudly of the vast collection of musical instruments which the centre used to own, all of which had long since been sold or broken beyond affordable repair [Anon, 2016]. The nation's infrastructure suffered similarly deleterious effects, with the shortage of fuel

making travel, even over short distances, impossible in many regions, thereby limiting cultural exchange; to serve as a small snapshot of these problems, Anna Cristina Pertierra notes that "by 1992 40 per cent of national bus services and train schedules had been suspended" (Pertierra, 2008:756). Of course, transport difficulties also meant problems within the food supply chain, and Laura Enriquez has shown that "a process of 're-peasantization' occurred, as significant numbers of urban residents opted to return to rural areas in order to secure access to locally grown produce" (Pertierra, 2008:745).

Somewhat paradoxically, this exodus from larger urban centres, alongside a lack of government resources, could be seen as having had a beneficial effect on regional cultural autonomy, and as having been a theoretical strengthening of the socialist model. Initially at least, the Revolution in Cuba was built around 'the people', and in particular the nation's *campesinos* (despite the fact that many of its leaders, most notably Castro and Guevara, were bourgeois, urban professionals). The scarcity of funds during the Special Period also led to an interesting episode of cultural deregulation (Kapcia, 2008:167), during which regional and local cultural centres, such as the Casas de Cultura, enjoyed an unprecedented level of autonomy over their programmes and events. As the attention of the government was diverted by economic crisis, fewer resources became available for the policing of regional artistic output, especially in more remote areas. In many cases the authorities were forced to relinquish control and devolve power to the provinces, and this devolution allowed for an unprecedented focus on local cultural activities and regional idiosyncrasies. A scarcity of resources also forced participation and collaboration at a local level (Kapcia, 2008:83). Two examples of cultural groups which rose from the gloom are Teatro Andante, a travelling theatre collective, and TV Serrana, a documentary film group; they will both be examined in detail throughout Chapter 5.

The privations of the Special Period, whilst inarguably extreme, also allowed for some degree of economic openness: as economic support from the crumbling Soviet Union evaporated, the Cuban government was forced to allow investment from elsewhere, and relinquished a significant amount of control over cultural production. Of course, the fact that Cuba, as is the case with all sugar-dependent economies, was so heavily reliant on the support of the USSR, highlighted the shortcomings in its own economic model, and cultural policies had their part to play here as well. The aforementioned decision to make all artistic output the property of the people, and therefore exempt from copyright, may have allowed the government to avoid paying international copyright until the 1990s, but it also necessarily resulted in a lack of revenue for both the government and individual artists. In ideological terms the idea of commercial culture would not have been acceptable within

the wider context of the Revolution, so radio and television were no longer generating revenue from advertising, and films were no longer produced with commercial success in mind (Hernández-Reguant, 2004:9). As noble as the motivation behind these policies may have been, there can be no doubt that they played their part in contributing to Cuba's economic instability, and their ideological legacy continues to affect artists (including video game designers) to this day. However, despite the extreme hardships of the Special Period, the nation at large has not been seen to demonstrate widespread discontent with the government, and Miller theorises that a possible reason for this is that the authorities had created "a reserve of legitimacy" through the early years of the Revolution, which remains seemingly inexhaustible in the eyes of many (Miller, 2008:687). We also cannot underestimate the effect of the government's portrayal of Cuba as a struggling, noble underdog, one which is constantly beset by pressure from its enemies, most notably the United States.

Throughout the course of the Revolution, many aspects of Cuba's development have been hampered by the US embargo, but it has been vocal in resisting and condemning ideas of 'underdevelopment' with which other nations might associate it; Cuba prefers to see itself not as underdeveloped, but as developing in a non-aligned, anti-Western, and independent manner. Armando Hart, former Minister of Culture, recognised that culture and other forms of development enjoy a symbiotic relationship, and recognised that the promotion of each was necessary for the survival of the other (Hart, 2001). When addressing the idea of underdevelopment in Latin America and Africa, Hart stated that "subdesarrollo no es ausencia de desarrollo, sino desarrollo desigual", and heavily criticised those who, due to 'imperialist interests', attempt to homogenize the entire globe and hold all nations to the same Western standards of development (Hart, 2001:14). He argued vigorously against these attempts, and instead championed the idea of a uniquely Cuban approach to development, encouraging a rejection of any outsiders endeavouring to impose their own definitions upon Cuba, or upon any other non-aligned nation; this supports previously discussed ideas surrounding common narratives in post-colonial nation-building. Alonso González points to the fact that, not by coincidence, the later years of the Special Period were typified by a distancing from Marxism-Leninism, and, crucially, "the revival of the figure of Martí, now portrayed as a revolutionary anti-imperialist warrior symbolically analogous to Castro" (Alonso González, 2014:17). Recognising the relevance of this resurgence, Hernández argues that an examination of the Special Period could provide a useful entry point for study of the early years of the Revolution: "the heroic and misunderstood sixties, the apparently homogeneous and balanced social structure that emerged from the institutionalized period (the 1970s)" (Hernández, 2005:147).

‘*Hay que inventar*’: the Special Period and Cuban Technological Culture

Similarly, we can fruitfully examine the resurgence of Cuban information technology during the 1990s, as new technologies seemed to offer a new direction for the nation. Whilst some healthcare and biotechnology software firms limped onwards in their original missions during the Special Period, the 1990s saw many Cuban software companies, who were no longer able to reliably enjoy the support of a government in crisis, clinging to the tourism sector in order to stay afloat, designing systems for hotels and supply chains (Casacó, 2004:174). However, seeing the educational, social, and developmental opportunities that a more advance IT sector could offer, the government turned its scarce resources towards its hopes for the future, and made a decision to invest more heavily in education. The network of Joven Club centres, which shall be covered in greater detail presently, aimed to encourage technological literacy amongst all young Cubans, and also served as an environment in which to gather and play video games. Havana’s Palacio Central de Computación, the national headquarters of the Joven Club, was opened by Castro in 1991; the wall above the main stairway still proudly displays the message he left in the visitors’ book: “Soy hoy, 7 de marzo, por todas las razones del mundo, el revolucionario más feliz” (Fiallo and García, 2006). In the same educational vein as the Joven Club, the government launched Infomed (1992), an online medical communication and information network, which was later followed by Ecured (2010), Cuba’s own online encyclopaedia.[52] All three of these projects, whilst diverse in their content, demonstrate Cuba’s continuing desire to develop and focus on its domestic potential, and this is something which continues to this day. However, there was also an awareness amongst the political elite that IT held great economic potential for an ailing Cuba, as a well-educated workforce could draw income from around the globe. In 1992, Mesher *et al* noted: “To Cuba’s industrial planners, a software industry glows with potential: hard currency income, employment for an oversupply of university graduates, technology transfer into Cuba, international visibility, applications to other sectors of the economy, and modest requirements for initial capital investment” (Mesher et al, 1992:29). Mesher *et al* also mention early international software collaborations led by Centresoft, a division of INSAC (Mesher et al, 1992:29).[53] In Cuba, then, online space has mostly been utilised by the

[52] It must be noted here that, although the national intranet may have been active, Cuba was not fully connected to the internet until 1996 (Casacó, 2004:175)

[53] Created by Article 61 of Ley No.1323 on 30 November 1976. In 2000, at the start of the Battle of Ideas, the INSAC merged with Ministerio de Comunicaciones to become the Ministerio de Informática y Comunicaciones (Casacó, 2004:178), before the Ministerio de Comunicaciones was reformed in 2013. See also: Juventud Técnica (1976).

government as an educational resource, and a fundamental tool for regional organisations. These sites serve as information hubs for those who are able to regularly access the internet, but also doubtless serve a dual purpose as a display of achievement to which the whole world has access.

Wherever government investment and infrastructure were lacking during the Special Period – and beyond –, Cubans were forced to find creative ways of developing and relating to the new technologies which they desired, and this attitude persists to this day. It can be seen in the *paquete semanal*, the island's USB-based sneakernet,[54] which delivers weekly-updated games, television programmes, films, mobile applications, and computer software via 'dealers' all over the island (Concepción, 2017). Whilst the *paquete* is not legal, or officially sanctioned by the government, it is tacitly tolerated. This is also the case with Havana's SNET, an 'a-legal' intranet which has operated in Havana since 2011, and which imposes strict rules upon its users to minimise the risk of drawing negative attention to itself, and risking a possible crackdown (Pujol *et al*, 2017).

The 'Battle of Ideas' to the Present Day

As demonstrated above, then, Cuba and its people are negotiating the delicate balance between government control and the needs of the people to innovate and experiment with the materials which they have at their disposal. The wish to be independent of government regulation, whilst not openly disrupting or subverting the political order, is at the heart of many of Cuba's contemporary attitudes towards technology; most Cubans are acutely aware that government support, even at a local level, comes with some level of control. Sujatha Fernandes is critical of the Asociación Hermanos Saíz, a group for young Cuban artists and musicians, and its "paternalistic" relationship with some of the artists which it supports; "rather than give the rap movement cultural and political autonomy, AHS seeks to encourage a relationship of dependency: rappers must appeal to state institutions for the funds and permission to do their work" (Fernandes, 2006:124). It could be argued that this type of clash is inevitable when bureaucracy involves itself in art forms which are so essentially rebellious and anti-authoritarian as rap and hip-hop, but the problem of harnessing revolutionary spirit without entirely quashing it has long been one of the Cuban government's most vexing dilemmas. The government insists upon ensuring that

[54] A sneakernet refers to a system by which digital information is physically transported (e.g. on a hard drive or USB stick) from one computer to another, rather than being transferred digitally via a cabled network.

revolutionary spirit flourishes on the island, as rebellion is at the heart of the Revolution, but it is extremely difficult to tread the delicate line between encouraging revolutionary spirit and inviting open criticism of the government. The government seems to have settled on a 'middle way' strategy in this regard, in which they encourage rap and hip-hop through organisations like the AHS, whilst simultaneously using these same organisations to control their spread and content. However, Fernandes (2006:131) notes that the AHS has slowly been losing control of the younger generation of rappers, as new technologies allow them to produce and distribute their own music.

Whilst it is impossible to pinpoint the precise year in which the Special Period ended, or if it ever ended at all, one possible peak of the "curve of recovery" (Hernández, 2005:142) which followed the Special Period is the event with which Kapcia credits a modern reinvigoration of Cuban revolutionary sentiment: the Elián González crisis of 1999, which represented a crucial ideological victory for the Cuban authorities.[55] Kapcia states that the crisis altered the way in which the government related to Cuban youth: "[young Cubans were] clearly seen as a resource, to be marshalled for the Revolution and, as a result, a new emphasis on, and role for, youth organisations became part of the now increasingly mass activist political culture... To confirm this, 5 December 1999 (the date of the first Elián rally) was officially designated the start of a new phase of the Revolution's trajectory, the 'Battle of Ideas'" (Kapcia, 2005:400).

Raúl Castro had spoken of the need for a "battle of ideas" as early as 1996 (Castro, 1996), but the *Mesa Redonda*[56] radio programme (now televised) was among the first to help to bring the term to the fore of the national consciousness (Blum, 2015:425). Lambie places great international importance on the Battle of Ideas, stating that it represents a key struggle in the wider Latin American context, in which various nations are involved in simultaneous efforts "to design a different and more egalitarian future" (Lambie, 2010:245). The Battle of Ideas marked a conceptual and symbolic rebirth of the Revolution, and Kumaraswami and Kapcia identify three supports to the Battle's tripod: reintroduction and reinforcement of the principle of mass-mobilization; an inter-generational education campaign, employing resources such as the Universidad para Todos; and a renewed drive behind literature and literacy (2015:362). On the points of education and literacy, Salas González posits that one of the principal aims of the Battle was to propel Cuba to the top of global

[55] Young Elián found himself at the centre of a fierce battle for his citizenship after his mother died whilst attempting to bring him across the Florida Strait from Cuba to the US. Upon arrival, Elián was claimed by his US-based relatives, whilst the Cuban authorities launched a campaign demanding his repatriation and return to his father in Cuba. Elián was eventually returned to Cuba in June 2000, 7 months after the whole affair began.
[56] A weeknight panel discussion show on Cuban television channel *Cubavisión*.

educational rankings (2015:330), an achievement which would have echoed the successes of the 1961 Literacy Campaign. The Battle also marked a significant rise in the power of the UJC – and its head Otto Rivero –, as they were a driving force behind the Elián campaign. By mobilising them, and through the younger generation more generally, the Cuban leadership hoped to be able to reinvigorate the nation's political drive, just as they had done in the 1960s with the Literacy Campaign.

The *Battle of Ideas* was also the stage at which the aforementioned revival of Martí was enacted; Alonso González writes: "Martí is brought back to life and portrayed, not as an intellectual, an apostle or the father of the nation, but as an aggressive anti-imperialist warrior protecting Elián, who symbolizes the oppressed Cuban nation" (Alonso González, 2014:14). The "heritagization" (Alonso González, 2014:12) of the Elián incident was mostly aimed at mobilising Cuba's disaffected youth; raised in the desperation of the Special Period, young Cubans needed a cause around which to rally, and this cause needed to be easily related to Cuban nationhood and patriotism. As Kapcia highlights, "Cuba's leaders were reminded of the value and potential of the old mechanism of popular mobilization, which had effectively declined since 1990" (Kapcia, 2008:174). Whilst the Special Period had ravaged the population's energies and the government's ability to unite and mobilise them, Elián's plight provided a spark with which to reignite the passions which had characterised the Revolution's early years.

During the 1960s in particular, the leadership had recognised and exploited the power of youth, and took full advantage of this most malleable and enthusiastic sector of society, galvanising them in service of revolutionary causes such as the Literacy Campaign. Young people were, as in many other socialist and communist nations, lauded for their loyalty and determination; moreover, Anne Luke points out that "young people born into the Revolution were pure by virtue of being untainted by Cuba's corrupt bourgeois past" (Luke, 2007:68), which made them all the more desirable to the leadership.[57] The problem which presented itself as Cuba emerged from the Special Period was quite the opposite, but its solution was the same. Cuba's youth at that stage had spent a large part of their formative years in deprived conditions, and might therefore be less inclined to have faith in the Revolution and in their leaders. The Elián crisis provided the government with a cause around which their young troops could rally, and enthusiastically so; it even reinforced the

[57]A more pessimistic view would be to argue that this lack of experience also made young people easier to manipulate and be enlisted to do the government's bidding.

narrative of the tyrannical US, which at this point had stooped so low as to steal a child away from his only surviving parent.

Taking as evidence a school social communication textbook from 2001, Kapcia asserts that "the same semi-religious tone of self-sacrifice and commitment which underpinned the ethos of the 1961 Campaign... is still being extolled and instilled in the new educational 'shock troops', the new brigadistas of 2001; the same equation of education, morality and revolution is evident" (Kapcia, 2005:409), and that, moreover, "the implication is that the task is both to defend the existing socialism and to create a new one" (Kapcia, 2005:410). This focus on youth mobilisation was central to the Battle of Ideas. As mentioned earlier, in an age where young Cubans are spending increasing amounts of time exploring the world around them through new online spaces, these values are arguably regaining importance in the minds of the island's officialdom as a way to combat the threat of cultural and ideological pollution from abroad. Games such as *World of Warcraft* allow players to connect and play with other Cubans, and thereby forge national connections, but the internet also allows for exposure to international music, visual media, and global social networks such as Facebook. Attempting to ensure that young people consider themselves to be fully integrated in the Revolution has always been of great concern to the government. As Castro stated as early as 1965, "ningún joven tendrá que sentir la nostalgia de no haber tenido más años cuando esta lucha comenzó, ni albergar la idea que llegara tarde a esta lucha" (Castro Ruz, 2003:10). In this short extract, Castro clearly recognises the need to pass on and preserve the values of the Revolution in the hearts and minds of the nation's youth. Kapcia asserts that Castro's position within modern Cuba was significantly reinforced by the Battle of Ideas. He notes that the Battle saw not only a revival of revolutionary ardour, as had happened during 'Rectification' from 1986 onwards (Kumaraswami and Kapcia, 2015), but also, directly tied into this, a reaffirmation of Fidel Castro's leadership; during the 1960s his authority was constructed on a foundation of military prowess, but in the wake of the Battle – and coinciding with his increasing physical frailty – he was reborn and rebranded as a "soldado de las ideas" (Castro Ruz, 2008).

Kapcia notes that efforts were also made to integrate older generations of Cubans into the Battle, giving the example of the "televised University for All (Universidad para Todos)" (Kapcia, 2008:83). Emergency training schools launched in 2001 to fill skills gaps, aimed mostly at "social workers (the most prestigious), primary teachers, nurses, cultural instructors (reviving the old model), and a range of other skills... the new alfabetizadores" (Kapcia, 2008:175-176). Since these emergency school graduates had all been promised access to university education after completing their training, it was then necessary to create

local offshoots of universities within *municipios*, in order to meet the new levels of demand (Kapcia, 2008:176). According to a 2007 report by Cuba's Oficina Nacional de Estadística e Información, municipalisation brought into existence some 3150 satellite campuses (Domínguez, 2015:383). Rosi Smith argues that this process of municipalisation was the defining act of the Battle of Ideas, as it provided a vast proportion of the Cuban population with access to previously unreachable higher education (Smith, 2015:235-6). However, when the government realised that it was faced with a flood of new graduates entering a society without the requisite number of jobs to hold them all, they began to reverse the process of municipalisation (Smith, 2015:250). This example illustrates one of Kapcia's main criticisms of the Battle of Ideas: he states that, by 2009, it had become "embarrassingly inefficient and costly" (Kapcia, 2014:175), and that it "almost certainly erred in its scale and impracticality" (Kapcia, 2014:26).

Post-*Batalla* Technology: Learning, Connecting, and Playing

As well as seeking to ideologically re-engage with Cuban youth and bequeath to them a revolution of their own, the Battle of Ideas played a crucial role in the development of new technologies within Cuba. Uxó argues that Cuba's technological culture today, from computer education programmes to the opening of the UCI, is all descended from the Battle of Ideas (Uxó, 2009:126). The founding of the Escuelas Emergentes de Profesores de Computación, announced in August 2001, was part of a wider Battle strategy by the Cuban authorities which aimed to repair and regenerate areas of the Cuban societal structure which were in dire need of trained specialist workers; the aim of this particular *escuela* was to "realise a promised universalisation of computer literacy" (Kapcia, 2005:400-401). Just as was the case with their antecedents, the young *brigadistas* who led the way during the Literacy Campaign in 1961, these *maestros emergentes* were trained to educate the masses in areas which were lacking. In an echo of 1961, modern Cuba is experiencing a reversal of traditional generational roles in the realm of information technology; due in part to the US embargo, Cuba has made a relatively late entrance the global technological stage, and the overwhelming pace of development can seem inaccessible to those who did not grow up alongside it. As such, it is Cuba's youth who are leading the charge in information technology, as society as a whole grapples with its myriad implications and complexities, and the government struggles to find a balance between necessary levels of access and desirable levels of control. The agreed limits and governance of cyberspace have been the subject of much controversy both within Cuba and at a global level, but there is also a clear recognition of the essential role that it has to play in the development of Cuba as a nation,

and even more so as it renegotiates its relationship with the US. It is also of increasing personal importance to many Cubans, who use the network of wi-fi hotspots to contact family and friends who are living and working abroad.

The government has historically professed a desire for the internet to be used as a tool for education and social betterment, rather than as a point of entry for commercial or political interests. If one agrees with the basic tenets of anti-capitalist ways of thinking, and sees free enterprise, capitalism, and consumerism as restrictive to individual thought and freedom, then the idea of government censorship and intervention becomes immeasurably more agreeable, and even appears to be a necessary safeguard. However, whilst conducting business online in Cuba may be frowned upon, access to the internet itself is monetised, and at rates which are so glaringly unaffordable to many Cubans as to suggest intentional restriction of access. Although the price has been lowered in recent years, one hour of internet use at one of the island's ETECSA internet terminals, or via wi-fi, costs 1 CUC in 2019, which is roughly a full day's salary for the average Cuban.[58] Moreover, browsing at these cafes is entirely routed through Nauta, the internal ETECSA server, so that content can be filtered and monitored by the government (Henken and van de Voort, 2015:101). Difficulties in both availability and affordability mean that owning a private computer to use in the home is an impossibility for most Cubans, especially those in more rural areas. Furthermore, until 2017, there were only a small number of professions who were granted permission to have a home internet connection. Although these restrictions have now been lifted and all Cubans are now free to purchase home internet packages, the price remains prohibitively expensive (ETECSA, no date).

These obstacles do mean that computer use in Cuba remains relatively low in global terms, although it is growing rapidly; a 2012 report published by the Oficina Nacional de Estadística e Información stated that 23.2% of Cuba's population has internet access, which by the aforementioned 'developed' nation standards already seems quite low.[59] However, this figure only stands for access to email and to RedCuba, the monitored and censored Cuban intranet, and estimates by Freedom House in the same year suggest that only 5% of

[58] Average monthly salary statistics taken from: Oficina Nacional de Estadística e Información (2018b) and Trading Economics (no date). Salary amounts converted from CUP (Cuban pesos, in which salaries are paid) to CUC (Cuban convertible pesos, which is the currency mostly used by tourists, and for large purchases). It is worth noting that this salary is an average of official salary amounts in Cuba, and in reality many Cubans will subsidise their income through private business enterprises, black market trade, and donations from relatives living abroad.

[59] Additionally, the ONEI estimates that, at a national level, 115 out of every 1000 Cubans owns a personal computer. However, even if this average is correct, it is likely to be far higher in larger metropolitan areas like Havana than in more rural regions (Oficina Nacional de Estadística e Información, 2018a).

the population have 'true' internet access (Henken and van de Voort, 2015:101). This is supported by Uxó, in his 2009 article exploring Cuba's internet usage statistics. This low figure can be explained by a number of factors, and it is important not to leap to the instant conclusion that it is entirely due to censorship or repression on the part of the government, although that is undeniably an important factor to examine.

Whilst the lack of private access outside larger urban centres means that usage statistics are lower than they may otherwise be, enthusiasm amongst young Cubans means that computer culture has made enormous progress over the past decade or so, particularly in regard to computers as tools for leisure. A number of statistics from Linares *et al*'s explorations of cultural consumption in Cuba are particularly telling; despite the fact that they do not have access to computers at home, a significant 49.6% of 12 to 14 year olds nationwide claim to play video games frequently (Linares *et al*, 2010:27-28). Whilst these numbers decrease exponentially with age (amongst those aged 15-20, habitual computer usage is around 32.8%, which steadily falls until reaching 2.4% for those aged 60 and older), today's young people will doubtless carry their habits with them as they age, and the government recognises this. One positive consequence of the public and social nature of Cuban computing is that, unlike in countries such as the US and UK, there is very little opportunity for social isolation for Cuban internet users. Uxó points out that internet access still carries an inherently social identity: "el énfasis se sitúa no en el aumento de conexiones individuales, sino en la conexión a Internet a través de puntos de acceso público, mayormente a través de centros de trabajo y educativos" (Uxó, 2009:128).

The Joven Club and the Birth of Cuban Gaming

To this end, the regional Joven Club centres have a significant part to play in the construction of Cuban identity, and in teaching young people what it means to be Cuban, from the games that they create and distribute to the core values which they espouse as the "computadora de la familia". From its very inception, the Joven Club has been of enormous importance to Cuban youth, especially those in more rural areas for whom access to computers is severely limited. Those in power recognise that, perhaps now more than ever, Cuba's youth will be the ones who carry the ideals of the Revolution out into the world and the future, both online and in person. The wish of the Cuban leadership to provide continuity of revolutionary values in the face of swiftly evolving and drastically different technologies is reflected in their attitude towards video games, and information technology more broadly, within the nation.

Whilst, as discussed above, it was impossible for the government to repeat the successes of the 1961 Literacy Campaign with books, as literacy was now near-universal in Cuba (Kumaraswami and Kapcia, 2015:363), the Battle of Ideas could focus on technological literacy. This strategy was not only replete with potential benefits for the economy and for bringing Cuba in line with global standards in ICT education, but it also responded to the existing demands and interests of Cuban youth at the time. Thanks, in part, to the efforts of the fledgling Joven Club network, younger generations of Cubans had long been cultivating an ardent but – on the whole, with the exception of the then-diminishing numbers of university graduates (Domínguez, 2015:382) – amateur interest in computing, drawn in by its revolutionary potential to allow advances in communication, creativity, and, of course, gaming. This renewed emphasis on information technology is clearly seen not only by the introduction of computer science as a standard in the school curriculum, but also by the physical presence of computers in all schools (Domínguez, 2015:383). The Joven Club itself underwent a period of rapid expansion in order to "help provide a computer culture to the community", with the years 2000-2005 seeing an annual increase of 82 centres per year (Domínguez, 2015:383-4).

Central to this expansion has been the popularity of video games, which provide the greatest attraction for many of the young people who frequent the centres. The Joven Club identifies 2005 as the year during which the videogaming industry in Cuba was born, with the launch of some of the first Cuban-made games (most notably the *A Jugar* (2005) collection for younger children) (Joven Club de Computación y Electrónica, 2017), although there were imported games available from much earlier on, through both official and unofficial channels. Video games became the first way in which the centres sought to draw a profit from their clientele, as a charge of 1 CUP per hour was levied on time spent using the computers for gaming.[60] The increasing prominence of computing, and, therefore, of gaming, owes a debt of gratitude to Cuba's unwavering emphasis on the importance of education, and, as we shall explore more fully in the next chapter, an emphasis on educational values still shines through in attitudes towards both the play and production of games on the island. The Joven Club's online gaming platform, *Ludox*,[61] has as its slogan "Divertirse es aprender" (Domínguez, 2017). Castro spoke emphatically about the need to move away from global trends towards violent video games, and instead focus on the production of more didactically inclined products:

[60] The centres now charge for most of their services (Joven Club de Computación y Electrónica, 2017a).

[61] Only accessible via the Cuban intranet.

> "Ya explicamos el otro día lo que estábamos haciendo en computación, ese es un largo tema; pero entramos en la era de la computación y la enseñanza generalizada de la computación a 2 400 000 estudiantes, incluido primaria y preescolar, a los que, según se sabe, se les debe enseñar, incluyendo juegos instructivos y no simplemente juegos de violencia que se venden como productos comerciales; serán programas seleccionados, recreativos, educativos" (Castro Ruz, 2012b)

The enforcement of this ethos has not been left to chance; since computing and gaming, like the rest of Cuban media, fall under a unified communications policy, "they have clear guidelines for cultural and educational functions, supporting the set of values that they seek to support" (Domínguez, 2015:385). In other words, Cuban gaming has traditionally fallen under communications, rather than culture, but it must be noted that the most recent annual report from the Oficina Nacional de Estadística e Información places the Joven Club within its 'Culture' report, as well as within the section pertaining to ICT (Oficina Nacional de Estadística e Información, 2017; 2017a).

Whilst games produced in Cuba are still not sold to the public, the authorities are keen that they should be marketable, and have mass appeal throughout the island. However, in order to raise money for their efforts, a growing number of developers, both within and without the government, are offering their software-design services to foreign companies and government groups, usually from other Latin American countries such as Mexico. Cuba's games are also helping to forge international links through participation in game design events such as Global Game Jam, and the island's competitive gaming league, ADEC, encourages young Cubans to see video gaming as a sport.

The State of Play

All that we have discussed so far, from questions of reality and representation, to the use of gaming in a social sense, has been studied on a global scale, but it is also vital to consider works which have a specific focus on the Hispanic world. Phillip Penix-Tadsen's comprehensive volume on video gaming practices in Latin America (2016) examines the mutual reliance between games and culture (how they 'use' one another), with a particular focus on the representation of Latin America on the global gaming stage. Throughout this chapter and the previous ones, we have briefly touched upon a few aspects of Cuba's relationship with video games, and of its place in the global video gaming context;

similarly, since the Joven Club began producing its own games, Cuba has been increasingly concerned with the role which video games will play within Cuban society. Looking to the future, there is a plethora of questions to be resolved surrounding the impact which gaming and new technologies will have on Cuba's artistic and cultural terrain, and how, in turn, Cuba might contribute to innovation and development within the field. Already, *World of Warcraft* has become one of the most popular games played on the island, and has altered the ways in which young Cubans experience their nation, making it more accessible and allowing them the freedom to explore other worlds beyond their own. It is interesting to note that, in its initial (2015) incarnation, it also breaks with conventional gaming definitions; Filiciak defines MMORPGs as "any computer network-mediated games in which at least one thousand players are role-playing simultaneously in a graphical environment" (Filiciak, 2003:87). This would have automatically excluded Cuba's *World of Warcraft* network when it began, which, at its peak capacity, was generally only capable of playing host to a maximum of 500 players before the servers reached breaking point.

Given that its relationship with global gaming is fraught with such basic frustrations as this, it is important that the issue of Cuba's representation on the international gaming stage be addressed. There has yet to be a portrayal of the nation which does not rely on stereotypes, or frame it as an aging Communist dictatorship; in *Tom Clancy*, Montes speaks of "the absolute negation of a viable Cuban population", and the fact that the game presents the player with nothing more than "a simulacrum of Cuba" (Montes, 2007:163). In this game, "the event space in question is only tangentially the island of Cuba. Cuba just happens to be the "political hotspot" selected for this particular series of campaigns" (Montes, 2007:161); rather, the real focus of the game is the heroism of the US military personnel, and whilst it is useful to have a familiar political pariah as the target, the setting is, up to a point, immaterial. The Cuban landscape is made to work for the US troops, and the general population are barely featured at all. Montes notes that during one stage of the game, set in urban Cienfuegos, there are no ordinary citizens to be seen, and only a few palm trees and vintage cars which "serve as icons of geography in some sort of tropical shorthand"; these images, argues Montes, "reify the hero-enemy dichotomy central to the game's dominant narrative" (Montes, 2007:160). Whilst the Cuban game *Gesta Final* has been described as propagandist, it is at least based on historical events, attempting Cooke and Hubbell's aforementioned "historical realism"; Tom Clancy is set in a fictional future, so if *Gesta Final* is propagandist, then Tom Clancy is an incitement to war. Montes seems particularly upset by this fictionalised conflict: "this particular game disrupts claims that transport to elaborate virtual worlds is always enjoyable by focusing on what occurs when a Cuban-American is transformed into a US soldier engaging in squad-based jungle warfare

in a mythical future Cuba" (Montes, 2007:154-155). In a number of games, such as *Tom Clancy's Ghost Recon: Thunder Island*, *Tropico 3* (2009), and *Call of Duty: Black Ops* the US seems to be deliriously hanging on to a fantasy of victory over Cuba, reworking the battle for its political soul in an increasingly tired and comical series of military scenarios. However, as we shall go on to explore, Cuba is fighting to build the historical video game narrative on its own terms.

Gaming, particularly within the context of the Joven Club, has played a central role in the development of Cuban IT, particularly in recent years; even the aforementioned SNET in Havana owes its existence to LAN gaming networks. At the time of writing, it is impossible to accurately predict the direction of even the immediate future of the medium within Cuba, but this will be further discussed in the next chapter. There can be no question that Cuba is experiencing what Kapcia terms "creeping capitalism" (Kapcia, 2005:400), but the adoption of new systems does not necessitate the elimination of old ones, and the renewed emphasis on the importance of Cuba's heritage and myths must surely have a central role. Alonso González relates the tale of a man in Camagüey in 2015, who managed to topple a patriotic monument whilst climbing it in search of a stronger Wi-Fi signal. He maintains: "what lurked behind the event was the growing disconnection between official heritage discourse and the needs and interests of Cubans" (2018:267). However, Alonso González is optimistic, as he remains certain that Cuba's current state is one of construction, rather than the US narrative of a dictatorship in decline; he states that Cuba is in the process of "trying to turn towards identity, drawing on culture for the understanding and forging of a historic memory" (Alonso González, 2014:4), and gaming has a role to play within and alongside this process. Miller suggests that, for the Cuban government, placing value on the local is essential to appropriately appreciating the global, and that in order to have a strong sense of your place in the world, you must first obtain a clear image of your own identity (Miller, 2008:686). This is precisely the course which Cuba is currently attempting to negotiate, and it has a wide array of paths to choose from; Casacó speculates about one possibility: "Most software products for the office, home, and educational sector in Latin America are currently produced in English. Should Cuba develop a variety of Spanish application software packages, it may obtain a significant advantage" (Casacó, 2004:179).

In this chapter, we have thoroughly demonstrated the unique nature of Cuba's position in the world of gaming. We have seen how video games are being approached as an educational tool within Cuba, and how Cuban computing more generally has been harnessed to express a continuation of traditional cultural values within the nation. This has

been achieved, in part, by the revival and repositioning of myth for the digital age, such as during the Battle of Ideas. In addition, the crisis of the Special Period forced Cuba to explore and embrace innovative cultural structures, and to adopt a decentred, rhizomic approach, mirroring the modern technological structures which we examined earlier. Gaming in Cuba continues to embrace this decentred approach; gaming is usually discussed in a global context, with international competitions and world-famous titles taking up the majority of contemporary gaming coverage. However, in Cuba, gaming is, in many ways, a hyper-local activity which privileges connection to local and national identity. In order to demonstrate this, the final chapter will draw on all that has been discussed so far, and attempt to answer our original questions: what, if anything, do gaming and Cuba have to contribute to one another, and how can each disrupt our existing perceptions of the other?

Chapter 5

> "Me pregunto, ¿por qué Granma? Y también me justifico, 'bueno, Granma porque no es una de las provincias que sean más sobresalientes y que tenga grandes resultados, pero sí tiene una cultura especial'" [Rodríguez Jiménez, 2017: 30:12]

Having explored in great detail the theoretical and historical context of video gaming within Cuba, the time has now come to examine how this applies to the lives of contemporary Cuban citzens, and their relationship with local, national, and personal myth. The questions posed in my introduction were threefold: what might video gaming have to offer Cuba? In return, what contribution might Cuba make to the emerging field of video game studies? Finally, how might video gaming in the Cuban context contribute to our understanding of the relationship between video games and the construction, experience, and propagation of myth?

As discussed in the introduction to this thesis, the research for this chapter was conducted by a mixture of archival work and semi-structured qualitative interviews, both recorded and not. The principal challenge to overcome during the course of this research was the often slightly paranoid bureaucracy which surrounds many formal institutions within Cuba. Of course, given what we know about how Cuba has traditionally been treated by the US and others, it is perhaps not surprising that they might be suspicious of foreign researchers, particularly when that research touches on subjects relating to technology. For this reason, it was decided that this thesis would not risk relying on interviews to form a hard evidence base; rather, the interviews contained within this chapter provide illustrative support to theories which were born out by observation, archival research, and other reading.

All participants signed a form of consent and were read an information sheet (Appendices I and II), which were available in both English and Spanish. The participants were almost all happy to be fully identified throughout this chapter, but there are occasions where I have attributed some potentially controversial statements to 'Anon'. This has been done out of an abundance of caution, in order to ensure that the people who so generously participated in my fieldwork research will not be at risk of suffering any negative consequences. The interviews were conducted in an open, semi-structured manner, so as to allow the participants to freely express their views, and to speak on the topics which most interested them, or about which they had the greatest expertise. There were generally a

small number of pre-prepared questions, but as the interviews went on, I found these to be decreasingly relevant or necessary except as an aid to spark a longer discussion.

Granma was initially suggested as a site of research due to the larger *Beyond Havana* project to which this thesis is linked. However, it swiftly became abundantly clear that there were a host of reasons which would make Granma a particularly suitable site of study for this topic, all of which will be explored anon. This chapter will trace the evolution of Granma's relationship with myth and new technologies in its local cultural landscape, starting with the most 'analogue' (theatre), and finishing with video games. To begin this chapter, however, it is first necessary to provide some contextual and historical illustrations of life in contemporary Granma.

Granma: A Brief History

The creation of Granma as a province on July 3rd 1976 came about alongside wide-reaching national reforms in the wake of the *quinquenio gris*; a new constitution was announced, formally establishing elections for the appointment of government officials in the provinces and *municipios*. In order to maximise a sense of local representation, the nation's six provinces were split into fourteen new ones, with 169 municipalities across them (Pérez Jr, 2011:267; Cantón Navarro and Duarte Hurtado, 2006:268). Amongst Cuba's "four geographical subregions", Oriente, of which modern Granma forms a part, enjoys the most diversity in its economy (Pérez Jr, 2011:7). As the hilliest region in Cuba (Pérez Jr, 2011:7), Oriente was a major focus of the 1987 *Programa de Desarrollo de la Montaña* – more commonly and colloquially known as the *Plan Turquino* – which aimed to stimulate development and economic growth in Cuba's mountain ranges. However, contemporary economic activity in the region is primarily linked to mining and agriculture; Granma enjoys relatively little success with regards to tourism, which as of 2016 constituted almost 10% of Cuba's total GDP (World Travel & Tourism Council, 2017), and salaries remain comparatively low. The average monthly salary in Granma in 2017 was 677 CUP; this is significantly lower than the national average of 767 CUP, and even further behind the nation's highest-earning province, Havana, which stands at 848 CUP per month (Oficina Nacional de Estadística e Información (2018b). Granma is one of the most rural provinces in Cuba, and unique in its experience in a number of ways: situated almost as far from Havana as it is possible to be without leaving the island; lacking the tourism enjoyed by neighbouring Santiago de Cuba (the majority of the tour buses which do pass through Granma's capital, Bayamo, are using it as a pit-stop on their way to the Sierra Maestra);

never appearing in the global media like nearby Guantánamo. Yet, if we were to create a broad timeline of Cuba's history, then the area which is now known as Granma, and which was once part of Oriente, would appear time and again; as Castro wondered in 1982, at the inauguration of Bayamo's Plaza de la Patria: "¿Cómo escribir la historia de Cuba sin escribir la historia de Granma?" (cited in Leyva Paneque, 2017).

Alongside education, technology of one kind and another – whether in agriculture, medicine, or computing – has been a central focus of the revolutionary government since at least the mid-1960s. Hand in hand with the more conspicuous "greater political attention paid to the peasant" (Kapcia, 2008:53), these areas have all had a greater impact on rural Cubans than those in the urban centres. However, despite these efforts, places like Granma are in the grip of a migration crisis; as many residents, particularly the youth, are frustrated in their economic efforts by the limited resources in their local environment, they are being drawn to Havana and abroad in search of other opportunities. Domínguez notes the "digital gap" which separates Havana from almost everywhere else on the island, referring to the ease (or otherwise) with which young Cubans can access ICT hardware (2015:385). However, it should be noted that, even in the three short years since his observation, mobile phone and home computer ownership have both seen a dramatic rise, even outside Havana, and the provision of computers for public use, such as at the Joven Club centres, has also increased.

The previous chapter explored the recent developments in Cuba's modern tech culture, and looked at how, on a national level, organisations such as the Joven Club and ADEC, alongside events such as Global Game Jam, have ensured that video games are a prominent and crucial element of this development. Before beginning to explore their place within Granma, it is necessary to first examine some of the problems and challenges with which Cuban developers and enthusiasts are faced.

Gaming in Cuba: Academic Approaches, and Lack Thereof

When learning about and exploring any new topic or discipline, one of the first resources to which most people turn is the written word. We seek articles, books, and how-to guides which have been penned by our more experienced predecessors. The same is true of game developers in Cuba; however, in this area, they are faced with a lack of resources. The team at EVIMA, the video game department at Havana's central Joven Club, are currently designing their own course in order to attempt to bring some of the theoretical principles

of game design, such as aesthetic aspects, story design, and marketability, into their products, but they acknowledge that they are "aprendiendo sobre la marcha" [Wong Iglesias, 2016: 01:28], and that they are hindered by a lack of reliable resources. The ideal situation might be to have academic writing produced specifically within and for the context of Cuba itself, but many game designers and ICT professionals would be happy to work with more generalised and globalised sources. Indeed, during the "Juegos y Juguetes" conference (22-24 May 2017), at which some of the theoretical framework for this thesis was discussed, the majority of academic sources being cited were European and North American (Huizinga, 1949; Caillois, 2001 etc.).

The little which has been written about gaming within Cuba (both by Cubans and foreign academics) can be categorised in one of the following ways: foreign writers mentioning portrayals of Cuba within games produced elsewhere (Montes, 2007); more technically-focused papers which explore the mechanics of game design (Hernández and Pérez, 2017; Hernández *et al*, 2017), or gaming as a tool for medical rehabilitation (Correa *et al*, 2014); and a few (mostly unpublished) BA and MA theses (González Pérez, 2015). Beyond this, discussion of gaming on the island is limited to blog posts and magazine features (Guevara, 2015), but very rarely with any discussion of the positive role that video games might play in contemporary culture and society, or any analysis of their content beyond its educational merits. Even Penix-Tadsen's broad and brilliant study of Latin-American gaming dedicates only a few pages to Cuba, and these focus almost entirely on *Gesta Final*.

The dearth of Cuban sources on video games brings to our attention a significant issue within the world of information technology, and one which was touched upon in Chapter 2 in relation to the post-colonial nature of new technologies: language. The vast majority of academic writing surrounding video games, and even more of casual journalism and blogging, is produced in English, and this, combined with the practical difficulties (journal subscription fees, erratic internet access, etc.) surrounding access to online and offline sources means that Cuba is suffering from a severe shortage where writing about all aspects of video games is concerned. The pervasiveness of English as the language of gaming is being most forcefully challenged by EVIMA. One game developer who was interviewed told me that, when he received feedback on his game from EVIMA's quality control department, the only amendments that they made were to change common English terms to Spanish words: for example, 'password' became '*clave*' [Leyva Hernández, 2017]. It is a small detail, but is indicative of a wider attitude towards the preservation and reclamation of a strong sense of national and regional identity in all areas of culture, and a reluctance on the part of the government to accept the anglicised global status quo.

One possible reason for the lack of more formal scholarship on video games in Cuba is that they have not been taken seriously as a cultural form, as was the case for so long in the rest of the world (and, to a certain extent, still is). However, researchers at all levels are beginning to accept the inevitability of the encroachment of video games upon both the academic and non-academic cultural spheres, and many embrace both their cultural significance and the potential for research which they provide. One of the first publications to deal regularly with video games was *Tino*,[62] the official magazine of the Joven Club, which is published online (67 issues as of summer 2019) and can be accessed for free at all Joven Club centres via the *Mi Mochila* initiative, the Joven Club's response to the *paquete semanal*. *Cubadebate* have published a number of articles on video games and software in recent years, mostly via their tech-focused branch, *Canal USB*, and in early May there was a televised two-part *Mesa Redonda* debate on the role and importance of software in Cuban society. It is intriguing to note that, whilst video games do indeed technically fall under the category of software, the global standard is not to refer to them as such. In Cuba, however, the tendency seems to be quite the opposite. One reason for this may be in order to lend a certain gravitas to the work of developers, and therefore allow them to bring their work to a wider audience; an 'educational software developer' might be taken more seriously than somebody who produces video games, and their products might also find wider acceptance amongst parents, teachers, and within government bodies.

A Brace of *bloqueos*

Perhaps the most significant barrier to the development of technology, and within that, video games, is what was termed by Albio Figueredo, the resident IT support at Televisión Serrana, "el doble bloqueo" [Figueredo (2), 2017: 07:31]. The first of these is the US embargo, which has wrought havoc on the island's economy since it was brought into full force in the early 1960s. Besides the fact that this has made the purchase of US computing products close to impossible, limited funds have meant that the island's infrastructure, above all in Granma, has not traditionally allowed for much in the way of the advancement and development of new technologies. There may be a USB swinging from a lanyard around nearly every neck,[63] but outside Havana home computer ownership is extremely low, although rising steadily. Mobile phones, however, are far more easily obtained, which

[62] Named for the aforementioned mascot.
[63] To paraphrase Gil Scott-Heron: The Revolution will not be streamed, because the connection is too slow. The Revolution will be passed around on USB.

has led to the increased focus in the development of mobile-compatible software and games.[64]

The second *bloqueo* to which the above quotation refers is Cuba's complex, at times indecipherable bureaucratic entanglements, which can present as much of a barrier to technological development as does the US embargo. He gives a number of examples; he applied to set up an FTP server, so that he and his friends could connect their computers and share files. Just as with Havana's infamous SNet, this would not involve internet access, but simply the ability to send information without the need to physically transfer files via a USB. He first sought permission for this server two years ago, and is still awaiting a final response. He is similarly frustrated by the seeming lack of any clear, common-sense rules where some areas of technology are concerned; "te permiten importar un terminal Wifi… pero si vas a importar un router Wifi ya has llegado" [Figueredo (2), 2017: 9:13].[65] This absence of clarity, combined with astonishingly high prices for much hardware and software, has led to a flourishing black market on the island. Many Cubans who leave to undertake a medical *misión* abroad, or who have international business connections, will import products and sell them at home; when asked to present paperwork for their purchases, the response will be "me lo trajo mi tía, me lo trajo fulano" [Figueredo (2), 2017: 11:48]. Figueredo thinks that this excessively cautious attitude towards technology can be attributed to the inheritance of attitudes during darker periods of Cuban history, such as the *quinquenio gris*, as well as to outside attempts to destabilise Cuba through modern technological means (see particularly the *ZunZuneo* debacle, and the jailing of USAID contractor Alan Gross) (Trotta, 2014; Gilsinan, 2016; Chiacu, 2014). The internet and communication technologies are something of which many governments around the world have been wary, and indeed, continue to be so to this day; in Cuba, "conectarse a internet era casi mala palabra hace un tiempo" [Figueredo (2), 2017: 10:19], as it was often considered to be a suspicious activity with almost universally subversive intentions. In reality, most people want to connect to the internet for the most mundane activities, such as searching for football results or downloading a Shakira desktop background.

Partly as an effort to identify and act upon any seriously threatening online activities, and partly due, again, to a lack of resources, there has traditionally been a significant centralisation of Cuban technology, where information, training, and the best hardware are

[64] According to the most recently available *Oficina Nacional de Estadística e Información* report, personal computers are owned in Cuba at a rate of 103 per 1000 inhabitants, whilst mobile phone ownership is a little over 1 in 3 (Oficina Nacional de Estadística e Información, 2017).
[65] The Ministerio de Comunicaciones passed two resolutions in May 2019 which finally legalised private routers and wi-fi networks (Ministerio de Comunicaciones, 2019).

all channelled to Havana. As the next section explores, this has been an issue for many other areas of culture within Cuba, but there are a number of striking examples from within Granma of groups and individuals who are successfully resisting this centralised model.

Culture in Motion: Teatro Andante

> "Andante surge como un proyecto docente… que tenía la intención de llevar los procesos teatrales al seno de la comunidad, producir con los estudiantes allí en la comunidad una investigación sociocultural que descubriera las problemáticas socioeconómicas, políticas, y culturales de la comunidad" [González Fiffe, 2016: 1:06]

One organisation which has taken great strides towards attempting to disrupt the cultural structure of centre (Havana) and periphery (everywhere else, but particularly Granma) are the province's travelling theatre groups such as Teatro Andante and Guerrilla de Teatreros. Whilst, as is sadly so often the case, a lack of resources mean that their activities are now confined to the summer months, both groups still conduct regular tours around the province, mainly targeting the more remote areas of the Sierra Maestra. They will often work collaboratively with the communities which they visit in order to create a show which is as relevant and relatable as possible to its inhabitants, and their costumes and props will, to a large extent, be improvised using the materials available to them on location. What makes Andante and the Guerrilla even more interesting, and perhaps goes some way towards explaining their minimal, improvisational ethos, is the timing of their creation: Andante was officially founded following a nationwide restructuring of the *artes escénicas* in 1991, at the height of the Special Period, with the Guerrilla forming as an offshoot shortly afterwards. Due to the extreme privations in Cuba at that time, particularly in rural areas, Andante had to work hard to source props and costumes for their shows, and they would often cobble together items from flora and fauna found en route. Juan González Fiffe[66] states: "vamos creando una estética muy pobre en cuanto a lo material, pero muy rica en cuanto a lo ritual y a su relación con el público… en el momento en el que todo estaba muerto Andante surge con una nueva estética que lo permite existir" [González Fiffe, 2016: 39:23]. He asserts that Andante's style and ethos were not only innovative and necessary during the Special Period, but also stood in stark contrast to the groups which had existed

[66] Universally – and extremely affectionately – known as Fiffe. One of the founders of Andante, and its current director.

during the 1980s, which, he thinks, still carried a significant Soviet influence in their aesthetic.

An interesting aspect of both Andante and the Guerrilla, and, again, something which is most likely a product of necessity more than anything else, is the constant flow and exchange of materials, musicians, and actors between them. It is rare to find a member of either company who has not worked with the other at some stage, and they continue to work collaboratively with other groups such as the Casa de Cultura, Teatro Alas d'Cuba, the Asociación Hermanos Saíz, and many others. When there is not a great deal to be shared around – either materially, or, thanks to extensive migration towards Havana and elsewhere, in terms of human capital – a collaborative, flexible, communal cultural model, one which is resonant of Deleuze and Guattari's rhizome, is essential to the survival and prosperity of all those within the community. The problem of a drain of human talent is a significant one for Granma, and presents itself as an impossible cycle; the lack of opportunities and resources leads many younger creatives to leave in search of success elsewhere, and the resulting dearth of talent leads to the stagnation of cultural activity. That is not to say that Granma is devoid of enthusiasm and talent in cultural terms, but artistic migration and lack of resources have both had a tangible effect on cultural activity within the province. Whilst groups like Andante still benefit from a range of excellent young talent, those who have the chance do often leave for Havana, and the shows which are produced there, despite having actors and crew members from across the entire country, are made for a Havana audience. Fiffe lays at least some of the blame for this phenomenon squarely on the centralisation of government and the concentration of power in "la gran urbe" [González Fiffe, 2016], which he says has done Granma, and the rest of the nation, tremendous amounts of damage over the years.

In 2016, Andante were working on a production called *Cucuyo*, which tells the story of a glow worm who finds himself suddenly unemployed when electricity reaches his area of the countryside. During the course of the show, we see him lose his light, and therefore his identity, before finally regaining it in a raucous musical finale. As well as containing a strong message surrounding remaining faithful to one's identity, which is a commonly recurring theme in many of Andante's previous productions, *Cucuyo* addresses pertinent contemporary concerns surrounding the potentially deleterious effects of modernisation, new technologies, and the influx of culture from abroad; Fiffe in particular was extremely concerned about "esa avalancha que nos viene encima… ese reguetón que nos asesina" [González Fiffe, 2016: 11:04]. Indeed, during our conversations, his language was consistently peppered with almost militaristic language concerning the need to defend

culture and identity from foreign erosion and outright attack, something which Fiffe recognises and identifies as a pivotal aspect of Cuban identity: "Para el cubano la palabra 'lucha' ha adquirido una dimensión excepcional, todos estamos en la lucha, luchamos por todo, tenemos que luchar por todo" [González Fiffe, 2016: 26:17]. However, Fiffe was hopeful that Cuba's capacity for creativity would lead to the blossoming of high quality Cuban *reguetón*. He is also wary of being overly protective of traditional culture: "nuestro temor [es], que por sobreproteger tanto algo cometemos el error de anquilosarlo, de paralizarlo" [González Fiffe, 2016: 19:33]. He speaks, instead, of culture as a living, breathing being, and paraphrases Castro when he calls it "nuestra única arma" [González Fiffe, 2016: 20:44]. By contrast, Televisión Serrana's Albio Figueredo worries that Cuban production is simply unable to compete with what international sources have to offer; "el ICRT tampoco tiene las cámaras [etc]… para tú difundir tu realidad" [Figueredo (2), 2017: 20:27], so young Cubans are embracing the global mainstream instead, and making their online worlds into their own *realidad*.

Televisión Serrana

The story of Andante highlights the ways in which the hardships of the Special Period may have negatively impacted the potential for movement of many *granmenses*. However, the sudden lack of centralised funding and support also inspired a nationwide transition towards more locally driven development. Out of this was born Televisión Serrana, a group of film-makers in the *granmense* Sierra Maestra town of San Pablo de Yao. This small team of fewer than 30 people, who live and work in San Pablo de Yao year-round, has been producing short documentary films since their foundation in 1993. The films are usually between 15 and 20 minutes long, and all are focused on any number of local people, legends, problems, and traditional cultural practices. Televisión Serrana's films are all striking for their almost non-existent narration, giving their subjects the highest possible level of *protagonismo* and control over their own stories, and allowing the films to speak for themselves, in the most literal sense.

Figueredo, the aforementioned devoted disciple of all things pertaining to ICT, was an invaluable source of knowledge about the technical challenges faced by Televisión Serrana, and the ways in which Granma's technological landscape has changed during his lifetime. Born in 1982, Figueredo became fascinated by computers long before attending university, but that was where his passion truly took hold. Due to the limited amount of time during which they had access to computers, he and his classmates would rise at the crack of dawn

and arrive at their classes exhausted; "dormíamos de día, y nos despertábamos de noche. Estábamos tipo lechuza" [Figueredo, 2017: 1:12]. When the time came to settle on a topic for his thesis, Figueredo recalls, he was puzzled by what he saw in the work of his colleagues:

> "En educación se veía, y se ve todavía, una cosa que se criticó en la parte de los informáticos, y era de que casi todas las tesis de todo el mundo… casi todos los informáticos lo que hacían era las tesis de informática orientada a… la formación de valores… ¿por qué tú no haces algo técnico, algo práctico, algo más manoseable?" [Figueredo, 2017: 2:04]

Whilst Figueredo's frustration is understandable, his experience also provides us with a telling illustration of Cuba's historical attitude towards technology, and perhaps provides some insight into why culture and technology remain so tightly intertwined in Cuba today. Whilst it is possible that these attitudes may have occasioned some degree of negative impact on the pace and diversity of Cuba's technological development, it must surely also have been of great benefit to ensure that ICT graduates were not merely well versed in strictly technical matters, but were also encouraged to consider the wider social and cultural influence and potential of computing.

The impact of the arrival of computers, particularly in more rural parts of Cuba, should not be underestimated, as Figueredo explains: "Ni la Wifi… tuvo tanto impacto como aquello, porque de la nada de no haber nada… surgió la computadora" [Figueredo, 2017: 16:03]. He remembers that in Bueycito, the town in which he grew up, they were initially given two computers to service around 100 students, and the school was suddenly the most popular place in the community.[67] Around that time, he says, the *informáticos* were like superheroes, magicians who had the power to control these astonishing new objects. It is not too great a leap to compare them to the *alfabetizadores* of the Literacy Campaign, only this time they were, and are, engaged in spreading technological literacy. They were the protagonists of a drive towards a new type of literacy, and acted almost as the folk heroes of the new myths which technology was creating. Today, *informáticos* are still pivotal members of any community, and act as conduits of new information, handymen, and 'dealers' in software, parts, and media. Every individual who owns a computer in a rural area will be familiar with all the others, and this informal network facilitates the steady spread of information in areas in which internet access is still problematic. Today,

[67] To get an idea of the impact of 'first contact' with computers, see the Televisión Serrana documentary *Había Una Vez* (2002).

computers can be found almost everywhere in Cuba, even in some of the most isolated rural communities; the community of La Estrella in the municipality of Buey Arriba, which barely has a mobile phone signal, is serviced by a single bus which runs once per day between La Estrella and its neighbouring communities to the town of Buey Arriba. It has a tiny Joven Club centre, known as the 'Aula Anexa', which is furnished with three computers with broadband internet access, as well as a handful of laptops and tablets. As of January 2019, the Aula Anexa had also begun to rent out mobile phones at a cost of 2 CUP per hour (Valdespino Tamayo, 2019).

Figueredo spoke of his passion for Granma's culture of improvised technology and 'Frankenstein' computers brought about by the extreme shortages in both money and available technology; one startling example he gave was that, rather than undertake an exhausting and expensive search for thermal cooling paste for their computers, a friend of his concocted a witches' brew of toothpaste and cooking oil which worked marvellously. This inventiveness, born of necessity, has been well documented in other areas of Cuban life, but it is particularly impressive when applied to an area as ostensibly complex and delicate as ICT. Whilst many people in other nations might see technology as transitory and disposable, the majority of Cubans simply cannot afford to discard a malfunctioning device. Not only does this mean a reduction in waste, it also leads to an increased understanding of how these devices actually work at a basic level. If your phone breaks, then the first step towards fixing it is to understand how it functions, identify the issue, and then, if no spare parts are available, perhaps dream up a suitable replacement along the lines of Figueredo's toothpaste potion; of the Special Period, Figueredo admitted that "por todo el horrible que era… había que tener imaginación" [Figueredo, 2017: 09:04]. As did so many people with whom I spoke, Figueredo lamented the vast waste of this enormous latent talent where Cuban technology is concerned: "hay una potencialidad increíble en la calle" [Figueredo (2), 2017: 4:51], but without the resources or opportunities to make use of their abilities, many of the most talented technological minds abandon Cuba to seek work in Mexico, Venezuela, and elsewhere. There are, however, limitations to the power of Cuban inventiveness, and these emerge most saliently in video games; where an enterprising teenager might have been able to play a pirated copy of *Call of Duty* on a rusty old machine in the past, many internationally produced games now have very specific and stringent requirements for the operating system, graphics card, and RAM.

This manner of frustration is one of many reasons that the Cuban government, and many of its people, express a desire for Cuba to be a technologically self-sufficient nation, but there is a recognition that Cuba's economic situation, in particular the US embargo, does

not currently allow for that to be the case. On this topic, Figueredo raised a concern that has been voiced by countless others. Most of the software which Cuba uses is made in the US, but with the embargo in place, purchasing it legally has not been an option; however, should the embargo be lifted, Cuba will suddenly be left with an impossible bill to pay. The majority of Cuba's video games, including all of those published by EVIMA, have been developed using a pirated version of the US game engine Unity, so the spectre of potential litigation would loom large for Cuban gaming in any post-embargo future. Perhaps partly for this reason, the government has ensured that all of their main national servers are run using free software such as Linux (on which, incidentally, Figueredo wrote his thesis) or Ubuntu, which have long been the operating systems of choice in many developing nations.

The problems which he raises, and those faced by Televisión Serrana, are typical of those faced elsewhere in Granma, and through its work, Televisión Serrana is battling to bring resources and attention to the entire province, but particularly to the more impoverished, inaccessible, and overlooked areas of the Sierra Maestra. In this field, it has achieved remarkable success. In a similar fashion to the way in which the efforts of the Joven Club in Caney – a small but significant town which we shall examine in more detail anon – have enabled technological advancement for the community, Televisión Serrana has been responsible for a range of improvements over the course of its lifetime. As well as providing a steady source of work for the residents of San Pablo de Yao, Daniel Diez Castillo, one of the co-founders of Televisión Serrana, was personally responsible for persuading the government to install a direct internet connection in the town before much of the rest of Granma, and a number of documentaries made by the group are purportedly directly responsible for prompting the government to improve funding for individual towns and projects. A very effective example of this is *La Cuchufleta* (2006), which documents one man's efforts to power his neighbourhood using a makeshift water turbine. As a result of the publicity following the documentary, the man was granted a salary by the government to improve and maintain the turbine year-round. Due to the relatively high number of visitors which Televisión Serrana receives each year, the infrastructure of the roads leading to San Pablo de Yao has also vastly improved, allowing for easier travel between it and the surrounding towns. However, Televisión Serrana's efforts and skills in promoting networks and connections are not limited to their immediate environment.

Technologies of Local Development

> "El mundo va por un lado, San Pablo de Yao va por otro" [Rodríguez Jiménez, 2017:18:22]

In late 2016, Televisión Serrana produced a 23-minute documentary called *La Última Frontera*, which tells the story of a small mountain community, El Manguito, on the border between the provinces of Granma and Santiago de Cuba. Kenia Rodríguez Jiménez, one of the principal editors at Televisión Serrana, whose husband Luis Guevara Polanco is also one of the chief cameramen and directors, explained that the town depicted could almost be a synecdoche for the rural Oriente region. The town has limited transport and electricity, is extremely isolated, and, as she explained when discussing the title, "son los últimos en varias cosas" [Rodríguez Jiménez, 2017: 6:50]. This sense of isolation and separation is a common theme throughout the province; *granmenses* make frequent reference to the *fatalismo geográfico* which frustrates their contemporary lives, and often seems to act as the primary limiting factor to a whole range of cultural and infrastructural development opportunities. *La Última Frontera* is a perfect example of the way in which Televisión Serrana works to bring the quotidian realities of rural Granma to the fore on the national – and occasionally international – stage. Televisión Serrana has enjoyed remarkable and significant success in this regard, and they now regularly host groups of film-makers, students, and charity workers who are all keen to learn about their methods and ethos. Those who visit are usually long-time fans, artists with their own questions and concerns about the changing nature of Cuba and the world. Paradoxically, one of the reasons for which Televisión Serrana's films have gained such international acclaim is the hyper-local nature of their subjects. Last year, Televisión Serrana collaborated with Montpellier Cuba Solidarité to produce two films in tandem.

Café Divino and *Raíces* (2016) guide us through the processes of a French vineyard and a Cuban *cafetal*, from their respective grapes and berries to the final drink, interwoven with interviews with those people whose lives are inextricably linked to the land that they cultivate. These films both highlight the global relevance of small, local practices. Not only do both wine and coffee have international appeal, but the making of the documentaries themselves relied on a transatlantic network which connects rural Granma directly to the French countryside. Like finds like, they connect, and focus on the common threads which bind them, entirely ignoring and bypassing the clamouring metropolises of Paris and Havana.[68] Rodríguez Jiménez reports that many people have expressed surprise that

[68] For similar works, see also the *videocartas* from 1994 onwards, a series of short films in which children from San Pablo de Yao and the surrounding areas exchanged video diaries with children from Seville and the Dominican Republic

Televisión Serrana can still find new topics after 25 years and over 600 films, and she admits that she herself is not entirely sure what it is that makes Granma so rich in subject matter, but that it may have something to do with the exceptional natural setting. San Pablo de Yao is representative of the wider Sierra Maestra, built on the side of a small hill, with Televisión Serrana at the top, watching over the residents, and the entire town is tranquil and verdant. She speaks particularly of the quality of the air, in both literal and abstract terms; she speaks of this area as "los pulmones de la tierra, de la sociedad, de la cultura" [Rodríguez Jiménez, 2017: 33:28]. Many of their visitors express a wish to stay, but Rodríguez Jiménez suspects that "están mirando las montañas" and admiring the beauty of their natural surroundings, rather than recognising the realities of the lived experiences of the community in which they stay. As in the rest of the province, the scarcity of resources and relative isolation means that San Pablo de Yao is economically disadvantaged, and certainly moves at its own pace. Rodríguez Jiménez speaks of San Pablo de Yao as "una burbuja", but concedes that she is probably not alone in thinking that her own community is uniquely deserving of study: "el cubano en general se siente el ombligo del mundo" [Rodríguez Jiménez, 2017: 14:28].

Just as with all documentary film, there exists a question as to whether Televisión Serrana could be considered to be creating culture through its products, or whether the act of creating a digital record is merely an exercise in preservation. Rodríguez Jiménez believes that, in the case of Televisión Serrana:

> "crea más cultura de la que se graba, pero para mí las dos cosas son indisolubles… primero se graba, y con esto se transmite un mensaje, y con este mensaje, un pensamiento… en la medida en que tú vas formando y moldeando ese pensamiento, yo creo que también vas moldeando la manera en que las personas se ven la vida, y se proyectan ante la vida" [Rodríguez Jiménez, 2017: 8:55]

This is, then, a culturally symbiotic relationship based on cultural "retroalimentación" [Rodríguez Jiménez, 2016]; when Televisión Serrana makes a film about a community or person, they are both relying on the other to reach as wide an audience as possible. When questioned about whether the digital preservation of more dynamic cultural practices, such as the stories of *cuenteros*, might mean an ossification or a loss of their essential value, Rodríguez Jiménez argued that there are more advantages than disadvantages, and that this inherent risk is worth running. Quite apart from the theoretical questions surrounding digital preservation, Televisión Serrana is also engaged in a more practical struggle regarding storage. Their limited hard drive space means that, fairly soon, they will not have

anywhere to store new additions to their catalogue. To resolve problems such as this, they sometimes rely on donations from visiting groups.

Televisión Serrana's principal duty is to record, then to preserve, and then to "darle a conocer" [Rodríguez Jiménez, 2017: 11:50], and this is particularly vital given the context of contemporary Granma. Granma's history is everywhere, and in more rural communities this sense of place, of belonging to a communal story, was transmitted between generations with greater ease. In more isolated towns and villages, often by necessity, a person's immediate environment used to be their entire world. Many generations of the same family would be born and die within a few miles of one another, and these families and their stories would mingle and become enmeshed; there is a robust sense of history and community. The Televisión Serrana crew and the rest of San Pablo de Yao – indeed, the rest of the world – see this changing with the advent and profusion of new technologies; Rodríguez Jiménez is resigned to the fact that her children, now both quite young, will be part of a "sociedad digital". Whilst she welcomes this in some ways – after all, Televisión Serrana owes its very existence to the development of new technologies –, she is also firm in her conviction that a child's interaction with a screen should be mixed with time outside to *mataperrear*, to aimlessly wander and explore, even though the latter might expose them to more obvious, physical harm; "estar un poco congelados en el tiempo tiene sus ventajas y sus desventajas" [Rodríguez Jiménez, 2017: 31:56]. Figueredo is likewise philosophical about the impact of new technologies on local, traditional culture, asserting that "el autóctono no se pierde, se modifica" [Figueredo (2), 2017: 21:09].

The time at which Televisión Serrana began, in 1993, means that its films give us an invaluable insight into the changes experienced by rural communities since some of the worst years of the Special Period. The art of documentary film making dwindled to near-extinction during the Special Period, and Televisión Serrana was one of the first groups to recognise that having insufficient resources for larger scale projects presented them with an ideal opportunity to narrow their focus and concentrate on smaller, more local stories.[69] When Rodríguez Jiménez first joined Televisión Serrana 16 years ago, she started by working through the catalogue in the *videoteca*, and she was able to compare the differences in appearance between scenes filmed in the same locations throughout the years; "eso es uno de los valores que tiene el hecho de poner una tecnología en función de

[69] For further local documentary work of significance, see also *Convergencia*, a series of documentary films directed by the *bayamesa* journalist Gloria Guerrero Pereda. These programmes are only accessible within Cuba, at the CNC TV archives. I was not able to gain access to these to provide full reference details to these programmes, but I did have the opportunity to speak informally with Guerrero Pereda about her work.

un trozo de sociedad como aquí en la Televisión Serrana" [Rodríguez Jiménez (2), 2017: 2:06]. The ways such as these in which we construct our own personal *realidades*, through the stories in which we immerse ourselves, are central to any discussion of video gaming. However, they are particularly pertinent to Cuban gaming, where developers are struggling against the global tide in order to create games which are truly their own.

The Joven Club

Beyond the stories contained within the games themselves, the issue which seems to be at the forefront of the field of game development in Cuba is that of industry; putting aside the future potential for an international market, there is an ongoing discussion about how best to create a profitable, functioning domestic video game industry (Cubela González and Cabrera Rodríguez, 2018). This change of focus has come about extremely rapidly within Cuba; developer Dainer Leyva Hernández, of the Joven Club in Caney, remembers that "hace dos años ni siquiera se hablaba del videojuego en Cuba, es decir era una industria que no teníamos ni conocimiento ni la tecnología para desarrollar" [Leyva Hernández, 2017: 30:58].[70] Today, this could not be further from the truth, as was confirmed to me by, among many others, Luis Arturo Ramírez Soto, of Bayamo's principal Joven Club:

> "hay un interés incluso muy especial de la dirección de fortalecer una industria de los videojuegos en Cuba, eso por supuesto es incipiente porque para llegar a ser industria hay que fortalecer muchos eslabones, desde la propia conceptualización y diseño… hasta distribución, comercialización… pero potencialidades hay" [Ramírez Soto, 2017: 30:11]

The requirement for games to be 'marketable' and have the widest possible appeal raises questions about whether video games solely encourage globalised concepts to the detriment of local, personal development, but, as we shall see shortly, it does not seem to have had a significant negative impact on production within Granma. Indeed, the drive towards encouraging a domestic industry has been a source of great inspiration for many: "ya no estamos pensando en importar videojuegos internacionales, ya los estamos haciendo nosotros mismos" [Leyva Hernández, 2017: 15:06]. However, a recurring problem is, once

[70] This timeline, which places the marked increase in gaming at around the time of the arrival of *World of Warcraft* in 2015, was reaffirmed by interviews with other Joven Club centres: Ramírez Soto [2016; 2017]; Valdespino Tamayo [2017]; Muñoz Hidalgo [2016]; Cabrera Llorente [2017]; Wong Iglesias [2016; 2017].

more, the lack of sufficient financial resources to fuel this vision. One way in which the Joven Club is attempting to rectify this is through charging money for time spent playing games, which they began to do in the summer of 2015. Playing games currently (in 2019) costs 2 CUP per hour (3 CUP for *World of Warcraft*, due to its need for connection to the intranet), which is roughly equivalent to 5 pence in GBP (Joven Club de Computación y Electrónica, 2017a). Because gaming is now profitable, Joven Club centres are being incentivised to increase revenue from it, with a range of benefits on offer for those centres which manage to keep profits above a certain level; in Bayamo, this has led to the principal centre's opening hours being extended well into the early hours of the morning, and on some days it remains open 24 hours. Ramírez Soto, who has worked at the centre for 15 years, and still remembers excitedly attending its inauguration in June of 1989, does not resent this newly competitive atmosphere, and indeed, considers it to be healthy to a certain extent: "al final, nosotros tenemos que defender lo que hacemos" [Ramírez Soto, 2016: 16:30]. An area as dynamic as computing is obliged to be open to change, and even to seek it. Gaming has changed almost beyond recognition in Ramírez Soto's lifetime, in Cuba as much as elsewhere; he recalls playing 16 bit games which needed to be loaded onto the Joven Club's unwieldy early machines, and then later, when he joined as staff in 2000, the possibilities which were brought about by the introduction of the Windows 98 operating system to the centre's computers. A year or so after this, the arrival of networked connections brought LAN parties, and with each new wave of games the previous crazes were rendered obsolete, just as has happened with *World of Warcraft*. Indeed, Ramírez Soto speaks of younger players who are no longer able to play the games which their teenaged predecessors favoured (such as the once wildly popular *Defense of the Ancients* (2003)), and the language he uses to explain why is intriguing: "ya se fueron alfabetizados por *WoW*" [Ramírez Soto, 2016: 32:37]. This is very much reflective of the impact which computers and video games are having on those who spend the most time with them; these children and youngsters are learning an entirely new lexicon and set of social skills to be put into practice in an online environment (and, indeed, in the offline, physical settings, such as the Joven Club, in which these games exist). As discussed in chapter 2, the slang and etiquette which accumulate around a game are crucial signifiers for belonging amongst 'true' players, and act as reliable, gatekeeping shibboleths, which effectively ward off outsiders. Those who were *alfabetizados* by *World of Warcraft*, therefore, will be possessed of the requisite knowledge to discuss and play it with natural ease, whereas those for whom *World of Warcraft* and other games represent a foreign language will struggle to blend in without being identified as non-natives.

The Joven Club centres are in a state of constant change as the drive towards a modernised, technologically competitive Cuba continues in full force, and gaming plays a crucial role within this; for example, there is talk of an incentivised system for those centres which manage to raise the most revenue, and since *World of Warcraft*, at 3 CUP per hour, is one of the most profitable activities, it naturally follows that the growth of gaming will be something which individual Joven Club centres wish to encourage. Manzanillo, Granma's main coastal town, is currently in the process of constructing its own Palacio de Computación, with Bayamo to follow later this year. In 2016, Bayamo's Ludoteca, a building which was used for recitals and as a play area for younger children, has been converted into a dedicated gaming building. However, the ex-Ludoteca can only offer offline games, so *World of Warcraft* fanatics who require a networked connection still need to queue for the main Joven Club (which they do, for hours on end, late into the night). A newer, sleeker centre, as is envisioned for the future Bayamo *palacio*, would not only allow for more computing classes and more casual gaming, but would also facilitate more regular gaming tournaments, which are run in collaboration with the ADEC. As well as the plans to construct a Palacio, there are also ambitions to install smart-screens along Bayamo's main street, the Paseo, displaying local news and information. First, the Ludoteca; next, the world.

The expansion of regional hubs is particularly crucial given the continued difficulties of travel within Cuba. Granma is almost as far from Havana as it is possible to be, so, in order to ensure that opportunities for access and learning are maximised, creating new centres all across the nation is essential. The Joven Club centres were already among the primary beneficiaries of the Battle of Ideas, but that drive towards a more technologically literate population in the early 2000s did not yet extend to video games, meaning that for quite some time most developers were unofficial, enthusiastic hobbyists; this, by extension, led to the creation of a tight-knit community. Ramírez Soto has very close relationships with a number of game designers, and has been a driving force behind the Unión de Informáticos de Cuba, which formed in March 2016. Ramírez Soto's relationships are, according to the findings of this fieldwork, representative of the way in which the information technology community functions within Granma, and, to a lesser extent, across the whole of Cuba. This generation of developers all went to university together, either at the UCI or the University of Granma, and have built a close-knit family who are able to share information and resources. The support and exchange provided by these connections are vital in an environment which is so often lacking in the resources and infrastructure which these developers require; for example, Ramírez Soto has worked very closely with the GID (Grupo de Investigación de Desarrollo de Granma) development team in Niquero, and was

therefore able to present one of their games (*Sid Contra Mosquitos* (2017)) to Joven Club colleagues at a competition in Camaguey, when a lack of available transport left them unable to travel from the relatively remote Niquero.

Ramírez Soto acknowledges, with some regret, that players' interest in Cuban games has dwindled; part of this is, undoubtedly, due to the popularity of *World of Warcraft*, which has seen almost all other games besides *Defense of the Ancients* and *Starcraft* fade into obscurity. Another significant reason for the reduction of interest in domestically produced games is, according to Ramírez Soto: "el hecho de que no hay una tendencia creciente a incrementar el número de ellos" [Ramírez Soto, 2017: 26:55]. When the first significant 'batch' of EVIMA games was published,[71] there was a great deal of interest in them, but because they were easily completed relatively quickly, they had soon exhausted their audience. Now, although they are still installed as standard on most Joven Club computers, the only people who might use them are new arrivals who have never played them before. We might invert this reason for a lack of success and use it to explain, at least in part, the almost total triumph of MMORPGs in Cuba. Many of the developers and Joven Club staff explained that games such as *Gesta Final* and *Comando Pintura* tend to enjoy an initial period of success, but this then trails off once the players have beaten the game. An MMORPG, on the other hand, is expressly designed to allow for seemingly endless gameplay and exploration, and a variable experience depending on the player's actions (Schubert, 2003).

One avenue which seems to offer more potential for long-term use and uptake, without the necessity for vastly improved resources and capabilities for both players and developers, is the production of mobile gaming, and in Cuba this market is currently led by the collaborative efforts of the Los Estudios de Animación del ICAIC and the UCI in Havana. Games such as *La Neurona* (2016) are not only beautifully produced, but the fact that they are aimed at mobile users gives them the potential to be more easily and effectively updated. However, most producers and developers do not have access to anything approaching the resources which ICAIC and the UCI have at their disposal, and this causes a significant variation in the technical quality of the games which they are able to produce. This is a problem which has absolutely nothing to do with the skills and dedication of the individuals involved; as Figueredo affirmed, "se nos pegan las cosas de tecnología muy fácil, pero no tenemos los medios. Es increíble lo que hacemos a veces con tan poco" [Figueredo, 2017: 24:27].

[71] *Comando Pintura* (2012); *Bumbots* (2012); *Beisbolito* (2012); and, later, *Gesta Final.*

SoftEE: Educational Gameware

One group which is all too familiar with the challenges of development in resource-strapped Granma is SoftEE, at the University of Granma. SoftEE began as an informal group of software enthusiasts in 1993, and became an official organisation in 1997. Now under the control of the Ministerio de Educación Superior, and previously the Ministerio de Educación,[72] SoftEE consists of a group of 12 workers, who are almost all ex-students of the Departamento de Desarrollo de Software at the University of Granma. Rather than work on single games as a group, each designer is paired with a programmer, and this two-person team will produce a game alone, thereby significantly increasing SoftEE's productivity. During a visit to SoftEE, I had a lengthy discussion with Rafael Isidro Remón Mecías, one of the group's principal developers, who joined the team in 2000. We discussed the definition of a video game – "imagen más movimiento" [Remón Mecías, 2017: 00:57] – and whether the self-styled 'educational software' produced by SoftEE could be considered in the same category as video games – for him, this was unequivocally the case.

Their games are all educationally-driven, with themes ranging from environmental conservation (including the still unpublished *Polimitas Terrestres*, a particularly engaging game which is built around the theme of snail conservation) to teaching children how to go about their daily routine, and they are generally aimed at younger players. The input of the Ministerio de Educación Superior has a significant impact on their products: "trabajamos muy ligados con los guionistas, y en este caso los guionistas con profesores de las escuelas" [Remón Mecías, 2017: 08:23]. Indeed, much of the time, the initial idea for a SoftEE game will be drawn from concepts put forward by educators, and if the team decide that what is proposed is both technologically feasible and aligns with their values, then it will be put into production. Whilst their games are mostly produced for PC, they also have a special project called EducaMovil, which is aimed at investigating and producing games for mobile phones and other PEDs (portable electronic devices). To date, SoftEE has produced around 60 products, and its current collection of educational games contains 12 games. As well as striving for educational content, SoftEE has a keen focus on business, and the skills of its

[72] The switch happened in November 2016. This sets its ethos and development process apart from those of EVIMA and other Joven Club teams, who are instead under the control of the Ministerio de Comunicaciones. Prior to the integration of Cuban universities, the team at the University of Granma worked closely with Cinesoft; post-integration, when they no longer fell under the remit of the Ministerio del Interior, they lost the rights to all of the collaborative Cinesoft games, and had to produce large amounts of new content.

programmers are available to be contracted privately; SoftEE currently has a private contract with CITMATEL, and they are constantly seeking opportunities to collaborate with companies within Cuba and abroad. The acquisition of private contracts is of great importance to SoftEE, as it allows them to further fund their activities when the university itself is not able to do so. However, there is only so far that private investment can take them; during my visit to the campus, I discovered that the team are only supplied with electricity from 8am to 11am, Monday to Friday. The team's progress has, as a consequence, been slower than they might have hoped, but they are currently aiming to begin producing 3D games. One of the most significant hurdles which they face in this arena is the lack of exposure to 3D programming knowledge, but this will be just another in a series of barriers which their skill and determination have allowed them to overcome. The conditions under which they work make the quality of the games and software which they produce, and the joy with which they do so, even more remarkable.

Batalla Por La Historia

Another developer who highlights this extraordinary triumph over adversity is GID, the Grupo de Investigación de Desarrollo de Granma. The GID is composed of two teams, one based in Niquero and the other in Caney de las Mercedes, just outside Bartolomé Masó.[73] Based in Caney's tiny Joven Club (6 working computers), Dainer Leyva Hernández and his colleagues conduct the teaching and training involved in being an employee of any Joven Club centre. However, Leyva Hernández and two others, his university classmates Yoan Sierra and Gilberto Céspedes, also work to develop video games, the first of which was released in August 2017 after three years of work. *Batalla Por La Historia* (2017), which is Cuba's first fully 3D game, allows the player to defend three historical sites within Granma, which are threatened with destruction at the hands of the evil robots of Scorpion Global Technologies. Unlike its closest cousin, its predecessor *Gesta Final* which was produced in the province of Sancti Spiritus, *Batalla Por La Historia* merges history and fiction, introducing a sci-fi element via its villainous droids. The use of robots rather than flesh and blood opponents was a conscious choice on the part of Leyva Hernández and his colleagues; as well as adding an eye-catching, futuristic element, it also avoids unnecessary bloodshed and the glorification of violence against another human being, something which they were keen to exclude if at all possible [Leyva Hernández, 2016: 21:45]. Marbelis

[73] The future of Niquero's team has been uncertain since late 2017, when one of its members began directing game production for the entire province, and therefore moved to the main Joven Club in Bayamo.

Valdespino Tamayo, who has worked in Buey Arriba's main Joven Club since its inauguration in 1998, reaffirms that a socially responsible ethos has always been central to the activities of the Joven Club; "seguimos con ese carácter social con el que surgimos" [Valdespino Tamayo, 2017: 12:53].

The GID team first began work on *Batalla Por La Historia* in 2014. It was initially due to have 5 levels, but after a dispute with EVIMA headquarters regarding where to base the levels of the game, a compromise was reached: release 3 initial levels in August 2017, all based in Granma, and later add on extra levels located in Havana and elsewhere. The balance between centralised control (in which "la casa matriz quiere generalizar" [Leyva Hernández, 2016: 3:20]) and devolution in the world of Cuban video games is a subject about which Leyva Hernández, usually softly spoken and somewhat subdued, speaks animatedly. On the whole, producers in Granma do seem to have a relatively high degree of autonomy when deciding what to produce and how, and part of the reason that this is the case was an official decree from EVIMA; a few years ago, EVIMA delegated certain provinces to work on specific areas, and Granma's Joven Club centres were given video games. Even though, technically speaking, Leyva Hernández and the GID are under the command of a *subdirección* of the Ministerio de Comunicaciones, the fact that their work is produced at a Joven Club, in collaboration with EVIMA, means that EVIMA can choose to exercise a relatively high degree of control over the GID's output. However, in practice, Granma's geographical isolation means that the GID only receives a visit from EVIMA headquarters once per year. Whilst they are mostly happy to be left to themselves, the infrequency of these visits means that any problems which they have, or any pleas for funding and equipment which they wish to submit, must all be condensed into that single annual meeting. This distance can create problems beyond the merely bureaucratic; in Havana, there was a chronic lack of familiarity with the work being carried out in Granma and elsewhere. One developer in Havana even referred dismissively to the backwards attitudes of "las provincias más estancadas" [Anon, 2017].

Although *Batalla Por La Historia* is made with Cuban history and national pride at its heart, Leyva Hernández intends it to be distributed solely at the Joven Club centres, rather than in schools, because "no es un juego hecho pedagógicamente" [Leyva Hernández, 2017: 17:23]. Unlike *Gesta Final*, or the games produced by SoftEE, *Batalla Por La Historia* is not liberally injected with historical trivia and factual notes. When questioned about the motivation and inspiration behind creating *Batalla Por La Historia*, Leyva Hernández attributes it to a desire to create a game which represented his home province, as well as providing an interesting, engaging, entertaining experience for the player. He

believes that Cuba's Oriente region as a whole still has an iron bond with its history, and whilst this remains firm for the moment, it is important to seek new ways to engage young Cubans with their increasingly distant and unfamiliar national past. He worries that young people in other provinces, who do not have physical access to historical sites, are already slipping away from their national historical identity, and he thinks that games such as *Batalla Por La Historia* may be part of a potential strategy to combat this distance; "no es lo mismo tenerlo cerca… que donde simplemente es un cuadro en la pared" [Leyva Hernández, 2017: 23:32]. One of the most impactful aspects of a well-made game is the level of immersion with which it provides its player. Leyva Hernández, along with many other developers, believes that video games will play a key role in encouraging players to participate in the development of a more personal approach and attachment to their heritage. He is deeply passionate about this matter, and believes that new generations need to know that: "por lo que tienen hoy se luchó, que no fue un regalo" [Leyva Hernández, 2016: 10:50]. That such a game was conceived and produced by a group of *granmenses* may not be entirely coincidental; Granma, at times, seems to breathe history. Peter Hulme asserts that Oriente is at the very heart of revolutionary ideology in Cuba: "Because of the revolutionary initiatives begun in its undeveloped and mountainous parts in 1868, 1895, and 1956, Oriente has become identified with revolutionary purity, an identification not hindered by the region being the birthplace of many revolutionary protagonists, from Carlos Manuel de Céspedes to Fidel and Raúl Castro" (Hulme, 2011:7).

A few miles down the road from Caney, José Manuel Pérez Fernández, the Director de Planificación Física in Bartolomé Masó, spoke to me enthusiastically and at length about the history of the town, the *municipio*, the province, and the nation. As one of Cuba's many sugar towns, Bartolomé Masó was powered by production from very early on. Cuba's *centrales* (sugar processing plants) initially assured growth and prosperity for the nation and gave it an industrial identity, even if most of the sugar which they processed was destined for foreign consumption. The Masó *central* is still active, and indeed, for much of the spring, the town gets as close to snow as it will ever be thanks to the powdery grey ash which descends on the streets from the chimneys of the *central*. However, here, as in the rest of the province, the lack of resources means that the town is no longer a bustling industrial town. One topic which arose repeatedly was that of the relationship between a people and the depth of their bond with history, and, like Leyva Hernández, Pérez Fernández expressed the concern that some of that bond risked being eroded. He lamented that "antes [de la revolución] estaban los recursos, pero no estaban las ideas… después estaban las mentes, pero no los recursos" [Pérez Fernández, 2017]. Inoelvis Muñoz Hidalgo, Especialista Principal at Bartolomé Masó's main Joven Club, believes that the

adversity brought about by the Special Period triggered the irretrievable loss of a number of intangible values, and likened the process to the loss of a bag; yes, you can buy another, and your new bag may even be sturdier and look nicer than the old one, but it cannot be the same, and you will never recover exactly what was lost. He thinks that the government's more open attitude towards private enterprise since the 1990s have brought their own benefits, and can offer a lot of exciting opportunities for entrepreneurial Cubans, but that this has come at the expense of more traditional attitudes. To Masó's young people, he says, days such as the 26th of July and the 1st of May are just an excuse to drink and play reggaeton in the *plaza*, and are no longer imbued with any political or historical meaning [Muñoz Hidalgo, 2016]. Whilst this opinion can be found among many in the province, there is an opposing school of thought which holds that the Special Period forced a return to tradition. With the intense scarcity of resources of all kinds, people found themselves with little choice but to turn their gaze to their immediate environment; when you cannot afford a new broom (and there are none to be bought in any case), then you might take a leaf[74] out of your grandmother's book and fashion a serviceable broom from foraged palm fronds.

There is a final, more tangible effect of the remarkable efforts being made in Caney, and which is perhaps the most significant product of their work as far as the local community is concerned. The work of the GID in Caney has been responsible for direct benefits to the Joven Club and to Caney as a whole; given the extra technological requirements of game design, Caney's Joven Club has had its internet speed increased. Whilst still falling woefully short of most international speed standards, this did present a considerable improvement relative to other comparable rural areas of the country.[75] As well as contributing to development in their immediate environment, Valdespino Tamayo believes that efforts in gaming, and in computing more generally, are making significant contributions to national development, by encouraging and necessitating a more rapid improvement of the nation's technological infrastructure and education levels [Valdespino Tamayo, 2017].

Whilst Leyva Hernández was not a particularly talkative interviewee, he did bring up an interesting perspective on the question of the gender divide in gaming, and it was an opinion which was later reinforced by many other people with whom I spoke. Leyva Hernández believes that the gender divide in Cuban gaming is due to the popularity of European and

[74] Or branch.
[75] Within Granma, the fastest speeds are still to be found in Bayamo's principal Joven Club, as it is there that the province's servers are housed.

US games, which, as we discussed earlier, are mostly designed to cater to the tastes of young men. In all of the Joven Club centres which I visited in both Granma and Havana, the vast majority of gamers were boys and young men, with very few girls in sight – Leyva Hernández's colleague recalled that he once brought his daughter in to the Joven Club in order to play *World of Warcraft*, and that the boys in attendance were struck dumb – something which Valdespino Tamayo attributes, somewhat controversially, to boys being more prone to addictive behaviours. In a manner which brings to mind Fiffe's ambitions for Cuban reggaeton, Leyva Hernández is optimistic about the possibility that this imbalance will be at least partially addressed when Cuban-produced games are able to compete with international ones, in terms of both technical and narrative complexity, as he believes that Cuban games will still maintain their educational, egalitarian ethos at any level. However, when probed, his reasoning revealed some potential flaws:

> "En Cuba hay varias casas productores de videojuegos. Tenemos EVIMA… está la Universidad de Ciencias Informáticas, y está la del MES [Ministerio de Educación Superior]… y casi siempre se trata de llevar un balance entre la factura del videojuego, que no sea para un género específicamente. Por lo menos, MES, que se produce lo que se llaman 'multimedias educativas', ellos tratan de llamar la atención más de las niñas en un tipo de juego, y de los niños en otro" [Leyva Hernández, 2017: 13:36]

The contradiction here, that the games are simultaneously gender-balanced whilst also being targeted at a specific gender, is one that is in need of examining within the Cuban video game industry. *World of Warcraft* has emerged from a Western (specifically, US) gaming context which, as we have seen, privileges the position of male players, and produces games which target younger men. This might go some way towards explaining the sustained gender gap in its uptake amongst Cuban players. However, the real draw of *World of Warcraft* for Cuban players lies in its potential for immersion, exploration, and the ability to communicate across the nation. My experience in Cuba was that many (but by no means all) games are very overtly geared towards one gender or another, but this may be an issue which could be counteracted through the dissemination of high quality video game scholarship, and an increase in discussion and exchange amongst designers and developers at a national level. Efforts are already in place to attract girls and women into ICT; the Joven Club centres in Bayamo and Buey Arriba in particular run regular events, even with very young children, which are aimed solely at girls, but we shall have to wait and it remains to be seen whether this has any significant long-term effect.

***WoW* (n. 'uau')**

In Cuba, then, a game in which the gender divide seems so solidly embedded is also the nation's most popular one. Played 'online' via the Cuban intranet, with servers based in Havana, *World of Warcraft* has given Cuban gamers the possibility of connectivity on a previously impossible scale since its introduction in 2015. Since Blizzard is a US company, and therefore subject to the stringent trade restrictions of the embargo, Cuba's entire *World of Warcraft* network is built off pirated copies, or licenses obtained via third party nations. Whereas some of the other most popular games, such as *Defense of the Ancients*, required players to gather in physical groups at the same Joven Club, *World of Warcraft* allows a player in Bayamo, Masó, Caney, or elsewhere, to connect, communicate, and play collaboratively with any other player, anywhere else in the country. According to Hilde G. Corneliussen and Jill W. Rettberg: "*World of Warcraft* is a social framework for communication. And with communication, we get culture" (Corneliussen and Walker Rettberg, 2008:loc134). Of course, the truly online, global version of *World of Warcraft* provides these connections on a much grander scale, and, unlike Cuba, is not limited to 1000 players at a time before its servers crash, but Leyva Hernández suspects that, whilst it is still popular worldwide, *World of Warcraft* does not so universally captivate players in other, more well-connected nations, in the same way that it does in Cuba. Ramírez Soto has a great deal of enthusiasm for *World of Warcraft*'s potential benefits, and is quick to identify its connectivity as the reason for its astonishing success in Cuba: "cada uno juega individual a *WoW* – individual entre comillas. Individual, pero conectado" [Ramírez Soto, 2016: 33:55]. He also believes that the game's mode of play, mostly relying on collaborative teamwork, is entirely aligned with core Cuban values; "y si te dice en el entorno del videojuego, 'oye, ayúdame, que necesito tal cosa…' – la solidaridad!" [Ramírez Soto, 2016: 1:00:05]. Pérez Fernández, the aforementioned Director de Planificación Física, asserted that Cubans crave social contact, more than most other nations; "una de las primeras cosas que se busca es el contacto con los demás" [Pérez Fernández, 2017].

Leyva Hernández, Ramírez Soto, and many others also spoke about whether video games at a general level, and more violent, first person shooter games in particular, were at all at odds with more traditional Cuban cultural values. Whilst Leyva Hernández believes that "eso es un tema donde pienso no se van a poner de acuerdo nunca" [Leyva Hernández, 2017: 29:17], the general consensus amongst developers seems to be that, as long as players are not engaging in mindless shooting, they will almost always be gaining skills and

developing whilst they play, and the responsibility for ensuring that they play safely and in moderation falls at the feet of the adults around them. Even when discussing the *Grand Theft Auto* franchise, an infamous poster child for the most controversial and violent games, Remón Mecías did not speak in a remotely condemnatory fashion: "a lo mejor uno dice 'bueno, es violento', pero detrás de la violencia hay una cultura del lugar determinado" [Remón Mecías, 2017: 07:36], a point reinforced by Ramírez Soto [2016]. Valdespino Tamayo seems to agree with this line of thinking, musing that every country will naturally develop games in accordance with their own culture and values:

> "tiene que ver con la identidad de la nación en que se confeccionó ese videojuego. Qué sucede, que después se comercializa, y quizás no sea mi cultura, pero el juego me resulta atractivo… ningún país vive aislado, hay un intercambio cultural internacionalmente que no se puede obviar, pero estos productos siempre traen implícito el desarrollo cultural o la identidad cultural de la nación en que se hizo el producto" [Valdespino Tamayo, 2017: 28:29]

For all of the developers with whom I spoke, there was an awareness of the potential for polemic within video games, but there was also a considered and conscious rejection of any primal, reactionary urge to essentialise. Across the board, there was an expression of the belief in the duty of parents, teachers, and society as a whole to take responsibility for the things to which children and young people are exposed, and to ensure that healthy attitudes prevail: "no hay cosas buenas ni cosas malas; hay cosas que se usan bien y que se usan mal… [los videojuegos] pueden contribuir al desarrollo cultural, el desarrollo integral de la persona *si se quiere*" [Ramírez Soto, 2016: 41:20].[76]

Towards a More Connected Cuba

> "¡Maravilloso todo! Tenía que ser en Granma." (Fidel Castro Ruz, during his final public rally, in Bayamo's Plaza de la Patria, 26th July 2006. Cited in Milanés Guardia, 2015)

To conclude, it is worth taking a moment to consider that Cuba's most popular games have all fallen into the categories of sci-fi and fantasy, and to ask whether genre has been entirely incidental to their success. Whilst it is certainly true that the in-game chat function

[76] Own emphasis.

in *World of Warcraft* lends it great appeal, and the teamwork setup of both *World of Warcraft* and *Defense of the Ancients* are also particularly attractive in a physically sociable gaming setting such as that provided by the Joven Club, it is clear that the appeal of fantasy to young Cubans should not be overlooked. In parks around Bayamo, particularly a small patch next to the bus terminal, teenagers gather to play a fantasy card game called *Magic: The Gathering*, which has enjoyed global success for over two decades in Europe, Asia, and North America, and is now steadily penetrating Cuba. Players either have real cards sent to them from the US, or they print off counterfeit cards which they then laminate. In the strategic battles, fantastical cast of characters, casting of spells, and, not insignificantly, visually appealing style, *Magic* has a great deal in common with *World of Warcraft*. The situation of young Cubans, particularly in Granma where transport is limited and resources scarce, would seem to make them an ideal market for the escapism and wonder of fantasy games. Indeed, Tanya Krzywinska argues that it is precisely its place within fantasy which allows *World of Warcraft* to create such a compelling space: "The presence of signifiers and narratives of a prehistoric and historic past, framed as they are within the rhetorics of popular culture, high and low fantasy, and myth, is one of the primary ways in which *World of Warcraft* creates the illusion of a coherent world" (Krzywinska, 2008:loc1699). She further asserts that the fantasy setting allows players a safe and exciting space in which to "think about and through" (Kaveney, 2005:6) the real world issues which they face (Krzywinska, 2008:loc1706). Richard Bartle praises Krzywinska's approach, and develops it further. For him, MMORPGs have a profound connection to the mechanics of identity creation involved in myth: "I also see virtual worlds as a living embodiment of the monomyth… Myth narratives are tools for delivering identity, which is also what MMOs do" (Bartle, 2010).

The genre of fantasy, then, could be argued to be an essential aspect of the mythic dialogue. A myth is a process of negotiation between the past and present, simultaneously reaching back towards a rooted heritage, whilst using this same heritage to provide an impetus to drive us towards imagined futures. Within this binary, fantasy provides an enjoyable and immersive way to flex our imagination and act out what we might view to be the essential characteristics our mythic selves. In Cuba, where heritage and myth are so strongly grounded in narratives which involve heroic leaders and noble, morally righteous endeavours, the traditionally hero- and quest-centred narrative devices of fantasy are of particular relevance.

In an informal, unrecorded discussion, Alexis Pantoja, an internationally acclaimed *bayamés* artist, told me that he believes that the internet and modern technology have

brought modern Cubans to a state of mental disconnect; they spend hours upon end immersing themselves in an online environment which is geared towards first-world consumer lifestyles, and when they raise their heads from their screens they find it difficult to readjust to their lived reality. Of course, this contrast is present in most nations, but the sense of difference and disconnect is heightened in places such as Cuba, and particularly rural Granma. In the gaming world, this clash is brought home by the inability to play newer games on computers which do not meet the games' technical requirements, as mentioned during my conversation with Albio Figueredo of Televisión Serrana.

In spite of, or perhaps due to, these challenges, connectivity and access to effective networks, both social and technological, are a crucial issue for developers in Granma. The ambition to construct a nation which is both technologically competent and well-connected is evident in all parts of the country, and at times seems to have the fervour and drive of a Literacy Campaign for the 21st century. For the Joven Club in particular, the mission is crystal clear: "¿Estamos aquí dando los primeros pasos fundamentalmente hacia qué dirección? Hacia la informatización de la sociedad" [Ramírez Soto, 2017: 6:04].

Underlying this mission is a desire for connection within Cuba in general, both to other Cubans and to the internet, and this is particularly central to gaming. Video games are providing a creative outlet, an intellectual one, and a mode of exploration for thousands of children, adolescents, and adults across the province, and their increasing significance in the cultural landscape of the nation cannot be avoided. They should not be seen as an invading force, or as a corrupting external player, but rather, following the example of the majority of Cuban developers, they should be harnessed and exploited in the interests of furthering Cuban culture, and widening access to resources. Cultures, after all, feed (off) one another; you can accumulate identities without removing others, and problems only arise when these identities come into direct conflict. Video games allow you to explore alternate realities and assume temporary, conflicting identities, and in Cuba, they are also providing a way for the youth to re-engage with their national heritage. The rise of the digital has blurred national boundaries, and the virtual environment in Cuba has become its own kingdom.

In Cuba, then, gaming represents a convergence of historical attitudes towards technology, the circumstances of privation and innovation in which technologies have been exploited in the nation, and a reflection of the local and national mythic narratives which have accumulated during the course of the nation's history. A coherent body of theoretical literature to explain this convergence is notable by its absence, and gaming in Cuba therefore provides the opportunity for us to explore an understudied corner of both ludology

and Cuban studies. Gaming theory is in need of more truly global approaches, which take into account not only the games, their design, their content, and their coding, but also incorporate the cultural context of their local fleshspace. Whilst works exist which address these issues in other contexts, even Latin American ones, they have yet to be rigorously explored in the Cuban context. To believe that the Cuban case can be adequately covered by examinations of Latin America and the Caribbean is to commit a serious error; there can be no adequate comparison, because there is nowhere else which faces the same contemporary and historical challenges as Cuba does and has done. Cuba can contribute innovative approaches to technological limitations, attitudes towards game design, and an entirely unique cultural input to the gaming world; it would be a great loss indeed to ignore any of this.

At the same time, somewhere like Granma, which so clearly represents Cuba's revolutionary myths, and is also heavily involved in the production of video games, whilst being geographically remote, economically disadvantaged, and historically inventive when it comes to promoting local culture and exploiting technologies, provides us with a unique glimpse of how video games are both affecting Cuban culture, and the ways in which Cubans relate to their shared past. In Granma, video games are interacting with traditional culture, and with existing national and personal myth; the cables which connect each machine are simply expanding on and strengthening the networks and structures which were already present in different forms. Far from representing an invasive, destructive, or disruptive cultural phenomenon, video games can offer opportunities for development, for local and global connection, and can also demonstrate new ways of engaging with personal and national myth and identity.

Conclusion

Knowledge is in a state of perpetual flux; as changing information flows carve out new pathways, leaving isolated oxbow lakes of semi-static facts and figures as evidence of what came before, each new questing tributary beckons us towards fresh perspectives and ways of 'knowing'. And yet, in spite of this, many of us still view certain areas of learned knowledge as immutable gospel. Many of us may 'know' that Cuba is a backwards, stilted country; one which has been frozen in time by the steely grip of an oppressive Communist regime; one which represses and restricts innovation and creativity. We may also 'know' that video games are violent; that they are detrimental to general wellbeing (particularly that of impressionable children); and that they stunt our intellectual and social development. We know these things because they have been 'proven' to be true; because we have seen them confirmed in stories of mass shootings on the evening news; because they have been imparted to us by our parents, educators, and media sources. And yet, as adamantly as we might insist upon the truth of our knowledge, there will invariably be others who 'know' something entirely different. Such rigidly categorised systems of knowledge are not only inaccurate, but also threaten to obstruct essential dialogues around notions of multiple, hybrid identities. That these epistemological assumptions deserve to be dismantled in the cases of Cuba, video games, and the points of coincidence between the two, is something which I hope to have proved in the preceding chapters.

Whilst every effort has been made to produce a thesis which is robust, thorough, and well-supported by existing literature, it is necessary to acknowledge the limitations of my work. The interviews upon which my case study relies were not conducted in my native language; although my Spanish is of a sufficiently high level to communicate and converse with relative fluency, I must allow for the possibility that these interviews might have produced more nuanced discussions if they had been conducted by a native Spanish speaker. Secondly, I was conducting my work in a country in which I am not normally resident, and in which I have no experience of living for more than a few months at a time, and, even then, outside the systems (healthcare, education, employment, local government) which Cubans must navigate and live alongside. Whilst I have a solid grounding in the factual realities of life within Cuba, I lack the more emotional understanding of how it *feels* to live in Cuba, and the effect that this has on the way that any given individual views their country and its issues. This might have been mitigated by spending longer periods of time

in Cuba, but budgetary constraints meant that this was not possible for my project. Thirdly, and on a related note, my research was occasionally restricted by bureaucratic barriers. These made it difficult (or impossible) to visit certain sites, or to have truly open discussions with certain people. I do not think that this factor can be overcome in any reliable way without exposing Cuban participants to a certain level of personal political risk (Bell, 2013), and, it will inevitably depend upon the subject being researched, and the political climate at the time of conducting investigations. Perhaps for this reason, another limitation is that there is an extreme shortage of materials which examine gaming in Cuba from a cultural perspective, and so, alongside my qualitative interviews, I was forced to rely on sources from other regions and disciplines. Finally, just as it is not possible for me to fully understand the experience of everyday life in Cuba, it is equally unrealistic that I should believe that I have any depth of insight into the experience of playing games such as *World of Warcraft* on the island. As a person who has enjoyed practically unlimited access to the internet, and to a multitude of video games, for most of her life, I cannot expect to meaningfully comprehend the significance of modern gaming within Cuba, nor the impact which it has in more rural areas such as Granma in particular. For this reason, my case study has acted as a platform to allow space for voices from the island to give their own interpretations, which I have then attempted to critically frame through my own analysis.

All of the above factors exercise a limiting effect on the potential scope and utility of the data collected for this thesis. To begin with, it cannot be said that there are any data sets of meaningful size: the data which I collected is too disparate, the total amount of it too small (and therefore unsuitable for quantitative analysis); and the adoption snowball sampling has meant that it is also not targeted enough to provide representative conclusions on precise groups. Were I to have had more time, and, crucially, a greater level of access to target groups, I would have like to have conducted in-depth interviews with gamers, and to have undertaken an analysis of their experiences of the games which they play, alongside an exploration of the content of these games. As it is, my data provides multiple potential jumping-off points for future studies, and also provides a holistic overview of Cuban gaming in its wider cultural and historical context.

As has been alluded to, the traditional mainstream view of video games has been that they are an entertaining – but essentially timewasting – diversion at best, and, at worst, an active threat to individual and societal wellbeing. These stereotypes, extrapolated from a handful of terrible cases, have somehow come to represent the essential nature of gaming to most of the world – particularly, it must be said, to those who do not themselves play

any sort of video game. Proponents of video games have fought to have them recognised as a legitimate cultural form, rather than a mere frivolous pastime, whilst simultaneously insisting that they be treated as something quite unique, rather than being viewed through the lens of literature or film. The world is gradually, inexorably, being translated (or, with the advent of more advanced artificial intelligence, translating itself) from the analogue to the digital, and within that process opportunities abound for us to explore and exploit the vast immersive, educational, and innovative potential offered to us by video games.

Let us return to our original three questions, around which this thesis was built. We asked: does gaming in Cuba provide us with any practical or theoretical approaches to gaming which might be missing from the existing literature? I believe that we can now respond in the affirmative to both, but let us review our findings to be certain. In Cuba, we have seen that some developers have circumvented the issue of legitimacy by labelling their products as 'educational software', rather than games. This has been done elsewhere in the world by other companies who seek to make their games attractive to the teachers and parents who might purchase them, but in Cuba the nomenclature seems also to represent a sincere wish on the part of the developers for their games to be useful, educational, and an active force for good in the lives of their impressionable players. This emphasis on values-driven is born from the Revolution's legacy if imbuing all areas of culture with explicit revolutionary ideals. Partly on the basis of examples such as this, this thesis has argued that, whilst video games can indeed become addictive, cause harm to their players, and lead to the degradation of real-world relationships, this is almost entirely dependent on the physical and social environment of the player, and should not be taken as a reflection of the inherent characteristics of the games themselves. It is vital to bear in mind the intensely subjective nature of interpreting any cultural form, as what is perceived as a Manichaean clash between good and evil in a certain game may have completely opposite (or at least, far more complex) implications for another user. We have seen how strong social bonds and a stimulating environment can, to an extent, counteract other factors in addictive gaming, outweighing any chemical (or digital, as the case may be) content. In addition, the online world has also been shown to provide an appealing alternative social environment for those whose "social hesitancy" (Kowert, 2016:110) mean that they are lacking in many of the traditional forms of social capital, and therefore struggle to form enduring relationships in offline contexts (Cole and Griffiths, 2007; Kowert *et al*, 2014; Kowert and Oldmeadow, 2013; Liu and Peng, 2009; Parks and Floyd, 1996). Put another way, a strong social network and sense of community (both on- *and* offline) are highly effective preventative indicators for problematic behaviours relating to video games (Durkin and Barber, 2002; Kowert, 2016; Mäyrä, 2016; Williams *et al* 2006), and, thanks to all the factors which we

have touched upon throughout this thesis – systematic indoctrination of social values; a deep-seated sense of national belonging, often helped along by opposition to the US; robust local cultural networks, albeit sometimes more by virtue of necessity – Cuba has both of these in abundance. Diverse cultural networks can be found across all strata of Cuban society, but particularly at the informal, social level at which gaming thrives.

Secondly, we asked: what can video games and computing tell us about Cuban culture, both past and present? As discussed in earlier chapters, most Western knowledge about Cuba is still rooted in either menacing Cold War stereotypes, or in images propagated by contemporary tourism agencies, which harken back to Cuba's pre-revolutionary days when it held a reputation as a sun-drenched, mojito-infused, and highly eroticised island paradise. However, the lived experiences of the Cuban people belie these perceptions, as do the hard facts of Cuba's historical relationship with new technologies; before the Revolution, Cuba was one of the protagonists of the Latin American technological landscape, and the revolutionary government has aspired to return the nation to a similarly illustrious position. It cannot be denied that, since 1959, Cuba has lagged far behind much of the world in terms of the relative lack of sophistication in its hardware and software, but this can be almost entirely explained by the US embargo, which denies Cuba and its people legitimate access to the US-made products on which much of the world's IT infrastructure relies. As well as the embargo, the fall of the USSR and the resultant immeasurable toll of the Special Period must be acknowledged as having played a central role in hampering Cuba's technological development.

However, the stress which the Special Period placed upon technological development in Cuba also contributed to the nation's inventive and highly innovative attitudes towards technology. A dearth of access to materials (and, indeed, electricity with which to power computers) meant that Cubans had to invent new ways of repairing their machines and making them last; this, in turn, has led to a deeper understanding of the inner workings of the technologies which they use, when compared to their contemporaries in more prosperous parts of the world, where ease of access has combined with planned obsolescence to create the conditions for a populace who live in relative ignorance of what goes on behind their own screens. When combined with the privations of the Special Period, which forced Cubans to make a virtue out of necessity in many areas of life, the government's continuous drive towards a better educated populace has allowed this knowledge to flourish. Video games are a huge part of this, and Cuba's video gaming industry highlights evolving attitudes towards Cuba's place in the world, whilst showing

that the government wish to keep a firm guiding hand on the content of games. This is a fine balancing act.

At a global level, there does not seem to be a single government which is immune to the dilemmas which are brought about by the advent of information technologies: unbridled access has the potential to birth a knowledgeable, empowered population, who can bring great prestige and economic benefit to the nation; however, this could also lead to a loss of government control, and therefore risk destabilising existing power structures. Each country has its own approach to this quandary, running the gamut from overt oppression, to covert surveillance, and, increasingly, legislative measures. Cuba's approach has been varied and complex, but the government has largely taken the view that the use of technology is generally to be encouraged, and access to the internet, that most crucial marker of any free modern society, has been improving exponentially in terms of speed and affordability year on year. As demonstrated by the longstanding interdisciplinary approach to information technology education, the government sees new technologies as having the potential to aid in imparting traditional values and an education rooted in Cuba's cultural heritage.

Central to this attitude has been the conviction that technology should not be learned about in a vacuum, but rather that it should be put to use in the furthering of Cuba's cultural values; we see this in the experiences of people such as interviewee Albio Figueredo of Televisión Serrana, whose idea to pen a thesis on a purely technical subject (Linux) rather than the cultural and philosophical implications of technologies, seemed to fall outside the norm. Whilst this trend may have frustrated people such as Figueredo, it has also led to the cultivation of a unique technological landscape on the island, one which has relied upon, rather than being in conflict with, existing social and cultural networks. From the *paquete semanal* (Cuba's very own sneakernet), Havana's SNet network, and the deeply social nature of modern Cuban gaming, we can construct a picture of a country which has clutched new technologies close to itself, not only at an official level but, most significantly, at an informal one. This has allowed Cubans to take ownership of new technologies and put them into service for the furthering of existing social connections, whether those connections were originally built upon digital technology themselves (in the case of Televisión Serrana), or whether they were purely analogue in nature, as with Teatro Andante. Transnational digital information flows may tend to privilege and promote particular national identities, but in Cuba this same technology has been repurposed as a tool for the furthering of the Cuban cause. This development of a rhizomic technological network has served the interests of technological development, and has evolved in response to Cuba's

existing structures and the necessity of adapting to a more highly localised system in response to a lack of resources. As we see, then, computing and gaming provide us with a novel lens through which to view Cuba's present cultural and political landscape, as well as past events.

At this confluence of existing networks, a competitive, values-based drive to raise the quality and spread of technological education, and the universal urge to play and explore, sits Cuba's relationship with video games. So we arrive at our final question: do the games which people play, and the sorts of games being developed on the island, have a directly identifiable relationship with existing cultural and historical myth, or is gaming a disruptive, invasive anomaly? As previously discussed, the social environment of the Joven Club centres negates, to a certain extent, the potential for isolation about which so many people worry when gaming comes into play. This effect is amplified in places such as Granma, where relative poverty and lack of readily available products mean that individual computer ownership, and therefore solitary usage, remains relatively low. By examining which games are most popular amongst Cubans across the island, we can glean that what appeals most to young Cubans are games which build upon the desire to socialise and engage in collaborative play. Following in the wake of games such as *Starcraft* and *Defense of the Ancients*, *World of Warcraft* has allowed for yet greater possibilities for the exploration of virtual identities, whilst rooting players in their local and national environments. At the same time, the games which are being made by this generation of developers demonstrate a desire to not only create entertaining games which appeal to gamers seeking an immersive experience, but which also reflect the values and commitment to the very analogue heritage which many fear is being threatened by digital culture. Rather than posing a threat to traditional heritage, gaming allows for novel ways to inhabit, engage, and form personal bonds with such values. Games are used in Cuba to educate, inculcate, and entertain, and it seems that the greatest frustration to the success of these divergent aims is that which is imposed by restrictions on the nation's access to the necessary hardware and software, along with more basic issues of infrastructure, such as reliable electricity. Somewhere like Granma provides us with an interesting snapshot into how video games are interacting with Cuban culture and Cubans' relationships to their shared history, at both a local and national level. The province provided the physical staging for the birth of so many of Cuba's myths from the Revolution (and prior), and is also heavily involved in the production of video games, whilst at the same time being geographically remote, economically disadvantaged, and historically inventive when it comes to promoting local culture and exploiting technologies. Indeed, Granma, the *Cuba profunda*, furnishes us with perhaps a far more fitting national synecdoche than Havana,

whose relative prosperity, abundance of tourism, increased government investment, and steady influx of migrants from other regions of Cuba, all delineate a growing separation from the experiences of Cubans elsewhere on the island.

Granma may be among the poorest of the provinces, financially speaking, but it is soaked in the very history and symbolism which is so perpetually present in the values professed by the leadership, and which clearly hold a prominent position in the minds of so many of the island's educators and creatives. The myths in which Granma is steeped – the people and stories of the 1959 Revolution and its predecessors, from Martí to the *hombre nuevo* and beyond – are the threads from which contemporary Cuban identity is woven; whether any given Cuban is an ardent Castrist or passionately condemnatory of the Revolution, the stories and characters which make up the nation's history will all contribute to their personal mythos, and to the values by which a nation lives. New technologies both inform and are transformed by these myths; the *informáticos* take up the mantle of the *alfabetizadores*, whilst transforming the meaning of literacy via technology. The myths themselves mutate and evolve in response to the challenges which new technologies pose, and the ways in which the technologies themselves are wrought and implemented are a direct response to the environment in which they are conceived. The medium of the video game, which grants a player more agency by way of their participation in the action of the game, serves to amplify this process. In Cuba's video gaming landscape, we see this dynamic expressed in both the content of the games which are produced domestically, and also in that of the most popular imported games.

Throughout this thesis we have seen how myth, as practiced through the medium of video games, encourages and allows for the strengthening of social bonds and networks. Beyond this, games such as *World of Warcraft* provide players with the experience of participating in and leading noble campaigns pitting good against evil, allowing them to inhabit the heroic roles which have been presented to them, via pervasive and consistent messages across education and culture, as being the very essence of their national identity. Video games, then, present a uniquely immersive, engaging, and attractive way for young Cubans to conceptualise and bond with their national history and the myths which underlie it, whilst also engaging in the development of their own personal myths; in the case of Revolution-rich Granma in particular, the connection to – and centring of – the local is accentuated alongside the national. Future theories around gaming will need to find a way to reflect the significance of the social dynamics of gaming in contexts such as this rather than focusing solely on the narrative content of the games. As we have seen, the existing literature on the

relationship between gaming and myth in particular is sparse; it is therefore ripe for further study.

Finally, the inherently international nature of modern computing, so intimately intertwined with physical (cabled) and conceptual communication networks, leads us almost inevitably towards a more rhizomic approach to modern cultural structures. Whilst it is true that there exist a great many areas of inequality in levels of access to computing across the world, it is also undeniable that digital technology has widened the ways and means with which people can communicate, and has therefore also altered the ways in which nations are able to (re)position themselves in multiple global structures. Video games are an important part of this for Cuba, and are providing opportunities and impetus for development, both at home and abroad. Examining Cuban computing and video games – and both foreign and domestic reception of the same – will tell us just as much about Cuba's social and political context as it will about wiring and motherboards. Cuba is disrupting global creative trends by having a gaming industry which is almost entirely state-run, and thereby simultaneously disrupting the capitalist aspects of video gaming. At the same time, gaming is disturbing traditional notions of heritage and culture within Cuba. Whilst this mutual disruption may not be unique in and of itself, the context within which it is happening most certainly is. As previously alluded to, this wider background is a crucial element of analysing a given gaming environment; an approach which privileges context must come to the conclusion that Cuba is an essential site for further study in the field of video games.

By examining the approach towards video games in what is a globally unique game development environment, this thesis has demonstrated the inadequacies in existing, Western-centric video game theory, which, traditionally, has not sufficiently accounted for variation in political, economic, cultural, and infrastructural development contexts. Video games are playing a crucial role in the formation of new, emerging identities for Cuban citizens, at a time when both of their relationships with the rest of the world are rapidly evolving. Myth is a constantly renegotiated dialogue between past, present, and future, and video games are helping to reframe contemporary and historical Cuban myth as a *real patrimonio del pueblo*. At the same time, Cuba is providing an entirely distinctive and relatively under-studied insight into the potential of gaming as a social tool, rather than a purely technological one, and the role which it can play in the evolution of local, national, and personal myth.

Appendix I

Information Sheet for Participants

This project aims to examine different cultural forms in Granma Province, Cuba, and how they have changed since the 1959 Revolution, with a particular focus on the years since the Special Period of 1989. This project is being undertaken by Miranda Lickert, a doctoral researcher from the University of Reading, UK, under the supervision of Dr Par Kumaraswami and Professor Antoni Kapcia. This project will form the basis of Miranda Lickert's doctoral thesis. This project has been reviewed by the University Research Ethics Committee and has been given a favourable ethical opinion for conduct.

This project will look at the following cultural forms: Televisión Serrana, the local TV station based in the Sierra Maestra; modern technology and video games, particularly in the context of the Joven Club youth centres; and the role of the Casa de Cultura in cultural education and dissemination.

Participants will be selected in consultation with local cultural centres; these cultural centres have strong ties to their local community, and will collaborate with the researcher on how best to advertise the project and approach participants. Since this project aims to collect as broad a spectrum of experiences and opinions as possible, anybody from within the target communities (Bayamo, Bartolomé Masó, San Pablo de Yao) who wishes to be interviewed will be considered. Participation will be voluntary, and no reimbursement will be offered to participants. If a participant wishes to withdraw at any time, then they can do so by contacting the researcher or her supervisors using the contact information above, and their contributions to the project will be discarded. It is possible that the researcher will have the opportunity to include children aged 5-16 in her interviews. If this is the case, both the child(ren) in question and their parent or guardian will sign a consent form, and both the child(ren) and their parent or guardian will have the right to terminate the interview and/or withdraw from the project. Both the child(ren) and their parent or guardian must agree to participate in order for the interview to be included; consent by only one party will not be considered valid.

The length of the interviews will be dictated by the participants, depending on how much they wish to say and how much time they are willing to commit. The researcher will provide some open questions, but these will act mostly as prompts or guides to allow the interviewee to talk freely. The interviewee will be allowed to dictate the course of the interview to a large extent, and to spend more time discussing areas which interest them, and about which they have more knowledge. At no point will an interviewee be pressed to discuss subjects with which they are not comfortable, and they will have the right to terminate the interview at any time, without protest or further questioning from the researcher.

Audio recordings of interviews, and any notes pertaining to them, will be shared only between the researcher, and her project supervisors, and will be stored on a password-protected external hard drive. Once the final thesis has been successfully submitted, all raw data will be completely deleted from the hard drive. It is possible that part(s) of this thesis will be published as a contribution to a separate book, or as a number of articles. All participants who request it will be given false names in the final thesis and all related works to ensure their anonymity. Any participant who requests it will be provided with either an electronic or hard copy of the completed thesis.

If any participant has any doubts or queries regarding the project, they can contact the researcher or her supervisors using the contact information at the top of this sheet.

If, having carefully read this information sheet, you decide that you wish to participate, then I would like to take this opportunity to offer my gratitude for your invaluable contribution to this project.

Appendix II

Consent Form For Participants

1. I have read and had explained to me by the researcher, Miranda Lickert, a doctoral student from the University of Reading, UK, the accompanying Information Sheet relating to her project examining the experience of different cultural forms in Granma Province, Cuba.

2. I have had explained to me the purposes of the project and what will be required of me, and any questions I have had have been answered to my satisfaction. I agree to the arrangements described in the Information Sheet in so far as they relate to my participation.

3. I understand that participation is entirely voluntary and that I have the right to withdraw from the project any time, and that this will be without detriment.

4. This application has been reviewed by the University Research Ethics Committee and has been given a favourable ethical opinion for conduct.

5. If I am under 16 years of age, I understand that I will need the permission of a parent or guardian. I also understand that my parent/guardian cannot force me to participate unless I choose to do so.

6. I have received a copy of this Consent Form and of the accompanying Information Sheet.

Name: ……

Date of birth: ……

Signed: ……...……

Date: ……...……

If the participant is under 16:

Name of parent/guardian/teacher: ……

Date of birth: ……..……

Signed: ……...……

Date: ……...……

List of Recorded Interviews

Interviews are referenced using the following format:
Interviewee surname(s), first name(s) (year) Interview with Miranda R. Lickert. Date: location.

Álvarez Proense, Yanelis (2016) Interview with Miranda R. Lickert. 28th of April 2017: Bartolomé Masó, Granma, Cuba.

Cabrera Llorente, Leonel (2017) Interview with Miranda R. Lickert. 9th of May 2017: Bartolomé Masó, Granma, Cuba.

Espina Prieto, Rodrigo (2017) Interview with Miranda R. Lickert. 27th of April 2017: Havana, Cuba.

Figueredo, Albio (2017) Interview with Miranda R. Lickert. 11th of May 2017: San Pablo de Yao, Granma, Cuba

González Fiffe, Juan (2016) Interview with Miranda R. Lickert. 10th of May 2016: Bayamo, Granma, Cuba.

Leyva Hernández, Dainer (2016) Interview with Miranda R. Lickert. 26th of April 2016: Caney de las Mercedes, Granma, Cuba.

Leyva Hernández, Dainer (2017) Interview with Miranda R. Lickert. 18th of May 2017: Caney de las Mercedes, Granma, Cuba.

Muñoz Hidalgo, Inoelvis (2017) Interview with Miranda R. Lickert. 9th of May 2017: Bartolomé Masó, Granma, Cuba.

Ponce Milán, Juana (2016) Interview with Miranda R. Lickert. 28th of April 2016: Bartolomé Masó, Granma, Cuba.

Ramírez Soto, Luis Arturo (2016) Interview with Miranda R. Lickert. 19th of April 2016: Bayamo, Granma, Cuba.

Ramírez Soto, Luis Arturo (2017) Interview with Miranda R. Lickert. 29th of May 2017: Bayamo, Granma, Cuba.

Ramos Mendoza, Claribel (2017) Interview with Miranda R. Lickert. 18th of May 2017: Caney de las Mercedes, Granma, Cuba.

Remón Mecías, Rafael Isidro (2017) Interview with Miranda R. Lickert. 30th of May 2017: Universidad de Granma, Manzanillo, Granma, Cuba.

Rodríguez Jiménez, Kenia (2016) Interview with Miranda R. Lickert. 30th of April 2016: San Pablo de Yao, Granma, Cuba.

Rodríguez Jiménez, Kenia (2017) Interview with Miranda R. Lickert. 11th of May 2017: San Pablo de Yao, Granma, Cuba.

Valdespino Tamayo, Marbelis (2017) Interview with Miranda R. Lickert. 12th of May 2017: Buey Arriba, Granma, Cuba.

Wong Iglesias, Wendy (2016) Interview with Miranda R. Lickert. 11th of April 2016: Havana, Cuba.

Wong Iglesias, Wendy (2017) Interview with Miranda R. Lickert. 28th of April 2017: Havana, Cuba.

Bibliography

Artwork

Char Davies (1995) *Osmose* [Digital]

Books and Journals

Aarseth, E. (1997) *Cybertext: Perspectives on Ergodic Literature*. Baltimore, MD: John Hopkins University Press.

Aarseth, E. (2001) Computer Game Studies, Year One. *Game Studies*, 1(1) [Online] Available at: http://www.gamestudies.org/0101/editorial.html [Accessed 15/08/2016]

Acosta, L. (1971) La concepcion historica de Martí. *Casa de las Americas*, 67: 36-42.

Adorno, T., and Horkheimer, M. (1979) *Dialectic of Enlightenment*. London: Allen Lane.

Adorno, T. (1991) *The Culture Industry*. London: Routledge.

Akrich, M., and Latour, B. (1992) A Summary of a Convenient Vocabulary for the Semiotics of Human and Nonhuman Assemblies. In: Bijker, W.E., and Law, J. (eds) *Shaping Technology/Building Society: Studies in Sociotechnical Change*. Cambridge: MIT Press, pp259-264.

Alonso González, P. (2014) Transforming ideology into heritage: A return of nation and identity in late socialist Cuba?. *International Journal of Cultural Studies*, 19(2): 1-21.

Alonso González, P. (2018) *Cuban Cultural Heritage: A Rebel Past for a Revolutionary Nation*. Florida: University Press of Florida.

Ang, I. (1996) *Living Room Wars: Rethinking Media Audiences for a Postmodern World*. London: Routledge.

Appadurai, A. (ed) (1988) *The Social Life of Things: Commodities in Cultural Perspective.* Cambridge: Cambridge University Press.

Appadurai, A. (1990) Disjuncture and difference in the global cultural economy. *Theory, Culture & Society*, 7(2-3): 295-310.

Ash, J. (2015) *The Interface Envelope: Gaming, Technology, Power*. London, Bloomsbury.

Azicri, M. (2000) *Cuba Today and Tomorrow: Reinventing Socialism*. Florida: University of Florida Press.

Bal, M., Crewe, J., and Spitzer, L. (1999) *Acts of Memory: Cultural Recall in the Present*. Hanover, NH: University Press of New England.

Barquín, R.C., (1976) Computation in Latin America: An Annotated Bibliography and Other Sources of Information. *Latin American Research Review*, 11(1): 75-102.

Barthes, R. (2000) *Mythologies*. London: Vintage.

Bartle, R. (2010) A "Digital Culture, Play and Identity: A *World of Warcraft* Reader" Reader. *Game Studies*, 10(1) [Online] Available at: http://gamestudies.org/1001/articles/bartle [Accessed 26/08/2019]

Bell, A.G. (1972) *Games Playing with Computers.* London: Allen and Unwin.

Bell, K. (2013) Doing Qualitative Fieldwork in Cuba: Social Research in Politically Sensitive Locations. *International Journal of Social Research Methodology*, 16(2): 109-124.

Berg, S. (1988) Snowball Sampling. In: Kotz, S. and Johnson, N. L. (Eds.) *Encyclopaedia of Statistical Sciences Vol. 8*. New York, NY: Wiley.

Bergson, H. (1954) *The Two Sources of Morality and Religion*. New York, NY: Doubleday.

Bhabha, H. (1988) The Commitment to Theory. *New Formations*, 5: 5-23.

Bidney, D. (1955) Myth, Symbolism, and Truth. *The Journal of American Folklore*, 68: 379-392.

Bijker, W.E., and Law, J. (eds) (1992) *Shaping Technology/Building Society: Studies in Sociotechnical Change*. Cambridge: MIT Press.

Blum, D. (2015) Cuban Educational Reform During the "Special Period": Dust, Ashes, and Diamonds. In: Brenner, P., Jimenez, M.R., and Kirk, J.M. (eds) *A Contemporary Cuba Reader: The Revolution Under Raul Castro*. United States: Rowman & Littlefield Publishers, pp423-431.

Boas, T.C. (2000) The Dictator's Dilemma: The Internet and U.S. Policy Towards Cuba. *The Washington Quarterly*, 23(3): 57-67.

Bogost, I. (2006) *Unit Operations: An Approach to Videogame Criticism*. Cambridge, MA: MIT Press.

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

Bogue, R. (2010) *Deleuzian Fabulation and the Scars of History*. Edinburgh: Edinburgh University Press.

Bolender, K. (2012) *Cuba Under Siege: American Policy, the Revolution and Its People*. New York, NY: Palgrave Macmillan.

Bonnechère, B. (2018) *Serious Games in Physical Rehabilitation: From Theory to Practice*. eBook: Springer Nature.

Bonnemaison, J. (2005) *Culture and Space: Conceiving a New Cultural Geography*. London: I.B. Tauris and Co Ltd.

Bordwell, D., and Thompson, K. (1997) *Film Art: An Introduction*. New York, NY: McGraw-Hill.

Brenner, P., Jimenez, M.R., and Kirk, J.M. (eds) (2008) *A Contemporary Cuba Reader: Reinventing the Revolution*. United States: Rowman and Littlefield Publishers.

Brenner, P., Jimenez, M.R., and Kirk, J.M. (eds) (2015) *A Contemporary Cuba Reader: The Revolution Under Raul Castro*. United States: Rowman & Littlefield Publishers.

Browitt, J. (2004) (Un)common Ground? A Comparative Genealogy of British and Latin American Cultural Studies. In: King, S. and Browitt, J. (eds) *The Space of Culture: Critical Readings in Hispanic Studies*. Newark: University of Delaware Press, pp 54-80.

Brox, E., Fernandez-Luque, L., and Tøllefsen, T. (2011) Healthy Gaming: video game design to promote health. *Applied Clinical Informatics*, 2: 128-142.

Bunck, J.M. (1994) *Fidel Castro and the Quest for a Revolutionary Culture in Cuba*. Pennsylvania: The Pennsylvania State University Press.

Burlein, A. (1999) Countermemory on the Right: The Case of Focus on the Family. In: Bal, M., Crewe, J., and Spitzer, L. (eds) *Acts of Memory: Cultural Recall in the Present*. Hanover, NH: University Press of New England, pp208-217.

Cabrera Infante, G (2003) Mea Cuba. In: Chomsky, A., Carr, B., and Smorkaloff, P.M. (eds) *The Cuba Reader: History, Culture, Politics*. Durham & London: Duke University Press, pp481-487.

Caillois, R. (2001) *Man, Play and Games.* Chicago, IL: Simon and Schuster.

Callon, M. (1991) Techno-Economic Networks and Irreversibility. In Law, J. (ed) *A Sociology of Monsters: Essays on Power, Technology and Domination*. London: Routledge.

Callon, M. (1999) Actor-Network Theory – The Market Test. In Hassard, J. and Law, J. (eds) *Actor Network Theory and After*. Oxford: Blackwell Publishers

Callon, M., and Law, J. (1997) After the Individual in Society: Lessons on Collectivity from Science, Technology and Society. *Canadian Journal of Sociology*, 22 (2): 165-182.

Cambre, M.C. (2011) Stealing or Steeling the Image? The failed branding of the Guerrillero Heroico image of Che Guevara. *Imaginations*, 3(1): 64-87.

Campbell-Kelly, M. (2003) *From Airline Reservations to Sonic the Hedgehog: A History of the Software Industry*. Cambridge, MA: MIT Press.

Canguilhem, G. (2000) *A Vital Rationalist: Selected Writings from Georges Canguilhem.* New York: Zone Books.

Cantón Navarro, J., and Duarte Hurtado, M. (2006) *Cuba: 42 Años de Revolución – Cronológica Histórica 1959-1982*. Havana: Editorial de Ciencias Sociales.

Cardoso, G., Cheong, A., and Cole, J. (eds) (2009) *World Wide Internet: Changing Societies, Economies and Cultures*. Macau: University of Macau Press.

Casacó, L. (2004) The Cuban Software Industry. In: Ritter, A. R. M. (ed) *The Cuban Economy*. Pittsburgh, PA: University of Pittsburgh Press, pp172-180.

Casey, M. (2009) *Che's Afterlife: The Legacy of an Image*. New York, NY: Vintage Books.

Castells, M. (1996) *The Rise of the Network Society*. Oxford: Blackwell.

Castells, M. (2001) *The Internet Galaxy: Reflections on the Internet, Business, and Society*. Oxford: Oxford University Press.

Castells, M. (ed) (2004) *The Network Society: A Cross-Cultural Perspective*. Cheltenham, UK: Edward Elgar Publishing Limited.

Castells, M. (2013) The Impact of the Internet on Society: A Global Perspective. In: *Change: 19 Key Essays on How Internet is Changing Our Lives.* [Online] Available at: https://www.bbvaopenmind.com/en/book/19-key-essays-on-how-internet-is-changing-our-lives/ [Accessed 19/03/18]

Castells, M., Tubella, I., Sancho, T., and Roca, M. (2007) *La transición a la sociedad red.* Barcelona: Ariel.

Castro, R. (1996) The Political and Social Situation in Cuba and the Corresponding Tasks of the Party. *Granma International*, March 27.

Castro Ruz, F. (1980) Palabras a los Intelectuales. In: Congreso PCC (ed) *Revolución, Letras, Arte*. Havana: Editorial Letras Cubanas, pp7-30.

Castro Ruz, F. (1987) A Historic Moment, Two Speeches by Castro. *New International*, 6: 220-226.

Castro Ruz, F., (1996) The Political and Social Situation in Cuba and the Corresponding Tasks of the Party. *Granma International*, March 27.

Castro Ruz, F. (2003) *La Batalla de Ideas*. Havana, Cuba: Editora Política.

Castro Ruz, F. (2012) Discurso en la clausura del II Congreso de los Pioneros, Palacio de las Convenciones, 20 de julio de 1996. In: Pérez Salomón, O. (2012) *Fidel Castro Soldado de las Ideas: Tecnologías y Medios de Comunicación, Selección Temática 1959-2011* [Digital] Havana: Editorial Citmatel.

Castro Ruz, F. (2012a) Discurso en la clausura del V Congreso de la Unión de Jóvenes Comunistas, 5 de abril de 1987. *Ediciones OR-1*, Jan-Jun 1987: 42-43. In: Pérez Salomón, O. (ed) *Fidel Castro Soldado de las Ideas: Tecnologías y Medios de Comunicación, Selección Temática 1959-2011* [Digital] Havana: Editorial Citmatel.

Castro Ruz, F. (2012b) Discurso en la Tribuna Antimperialista por el 40 Aniversario de la creación de los CDR, 28 de septiembre del 2000. In: Pérez Salomón, O. (ed) *Fidel Castro Soldado de las Ideas: Tecnologías y Medios de Comunicación, Selección Temática 1959-2011* [Digital] Havana: Editorial Citmatel.

Cavalli-Sforza, L.L., and Feldman, M.W. (1981) *Cultural Transmission and Evolution: A Quantitative Approach.* Princeton, NJ: Princeton University Press.

Centeno, M. (2004) The Return of Cuba to Latin America: The End of Cuban Exceptionalism? *Bulletin of Latin American Research*, 23(4): 403-413.

Chan, A.S. (2013) *Networking Peripheries: Technological Futures and the Myth of Digital Universalism*. London: MIT Press.

Chanan, M. (2004) *Cuban Cinema*. Minneapolis: University of Minnesota Press.

Charters, W.W. (ed) *Motion Pictures and the Social Attitudes of Children: A Payne Fund Study*. New York: Macmillan & Company.

Chomsky, A., Carr, B., and Smorkaloff, P.M. (eds) (2003) *The Cuba Reader: History, Culture, Politics*. Durham & London: Duke University Press.

Clarke, A.C. (1973) *Profiles of the Future: An Inquiry Into the Limits of the Possible*. New York, NY: Harper & Row.

Cohen, S. (2011) *Folk Devils and Moral Panics: The Creation of the Mods and the Rockers*. London: Routledge.

Cole, H., and Griffiths, M.D. (2007) Social Interactions In Massively Multi-Player Online Role-Playing Games. *Cyberpsychology & Behaviour*, 10(4): 575-583.

Concepción, J. R. (2017) *La cultura empaquetada: Análisis de la distribución y el consumo audiovisual informal del Paquete Semanal por jóvenes de La Habana*. BSc thesis, University of Havana.

Conger, S., Loch, K.D., and Helft, B.L. (1994) Information technology and ethics: an exploratory factor analysis. In: Kizza, J.M. (ed) *Proceedings of the Conference on Ethics in the computer* age *(ECA '94)*. New York, NY: ACM, pp22-27. [Online] Available at: https://dl.acm.org/citation.cfm?id=199556 [Accessed 04/08/2016]

Congreso PCC (ed) (1980) *Revolución, Letras, Arte*. Havana: Editorial Letras Cubanas.

Connor, S. (1989) *Postmodernist Culture: An Introduction to Theories of the Contemporary*. Oxford: Basil Blackwell.

Cooke, L., and Hubbell, G.S. (2015) Working Out Memory With a Medal of Honor Complex. *Game Studies*, 15(2) [Online] Available at: http://gamestudies .org/1502/articles/cookehubbell [accessed 15/08/2016]

Corneliussen, H.G., and Rettberg, J.W. (eds) (2008) *Digital Culture, Play, and Identity: A World of Warcraft ® Reader*. [Kindle] London: MIT Press.

Corneliussen, H.G., and Rettberg, J.W. (2008) Introduction: “Orc Professor LFG,” or Reseaching in Azeroth. In: Corneliussen, H.G., and Rettberg, J.W. (eds) *Digital Culture, Play, and Identity: A World of Warcraft ® Reader*. [Kindle] London: MIT Press, loc 31-216.

Correa, O., Cuervo, C., Pérez, P.C., and Arias, A. (2014) A new approach for self adaptive video game for rehabilitation - experiences in the amblyopia treatment. *2014 IEEE 3nd International Conference on Serious Games and Applications for Health (SeGAH), 14-16 May 2014, Rio de Janeiro*. [Online] Available at: https://ieeexplore.ieee.org/abstract/document/7067102/authors#authors [Accessed 18/08/2019]

Couldry, N. (2000) *Inside Culture: Re-imagining the method of cultural studies*. London: Sage.

Coulson, M., and Ferguson, C.J. (2016) The Influence of Digital Games on Aggression and Violent Crime. In: Kowert, R., and Quandt, T. (eds) *The Video Game Debate: Unravelling the physical, social, and psychological effects of digital gaming*. New York, NY: Routledge, pp54-73.

Cressman, D. (2009) A Brief Overview of Actor-Network Theory: Punctualization, Heterogeneous Engineering and Translation. [Online] Available at: http://faculty.georgetown.edu/irvinem/theory/Cressman-ABriefOverviewofANT.pdf [Accessed 20/03/18]

Cubela González, L.E., and Cabrera Rodríguez, P. (2018) La industria del videojuego cubano: retos y oportunidades para su creación. *VI Simposio Internacional de Comunidad, Entretenimiento y Redes Sociales, 19-23 March 2018, Havana.* [Online] Available at: http://www.informaticahabana.cu/sites/default/files/ponencias2018/COM25.pdf [Accessed 05/06/2019]

Curley, E. (1994) *A Spinoza Reader: The Ethics and Other Works.* Princeton, NJ: Princeton University Press.

D’Andrade, R. (1981) The Cultural Part of Cognition. *Cognitive Science*, 5: 179–195.

D’Andrade, R.G., and Strauss, C. (eds) (1992) *Human Motives and Cultural Models*. Cambridge: Cambridge University Press.

Davis, N. (1985) *The Last Two Years of Salvador Allende*. Ithaca, NY: Cornell University Press.

De Toro, A., and De Toro, F. (eds) (1999*) El Debate de la Postcolonialidad en América Latina: Una Modernidad Periférica o Cambio de Paradigma en el Pensamiento Latinamericano*. Madrid: Iberoamericana.

Deleuze, G., and Guattari, F. (1994) *What is Philosophy?* New York, NY: Columbia University Press.

Deleuze, G., and Guattari, F. (2005) *A Thousand Plateaus: Capitalism and Schizophrenia*. London: University of Minnesota Press.

Delwiche, A. (2007) From *The Green Berets* to *America's Army*: Video games as a vehicle for political propaganda. In: Williams, J.P., and Smith, J.H. (eds.) *The Players' Realm: Studies on the culture of video games and gaming*. London: McFarland and Co, pp91-109.

Dhillon, G. (2002) *Social Responsibility in the Information Age: Issues and Controversies*. London: Idea Group Publishing.

Domínguez, M.I. (2015) Cuban Youth: From the "Special Period" to the "Updating" of the Economic and Social Model. In: Brenner, P., Jimenez, M.R., and Kirk, J.M. (eds) *A Contemporary Cuba Reader: The Revolution Under Raul Castro*. United States: Rowman & Littlefield Publishers, pp381-388.

Dorfman, A., and Mattelart, A. (1975) *How to Read Donald Duck: Imperialist Ideology in the Disney Comic*. New York, NY: International General.

Durham, E.R. (1980) A família operária: consciência e ideología. *Dados*, 23(2): 201-214.

Durkin, K., and Barber, B. (2002) Not So Doomed: Computer Game Play and Positive Adolescent Development. *Journal of Applied Developmental Psychology*, 23(4): 373-392.

Dutta, M.J. (2014) A Culture-Centred Approach to Listening: Voices of Social Change. *International Journal of Listening*, 28(2): 67-81.

Eco, U. (1979) *A Theory of Semiotics. London*: John Wiley and Sons.

Eco, U. (1984) *Semiotics and the Philosophy of Language*. London: Macmillan.

Eladhari, M. (2007) The Player's Journey. In: Williams, J.P. and Smith, J.H., (eds) *The Players' Realm: Studies on the culture of video games and gaming*. London: McFarland and Co., pp171-188.

Elkin, A. (1949) Man and His Cultural Heritage. *Oceania*, 20(1): 1-28.

Enriquez, L. (2005) Economic Reform and Repeasantization in post-1990 Cuba. *Latin American Research Review*, 38(1): 202-17.

Fagen, R. R. (1969) *The Transformation of Political Culture in Cuba*. Stanford, CA: Stanford University Press.

Farber, S. (2011) *Cuba Since the Revolution of 1959: A Critical Assessment*. Chicago, IL: Haymarket Books.

Fencott, C., Clay, J., Lockyer, M., and Massey, P. (2012) *Game Invaders: The Theory and Understanding of Computer Games*. Hoboken, NJ: John Wiley and Sons.

Fernandes, S. (2006) *Cuba Represent!: Cuban Arts, State Power, and the Making of New Revolutionary Cultures*. United States: Duke University Press.

Fernandez Retamar, R. (1989) *Caliban and Other Essays*. Minneapolis, MN: University of Minnesota Press.

Fernandez Retamar, R. (2003) Caliban. In: Chomsky, A., Carr, B., and Smorkaloff, P.M. (eds) *The Cuba Reader: History, Culture, Politics*. Durham & London: Duke University Press, pp451-457.

Filiciak, M. (2003) Hyperidentities: Postmodern Identity Patterns in Massively Multiplayer Online Role-Playing Games In: Wolf, M.J.P., and Perron, B. (eds) *The Video Game Theory Reader*. New York, NY: Routledge, pp87-102.

Fisher, M. (2014) *Ghosts of My Life: Writings on Depression, Hauntology and Lost Futures*. London: Zero Books.

Fiske, J. (1989) *Understanding Popular Culture*. Boston, MA: Unwin Hyman.

Foucault, M. (1977) *Language, Counter-memory, Practice*. Edited by Bouchard, D.F., and translated by Bouchard, D.F., and Simon, S. Ithaca, NY: Cornell University Press.

Foucault, M. (1980). *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977*. New York, NY: Pantheon Books.

Franklin, S., Lury, C., Stacey, J. (2000) *Global Nature, Global Culture*. London: Sage.

Frissen, P. (2012) The Virtual State: Postmodernisation, Informatisation and Public Administration. In: Loader, B. (ed) *The Governance of Cyberspace: Politics, Technology and Global Restructuring*. United Kingdom: Routledge, pp111-125.

Frosh, S. (ed) (2015) *Psychosocial Imaginaries: Perspectives on Temporality, Subjectivities and Activism*. New York: Palgrave Macmillan.

Fuente, A. de la (2001) *A Nation for All: Race, Inequality, and Politics in Twentieth-Century Cuba.* London: University of North Carolina Press.

Gainsbury, S. (2005) *The 'Great Debate' as the Fulcrum of Competing Narratives of the Cuban Revolution*. PhD thesis, University of Wolverhampton.

Gans, H.J. (1974) *Popular Culture and High Culture.* New York: Basic Books.

García-Canclini, N. (1987) Ni folclórico ni masivo, ¿qué es lo popular? [Online] Available at: http://www.infoamerica.org/documentos_pdf/García_canclini1.pdf [Accessed 15/02/2016]

García-Canclini, N., and Roncagliolo, R. (eds) (1988) *Cultura Transnacional y Culturas Populares*. Lima, Peru: IPAL.

García-Canclini, N. (1995) *Hybrid Cultures: Strategies for Entering and Leaving Modernity*. Minneapolis: University of Minnesota Press.

Giddens, A. (1990) *The Consequences of Modernity*. Cambridge: Polity Press.

González Pérez, F.M. (2015) *Cuando la realidad no es suficiente: acercamiento a los usos sociales de los videojuegos en redes informales de La Habana.* BA Thesis: Universidad de La Habana.

Gordon-Nesbitt, R. (2014) The social value of culture: learning from revolutionary Cuba. *International Journal of Cultural Policy*, 20(2): 155-169.

Gordon-Nesbitt, R. (2015) *To Defend the Revolution is to Defend Culture: The Cultural Policy of the Cuban Revolution*. Oakland, CA: PM Press.

Guerra, L. (2005) *The Myth of José Martí: Conflicting Nationalisms in Early Twentieth-Century Cuba*. London: University of North Carolina Press.

Guevara, E. (1965) *El Socialismo y el Hombre en Cuba* [Online] Available at: https://www.marxists.org/espanol/guevara/65-socyh.htm [Accessed 19/02/2016]

Guevara, E. (2003) Man and Socialism. In: Chomsky, A., Carr, B., and Smorkaloff, P.M. (eds) *The Cuba Reader: History, Culture, Politics*. Durham & London: Duke University Press, pp370-374.

Guevara, E. (2010) *El Socialismo y el Hombre en Cuba*. New York: Pathfinder Press.

Halbwachs, M. (1992) *On Collective Memory*. Chicago: University of Chicago Press.

Hall, S., and Jefferson, T. (eds) (1976) *Resistance Through Rituals: Youth Subcultures in Post-War Britain.* London: Hutchinson.

Hardt, M., and Negri, A. (2000) *Empire*. Cambridge, MA: Harvard University Press.

Hardt, M., and Negri, A. (2004) *Multitude: War and Democracy in the Age of Empire*. New York: Penguin.

Hart Dávalos, A. (2001) *Cultura Para el Desarrollo: El Desafío del Siglo XXI*. Havana: Editorial de Ciencias Sociales.

Harvey, D. (1989) *The Condition of Postmodernity*. Oxford: Blackwell.

Hassard, J., Law, J., and Lee, N. (1999) Preface. *Organization: Special Issue on ActorNetwork Theory*, 6(3): 387-390.

Hecht, G. (1998) *The Radiance of France: Nuclear Power and National Identity After World War II*. Cambridge, MA: MIT Press.

Henken, T.A., and van de Voort, S. (2015) From Cyberspace to Public Space? The Emergent Blogosphere and Cuban Civil Society. In: Brenner, P., Jimenez, M.R., and Kirk, J.M. (eds) *A Contemporary Cuba Reader: The Revolution Under Raul Castro*. United States: Rowman & Littlefield Publishers, pp99-110.

Hennessy, A. (1988) Cuba: A Client State? In: Calvert, P. (ed) *The Central American Security System: North-South or East-West?* Cambridge, UK: Cambridge University Press, pp75-91

Hernández, A., and Pérez, K. (2017) Criterios para verificar y validar mecanismos en el desarrollo de videojuegos. *Revista Antioqueña de las Ciencias Computacionales y la Ingeniería de Software*, 7(1): 7-12.

Hernández, A., Pérez, K., and Correa, O. (2017) Marco de trabajo ingenieril para el proceso de desarrollo de videojuegos. *Revista Antioqueña de las Ciencias Computacionales y la Ingeniería de Software*, 7(1): 13-26.

Hernández, R. (2005) Mirror of Patience: Notes on Cuban Studies, Social Sciences, and Contemporary Thought. In: Tulchin, J.S., Bobea, L., Espina Prieto, M.P., and Hernández, R. (eds) *Changes in Cuban Society Since the 1990s*. Washington, DC: Woodrow Wilson International Center for Scholars, pp139-154.

Hernandez-Reguant, A. (2004) Copyrighting Che: Art and Authorship under Cuban Late Socialism. *Public Culture* 16(1):1-29.

Hernández-Reguant, A. (ed) (2009) *Cuba in the Special Period: Culture and Ideology in the 1990s*. New York: Palgrave Macmillan.

Hernández-Reguant, A. (2009) Multicubanidad. In: Hernández-Reguant, A. (ed) *Cuba in the Special Period: Culture and Ideology in the 1990s*. New York: Palgrave Macmillan, pp69–88.

Herz, J.C. (1997) *Joystick Nation*. New York, NY: Little, Brown and Company.

Herzfeld, M. (2002) The Absent Presence: Discourses of Crypto-Colonialism. *South Atlantic Quarterly*, 101(4): 899–926.

Herzfeld, M. (2012) The Crypto-Colonial Dilemmas of Rattanakosin Island. *Journal of the Siam Society*, 100: 209-223.

Hobbes, T. (1994) *Leviathan: With Selected Variants from the Latin Edition of 1668*. Indianapolis: Hackett.

Hoggart, R. (1958) *The Uses of Literacy*. Harmondsworth: Penguin.

Holland, W., Jenkins, H., and Squire, K. (2003) Theory by Deisgn. In: Wolf, M.J.P., and Perron, B. (eds) *The Video Game Theory Reader*. New York, NY: Routledge, pp25-46.

Huesmann, L.R., Dubow, E.R., and Yang, G. (2013) Why is it Hard to Believe that Media Violence Causes Aggression? In: Dill, K.E. (ed) *The Oxford Handbook of Media Psychology*. Cambridge, UK: Oxford University Press, pp159-171.

Hughes, T.P. (1986) The Seamless Web: Technology, Science, Etcetera, Etcetera. *Social Studies of Science*, 2: 281–292.

Huizinga, J. (1949) *Homo Ludens*. London: Routledge and Kegan Paul Ltd.

Hulme, P. (2011) *Cuba's Wild East: A Literary Geography of Oriente*. Liverpool: Liverpool University Press.

Huntington, S. (1976) *The Change to Change: Modernization, Development and Politics*. New York, NY: Free Press.

Ivory, J.D. (2016) A Brief History of Video Games. In: Kowert, R., and Quandt, T. (eds) *The Video Game Debate: Unravelling the physical, social, and psychological effects of digital gaming*. New York, NY: Routledge, pp1-21.

Jacobs, A. (2015) The Demise of the Analogue Mind: Digital Primal Fantasies and the Technologies of Loss-less-ness. In: Frosh, S. (ed) *Psychosocial Imaginaries: Perspectives on Temporality, Subjectivities and Activism*. New York: Palgrave Macmillan, pp126-144.

Jameson, F. (1984) Postmodernism, or the cultural logic of late capitalism. *New Left Review*, 146: 59-92.

Judson, C.F. (1984) *Cuba and the Revolutionary Myth: The Political Education of the Cuban Rebel Army, 1953-1963*. Boulder, CO: Westview Press.

Juul, J. (2005) *Half-Real: Video Games Between Real Rules and Fictional Worlds*. Cambridge, MA: MIT Press.

Kapcia, A. (1989) Martí, Marxism and morality: The evolution of an ideology of revolution. *Journal of Communist Studies*, 5(4): 161-183.

Kapcia, A. (2000) *Cuba: Island of Dreams*. Oxford: Berg.

Kapcia, A. (2005) Educational revolution and revolutionary morality in Cuba: the 'New Man', youth and the new 'Battle of Ideas'. *Journal of Moral Education*, 34(4): 399-412.

Kapcia, A. (2008) *Cuba in Revolution: A History Since the Fifties*. London: Reaktion Books Ltd.

Kapcia, A. (2008a) Does Cuba Fit Yet Or Is It Still 'Exceptional'? *Journal of Latin American Studies*, 40(4): 627-650.

Kapcia, A. (2014) *Leadership in the Cuban Revolution: The Unseen Story*. London: Zed Books Ltd.

Karhulahti, V-M. (2015) Defining the Videogame. *Game Studies*, 15(2) [Online] Available at: http://gamestudies.org/1502/articles/karhulahti [Accessed 17/08/2016]

Karol, K.S. (1970) *Guerrillas in Power: The Course of the Cuban Revolution*. New York: Hill & Wang.

Kaveney, R. (2005) *From* Alien *to* The Matrix*: Reading Science Fiction Film*. London: I.B. Tauris.

Kharrazi, H., Lu, A.S., Gharghabi, F., and Coleman, W. (2012) A scoping review of health game research: past, present, and future. *Games Health*, 1: 153-164.

Kirk, J.M. (1979) From Apóstol to Revolutionary: The Changing Image of José Martí. *NorthSouth*, 4(7): 88-106.

Kirk, J.M., and Padura Fuentes, L. (2001) *Culture and the Cuban Revolution: Conversations in Havana*. Gainesville, FL: University Press of Florida.

Kirk, J.M. (1983) *José Martí*: *Mentor of the Cuban Nation*. Tampa, FL: University Presses of Florida.

Kizza, J.M. (ed) (1994) *Proceedings of the Conference on Ethics in the computer* age *(ECA '94)*. New York, NY: ACM. [Online] Available at: https://dl.acm.org/citation.cfm?id=199606 [Accessed 04/08/2016]

Kochanek, S. (1973) Introduction: Perspectives on the Study of Revolution and Social Change. *Comparative Politics*, 5(3): 13-319.

Kopytoff, I. (1988) The cultural biography of things: commoditization as process. In: Appadurai, A. (ed) *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press.

Kotz, S. and Johnson, N. L. (Eds.) *Encyclopaedia of Statistical Sciences Vol. 8*. New York, NY: Wiley.

Kowert, R. (2016) Social Outcomes: Online Game Play, Social Currency, and Social Ability. In: Kowert, R., and Quandt, T. (eds) *The Video Game Debate: Unravelling the physical, social, and psychological effects of digital gaming*. New York, NY: Routledge, pp94-115.

Kowert, R., Festl, R., and Quandt, T. (2014) Unpopular, Overweight, and Socially Inept: Reconsidering the Stereotype of Online Gamers. *Cyberpsychology, Behaviour, and Social Networking*, 17(3) [Online] Available at: https://pdfs.semanticscholar.org/36b8/4ce5525fbe33dadbaadfbacb324866e4df43.pdf [Accessed 03/07/2019]

Kowert, R., and Oldmeadow, J.A. (2013) (A) Social Reputation: Exploring the Relationship Between Online Video Game Involvement and Social Competence. *Computers in Human Behaviour*, 29(4): 1872-1878.

Kowert, R., and Quandt, T. (eds) (2016) *The Video Game Debate: Unravelling the physical, social, and psychological effects of digital gaming*. New York, NY: Routledge.

Krzywinska, T. (2008) *World Creation and Lore:* World of Warcraft *as Rich Text*. In: Corneliussen, H.G., and Rettberg, J.W. (eds) *Digital Culture, Play, and Identity: A World of Warcraft ® Reader*. [Kindle] London: MIT Press, loc 1509-1735.

Kumaraswami, P. (2009) Cultural Policy and Cultural Politics in Revolutionary Cuba: Re-reading the Palabras a los intelectuales (Words to the Intellectuals). *Bulletin of Latin American Research*, 28(4): 527–541.

Kumaraswami, P., and Kapcia, A. (2015) 'Recovering from Crisis?: Literature, Publishing, and Nation Building in Contemporary Cuba.' In: Brenner, P., Jimenez, M.R., and Kirk, J.M. (eds) *A Contemporary Cuba Reader: The Revolution Under Raul Castro*. United States: Rowman & Littlefield Publishers, pp359-366.

Lacan, J. (2007) *Ecrits: The First Complete Edition in English*. London: WW Norton and Company.

Laclau, E (2005) *On Populist Reason*. London: Verso.

Lambie, G. (2010) *The Cuba Revolution in the 21st Century*. London: Pluto Press.

Landsberg, A. (2004) *Prosthetic Memory: The Transformation of American Remembrance in the Age of Mass Culture*. New York: Columbia University Press.

Lash, S., and Urry, J. (1987) *The End of Organized Capitalism*. Cambridge: Polity Press.

Lash, S., and Urry, J. (1994) *Economies of Signs and Space*. London: Sage.

Lather, P. (2006) Paradigm proliferation as a good thing to think with: Teaching research in education as a wild profusion. *International Journal of Qualitative Studies in Education*, 19(1): 35–57.

Latour, B. (1987) *Science in Action: How to Follow Scientists and Engineers Through Society*. Cambridge: Harvard University Press.

Latour, B. (1996) On Actor-Network Theory: A Few Clarifications. *Soziale Welt*, 47(4): 369-381.

Latour, B. (1999) On Recalling ANT. In: Law, J. and Hassard, J. (eds) *Actor Network Theory and After*. Oxford: Blackwell Publishers, pp15-26.

Latour, B. (2005) *Reassembling the Social: An Introduction to Actor-Network Theory*. New York: Oxford University Press.

Laurel, B. (2014) *Computers as Theatre*. London: Addison-Wesley Professional.

Law, J. (1992) Notes on the Theory of the Actor-Network: Ordering, Strategy, and Heterogeneity. *Systems Practice* 5(4): 379-393.

Law, J. (1999) After ANT: Complexity, Naming and Topology. In Hassard, J. and Law, J. (eds) *Actor Network Theory and After*. Oxford: Blackwell Publishers.

Law, J. (2003) Traduction/Trahison: Notes on ANT. [Online] Centre for Science Studies, Lancaster University. Available at: https://www.lancaster.ac.uk/fass/resources/sociology-online-papers/papers/law-traduction-trahison.pdf [Accessed 21/01/2019]

Law, J. (2007) *Actor-Network Theory & Material Semiotics*. Draft version of April 25th 2007 [Online] Available at: http://www.heterogeneities.net/publications/LawANTandMaterialSemiotics.pdf. [Accessed 21/01/2019]

Leavis, F.R. (1977) *Mass Civilization and Minority Culture*. Philadelphia, PA: R.West.

LeBlanc, A.G., Chaput, J.P., McFarlane, A., Colley, R.C., Thivel, D., Biddle, S.J., Maddison, R., Leatherdale, S.T., Tremblay, M.S. (2013) Active Video Games and Health Indicators in Children and Youth: A Systematic Review. *PLOS ONE*, 8(6): e65351

Lee, N. and Brown, S. (1994) Otherness and the Actor Network: The Undiscovered Continent. *American Behavioral Scientist*, 36(6): 772-790.

Levy, S. (1984) *Hackers: Heroes of the Computer Revolution*. New York, NY: Doubleday.

Lewis, O., Lewis, R.M., and Rigdon, S.M. (1977) *Four Women: Living the Revolution – An Oral History of Contemporary Cuba*. London: University of Illinois Press.

Liestøl, G., Morrison, A., and Rasmussen, T. (eds) (2003) *Digital Media Revisited: Theoretical and Conceptual Innovations in Digital Domains*. Cambridge, MA: MIT Press.

Linares, C., Rivero, Y., Moras, P.E., and Mendoza, Y. (2010) *El consumo cultural y sus prácticas en Cuba*. Havana: Instituto Cubano de Investigación Cultural Juan Marinello.

Liu, M., and Peng, W. (2009) Cognitive and Psychological Predictors of the Negative Outcomes Associated with Playing MMOGs (Massively Multiplayer Online Games). *Computers in Human Behaviour*, 25(6): 1306-1311.

Loader, B. (ed) (2012) *The Governance of Cyberspace: Politics, Technology and Global Restructuring*. United Kingdom: Routledge.

López Jiménez, T. (2011) Cooperation Among Institutions of the Soviet Union and Cuba: Accomplishments Between 1972 and 1990. In: Impagliazzo, J., and Proydakov, E. (eds) *Perspectives on Soviet and Russian Computing: First IFIP WG 9.7 Conference, SoRuCom 2006, Petrozavodsk, Russia, July 3-7, 2006: Revised Selected Papers*. New York, NY: Springer, pp251-257.

López Jiménez, T., Gil Morell, M.F., and Estrada Negrin, A. (2010) Momentos del desarrollo de la informática y de su enseñanza en Cuba. *Serie Científica de la Universidad de las Ciencias Informáticas (SC-UCI)*, 3(9).

López Vigil, M. (2008) The Cuban Media. In: Brenner, P., Jimenez, M.R., and Kirk, J.M. (eds) *A Contemporary Cuba Reader: Reinventing the Revolution*. United States: Rowman and Littlefield Publishers.

Lorusso, A.M. (2015) *Cultural Semiotics: For a Cultural Perspective in Semiotics*. London: Palgrave Macmillan.

Lowenthal, D. (1998) Fabricating Heritage. *History and Memory*, 10(1): 5-24 [Online] Available at: http://www.jstor.org/stable/25681018 [Accessed 17/09/2017]

Luis, J.G. (2008) *Cuban Revolution Reader: A Documentary History of Fidel Castro's Revolution*. London: Ocean Press.

Luke, A. (2007) *Youth Culture and the Politics of Youth in 1960s Cuba*. United Kingdom: University of Wolverhampton.

Lury, C. (1996) *Consumer Culture*. Cambridge: Polity Press.

Lynd, R.S., and Lynd, M.H. (1929) *Middletown: A Study in Contemporary American Culture*. New York: Harcourt, Brace, and Company.

Lynd, R.S., and Lynd, M.H. (1937) *Middletown in Transition: A Study in Cultural Conflicts*. New York: Harcourt, Brace, and Company.

MacCallum-Stewart, E. (2008) "Never Such Innocence Again": War and Histories in *World of Warcraft*. In: Corneliussen, H.G., and Rettberg, J.W. (eds) *Digital Culture, Play, and Identity: A World of Warcraft ® Reader*. [Kindle] London: MIT Press, loc 511-787.

Mandel, E. (1978) *Late Capitalism*. London: Verso.

Mandryk, R.L., Gerling, K.M., Stanley, K.G. (2014) Designing Games to Discourage Sedentary Behaviour. In: Nijholt, A. (ed) *Playful User Interfaces*. Singapore: Springer Singapore, pp253-274.

Manovich, L. (2013) *Software Takes Command*. London: Bloomsbury Academic.

Marques, I. da C. (2006) Cloning computers: From rights of possession to rights of creation. *Science as Culture*, 14(2): 139-160.

Marshall, S.J., Biddle, S.J.H., Gorely, T., Cameron, N., and Murdey, I. (2004) Relationships between media use, body fatness and physical activity in children and youth: a meta-analysis. *International Journal of Obesity*, 28: 1238-1246.

Maté, G. (2010) *In the Realm of the Hungry Ghosts: Close Encounters with Addiction*. Berkeley, CA: North Atlantic Books.

Mäyrä, F. (2016) Exploring Gaming Communities. In: Kowert, R., and Quandt, T. (eds) *The Video Game Debate: Unravelling the physical, social, and psychological effects of digital gaming*. New York, NY: Routledge, pp153-175.

McMahan, A. (2003) Immersion, Engagement, and Presence: A Method for Analyzing 3-D Video Games. In: Wolf, M.J.P., and Perron, B. (eds) *The Video Game Theory Reader*. New York, NY: Routledge, pp67-86.

Medin, T. (1990) *Cuba: The Shaping of Revolutionary Consciousness*. Boulder, CO: Lynne Rienner Publishers Inc.

Medina, E. (2011) *Cybernetic Revolutionaries: Technology and Politics in Allende's Chile*. London: MIT Press.

Medina, E., Marques, I. da C., and Holmes, C. (eds) (2014) *Beyond Imported Magic: Essays on Science, Technology and Society in Latin America*. London: MIT Press.

Mejuto Fornos, M. (2016) Mirada hacia las Casas de Cultura. *A Las Raices*, June 2016, pp46-48.

Mesher, G.M., Briggs, R.O., Goodman, S.E., Snyder, J.M., and Press, L.I. (1992) Cuba, communism, and computing. *Communications of the ACM*, 35(11): 27-29 & 112.

Metz, C. (1982) *The Imaginary Signifier: Psychoanalysis and the Cinema*. Bloomington, IN: Indiana University Press.

Mignolo, W. (2000*) Local Histories/Global Designs: Coloniality, Subaltern Knowledges, and Border Thinking*. Princeton, NJ: Princeton University Press.

Miles, M.B., and Huberman, A.M. (1994) *Qualitative Data Analysis: A Sourcebook of New Methods*. Thousand Oaks, CA: Sage.

Miller, N. (2008) A Revolutionary Modernity: the Cultural Policy of the Cuban Revolution. *Journal of Latin American Studies*, 40(4): 675-696.

Miller, N. (2008a) *Reinventing Modernity in Latin America: Intellectuals Imagine the Future, 1900-1930*. New York, NY: Palgrave Macmillan.

Montes, R.M. (2007) Ghost Recon: Island Thunder: Cuba in the Virtual Battlescape. In: Williams, J.P. and Smith, J.H. (eds) *The Players' Realm: Studies on the culture of video games and gaming*. London: McFarland and Co, pp154-170.

Moore, R.D. (2006) *Music and Revolution: Cultural Change in Socialist Cuba*. United States: University of California Press.

Moreiras, A. (2001) *The Exhaustion of Difference*. Durham: Duke University Press.

Morley, D., and Robins, K. (1989) Spaces of Identity. *Screen*, 30(4): 10-34.

Morse, R.M. (1995) Balancing Myth and Evidence: Freyre and Sérgio Buarque. *Luso-Brazilian Review*, 32(2): 47-57.

Murray, J. (1997) *Hamlet on the Holodeck.* New York, NY: Simon and Schuster.

Myerson, M. (2014) *Memories of Underdevelopment: Revolutionary Films of Cuba*. London: Lorrimer.

Nescolarde-Selva, J., and Usó-Doménech, J.L. (2014) Myth, Language, and Complex Ideologies. *Complexity*, 20(2): 63-81.

Nescolarde-Selva, J., Usó-Doménech, J.L., and Lloret-Climent, M. (2015) Mythical systems: mathematic and logical theory. *International Journal of General Systems*, 44(1): 76-97.

Neyland, D. (2006). Dismissed Content and Discontent: An Analysis of the Strategic Aspects of Actor-Network Theory. *Science, Technology & Human Values* 31(1): 29-52.

Nichols, R. (2014) *The Video Game Business*. London: Palgrave Macmillan.

Ogden, R. (2015) *Understanding Cuban Tourism: Affect and Capital in Post-Special Period Cuba.* PhD thesis, University of Manchester.

Olsen, C.K. (2016) Are Electronic Games Health Hazards or Health Promoters? In: Kowert, R., and Quandt, T. (eds) *The Video Game Debate: Unravelling the physical, social, and psychological effects of digital gaming*. New York, NY: Routledge, pp39-53.

O'Reilly Herrera, A. (ed) (2007) *Cuba: Idea of a Nation Displaced*. Albany, NY: SUNY.

Ortiz, F. (1973) *Orbita de Fernando Ortiz* (compiled by Julio Le Riverend). Havana: UNEAC.

Oswell, D. (2006) *Culture and Society: An Introduction to Cultural Studies*. London: Sage.

Otero, L., and Martínez Hinojosa, F. (1972) *Cultural Policy in Cuba*. Paris: UNESCO.

Parkin, S. (2015) *Death by Video Game: Tales of Obsession from the Virtual Front Line*. London: Serpent's Tail.

Parkins, W., and Craig, G. (2006) *Slow Living*. Oxford, UK: Berg.

Parks, M.R., and Floyd, K. (1996) Making Friends in Cyberspace. *Journal of Communication*, 46(1): 80-97.

Patton, M.Q. (1990) *Qualitative Evaluation and Research Methods*. Newbury Park, CA: Sage.

Paul, C.A. (2012) *Wordplay and the Discourse of Video Games: Analyzing Words, Design, and Play*. New York: Routledge.

Penix-Tadsen, P. (2016) *Cultural Code: Video Games and Latin America*. London: MIT Press.

Pérez Jr, L.A. (1999) *On Becoming Cuban: Identity, Nationality, and Culture*. London: University of North Carolina Press.

Pérez Jr, L.A. (2015) *Cuba: Between Reform and Revolution (Fifth Edition)*. United States: Oxford University Press, USA.

Pérez Salomón, O. (ed) (2012) *Fidel Castro Soldado de las Ideas: Tecnologías y Medios de Comunicación, Selección Temática 1959-2011* [Digital] Havana: Editorial Citmatel.

Pertierra, A.C. (2008) En Casa: Women and Households in Post-Soviet Cuba. *Journal of Latin American Studies*, 40(4): 743-767.

Pickering, M. (ed) (2008) *Research Methods for Cultural Studies*. Edinburgh: Edinburgh University Press.

Pickering, M. (2008a) Engaging With History. In: Pickering, M. (ed) *Research Methods for Cultural Studies*. Edinburgh: Edinburgh University Press, pp193-213.

Pogolotti, G. (2004) El centenario de un fundador. *Revolution y Cultura*, 4: 59-60.

Pool, I. de S. (1983) *Technologies of Freedom*. Cambridge, MA: Harvard University Press.

Poole, S. (2000) *Trigger Happy*. New York, NY: Arcade Publishing Inc.

Pujol, E., Scott, W., Wustrow, E., and Halderman, J.A. (2017) *Initial Measurements of the Cuban Street Network*. IMC ’17, November 1–3, 2017, London, United Kingdom.

Purdy, M. (2000) Listening, culture, and structures of consciousness: Ways of studying listening. *International Journal of Listening*, 14: 47–68.

Radnoti, S. (1981) Mass Culture. *Telos*, 48: 27-47.

Rainie, H., and Wellman, B. (2012) *Networked: The New Social Operating System*. Cambridge, MA: MIT Press.

Redhead, S. (1990) *The End-of-the-Century Party: Youth and Pop Towards 2000*. Manchester: Manchester University Press.

Rehak, B. (2003) Playing at Being: Psychoanalysis and the Avatar. In: Wolf, M.J.P., and Perron, B. (eds) *The Video Game Theory Reader*. New York, NY: Routledge, pp103-127.

Robinett, W. (2003) Foreword. In: Wolf, M.J.P., and Perron, B. (eds) *The Video Game Theory Reader*. New York, NY: Routledge, ppvii-xix.

Rodríguez, I. (ed) (2001) *Convergencia de Tiempos: Estudios Subalternos/Contextos Latinoamericanos Estado, Cultura, Subalternidad*. Amsterdam: Rodopi.

Rojas, R. (2007) Diaspora and memory in Cuban literature. In: O'Reilly Herrera, A. (ed) *Cuba: Idea of a Nation Displaced*. Albany, NY: SUNY, pp. 237–252.

Rostow, W.W. (1990) *The Stages of Economic Growth: A Non-Communist Manifesto*. Cambridge, UK: Cambridge University Press.

Roszak, T. (1995) *The Making of a Counterculture*. Berkeley, CA: University of California Press.

Rubin, R. (1994) Moral distancing and the use of information technologies: the seven temptations. In: Kizza, J.M. (ed) *Proceedings of the Conference on Ethics in the computer* age *(ECA '94)*. New York, NY: ACM, pp151-155. [Online] Available at: https://dl.acm.org/citation.cfm?id=199606 [Accessed 04/08/2016]

Sáenz, T., and Capote, E. (1989) *Ciencia y Tecnología en Cuba*. Havana: Editorial de Ciencias Sociales.

Salas González, D. (2015) Culture for the Masses? In: Brenner, P., Jimenez, M.R., and Kirk, J.M. (eds) *A Contemporary Cuba Reader: The Revolution Under Raul Castro*. United States: Rowman & Littlefield Publishers, pp329-324.

Salen, K., and Zimmerman, E. (2004) *Rules of Play: Game Design Fundamentals*. Cambridge, MA: MIT Press.

Schulman, I. (1992) Social Exorcisms: Cuba's (Post)Colonial (Counter)Discourses. *Hispania*, 75(4): 941-949.

Schwartz, R. (1997) *Pleasure Island: Tourism and Temptation in Cuba.* Lincoln: University of Nebraska Press.

Serra, A. (2001) The Literacy Campaign in the Cuban Revolution and the Transformation of Identity in the Liminal Space of the Sierra. *Journal of Latin American Cultural Studies*, 10(1): 131-141.

Sicart, M. (2009) *The Ethics of Computer Games*. Cambridge, MA: MIT Press.

Siegel, R.K. (1989) *Intoxication: Life in Pursuit of Artificial Paradise*. New York: Simon & Schuster.

Silverman, B. (1971) *Man and Socialism in Cuba: The Great Debate*. New York: Atheneum.

Silverman, K. (1983) *The Subject of Semiotics*. New York, NY: Oxford University Press.

Silverstone, R. (2003) Proper distance: towards an ethics for cyberspace. In: Liestøl, G., Morrison, A., and Rasmussen, T. (eds) *Digital Media Revisited: Theoretical and Conceptual Innovations in Digital Domains*. Cambridge, MA: MIT Press, pp469-490.

Slater, D. (1997) *Consumer Culture and Modernity*. Cambridge: Polity.

Smith, A.D. (1990) Towards a global culture? *Theory, Culture & Society*, 7(2-3): 171-191.

Smith, R. (2015) *The Lost Generation?: Education and the Search for the New Cuban Citizen Identity.* PhD thesis, University of Nottingham.

Sorel, G. (1925) *Reflections on Violence*. London: Allen and Unwin.

Stahl, R. (2006) Have you played the war on terror? *Critical Studies in Media CommunicationI*, 23(2): 112-130.

Staiano, A.E., Beyl, R.A., Guan, W., Hendrick, C.A., Hsia, D.S., and Newton, R.L. (2018) Home-based exergaming among children with overweight and obesity: a randomized clinical trial. *Pediatric Obesity*, 13(11): 724-733.

Taylor, T.L. (2009) *Play Between Worlds: Exploring Online Game Culture*. Cambridge, MA: MIT Press.

Thomas, H. (1998) *Cuba or The Pursuit of Freedom*. New York: Da Capo Press.

Tulchin, J.S., Bobea, L., Espina Prieto, M.P., and Hernández, R. (eds) (2005) *Changes in Cuban Society Since the 1990s*. Washington, DC: Woodrow Wilson International Center for Scholars.

Turkle, S. (1995) *Life On The Screen: Identity in the Age of the Internet*. New York: Simon and Schuster.

Uxó, C. (2009) El acceso a Internet en Cuba. Políticas de colectivización y socialización. *Journal of Iberian and Latin American Research*, 15(2): 121-142.

Various (1979-1998) *Choose Your Own Adventure*. Various locations: Bantam Books.

Venegas, C. (2010) *Digital Dilemmas: The State, the Individual, and Digital Media in Cuba*. United States: Rutgers University Press.

Wagner, R. (1975) *The Invention of Culture*. New Jersey: Prentice Hall.

Wallerstein I. (1974) *The Modern World System, Vol 1*. New York: Academic Press

Wallerstein I. (1980) *The Modern World System, Vol 2*. New York: Academic Press

Wartella, E.A. and Jennings, N. (2000). Children and Computers: New Technology--Old Concerns. *Future of Children*, 10(2): 31-43.

Waskul, D., and Lust, M. (2004) Role-Playing and Playing Roles: The Person, Player, and Persona in Fantasy Role-Playing. *Symbolic Interaction*, 27: 333-356.

Weiser, F. (2013) Writing "Che" Writing: Apocryphal Diaries and the Deconstruction of Guevara's Myth. *Hispania*, 96(4): 700-711.

Wertham, F. (1954) *Seduction of the Innocent*. New York: Reinhardt.

Whitehead, L., and Hoffman, B. (eds) (2007) *Debating Cuban Exceptionalism*. New York, NY: Palgrave Macmillan.

Williams, D., Ducheneaut, N., Xiong, L., Zhang, Y., Yee, N., and Nickell, E. (2006) From Tree House to Barracks: The Social Life of Guilds in *World of Warcraft*. *Games and Culture*, 1(4): 338-361.

Williams, J.P., Hendricks, S.Q., and Winkler, W.K. (eds) (2006) *Gaming as Culture: Essays on Reality, Identity and Experience in Fantasy Games*. London: McFarland and Company Inc.

Williams, J.P., and Smith, J.H. (eds) (2007) *The Players' Realm: Studies on the culture of video games and gaming*. London: McFarland and Co.

Williams, R. (1997) Culture is Ordinary. In: Gray, A., McGuigan, J. (eds) *Studying Culture: An Introductory Reader*. London: Edward Arnold.

Williams, R. (2005) *Culture and Materialism: Selected Essays*. London: Verso.

Wolf, M.J.P., and Perron, B. (eds) (2003) *The Video Game Theory Reader*. New York, NY: Routledge.

Wolf, M.J.P. (2003a) Abstraction in the Video Game. In: Wolf, M.J.P., and Perron, B. (eds) *The Video Game Theory Reader*. New York, NY: Routledge, pp47-65.

Wolf, M.J.P. (2008) The Video Game Industry Crash. In: Wolf, M.J.P (ed) *The Video Game Explosion: A History from PONG to Playstation and Beyond*. Westport, CT: Greenwood Press, pp103-106.

Wolf, M.J.P (ed) (2008a) *The Video Game Explosion: A History from PONG to Playstation and Beyond*. Westport, CT: Greenwood Press.

Wolf, M.J.P (ed) (2012) *Before the Crash: Early Video Game History*. Detroit, MI: Wayne State University Press.

Wolf, M.J.P., and Perron, B. (2003) Introduction. In: Wolf, M.J.P., and Perron, B. (eds) *The Video Game Theory Reader*. New York, NY: Routledge, pp1-24.

Worringer, W. (1908) *Abstraction And Empathy: A Contribution to the Psychology of Style*. Chicago, IL: Elephant Paperbacks.

Worth, S.E. (2004) Fictional Spaces. *The Philosophical Forum*, 35(4): 439-55.

Wylie, L. (2010) *Perceptions of Cuba: Canadian and American policies in comparative perspective*. London: University of Toronto Press.

Yaffe, H. (2012) Che Guevara and the Great Debate, Past and Present. *Science & Society*, 76(1): 11-40.

Yang, S., Smith, B., and Graham, G. (2008) Healthy Video Gaming: Oxymoron or Possibility? *Innovate: Journal of Online Education*. 4(4) [Online] Available at: http://nsuworks.nova.edu/innovate/vol4/iss4/5

Young, G. (2013) *Ethics in the Virtual World: The Morality and Psychology of Gaming*. Durham, UK: Acumen.

Žižek, S. (2001) *Welcome to the Desert of the Real*. New York: Wooster Press.

Film, Television, and Online Video

Film

Black Mirror: Bandersnatch (2018) [Online] David Slade. United Kingdom: Netflix.

Bowling for Columbine (2002) [Film] Michael Moore. United States: Alliance Atlantis, Dog Eat Dog Films, Salter Street Films, United Artists.

Café Divino (2016) [Film] Kenia Rodríguez Jiménez and Luis Guevara Polanco. Cuba: Televisión Serrana and Montpellier Cuba Solidaritè.

La Cuchufleta (2006) [Film] Luis Guevara Polanco. Cuba: Televisión Serrana.

Elephant (2003) [Film] Gus Van Sant. United States: Meno Film Company.

Había una vez (2002) [Film] Irina Landrove. Cuba: Televisión Serrana.

La Muerte de un Burócrata (1966) [Film] Tomás Gutiérrez Alea. Cuba: ICAIC.

Memorias del Subdesarrollo (1968) [Film] Tomás Gutiérrez Alea. Cuba: ICAIC.

P.M. (1961) [Film] Alberto Cabrera Infante and Orlando Jiménez Leal. Cuba: Production Unknown.

Raíces (2016) [Film] Kenia Rodríguez Jiménez and Luis Guevara Polanco. France: Televisión Serrana and Montpellier Cuba Solidaritè.

The Room (2003) [Film] Tommy Wiseau. United States: Wiseau-Films.

La Ultima Frontera (2016) [Film] Carlos Y. Rodríguez Rodríguez. Cuba: Televisión Serrana

Videocartas (various) [Film] Various Directors. Cuba: Televisión Serrana

Online Video

Channel 4 News (2013) *Charlie Brooker teaches Jon Snow to play video games*. [Online] Available at: https://www.youtube.com/watch?v=-FLVjfFKy58 [Accessed 27/11/2018]

Television

Convergencia (no date) CNV TV Granma.

Funded Projects

Leverhulme Trust, Award Reference: RPG-2014-182. 'Beyond Havana and the nation? Peripheral identities and literary culture in Cuba'. Principal Investigator Par Kumaraswami with Co-Investigator Professor Antoni Kapcia (University of Nottingham), October 2014-October 2018.

Non-Digital Games

Garfield, R. (1993) *Magic: The Gathering*. Wizards of the Coast.

Gygax, G., and Arneson, D. (1974-present) *Dungeons & Dragons*. TSR, Wizards of the Coast.

Magie, E., and Darrow, C. (1935) *Monopoly*. Hasbro, Parker Brothers, Waddingtons, Winning Moves.

Online News Articles and Reports

Algarín Pérez, H. (2013) Desarrollado Festival de Videojuegos en los Joven Club de Bartolomé Masó. *Joven Club Granma* [Online] Available at: http://www.grm.jovenclub.cu/desarrollado-festival-de-videojuegos-en-los-joven-club-de-bartolome-maso/ [Accessed 03/05/2015]

Arnaiz, S.J. (2018) Gamifying Propaganda. *Business World* [Online] Available at: http://www.bworldonline.com/gamifying-propaganda/ [Accessed 19/06/2019]

Castro Ruz, F. (1953) La Historia Me Absolverá. [Online] Available at: http://bureau.comandantina.com/archivos/La%20Historia%20me%20absolvera.pdf [Accessed 13/03/2018]

Castro Ruz, F. (1961) Discurso Pronunciado Por El Comandante Fidel Castro Ruz, Primer Ministro Del Gobierno Revolucionario Y Secretario Del Pursc, Como Conclusion De Las Reuniones Con Los Intelectuales Cubanos, Efectuadas En La Biblioteca Nacional El 16, 23 Y 30 De Junio De 1961. [Online] Available at: http://www.cuba.cu/gobierno/discursos/1961/esp/f300661e.html [Accessed 03/01/2017]

Castro Ruz, F. (1963) Discurso Pronunciado Por El Comandante Fidel Castro Ruz, Primer Secretario Del Partido Unido De La Revolucion Socialista Y Primer Ministro Del Gobierno Revolucionario, En El Segundo Aniversario De La Victoria De Playa Giron, En El Teatro "Chaplin" De Miramar, El 19 De Abril De 1963. *Cuba.cu Portal* [Online] Available at: http://www.cuba.cu/gobierno/discursos/1963/esp/f190463e.html [Accessed 16/01/2019]

Castro Ruz, F. (2016) El Hermano Obama. *Granma* [Online] Available at: http://www.granma.cu/reflexiones-fidel/2016-03-28/el-hermano-obama-28-03-2016-01-03-16 [Accessed 29/12/2016]

Chiacu, D. (2014) U.S. built secret 'Cuban Twitter' to stir unrest: AP. *Reuters* [Online] Available at: https://www.reuters.com/article/us-usa-cuba-twitter-idUSBREA321F920140403 [Accessed 01/01/2019]

Coren, M.J. (2011) Foldit Gamers Solve Riddle of HIC Enzyme Within 3 Weeks. *Scientific American* [Online] Available at: https://www.scientificamerican.com/article/foldit-gamers-solve-riddle/ [Accessed 21/01/2019]

Dickerson, J. (2015) Are We Heading Towards Another Video Game Crash? *Huffpost* [Online] Available at: http://www.huffingtonpost.co.uk/jamie-dickerson/video-game-crash_b_7261314.html [Accessed 21/01/2019]

Domínguez, L.E. (2017) Joven Club de Computación lanza Ludox, nueva plataforma para videojuegos cubanos. *Cubadebate* [Online] Available at: http://www.cubadebate.cu/noticias/2017/12/05/joven-club-de-computacion-lanza-ludox-nuevo-plataforma-para-videojuegos-cubanos-video/#.XEWqE1z7SUl [Accessed 21/01/2019]

Ecured (2010) *Ecured* [Online] Available at: https://www.ecured.cu/EcuRed:Enciclopedia_cubana [Accessed 06/01/2019]

Elizalde, R.M., Figueredo Reinaldo, O., and Concepción, J.R. (2016) Aprueba el Parlamento ley sobre el uso del nombre y la figura de Fidel Castro Ruz. *Cubadebate* [Online] http://www.cubadebate.cu/noticias/2016/12/27/presentan-proyecto-de-ley-sobre-el-uso-del-nombre-y-la-figura-del-companero-fidel-castro-ruz/#.WHOAWvCLRdh [Accessed 21/01/2019]

ETECSA (no date) Internet: Nauta Hogar. *Etecsa* [Online] Available at: http://www.etecsa.cu/internet_conectividad/internet/#nauta_hogar [Accessed 21/01/2019]

Fiallo, M., and García, N. (2006) Fidel Castro en un acto por el decimoquinto aniversario del Palacio Central de Computación. [Online] Available at: http://www.voltairenet.org/article136504.html [Accessed 15/06/2018]

Fornet, A. (2012) Que los cambios se produzcan dentro de una continuidad. *Cubadebate* [Online] Available at: http://www.cubadebate.cu/especiales/2012/02/10/ambrosio-fornet-que-los-cambios-se-produzcan-dentro-de-una-continuidad/ [Accessed 01/02/2018]

Fornet, A. (2016) Nación, cultura nacional y ciudadanía. *La Jiribilla* [Online] Available at: http://www.lajiribilla.cu/articulo/nacion-cultura-nacional-y-ciudadania [Accessed 21/01/2019]

Frasca, G. (2001) *Ludology.org* [Online] Available at: https://www.ludology.org/ [Accessed 16/01/2019]

Frasca, G. (2001) What is Ludology? : A Provisory Definition. [Online] Available at: http://www.ludology.org/2001/07/what-is-ludolog.html [Accessed 07/09/2016]

Freedom House (2017) Freedom on the Net 2017. *Freedom House* [Online] Available at: https://freedomhouse.org/report/freedom-net/2017/cuba [Accessed 14/10/2017]

Gilsinan, K. (2016) Five Years in a Cuban Prison: Alan Gross reflects on Fidel Castro's legacy. *The Atlantic* [Online] Available at: https://www.theatlantic.com/international/archive/2016/11/alan-gross-castro/509075/ [Accessed 01/01/2019]

Goldsmith, J., (1994) This is Your Brain on Tetris. *Wired* [Online] Available at: https://www.wired.com/1994/05/tetris-2/ [Accessed 15/10/2018]

Good, O.S. (2016) 2K Sports Scores Partial Victory in Bizarre Tattoo Copyright Lawsuit. *Polygon* [Online] Available at: http://www.polygon.com/2016/8/3/12371854/nba-2k-tattoo-lawsuit-lebron-james-kobe-bryant [Accessed 21/01/2019]

Goslin, A. (2019) Netflix hit with a Choose Your Own Adventure lawsuit over Black Mirror: Bandersnatch. *Polygon* [Online] Available at: https://www.polygon.com/2019/

1/11/18178615/netflix-black-mirror-lawsuit-choose-your-own-adventure-bandersnatch-chooseco [Accessed 13/01/2019]

The Guardian (2012) NRA: full statement by Wayne LaPierre in response to Newtown shootings. *The Guardian* [Online] Available at: https://www.theguardian.com/world/2012/dec/21/nra-full-statement-lapierre-newtown [Accessed 07/11/2018]

Guevara, Y. (2015) Los videojuegos en la encrucijada cultural. *Juventud Rebelde* [Online] Available at: http://www.juventudrebelde.cu/suplementos/informatica/2015-03-11/los-videojuegos-en-la-encrucijada-cultural [Accessed 18/08/2019]

Infomed (1999) *Infomed* [Online] Available at: http://www.sld.cu/ [Accessed 06/01/2019]

Intellectual Property Office of Singapore (2004) Be HIP at the Movies. *Intellectual Property Office of Singapore* [Online] Available at: https://web.archive.org/web/20080924044120/http://www1.ipos.gov.sg/main/newsroom/media_rel/mediarelease1_270704.html [Accessed 16/06/2018]

Joven Club de Computación y Electrónica (various) *Tino.* Joven Club de Computación y Electrónica [Online] Available at: https://revista.jovenclub.cu/ [Accessed 09/01/2019]

Joven Club de Computación y Electrónica (no date) Identidad Visual. *Joven Club* [Online] Available at: http://www.grm.jovenclub.cu/identidad-visual/ [Accessed 21/01/2019]

Joven Club de Computación y Electrónica (2017) Los Joven Club de Computación y Electrónica en Cuba: un programa único en el mundo. *Joven Club* [Online] Available at: https://www.jovenclub.cu/index.php?option=com_k2&view=item&id=6727:los-joven-club-de-computaci%C3%B3n-y-electr%C3%B3nica-en-cuba-un-programa-%C3%BAnico-en-el-mundo&Itemid=539 [Accessed 21/01/2019]

Joven Club de Computación y Electrónica (2017a) Servicios: Joven Club Granma. *Joven Club* [Online] Available at: http://www.grm.jovenclub.cu/servicios-de-joven-club/ [Accessed 21/01/2019]

Juventud Técnica (1976) Se crean en Cuba, el Instituto de Sistemas Automatizados y Técnicas de Computación (INSAC) y el Comité Estatal de Normalización (CEN). *Juventud Técnica* [Online] Available at: http://www.juventudtecnica.cu/efemeride/se-crean-cuba-instituto-sistemas-automatizados-y-tecnicas-computacion-insac-y-comité [Accessed 21/01/2019]

Leyva Paneque, L. (2017) Por la ruta del Líder en Granma. *La Demajagua* [Online] Available at: http://lademajagua.cu/por-la-ruta-del-lider-en-granma-fotos/ [Accessed 21/01/2019]

Lien, T. (2012) No Girls Allowed: unraveling the story behind the stereotype of video games being for boys. *Polygon* [Online] Available at: https://www.polygon.com/features /2013/12/2/5143856/no-girls-allowed [Accessed 13/03/2017].

Milanés Guardia, Y. (2015) Encuentro cercano a Fidel. *La Demajagua* [Online] Available at: http://lademajagua.cu/encuentro-cercano-a-fidel/ [Accessed 21/01/2019]

Ministerio de Comunicaciones (2019) Reglamento para el empleo de Redes de Telecomunicaciones Inalámbricas de Alta Velocidad. *Ministerio de Comunicaciones* [Online] Available at: https://www.mincom.gob.cu/es/noticia/reglamento-para-el-empleo-de-redes-de-telecomunicaciones-inal%C3%A1mbricas-de-alta-velocidad [Accessed 18/08/2019]

Oficina Nacional de Estadística e Información (2017) Anuario Estadístico de Cuba 2016: Cultura. *Oficina Nacional de Estadística e Información* [Online] Available at: http://www.one.cu/aec2016/20%20Cultura.pdf [Accessed 21/01/2019]

Oficina Nacional de Estadística e Información (2017a) Anuario Estadístico de Cuba 2016: Tecnología de la Información y las Comunicaciones. *Oficina Nacional de Estadística e Información* [Online] Available at: http://www.one.cu/aec2016/17%20Tecnologias%20de%20la%20Informacion.pdf [Accessed 21/01/2019]

Oficina Nacional de Estadística e Información (2018a) Anuario Estadístico de Cuba 2017: Capítulo 17: Tecnología de la Información y las Comunicaciones. *Oficina Nacional de Estadística e Información* [Online] Available at: http://www.one.cu/aec2017/17%20 Tecnologias%20de%20la%20Informacion.pdf [Accessed 21/01/2019]

Oficina Nacional de Estadística e Información (2018b) Salario Medio en Cifras: Cuba 2017. *Oficina Nacional de Estadística e Información* [Online] Available at: http://www.one.cu/salariomedioencifras2017.htm [Accessed 21/01/2019]

Our Computer Heritage (2011) Delivery Lists and Applications of the Elliott 800 series and 503 Computers. *Our Computer Heritage* [Online] Available at: http://www.our computerheritage.org/ccs-e3x1.pdf [Accessed 16/01/2018]

Parkin, S. (2007) Super Columbine Massacre RPG - Part 1: Have videogames gone far enough? *Eurogamer* [Online] Available at: https://www.eurogamer.net/articles/super-columbine-massacre-rpg-part-1-article [Accessed 01/06/2018]

Parkin, S. (2014) Zoe Quinn's Depression Quest. *The New Yorker* [Online] Available at: https://www.newyorker.com/tech/annals-of-technology/zoe-quinns-depression-quest [Accessed 21/01/2019]

Pérez Salomón, O. (2016) Fidel y las tecnologías para todos. *Juventud Rebelde* [Online] Available at: http://www.juventudrebelde.cu/index.php/cuba/2016-08-09/fidel-y-las-tecnologias-para-todos/ [Accessed 15/04/2018]

Pilon, M. (2015) Monopoly's Inventor: The Progressive Who Didn't Pass 'Go'. *The New York Times* [Online] Available at: https://www.nytimes.com/2015/02/15/business/behind-monopoly-an-inventor-who-didnt-pass-go.html

Randazza, M.J. (2012) Copyright in Tattoo Case: Escobedo v. THQ, Inc. *Digital Media Law Project*. [Online] Available at: http://www.dmlp.org/blog/2012/copyright-tattoo-case-escobedo-v-thq-inc [Accessed 21/01/2019]

Rayner, A. (2012) Are Video Games Just Propaganda and Training Tools for the Military? *The Guardian* [Online] Available at: https://www.theguardian.com/technology/2012/mar/18/video-games-propaganda-tools-military

Reporters Without Borders (no date) Reporters Without Borders: Cuba. *Reporters Without Borders* [Online] Available at: https://rsf.org/en/cuba. [Accessed 14/10/2017]

Sánchez, I. (2015) Joven Club: “Digitalizando sueños” en Los Sitios. *La Pupila Insomne* [Online] Available at: https://lapupilainsomne.wordpress.com/2015/01/25/joven-club-digitalizando-suenos-en-los-sitios/ [Accessed 15/03/2015]

Tamworth Herald (1924) Cross-Word Puzzles: An Enslaved America. *Tamworth Herald* [Online]. Available at: https://www.britishnewspaperarchive.co.uk/viewer/bl/0000484/19241227/047/0006 [Accessed 12/11/2018]

Trading Economics (no date) Cuba Average Monthly Salary. *Trading Economics* [Online] Available at: https://tradingeconomics.com/cuba/wages [Accessed 21/01/2019]

Trautman, T. (2014) Excavating the Video-Game Industry’s Past. *The New Yorker* [Online] Available at: http://www.newyorker.com/business/currency/excavating-the-video-game-industrys-past [Accessed 21/01/2019]

Trotta, D. (2014) Who is Alan Gross and what did he do? *Reuters* [Online] Available at: https://www.reuters.com/article/us-cuba-usa-gross-factbox-idUSKBN0JV1TY20141217 [Accessed 01/01/2019]

u/spectrosoldier (2017) A toucan eating Froot Loops in real life, while next to a box depicting the same thing. *Reddit* [Online]. Available at: https://www.reddit.com/r/ofcoursethatsathing/comments/5vhebf/a_toucan_eating_froot_loops_in_real_life_while/ [Accessed 22/07/2017]

Valdespino Tamayo (2019) Alquiler de Celulares en Aula Anexa La Estrella. *Joven Club* [Online] Available at: http://www.grm.jovenclub.cu/servicio-de-alquiler-de-celulares-en-aula-anexa-la-estrella/ [Accessed 21/01/2019]

Walker, J.A. (2014) A Short History of Game Panics. *Reason* [Online] Available at: https://reason.com/archives/2014/05/07/a-short-history-of-game-panics [Accessed 21/01/2019]

The World Internet Project (2012) The World Internet Project International Report. 4th ed. *The World Internet Project*. [Online] Available at: http:// www.worldinternetproject.net/_files/_Published/_ oldis/770_2012wip_ report4th_ed.pdf [Accessed 01/01/2019]

World Travel & Tourism Council (2017) Travel & Tourism: Economic Impact 2017: Cuba. *World Travel & Tourism Council* [Online] Available at: https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2017/cuba2017.pdf [Accessed 01/01/2019]

Yarovaya, L., and Lucey, B. (2018) Bitcoin rich kids in Puerto Rico: crypto utopia or crypto-colonialism? *The Conversation* [Online] Available at: http://theconversation.com/bitcoin-rich-kids-in-puerto-rico-crypto-utopia-or-crypto-colonialism-91527 [Accessed 06/06/2018]

Video Games

References are formatted as follows: *Game Title* (year) Developer(s): Publisher(s).

A Jugar (2005) EVIMA: Joven Club de Computación y Electrónica.

Banjo Kazooie (1998-2008) Rare: Nintendo, THQ, and Microsoft Studios.

Beisbolito (2012) EVIMA: Joven Club de Computación y Electrónica.

Bumbots (2012) EVIMA: Joven Club de Computación y Electrónica.

Call of Duty: Black Ops (2010) Activision: Treyarch.

Call of Duty: Modern Warfare 2 (2009) Infinity Ward: Activision.

Comando Pintura (2012) EVIMA: Joven Club de Computación y Electrónica.

Crash Bandicoot (1996-2017) Naughty Dog, Eurocom, Traveller's Tales, Dimps, Radical, Polarbit, Vicarious Visions, Beenox: Sony Computer Entertainment, Vivendi Games, and Activision.

Defense of the Ancients (2003) Eul, Steve Feak, IceFrog: Blizzard Entertainment.

Depression Quest (2013) The Quinnspiracy: The Quinnspiracy.

Eve Online (2003) CCP Games: Simon & Schuster.

FIFA Football 2005 (2004) EA Canada: EA Sports.

Foldit (2008) University of Washington Centre for Game Science, University of Washington Department of Biochemistry: University of Washington.

Gesta Final (2013) EVIMA: Joven Club de Computación y Electrónica.

Grand Theft Auto I-V (1997-2013) Rockstar North, Digital Eclipse, and Rockstar Leeds: Rockstar Games.

Medal of Honor (1999-2012) 2015 Inc., Budcat Creations, Danger Close Games, DreamWorks Interactive, EA Canada, EA Digital Illusions CE, EA Los Angeles, Netherock Ltd., Rebellion Developments, Team Fusion, TKO Software: Electronic Arts.

La Neurona (2016) Estudios de Animación del Instituto Cubano del Arte e Industria Cinematográficos, Universidad de Ciencias Informáticas.

Pac-Man (1980) Namco: Namco.

Papers, Please (2013) 3909 LLC: 3909 LLC.

Pepsiman (1999) KID: KID.

Pokémon GO (2016) Niantic, The Pokémon Company: Niantic.

Quest for Bush: Night of Bush Capturing (2006) Global Islamic Media Front: Torque Co.

Quest for Saddam (2003) Petrilla Entertainment: Petrilla Entertainment.

Sid Contra Mosquitos (2017) GID: Joven Club de Computación y Electrónica

SimCity (1989-2014) Maxis, Tilted Mill Entertainment, Aspyr Media, Full Fat, Infogrames, Nintendo EAD, Babaroga, HAL Laboratory, Track Twenty: Electronic Arts, Brøderbund, Maxis, Nintendo, Superior Software, Acornsoft, Infogrames Entertainment, SA, Zoo Digital Publishing.

The Sims (2000-2018) Maxis, The Sims Studio: Electronic Arts.

The Sims Online (2002) Maxis: EA Games.

Space Invaders (1978) Taito: Taito.

Spacewar! (1962) Steve Russell: Steve Russell.

Starcraft (1998-2017) Blizzard Entertainment: Blizzard Entertainment.

Super Columbine Massacre RPG! (2005) Danny Ledonne: Danny Ledonne.

Tetris (1984) Various: Various.

Tom Clancy's Ghost Recon (2001) Red Storm Entertainment and Ubisoft Paris: Ubisoft.

Tom Clancy's Ghost Recon: Island Thunder (2002) Red Storm Entertainment: Ubisoft.

Tropico 3 (2009) Haemimont Games and Feral Interactive: Kalypso Media and Feral Interactive.

World of Warcraft (2004) Blizzard Entertainment: Blizzard Entertainment.