Steampunk: The Inner Workings

A thesis

submitted in fulfilment

of the requirements for the degree

of

Master of Arts in English

at

The University of Waikato

by

Garth Smith

THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

2013

Abstract

Steampunk, as a literary genre and cultural phenomena, is a relatively recent innovation that is increasingly receiving critical attention. From the proto-steampunk of Jules Verne and H.G. Wells, through the novels of its acknowledged founding fathers K.W. Jeter, Tim Powers and James Blaylock, to contemporary works by China Miéville, Cherie Priest and Paul Di Filipo, steampunk has been plagued by the lack of a unifying definition. Every author, academic and critic has their own definition of it, which may share similarities with others, but none of them can agree on the core ingredients of the genre.

Related to the important task of defining steampunk is the need to answer the question: 'Is steampunk a literary genre?' In many respects, steampunk has moved beyond the literary world. Fashion, art and sub-cultures have all embraced steampunk as a style, an aesthetic, a way of life and even a philosophy. This could be the reason for the inability to find a single unifying definition of steampunk.

This thesis will argue that, rather than a genre, steampunk is best understood as an aesthetic which can be applied, like any aesthetic, to any literary genre to produce a work that is steampunk-inflected, such as science fiction steampunk, alternate history steampunk, steampunk fantasy, historical steampunk, steampunk romance or gothic steampunk. After evaluating both scholarly and popular definitions of steampunk I will explore

four key aspects of the steampunk aesthetic: the neo-Victorian tropes which dominate steampunk texts; the relationship between magic and science in the steampunk universe; the places and people who inhabit steampunk worlds; and the revolutionary message of most steampunk creations. Throughout my discussion will focus primarily on a range of texts acknowledged as steampunk: Michael Moorcock's *The Warlord of the Air* (1971), K. W. Jeter's *Infernal Devices* (1987), Tim Powers' *The Anubis Gates* (1983), William Gibson and Bruce Sterling's *The Difference Engine* (1991), Paul Di Filippo's *The Steampunk Trilogy* (1995), Neal Stephenson's *The Diamond Age* (1995), Gail Carriger's 'Parasol Protectorate' series (2009 – current), Mark Hodder's 'Burton and Swinburne' series (2010 – current), *Arcanum: Of Steamworks and Magick Obscura* by Troika Games and Runic Games' *Torchlight* (2009) and *Torchlight 2* (2011).

Acknowledgements

My intention to write a Masters thesis was set in stone the second I enrolled at university. My topic was not. I would like to thank my supervisor, Dr Kirstine Moffat for, first, thinking of me when the topic of steampunk came up and, second, for her guidance and continued, unrelenting, outstanding patience while I bounced from topic to topic in a frenzied attempt to cover ‘everything’. I cannot thank you enough. You are more than a supervisor, you are a super-hero.

My wife, Trish, is the reason this thesis is not a ramble. Her unparalleled cutting, shifting and general editing abilities leave me in awe, as does her patience and support. If there two things I have learned during this process, it is that I am lucky to have her, and I am overly verbose.

Mary Melinn and Dr Mark Houlahan have both helped enormously. Mary Melinn’s aid in administrative matters has allowed me to keep focused on my thesis which, I have no doubt, has allowed me to produce a better thesis. Dr Mark Houlahan’s constant positive attitude, ready laugh and stern reminders have kept me on the straight and narrow. While I had always intended to write a Masters thesis, it would not have been possible without all of you.

Thank-you.

Table of Contents

Table of Illustrations

Introduction

Three authors sit in a California pub. They discuss writing, stories, concepts and characters, and they drink. Years later, in April 1987, K. W. Jeter – one of the three authors – writes a letter to *Locus Magazine*:

> Dear Locus:
>
> Enclosed is a copy of my 1979 novel Morlock Night; I'd appreciate your being so good as to route it to Faren Miller, as it's a prime piece of evidence in the great debate as to who in "the Powers/Blaylock/Jeter fantasy triumvirate" was writing in the "gonzo-historical manner" first. Though of course, I did find her review in the March Locus to be quite flattering.
>
> Personally, I think Victorian fantasies are going to be the next big thing, as long as we can come up with a fitting collective for Powers, Blaylock and myself. Something based on the appropriate technology of that era; like "steampunks," perhaps....
>
> --K.W. Jeter[1]

The effect of this letter was the coining of the term 'steampunk'. Jeter's letter provides three key aspects for a definition: 'gonzo-historical', 'Victorian fantasies' and 'appropriate technology of the Victorian era'. Since then there has been much debate as to what, exactly, constitutes steampunk and which works can be included under the steampunk umbrella. Many authors and critics have their own definition of steampunk, which they need to

[1] K. W. Jeter, 'Letter to the Editor of Locus', Letters section, *Locus*, (April, 1987).

explain every time they discuss the subject. This is a trend that has followed steampunk as it has expanded past literature and become a philosophy, a culture and a lifestyle. Everyone who engages with steampunk on any level seems to have an almost compulsive need to develop their own definition for it. This thesis will examine the various definitions for steampunk and form an argument for viewing steampunk as an aesthetic rather than as a literary genre. My aim is to then explore various steampunk works, ranging from the earliest steampunk texts to more contemporary texts, to show how the aesthetic is applied within these works.

In asserting that steampunk, as an aesthetic, can be applied to every literary genre, Mike Perschon's doctoral thesis 'The Steampunk Aesthetic: Technofantasies in a Neo-Victorian Retrofuture' uses the imagery of a set of goggles with adjustable lenses. When wearing these goggles, by adjusting these lenses one can see more, or less, aspects of the steampunk aesthetic in a given text.[2] Perschon identifies the three main steampunk aspects as ‘retrofuturism’, ‘neo-Victorian’ and ‘technofantasy’. These can be linked to the key points of definition in Jeter’s letter; ‘gonzo-historical’, ‘Victorian fantasies’ and ‘appropriate technology of the Victorian era’ – respectively.

Perschon's 'steampunk goggles' are a useful way to look at the steampunk aesthetic, but they side-line one of the other core aspects of the phenomena; they do not see the theme of revolution which ties all three

[2] Mike D. Perschon, 'The Steampunk Aesthetic: Technofantasies in a Neo-Victorian Retrofuture' (unpublished doctoral thesis, University of Alberta, 2012), pp. 6 – 12.

aesthetics – neo-Victorian, Retrofuturism, Technofantasy – together into the whole that is the steampunk aesthetic. This thesis will build on Perschon's argument. By adding to Perschon's steampunk goggles a revolutionary power source, liquid aether, the rebellious, critical, challenging dimensions to the steampunk aesthetic will be more fully revealed.

I will examine the steampunk aesthetic in relation to a range of steampunk texts. While some argue that the fiction of Jules Verne and H.G. Wells is proto-steampunk, I will not be focusing on these literary forerunners as my intention is to explore contemporary debates about steampunk rather than retrospectively applying definitions to these earlier scientific romances. However, I will be commenting on one work that predates Jeter's 1987 definition, Michael Moorcock's *The Warlord of the Air* (1971). This is arguably one of the first true steampunk novels as it makes use of all the aspects of the steampunk aesthetic discussed in this thesis and was a significant influence on the kind of fiction Jeter, Powers and Blaylock came to write. K. W. Jeter's *Infernal Devices* (1987) and Tim Powers' *The Anubis Gates* (1983) are examples of early steampunk (and were at the forefront of Jeter's mind when he coined of the term), yet each approaches steampunk from a different direction: the scientific and the fantastical. William Gibson and James Sterling's *The Difference Engine* (1991) and *The Diamond Age* (1995) by Neal Stephenson are texts from noted cyberpunk authors which allow for many productive contrasts to be made. When Gibson and Sterling's dystopian, nineteenth century, European-set alternate history is juxtaposed with Stephenson's more utopian, futuristic, Asian-set science

fiction narrative the chronological, geographic and thematic range of steampunk is thrown into relief. *The Steampunk Trilogy* (1995) by Paul Di Filippo is particularly noteworthy because it contains three stories which each look at different aspects of steampunk within the same world: the scientific, the magical, and the supernatural.

More recent steampunk works included in this thesis are Mark Hodder's *The Strange Affair of Spring Heeled Jack* (2010) and *The Curious Case of the Clockwork Man* (2011), along with China Miéville's *Perdido Street Station* (2000) and Gail Carriger's 'Parasol Protectorate' series (2009 – current). These texts imitate Di Filippo's text in portraying the scientific, the magical and the supernatural aspects of steampunk, respectively, showing that early steampunk authors and their contemporary associates share the same fascinations. I also examine three computer games: *Arcanum: Of Steamworks and Magick Obscura* from Troika Games; *Torchlight* (2009) and *Torchlight 2* (2011) from Runic Games; and *Syberia* (2002) from Microïds. These add an important visual dimension to the discussion. While there are also steampunk films and television programs, both animated – such as *Steamboy* (2004), *Avatar: The Last Airbender* (2005-2008) and *Howl's Moving Castle* (2004) – and live-action – *The League of Extraordinary Gentlemen* (2003) and *Sanctuary* (2007-2011) I have chosen computer games because of the interactive nature of the genre. The player's character and choices affect the narrative and pacing, which differs from both books and films, and thus provides an additional level of experience and textual engagement.

In Chapter One of the thesis the focus is debates about definition. I will explore a range of definitions given by scholars, critics and authors. These conflicting definitions tend to be governed by two schools of thought: descriptivist and prescrptivist. After surveying the field I will move towards establishing a working definition of steampunk that will then be tested in the rest of the thesis.

Chapter Two will focus on the neo-Victorian tropes found in the steampunk aesthetic, primarily using *The Difference Engine* since Victorian Britain is so fundamentally bound up with steampunk and Victoriana. The fashions, architecture, class structures, mannerisms and technology used in steampunk works are the neo-Victorian tropes this chapter will focus on. However, the neo-Victorian aesthetic so prominent in steampunk texts is not confined by geographic or historic period boundaries. So I will be using *The Diamond Age*, since it is – I believe – the best current example of the neo-Victorian aesthetic being taken out of the Victorian era and used as part of the overall steampunk aesthetic in a futuristic setting. *Syberia*, as a computer game, works well when trying to identify and explain the Victorian aesthetic since it uses both graphics, text and a popular view of what is 'Victorian' in a modern setting outside of Britain to create the neo-Victorian aesthetic used by the game.

In Chapter Three, I will analyse the nature of magic, science and the supernatural in steampunk, arguing that these seemingly contradictory

elements coexist — usually happily — in most steampunk narratives. This will be done with the aid of Paul Di Filippo's *The Steampunk Trilogy*, the computer game *Torchlight* and K. W. Jeter's *Infernal Devices*. *The Steampunk Trilogy* is crucial because it rotates through the three stories in a way that discusses science, magic and then the supernatural. In *Torchlight* magic and technology are entwined throughout, while *Infernal Devices* is concerned with the relationship between pseudo-science, magic, and the laws of nature.

An examination of the places and characters found in steampunk texts is the focus of Chapter Four. I first circle out from Victorian Britain to other nineteenth century locales, before considering the ways in which steampunk refuses to be bound by temporal boundaries. The main texts referred to here will be *The Diamond Age, Torchlight*, and Mark Hodder's *The Strange Affair of Spring Heeled Jack*. Character archetypes found in steampunk texts, their relationship to similar characters in other genres and how they function in the overall steampunk aesthetic – as well as the nature of the characters and their similarities with the places, such as being unbound by temporal boundaries – will conclude this chapter.

Finally, in Chapter Five I will discuss what I argue is the one theme all steampunk works have in common: revolution. I will be using texts from throughout the steampunk oeuvre. If revolution really is, as I believe, the theme central to all steampunk works, it will be found in texts from the

acknowledged beginnings of the genre, to its current incarnations and will be found in the characters, attitudes, places, science and technology used in steampunk texts. *Infernal Devices* and *The Anubis Gates* will be my primary early texts, and *The Steampunk Trilogy* and *The Diamond Age* will be the later steampunk works examined. I will also examine the recent texts *Torchlight* and *The Strange Affair of Spring Heeled Jack*.

While this thesis ends on a note of unity, arguing that revolution is a leitmotif of both written and visual steampunk texts, this unity comes from the chaos of the many debates, controversies and divergences that accompany attempts to define steampunk. So I turn now from that unity to the other end of the spectrum to work my way from chaos to order.

Chapter One – Definitions, Aesthetics and Genres

And so these men of Indostan

Disputed loud and long,

Each in his own opinion

Exceeding stiff and strong,

Though each was partly in the right,

And all were in the wrong![1]

John Godfrey Saxe's poem, 'The Blind Men and the Elephant', recalls the Indian proverb about six blind men who try to describe an elephant after coming into contact with different parts of it. Their descriptions vary depending on which part of the elephant they encounter. This is an apt analogy for the recent state of steampunk scholarship which is plagued by divergent viewpoints and definitions. Katherine Wilson writes that 'what makes Steampunk tricky to peg down is its amorphous nature.'[2] The editors of the recent essay collection *Steaming into a Victorian Future* concur that steampunk 'resists easy definition' and declare that their anthology 'does not seek to construct one, but rather, maps the intellectual, social, and creative terrain that has been shaped and reconfigured by steampunk's influence, even as that terrain continues to shift and evolve.'[3] This chapter engages with the difficulties associated with defining steampunk and

[1] John Godfrey Saxe, 'The Blind Men and the Elephant', *The Poems of John Godfrey Saxe* (Boston: Ticknor and Fields, 1868), pp. 259-60.
[2] Katharine Wilson, 'Steampunk', *Meanjin Quarterly*, 69.2 (2010), pp. 20-33 (p. 26.)
[3] Julie Anne Taddeo and Cynthia J. Miller, *Steaming Into a Victorian Future: A Steampunk Anthology* (Lanham, Toronto, Plymouth: The Scarecrow Press, 2103), p. xxiv.

surveys the many debates over the reach, scope and boundaries of the phenomenon. While acknowledging the complex, hybrid nature of steampunk, I argue that some consensus is needed in order to talk about steampunk in a meaningful way. Moving away from the limitations of thinking about steampunk as a genre to considering it as an aesthetic helps to remove some of the definitional stumbling blocks and territorial quibbles.

Jess Nevins' article, 'Prescriptivists vs Descriptivists: Defining Steampunk', is perhaps the most detailed discussion of the difficulties of defining the term. Nevins puts the various proponents of definitions into two opposing categories; prescriptivists and descriptivists.[4] The prescriptivists claim that Jeter's original coining of the term is the only correct definition. F. Brett Cox sums up the prescriptivist definition in the *Greenwood Encyclopaedia of Science Fiction and Fantasy* (2005): 'steampunk specifically refers to stories occurring in the nineteenth century that focus on that century's technology as other science fiction stories focus on future technology – steam engines rather than cyberspace'.[5]

The descriptivists, on the other hand, claim that steampunk has moved beyond Jeter's letter in *Locus* magazine and is now too broad to be encompassed by any single definition. Instead of offering definitions, the descriptivists tend to list common tropes and iconography found in popular

[4] Jess Nevins, 'Prescriptivist vs Descriptivists: Defining Steampunk', *Science Fiction Studies*, 38 (2011), pp. 513-518 (p. 513).
[5] F. Brett Cox, ed., *Greenwood Encyclopaedia of Science Fiction and Fantasy* (Westport, CT; London: Greenwood Press, 2005), s.v. steampunk.

steampunk texts and then expect the reader to grasp, out of the aether fittingly enough, what steampunk is. Brian J. Robb expresses the descriptivist position when he states that: 'There is no one definition of Steampunk that encompasses everything given that label, but most know it when they see it. From the adventures of mad scientists travelling the world in airships, to steam-driven metal robots and pseudo-Victorian (or even Edwardian) settings, Steampunk is often in the eye of the beholder'.[6] This way of defining steampunk lacks any detail and assumes not just knowledge but agreement in the reader, as if steampunk were some sort of universal truth that anyone will instantly understand as soon as they come in contact with it.

The first thing that stands out when looking at Nevins' article is that in every instance of attempted definition of steampunk, there is a warning given to the reader that steampunk resists definition. While this might not be intended as an attempt to circumvent a critical response, it does have that effect since the definer can always fall back to the assertion that steampunk is difficult to define – hedging their bets, if you will. The second is that both prescriptivists and descriptivists appear to be talking past each other. Nevins' review article outlines the arguments made by various scholars and authors, but there is never a point in which the arguments made by prescriptivists are examined by the descriptivists or the other way around.

[6] Brian J. Robb, *Steampunk: An Illustrated History of Fantastical Fiction, Fanciful Film and Other Victorian Visions* (London: Aurum Press, 2012), p. 8.

Instead, the distinct impression given to the reader is that each side is working within a vacuum; no outside arguments are considered, and as wonderful as the idea of steampunk as a universal truth sounds, it is sadly far from how things actually are. What works constitute steampunk and what works do not is an on-going debate, and when descriptivists get an upper hand in the debate, the term 'steampunk' becomes more nebulous and – at least from the prescriptivist position – stretched thin. The prescriptivists seem concerned that by allowing steampunk to be assigned to so many works it will eventually lose all meaning. On the other hand, the descriptivists appear to be worried that excluding steampunk-flavoured texts will render the term too limited to be of any use.

Nevins points out that the prescriptivists position is troubled by the fact that steampunk '... is now widely used to describe material that does not fit the classic prescriptivist definition.' [7] This makes holding on to the prescriptivist position seem void of any benefit. If steampunk is limited to a Victorian British setting with steam and clockwork technology, works such as Cherrie Priest's *Boneshaker* (2009) – part of her 'Clockwork Century' series – simply do not fall into the prescriptivist definition of steampunk. In this case, because of *Boneshaker*'s American setting.

Likewise, one of the founding works of steampunk, Tim Powers' *The Anubis Gates* (1983) with its pre-Victorian setting and a focus on gods,

[7] Nevins, p. 517.

mysticism and ancient Egypt would fall outside of the prescriptivist's parameters. The closing remark of Nevins' article is an adamant indictment of the prescriptivist position saying that '... if common usage has changed the definition of steampunk, then critics must change their critical vocabulary and tools for discussing it.'[8] If the term 'steampunk' is being commonly used to cover material outside of the prescriptivist definition of steampunk, then the prescriptivists must either abandon their definition or expand on it.

Nevins points out that the descriptivist position is practically useless because it is too open. Currently the descriptivist definitions mean that steampunk 'appears as a designation for everything from the Western-flavored space opera *Firefly* (2005) to pseudo-Edwardian colonialist high adventure anime, from the industrial dance music of the band Abney Park to the current alternative fashion of mock-Victorian clothing.'[9] Nevins goes on to point out that until a more tangible definition is formed steampunk will remain a 'catch-all term' with no 'agreed-upon definition' and as such be of little use for critical discourse.[10]

These definitional inadequacies are evident in a range of dictionaries and critical commentaries. *The Oxford Dictionary of Science Fiction* defines steampunk as being 'by analogy to cyberpunk a genre of science fiction with a historical setting in the nineteenth century characterized by technologies

[8] Nevins, p. 518.
[9] Nevins, p. 513.
[10] Nevins, p. 513.

extrapolated from the science of the era, but which were not invented at that time'.[11] As a definition this is misleading in many ways. For instance, as the texts used in this thesis will show, there are many steampunk works which are placed in alternate worlds, some are set in the future and others are set in the present. Further, most – if not all – of the technology used in steampunk is derived not from 'the science of the era' but from falsified scientific theories (even ones falsified before the era in question), alternate science which usually features alternate natural universal laws, magic and the supernatural.

The final misconception from *The Oxford Dictionary of Science Fiction* definition is that steampunk is a sub-genre of science fiction. While some of the texts, *The Diamond Age* (1995), used in this thesis will show that steampunk can fit within the science fiction genre, others such as *Syberia* (2002), *Torchlight* (2009) and *Boneshaker* (2009), will show that steampunk can also fall within the genres of adventure, fantasy, the supernatural/gothic and alternate history too. So to imply that steampunk is limited to science fiction is to imply that works of steampunk outside the science fiction genre are not 'steampunk'.

The *Oxford Dictionary of Science Fiction* definition also includes works created before the term ‘steampunk’ was coined, such as Jules Vern’s *Twenty-Thousand Leagues Under the Seas* (1871) and H. G. Wells’ *The*

[11] Jeff Pruncher, ed., *Brave New Worlds: The Oxford Dictionary of Science Fiction* (Oxford; New York: Oxford University Press, 2007), s.v. steampunk.

Time Machine (1895). While these works do feature 'technologies extrapolated from the science of that [the Victorian] era',[12] there is the question of whether they should be considered ‘steampunk’ since that would be retroactively renaming them from their established genre of scientific romances. The early Edisonades would also fall under the *Oxford Dictionary of Science Fiction* definition, but they face the same problem. Edward S. Ellis' 1868 *The Huge Hunter, or the Steam Man of the Prairies* is considered to be the earliest Edisonade and it could easily fall under the *Oxford Dictionary of Science Fiction* definition of steampunk since it has, at its core, steam-powered machinery which has been extrapolated from the technology of the time – the 'Steam Man' – and sits within the science fiction genre. The idea of the 'steam man' is present in other Edisonades, such as the Frank Reade series by Harold Cohen which started in 1876. The Edisonades themselves are considered the precursors to the later American based science fiction and are already an established genre.

It is more practical, then, to simply consider these texts as forerunners, literary ancestors or proto-steampunk and say that while they significantly influenced steampunk, they are not steampunk themselves. This is assuming that one holds to the idea that steampunk is a conventional literary genre and not, as this thesis will argue, an aesthetic. These problems vanish completely if one takes the view that steampunk is an aesthetic which can be applied to other genres to create a work of steampunk. *Twenty-Thousand Leagues Under the Seas* then continues to

[12] Pruncher, s.v. steampunk.

be a scientific romance, but with a steampunk aesthetic running through it. Likewise, for the Edisonade texts containing steam-powered machinery, steampunk tropes can be identified, leaving the already established genre untouched while acknowledging that it can also be considered to fall within the parameters of the steampunk aesthetic as I propose it.

In order to make the argument that steampunk is not a literary genre but an aesthetic, it is necessary to trace the borders of steampunk and its relation to established literary genres. The texts chosen range from the beginning of steampunk, the works which prompted the steampunk label such as novels by Jeter, Powers and Blaylock, to its current incarnations in the works of Cherie Priest, China Miéville and Paul Di Filippo. Steampunk genre definitions will be taken from scholarly critics and prominent authors alike to get a range that is both critical and philosophical in order to gain a complete understanding of where steampunk fits in literature.

When first introduced to steampunk, I tried to place it within the confines of the genres that I knew already. The science fiction genre was the first genre that sprang to mind because I thought it was about technology and our relationship to it. It was a view not dissimilar to Stefania Forlini in her article for the special steampunk issue of *Neo-Victorian Studies* 'Technology and Morality: The Stuff of Steampunk'. She describes

steampunk as ’a sub-genre of science fiction’.[13]

There is, however, a flaw in such thinking. As mentioned above, while some steampunk stories do have science fiction components and do deal with technology – such as Neil Stephenson's *The Diamond Age*, William Gibson and Bruce Sterling's *The Difference Engine* (1990) – this is not indicative of the whole steampunk oeuvre. There are other works such as *Torchlight* which fall under the genre of fantasy and texts like Mark Hodder's Burton & Swinburne series (2010 – current) which are best classified as part of the alternate history genre. As many examples as there are of science fiction based steampunk, there are at least as many examples of steampunk in other genres. In fact there is not a single genre of fiction that cannot be infiltrated by the steampunk aesthetic.

My attempts at defining steampunk as a genre did not stop at science fiction. Having failed to categorize steampunk as solely science fiction I discovered that the very reasons that steampunk was not entirely science fiction were the same reasons that would prevent it from being considered only as a part of the fantasy genre. *The Difference Engine* by William Gibson and Bruce Sterling is steampunk yet there is not a hint of fantasy to be found, likewise, *Syberia* contains no unique fantasy tropes. So if steampunk could be both science fiction and fantasy, then perhaps, I thought, steampunk could be best described as a sub-genre of alternate

[13] Stefania Forlini, 'Technology and Morality: The Stuff of Steampunk', *Neo-Victorian Studies*, 3.1 (2010), pp. 72-98 (p. 72).

history. After all, I surmised, the Victorian era is an integral part of steampunk. Brian J. Robb had a similar thought: 'Alternative history stories have always been at the heart of Steampunk, from the novels of Moorcock and Jeter onwards. It is, essentially, the great game of almost all science fiction: What if...? The alternative history subgenre takes established events and alters them, sometimes in tiny ways, sometimes in huge ways, and then examines the consequences'.[14] Much like Robb, I was taken by this idea.

I had evidence to back it up in Gibson and Sterling's *The Difference Engine* which explores a world in which Charles Babbage's mechanical computers – the difference engine and analytical engine – worked. I saw 'established events' get altered so that computers were introduced, one hundred years earlier than our history records, into the Victorian Era and how that small change created an alternate history. However, this theory was also dismissed since, again, it is not true of all steampunk. *Syberia* takes place in the modern world in a timeline that could very well be our own, while China Miéville's Bas-Lag series (2000 – 2004) as well as the *Torchlight* series and *Arcanum* (2001) are set on alternate worlds – more specifically in the 'present' of those worlds – which means that not all steampunk is history, alternate or otherwise. The elements of steampunk can, however, be found *within* all of these genres.

In their introduction to the steampunk special issue of *Neo-Victorian*

[14] Robb, p. 53.

Studies, Rachel A. Bowser and Brian Croxall define steampunk in a more encompassing way, focusing, in particular, on the many ways in which steampunk evokes the Victorian period:

> One common element arguably shared by all steampunk texts, objects, or performances is the one on which this journal [*Neo-Victorian Studies*] is predicated: the invocation of Victorianism. In literary culture, this can mean a narrative set in Victorian London; one set in a futuristic world that retains or reverts to the aesthetic hallmarks of the Victorian period; a piece of speculative fiction that deploys Victorian subjects; or a text that incorporates anachronistic versions of nineteenth-century technologies.[15]

This observation is significant in two important ways. The first is that it identifies a common trope of steampunk which is 'the invocation of Victorianism'. Granted, with steampunk the 'Victorianism' is slightly more broadly applied than usual since it encompasses more than the Victorian and Edwardian periods in England.

In fact, in steampunk neo-Victorianism is not restricted to either chronological or geographic markers. This is the second significant part of Bowser and Croxall's observation when they state that the 'invocation of Victorianism' could mean a narrative set 'in a futuristic world that retains or reverts to the aesthetic hallmarks of the Victorian period'. [16] In *The*

[15] Rachel A. Bowser and Brian Croxall, 'Introduction: Industrial Evolution', *Neo-Victorian Studies*, 3.1 (2010) pp. 1-45 (p. 1).
[16] Bowser and Croxall, p. 1.

Steampunk Bible Jeff VanderMeer likewise argues that:

> At this point, too, the term “Victorian” has become so malleable that its use no longer corresponds to its historical boundaries: the period of Queen Victoria's reign (1837-1901). For a Steampunk, it may encompass the succeeding Edwardian era (1901-10) or serve as a catchall to evoke the Industrial Revolution. At the extreme of Steampunk artifice, the term can be a received idea of “Victorian” as popularized in movies and elsewhere that has no historical basis.[17]

The computer game, *Syberia*, illustrates this. The game is set in modern times but uses an imagined history – based on the popular 'idea' of what constitutes 'Victorian' – to create pastiches of the Victorian era in remote locations of the modern world. The game highlights the way in which steampunk geographies increasingly range well beyond Britain. The fictional French village of Valadilène is remote and has not been keeping up with the modern world, though Kate Walker's mobile phone still has network coverage. The houses are old stone structures which evoke the time period of the Victorians, as do the top-hats and coats, black and white photographs, umbrella stands and desks.

The player is given the distinct impression that Kate Walker has arrived at a place which has not changed since the Victorian Era.

[17] Jeff VanderMeer and S. J. Chambers, *The Steampunk Bible: An Illustrated Guide to the World of Imaginary Airships, Corsets and Goggles, Mad Scientists, and Strange Literature* (New York: Abrams, 2011), p. 9.

Progressing through the story, Kate Walker fixes a train – that runs on a wound up spring – and takes it to the next game location, which is Barrockstadt University. The university, like the village of Valadilène, is also stuck in the Victorian era. Every new game location, reached by using the train – and once by using an airship – has the same atmosphere of Victorianism running through it. As Bowser and Croxall point out, this invocation of Victorianism is shared by all steampunk texts – to varying degrees – creating a consistent 'Victorian Aesthetic'.[18] As such, the Victorian aesthetic is eligible for status as steampunk trope.

Whereas in *Syberia*, we see a modern day setting with a Victorian aesthetic running through it, in the setting for *The Diamond Age* we see a possible near future where governments are replaced by culturally driven societies that have their own laws and rules for those who belong to them. Membership to these societies, called ‘phyles’ in the novel, is determined by a person’s philosophical views and personal merit. One of the larger, and thus more powerful, phyles is the Neo-Victorian phyle. The Neo Victorians have a queen, Victoria II, and base their society around a nostalgic view of the class system and philosophies of the Victorian era. This nostalgic view of the Victorian era is, of course, tempered by modern views and ethics such as equal rights for women and care for the poor: ‘Now Bud was running out of money and getting tired of eating the free food from the public matter compilers.’[19] *The Diamond Age* also has other benefits of a more

[18] Bowser and Croxall, p. 1.
[19] Neil Stephenson, *The Diamond Age* (London: Penguin Books, 1996), p. 9.

futuristic society, such as good sewerage and hygiene.[20]

> In *Steampunk: An Illustrated History* Brian J. Robb observes, that: The current incarnation of Steampunk was anticipated by the work of various science fiction authors in the 1970s, who, instead of looking towards the future, turned their sensibilities to the past. Fuelled by a cultural social nostalgia for the Victorian age, an ironic or critical approach to its ideals and insubordinate outlook on the modern world, these authors took their cues from the 'scientific romances' of Wells and Verne.[21]

This is particularly relevant to *The Diamond Age* in that the very reason the Neo-Victorian 'phyle' (government and society) exists is that the people who belong to it are looking back to the past for a better moral, ethical, personal and mannered guide. 'My life was not without periods of excessive, unreasoning discipline,' Hackworth confides to Finkle-McGraw, 'usually imposed capriciously by those responsible for laxity in the first place. That combined with my historical studies led me, as many others, to the conclusion that there was little in the previous century [our current one] worthy of emulation, and that we must look to the nineteenth century instead for stable social models'.[22] They impose customs and mannerisms on themselves, much like steampunk authors do in their texts.

[20] Stephenson, pp. 7-8.
[21] Robb, p. 9.
[22] Stephenson, p. 24.

Steampunk in turn demands that these customs and mannerisms, the 'cultural social nostalgia'[23] that Robb mentions, be present in order to *be* steampunk, just like the people in Stephenson's novel require those 'stable social models' from the Victorians to be part of the Neo-Victorian phyle. These are the things that produce the various settings in steampunk literature, the exact markers that steampunk authors put in their texts. These neo-Victorian tropes will be explored in Chapter Two.

However, while a Victorian aesthetic is found in many steampunk texts, it is not what determines the setting or the time of the story. As *Syberia* shows, the setting can be a more contemporary world or, as is the case with *The Diamond Age*, the future. So while the Victorian aesthetic is often inextricably linked to Britain and, in particular – in the case of most of the early steampunk works – London, that does not mean that all steampunk has to conform to this model.

Another on-going steampunk debate revolves around the types of technology that qualify a work to be classified as steampunk. Catherynne M. Valente, an author and literary critic, in an article entitled 'Blowing off Steam', claims that steampunk has lost its way. Among other things, Valente claims that 'you can't have steampunk without steam.'[24] This assertion

[23] Robb, p. 9.
[24] Catherynne M. Valente, 'Blowing Off Steam' <http://catherynnemvalente.com/essays/blowing_off_steam> (2011) [accessed 27/08/2012].

springs from the idea that 'steampunk correlates precisely with cyberpunk'[25] and ignores, completely, the origin of the term steampunk. In Jeter's letter to *Locus* magazine, Jeter specifically states two things which Valente misses. The first is that the term 'steampunk' is to be used for stories which correlate to stories Jeter, Powers and Blaylock wrote which, among other things, contain stories without steam-powered devices.

The second point Valente missed is that the use of 'steam' in the term steampunk is 'based on the appropriate technology of that era'[26] – so to assert that steampunk requires steam is to ignore the other technology of the era, electricity, for example. The first electric street light was installed in 1875 in Paris which was one of the reasons for it being dubbed 'the city of lights' and by 1881 there were more than 4,000 electric street lights in Britain. This is important since the early steampunk stories, including the ones which prompted the moniker 'steampunk', are set within the Victorian era. So if we are talking about the technology of the time – 'the time' being the Victorian era – it would seem foolish to rule out electricity which was gaining widespread use throughout the Victorian era.

Valente's strict definition seems, then, to be one of personal preference. By ignoring the coining of the term and trying to claim her own definition over that which started the steampunk genre, Valente is effectively trying to remake the wheel. Only, the wheel she wants everyone to use must

[25] Valente, 'Blowing Off Steam'.
[26] Jeter, 'Letter to the Editor of Locus'.

be blue, no other wheel is really a wheel. Whether she likes it or not, whether she prefers it or not, steampunk is about more than just steam. In fact, Valente notes this herself later on:

> Again, I return to *seriousness* as a necessary addition to fantasy: if you want Victoria in your coat pocket, if you want the world that comes with her, all that possibility, all that terrible, arrogant, gorgeous technology, *take it all*, make it true, be honest and ruthless with it, or you're just gluing gears to your fingers and running around telling everyone you're a choo-choo train.[27]

'Take it all' she commands. Take all of the 'terrible, arrogant, gorgeous technology' that the Victorian era had, to which I would add ‘not just the steam’. Steampunk cannot simply stay a ‘catchall’ term for stories usually set within the Victorian era about the technology of that era. As Jess Nevins suggested earlier, it must become more than that catchall term if critical discourse is to take place.

In an attempt to define steampunk, Matthew David Surridge also argues against Valente’s strict definition. Surridge’s 'Steampunk Thoughts: The Novels of Felix Gilman'[28] starts off with an examination of Valente’s essay. Surridge also questions whether steampunk requires steam and – for that matter – whether steampunk is necessarily Victorian. One of the founding works of steampunk, Surridge notes, is Tim Powers’ *The Anubis*

[27] Valente, 'Blowing Off Steam'.
[28] Matthew David Surridge, 'Steampunk Thoughts: The Novels of Felix Gilman', Blackgate: Adventures in Fantasy Literature (www.blackgate.com: New Epoch Press, 2011) [accessed 28/08/2012].

Gates, which is set 27 years before Queen Victoria took the throne. This places one of the foundational works of steampunk within the Romantic era and invalidates much of Valente's argument. While Valente's definition of steampunk covers part of steampunk, it is not the whole of steampunk. The term 'steampunk' may have been coined in connection to the 'technology of that era', but that does not limit it to merely being 'about' technology. It is, now, about the science of the era. And the science of the era was still rife with superstition, magic and the supernatural.

The technology used in steampunk has often been cited as one of its key features and can be considered another steampunk trope. Stefania Forlini's comment that 'steampunk is about things – especially technological things – and our relationships to them' is an indication of the pervasive use of technology in steampunk, though I believe the focus on 'things' is simply a reference back to the idea that steampunk is a sub-genre of science fiction where the focus is on 'technological things'. [29] Jeff VanderMeer claims that: 'From the start, then, regardless of whether a particular fiction addressed political or social concerns, perceived "Victorian" technology would remain a constant focus. The on-going Steampunk love for outdated and baroque technologies seems to emphasize the fanciful evolution of "big concepts" like airships and robots'.[30] The word 'technology' implies something physical, like Forlini's 'things', when in fact it is not so in all the steampunk worlds. In steampunk texts it is often more intangible and

[29] Forlini, p. 72.
[30] VanderMeer and Chambers, p. 53.

abstract 'science' that is being used, rather than simply 'technology'.

Technology can be considered the physical manifestation of science. For instance, the science of aerodynamics and flight bring us the technology of airplanes and helicopters. A common science used in steampunk works is alchemy, which is now considered to be the basis of chemistry but was once interwoven with magic, ritual and the supernatural. In the second story of Paul Di Filippo's *The Steampunk Trilogy* (1995), 'Hottentots', there is very little mention of steam – or any other – technology. Instead there is a focus on science and the main character, Agassiz, is a serious minded – though rather misguided – scientist who is set against a crazed shaman from an African tribe who intends to unleash a Lovecraftian monster from a 'wellspring of creation' using magic.[31]

The wellspring of creation is part of a scientific theory on the origins of species – falsified before the Victorian era – where creatures are created whole in their current form, thus negating Darwin's theory of evolution. In steampunk it seems that it is science itself that is frequently the focus, rather than the products of science. The 'things' that Forlini insists are important to steampunk and the 'technologies' Jeff VanderMeer mentions are only really found in 'Victoria' – and not in the other two texts Di Filippo's trilogy – in the shape of a mechanical writing desk and a walking stick with a spring-loaded projectile concealed within. In this trilogy we see old falsified science

[31] Paul Di Filippo, 'Hottentots', *The Steampunk Trilogy* (New York; London: Four Walls Eight Windows, 1997), p. 119.

('Hottentots'), pseudo-science ('Walt and Emily') and current science ('Victoria'), all thrown into the Victorian period.

Science fiction explores humans overcoming science and technology to find their humanity again while steampunk explores humanity in relation to science and technology. The woman with a steam powered arm in 'The Steam Dancer (1896)',[32] by Caitlín R. Kiernan in 2007, is about a woman who is able to dance and see herself as beautiful because of her mechanical arm, not despite it, while the technological revolution in *The Diamond Age* frees Nell and helps her to grow into a powerful individual despite her impoverished beginnings. Steampunk is about liberation whereas most science fiction is a warning.

H. G. Wells' *The Time Machine*, for instance, is a warning of the dangers to humankind in the future. The Time Traveller forms three theories as to why the future is the way it is. The first is that the Eloi are the result of mankind using science to triumph over nature, resulting in humans evolving to the point where strength and intelligence are no longer needed traits for survival, since they can rely on the science to sustain them.[33] On meeting the Morlocks, the Time Traveller further theorises that humans have evolved into two distinct groups, the Eloi who have come to rely on the technology which the Morlocks keep functional, but the roles have changed in that the

[32] Caitlin R. Kiernan, 'The Steam Dancer (1896)', Steampunk II: Steampunk Reloaded, ed. by Ann and Jeff VanderMeer (San Francisco, CA: Tachyon, 2010).
[33] H. G. Wells, 'The Time Machine', *The Wheels of Chance & The Time Machine* (London: J. M. Dent & Sons, 1954), pp. 233-6.

working class, the Morlocks, feed on the Eloi who represent the upper class who cannot use the technology, only benefit from it.[34] Finally, the Time Traveller theorises that since the Morlocks still actively create and use technology, they are more intelligent since they still face challenges while the Eloi are more like animals in that their only concern is seeking out pleasure and food – thus no new challenges to cultivate their intelligence.[35]

The Time Machine is therefore a warning against decadence through technology and the ultimate atrophy of the brain through disuse because of a reliance on technology. Jeter's *Morlock Night*, however, is an example of technology, mythology and magic – technofantasy – saving humankind. It is through the use of these things that humankind is saved. It is these small differences that separate steampunk from pure science fiction.

There is a bit more agreement about the kinds of characters who inhabit steampunk worlds. Inventors and scientists play major roles in works of steampunk. This is different to science fiction which relies on scientists and inventors, but which does not often feature them as major characters. John Clute and Peter Nicholls' *The Encyclopaedia of Science Fiction* explains that 'many of the heroic scientists of pulp sf were simply stick pulp heroes with scientific prowess improbably grafted on' and that later 'the role of the theoretical genius was de-emphasized'.[36] Instead, science fiction

[34] H. G. Wells, p. 251-6.
[35] H. G. Wells, p. 263-4.
[36] John Clute and Peter Nicholls, eds., *The Encyclopaedia of Science Fiction* (New York: St.

focuses on non-scientist characters who are going through a world already built by inventors and scientists. Science fiction features worlds that have already grown accustomed to the sciences and technologies of the future where steampunk texts predominantly feature that period of time where new sciences and technologies are still being discovered.

The central characters in *The Difference Engine* are a daughter of a martyred revolutionary, an upper middle class palaeontologist and explorer and an agent for the government. Where science fiction would be more likely to feature the character of Laurence Oliphant – the agent for the government who falls into the category of the 'stick pulp heroes with scientific prowess improbably grafted on'[37] – as the primary character, steampunk instead turns to the scientist, Edward Mallory, to carry the majority of the story. Sybil Gerard, borrowed from *Sybil, or The Two Nations* (1845) – Benjamin Disraeli's novel about the working classes in England – and Laurence Oliphant are examples of how steampunk works borrow people from historical fact and fiction. Unlike historical fiction, which borrows actual people from history, steampunk borrows equally from history and fiction. It is just as likely to find a character in steampunk who was an author during the Victorian period – H. G. Wells, for example, is often used as a character in steampunk works such as a reoccurring character in the television series *Warehouse 13*[38] – as it is to find a character based on

---

Martin's Press, 1993) p. 1077, s.v. 'scientists'.

[37] *The Encyclopaedia of Science Fiction* (New York: St. Martin's Press, 1993) p. 1077, s.v. 'scientists'.

[38] 'Time Will Tell', *Warehouse 13*. dir. by Stephen Surjik. (SyFy, 6 July 2010).

novels written during the Victorian period.

There are also many strong female characters in steampunk. *Warehouse 13*'s H. G. Wells is actually Helena G. Wells, who used her brother as a decoy to publish her work because a female would not have been taken seriously at the time. Helena goes on to become an agent for Warehouse 12 and later for Warehouse 13. She is depicted as independent, intelligent, skilled with machinery and an inventor. All of these qualities are out of the norm for a woman in the Victorian Era, but they dominate the texts in steampunk.

The main character in Cherie Priest's *Boneshaker*, Briar Wilkes, is a single mother who works in a factory. She feels no shame over being a single mother, despite the stigma surrounding such women in the Victorian Era, and she works alongside men in the factory. Brair leaves her job to rush to her son's rescue when he gets trapped inside the walled off zombie infested section of Seattle which is, naturally, also filled with poison gas. These are not the actions of a woman from the Victorian Era, but rather those of a woman from a more modern era. Steampunk women characteristically break from the conventions, traditions and stifling restrictions on their freedom placed on them by society.

The male characters follow similar paths. Like the women, they are

inventors, explorers and scientists. Though they do not have the same problems fitting into the Victorian aesthetic that the female characters do, they still rebel against the confines of the Victorian era. They do this on behalf of others, since they themselves are perfectly at home within the Victorian era (strong, intelligent men who like to 'dabble' in science). The male leads express disgust at the ill treatment of the poor – 'My Christ, man,' exclaims Cowperthwait in Di Filippo's 'Victoria' when he sees the working conditions of the workers at a pumping station, 'this is barbaric! A steam engine or two would easily outperform all these poor wretches.'[39] – or they help and encourage women to become independent as Hackworth does in *The Diamond Age*. Hackworth and Finkle McGraw's 'Young Lady's Illustrated Primer' is specifically designed to give young girls an 'interesting life'.[40] When Hackworth and McGraw are talking about an 'interesting life' they are talking about hardships.

The Diamond Age also points to one of the unifying themes in steampunk texts: revolution. The end of the novel brings about a number of revolutions, among them is a phyle created by women which breaks away from both the Victorian phyle and the Confucian phyle. This is only able to be done because of the way the Primer is designed, and only accomplished by Nell because she has led an 'interesting life'. The other two young girls who receive Primers likewise rebel against the Victorian society which raised them and the novel ends in a manner closely resembling the Boxer Rebellion which ended in 1901.

[39] Di Filippo, 'Victoria', p. 35.
[40] Stephenson, pp. 24-5.

While looking to the future, *The Diamond Age* shows a reflection of the past to allow the reader to make the connection to the present, a kind of retro-futurism that comments on the present. A technological revolution is taking place in the novel with the advent of nano-technology that is reminiscent of the industrial revolution (steam and electric technology) during the Victorian era and the current revolution in computer technology. This focus on industrial revolution is one of the key signatures of steampunk.

The Difference Engine is another example of this preoccupation with technology. With the development of steam powered computers, 100 years before computers were developed in our real-world timeline, the social and philosophical atmosphere of the Victorian era is thrown into flux. Government agencies spy on the public, keeping records of people's habits and spending, citizens' details are filed within vast databanks. The political landscape changes while the social structure of the Victorians remains. Knowledge, rather than money, becomes the dominant economic possession. This mirrors the effect that computers had when they were invented in our real world.

In *The Difference Engine*, however, there has not been time for people to grow accustomed to these changes, philosophies have not been able to adapt and laws have not been given time to limit the harm such technology

can do because the technological revolution is still happening. Gibson and Sterling's book focuses on a revolution that takes place as a reaction to this incursion of technology well in advance of its time. *The Diamond Age* and *The Difference Engine* are very different texts, but they both deal with ideas of revolution, both of industry/technology and of social/personal revolution.

In the term 'steampunk', we have a mesh of two words. The first one, 'steam', is a reference to many things. While some, like Valente, have tried to argue that the reference is specifically to 'steam-powered technology'[41], others – such as Jeff VanderMeer[42] and Stefania Forlini[43] – have argued that it is in reference to technology from the Victorian era. While the latter is closer to Jeter's initial coining of the term, I believe – like Nevins' descriptivists – that steampunk has gone beyond Jeter's initial definition. The 'steam' part of steampunk is, now, a marker for the overall aesthetic. Bundled into 'steam' is the Victorian aesthetic, the technology and science, alternate worlds and the characters.

The second word in 'steampunk' is 'punk'. In this context, the meaning of 'punk' is taken from a youth movement in the late 1970s filled with anti-Establishment slogans and outrageous clothes and hairstyles. For our purposes, it is the anti-Establishment slogans that are important. A specific definition of 'punk' for this thesis will be 'an attitude or atmosphere of

[41] Valente, 'Blowing Off Steam'.
[42] VanderMeer and Chambers, p. 53.
[43] Forlini, p. 72.

rebellion against social norms'. The social norms can be anything from the dominant scientific theories, the 'black box' culture or even social conventions. When steampunk tackles social conventions, it does so not only in our time, with our society, but also with the Victorian, the Edwardian, the past.

The 'punk' in steampunk is a revolutionary step, challenging our world, the Victorian world, our history. Ekaterina Sedia, in the introduction to *The Mammoth Book of Steampunk*, 'Steampunk: Looking to the Future Through the Lens of the Past', claims that the 'punk' element of steampunk is a 'rejection of calcified norms and either examining them or appropriating them':[44]

> Challenging the centrality of Western civilization or the common perception of men as movers of history as women stand quietly by the side, the invisibility of genders other than binary, sexualities other than hetro – all of these issues are currently receiving attention. We as a society are struggling for acceptance and tolerance, and we are recognizing the importance of talking about these issues. Websites such as Beyond Victoriana and Silver Goggles question the Eurocentric narrative of what we perceive as the history of civilization, while fiction writers are busily reworking our histories to let the voices omitted from the mainstream (and actively suppressed) be heard and to tell their

[44] Ekaterina Sedia, 'Steampunk: Looking to the Future Through the Lens of the Past', *The Mammoth Book of Steampunk* (London: Robinson, 2012), p. 2.

stories.[45]

The 'punk' in steampunk is about rebellion and revolution. It is in every steampunk story – to varying degrees – and it is just as much relevant to steampunk as is the Victorian aesthetic. These two tropes of steampunk merge to cause a cultural clash.

So we can see here the parts that make up steampunk. It is essential that both 'steam' and 'punk' be used in order to come to a complete understanding. As it stands now, there is no single definition for steampunk. Earlier, when discussing the difference between steampunk and science fiction, I mentioned that steampunk is about liberation. Liberation is a struggle for freedom, it is the dream that prompts revolution, and steampunk is about revolution, both in literature and beyond. In literature steampunk deals with revolution of industry, science, technology, society, culture and time. Beyond literature, steampunk is about aesthetic revolution. It is a movement against the ‘Black Box’ technology; it is a movement against slick, curved surfaces and shiny machines. Here steampunk is a call back to a time when one could tell what was broken with a device because a broken cog or spring, or a ruptured boiler or a snapped chain is visible and that makes it more accessible

Steampunk is about looking back to a time when technology was noisy, gritty, bold and accessible as opposed to now where you are warned

[45] Sedia, p. 2.

never to open your iPad and you cannot just replace the broken part if your television breaks. Steampunk beyond literature is about taking a 'do-it-yourself' approach to technology, Victorian inspired modern life. It is an aesthetic. It is punk and it is revolution. If these sentiments closely mirror Valente's definition of steampunk it is because within her narrow definition is part of the greater whole that Valente discards.[46]

The definition of the steampunk aesthetic that this thesis will be using from here on in is:

> Steampunk (as literature) is speculative fiction which contains themes of revolution and also features alternate sciences and/or technology, timelines and/or histories, and which is often accompanied by a neo-Victorian aesthetic or one borrowed from some other period of the past where sciences, cultures or technologies are in a state of revolution.

Having surveyed the many definitional debates surrounding steampunk and established a working definition of what I term the steampunk aesthetic I now turn to a more detailed consideration of four core aspects of this aesthetic: the relationship between science and magic; the people and places prominent in steampunk texts; the omnipresent revolutionary themes; and, firstly, the neo-Victorian nature of the steampunk universe.

[46] Valente, 'Blowing Off Steam'.

Chapter Two – The Quest for Steampunk Tropes: Top Hats, Corsets and Airships

Kate Walker approaches the Northern French village of Valadilène. The road is unpaved until she gets to a bridge where cobble stones take over. Crossing the bridge she finds herself surrounded by old, Victorian-esque buildings and her path is blocked by a strange funeral procession: rust flaked automatons dressed in Victorian formal-wear and carrying musical instruments march with a stilted gait, ahead of the coffin bearers – more automatons with top hats and metal moustaches. These mechanical Victorians ignore her completely, engrossed in the mournful music played by their rusted gears.

This is the opening of the computer game *Syberia* by Microïds. In the game, the player guides Kate Walker through mechanical puzzles and Victorian inspired locations as she searches for a lost heir to a mechanical toy empire. This text signals the tropes found in the neo-Victorian steampunk aesthetic: architecture, clothing, mannerisms and class structures.

Mike Perschon's neo-Victorian lens will be used here to examine and identify the tropes found in steampunk texts specifically linked to the neo-Victorian aesthetic. Perschon uses the analogy of a pair of goggles with three adjustable lenses. The adjustable lenses on the goggles allow texts to be seen as less or more steampunk, while still incorporating the narrative

features of their chosen literary genre: science fiction, fantasy, alternative history, detective fiction, romance. 'Imagine three extra lens attachments to place over top of their standard smoked lenses…. each of those lenses … will change the way you see things through the goggles.'[1] The neo-Victorian lens, Perschon explains, shows that the neo-Victorian aesthetic in steampunk 'does not imitate, but rather evokes the nineteenth-century as resonant, not accurate, mimesis' through 'fashion, architecture, or culture … in the broadest sense of the terms … [utilizing] a look and feel evocative of the period between 1800 and 1914, unencumbered by a need for rigorous historical accuracy'.[2] Using the neo-Victorian lens I will be exploring the neo-Victorian tropes outlined below. Due to the adjustable nature of the lenses, a work of steampunk does not need to evoke every aspect of the Victorian era, just some of them.

The neo-Victorian tropes on which I am going to focus are the class structure, mannerisms, clothing and architecture found in steampunk texts. These tropes will be examined by analysing *The Diamond Age* by Neal Stephenson, the 'Parasol Protectorate' series by Gail Carriger, *Arcanum* by Troika Games, *The Warlord of the Air* by Michael Moorcock, Gibson and Sterling's *The Difference Engine* and *Syberia* by Microïds.

Before turning to this specific, textual analysis it is necessary to discuss what is meant by neo-Victorian. The idea of the 'Victorian' found in steampunk texts is predicated not only on historical fact, but on a

[1] Mike D. Perschon, 'The Steampunk Aesthetic: Technofantasies in a Neo-Victorian Retrofuture', PHD thesis (2012), p. 6.
[2] Perschon, p. 6.

popularized view of what the Victorians were like. Jeff VanderMeer comments on this popular idea of what is Victorian: 'the term [in steampunk] can be a received idea of "Victorian" as popularized in movies and elsewhere that has no historical basis'.[3] It is at this point, where 'Victorian' does not simply mean 'of the Victorian era', that it becomes neo-Victorian.

In *Neo-Victorianism: The Victorians in the Twenty-First Century* (2010), Ann Heilmann and Mark Llewellyn define neo-Victorian texts as those which are 'self-consciously engaged with the act of (re)interpretation, (re)discovery and (re)vision concerning the Victorians'.[4] Somewhat paradoxically, neo-Victorian is thus both Victorian and non-Victorian. For example, clothes in the Victorian era were gender based: a man would wear a suit, a waistcoat and a top hat, while a woman would wear a corset, a dress and carry a parasol. In Gail Carriger's 'Parasol Protectorate' series, however, the character of Madame Lefoux is introduced as 'dressed head to shiny boots in perfect and impeccable style – for a man. Jacket, pants, and waistcoat … A top hat perched upon that scandalously short hair, and her burgundy cravat was tied into a silken waterfall.'[5] Madame Lefoux is a neo-Victorian character, both Victorian and non-Victorian. While still adopting the clothing style of the Victorian era, she does so in a distinctly non-Victorian manner, by wearing male clothing. It is a '(re)vision' and '(re)interpretation' of the Victorian.

[3] Jeff VanderMeer and S. J. Chambers, *The Steampunk Bible* (New York: Abrams, 2011), p. 9.
[4] Ann Heilmann and Mark Llewellyn, *Neo-Victorianism: The Victorians in the Twenty-First Century* (Palgrave Macmillan, 2010), p. 4.
[5] Gail Carriger, *Changeless* (London: Orbit, 2010), p. 64.

Steampunk authors refract the words spoken by their characters, the clothes they wear, the class structures they inhabit, the social constructs which dictate their behaviour, and the architecture they construct through the neo-Victorian lens to create this re-interpretation of the Victorian era. It is important to remember, as Mathew Sweet points out in *Inventing the Victorians* (2002), that many of the current popular ideas about the Victorians are woefully misleading. Sweet spends the better part of his introduction explaining that the Victorians were not as stodgy as popular opinion would have them: 'Despite such evidence,' Sweet explains after running through an extensive list of the progressive attitudes and inventions of the Victorians, 'we have chosen to remember the Victorians not as our benefactors, but as sentimentalists, bigots, Jingoists and hypocrites. The Victorians invented us, and we in our turn invented them.'[6]

Steampunk authors and creators both utilise and re-invent that invention of the Victorians by using a neo-Victorian aesthetic. Using not only recorded historical facts, but literature from the period, steampunk authors create a new kind of Victorian. In keeping with the fluid way in which steampunk extends boundaries of geography and time, the neo-Victorian aesthetic in steampunk texts is not restricted to either Britain or the date markers of Victoria's reign. *The Diamond Age* is typical in this regard, drawing on both the history of the Victorian era and the literature of the Victorian and Edwardian eras while also placing certain Victorian tropes in the future. The story mirrors the build up to, and the eventual outworking of,

[6] Mathew Sweet, *Inventing the Victorians* (London: Faber and Faber, 2002), p. xii.

the Boxer Rebellion (1899-1901). This close concern with the history of the Victorian era is coupled with a flavouring of the text with references to George Bernard Shaw's play *Pygmalion* (1912), which Nell's story mimics from the start with Hackworth and Finkle McGraw playing the roles of Henry Higgins and Colonel Pickering who seek to create a 'duchess' from the flower-girl Eliza (Nell). There are hints at Charles Dickens' *The Old Curiosity Shop* (1840) too, the chapter headings are reminiscent of Dickens' and Nell shares the name of Little Nell. Apart from the Neo-Victorian phyle, these are perhaps the most significant indicators of the neo-Victorian aesthetic in the text.

References to Victorian literature are a key aspect of the neo-Victorian aesthetic in many steampunk texts. This is evident from the early works of steampunk, such as *The Warlord of the Air*. Moorcock claims that his text is:

> [A] narrative, referencing Fabian 'liberal' imperialism, still fundamentally paternalistic but well-meaning exemplified in the Cornelius books as Major Nye. I'd recently had an Edwardian craze, reading all the late Victorians and Edwardians I could, to see what it was all about (at least in my eyes) and had become fascinated by liberal imperialist optimism (or at least superficial optimism).[7]

Moorcock even names one of his central characters, Bastable, after a character of the same name in E. Nesbit's *The Story of the Treasure Seekers* (1899). Likewise, Jeter uses a range of literary allusions in *Morlock*

[7] Moorcock, in a reply to a forum post, multiverse.org < http://www.multiverse.org/fora/showthread.php?s=5e48d2072b442bd034444acebbe2e1c2&t=7713> [Accessed on 3 June 2013]

Night. The most obvious of these is H. G. Well's *The Time Machine*, to which *Morlock Night is a sequel*. However, Jeter also references Verne's *Twenty Thousand Leagues Under the Seas*, his hero encountering a 'submarine … such as Jules Verne imagined?'[8] Jeter describes Henry Mayhew's *Landon Labour and the London Poor* as his 'sourcebook', and he makes several references to Mayhew in his text, but he is also open about the inspiration he drew from nineteenth century literature: 'Anything else I probably swiped from reading Victorian novelists, including William Harrison Ainsworth, who was probably the best, or at least the most lurid of the Victorian "pulp" novelists … and enjoying it a great deal …'[9] It is from this reading that Jeter creates his world, Powers arguing that Jeter's knowledge of Dickens, George Gissing and Bulwer-Lytton ensured that he had 'a fully realised London in his head'.[10] Jeter wants his readers to be aware of his act of neo-Victorian creation, overtly signalling his intertextuality by references to Verne, Mayhew and Dickens and a quote from Matthew Arnold's iconic Victorian poem 'Dover Beach'.[11]

The way in which Moorcock and Jeter self-consciously play with the writers and thinkers of the Victorian period is typical of the way in which steampunk authors both evoke and reimagine the nineteenth century. Through the act of neo-Victorian re-vision, re-interpretation and re-discovery of the Victorian, steampunk authors use selected parts of the Victorian era, which the present deems most 'Victorian', in their texts. In his *Speculations:*

[8] K. W. Jeter, *Morlock Night* (Oxford: Angry Robot, 2011), p. 152.
[9] Tim Powers, 'Introduction', in *Morlock Night*, by K. W. Jeter, p. 9.
[10] Powers, 'Introduction', p. 10.
[11] Jeter, p. 41.

Essays on Humanism and the Philosophy of Art (1936) T. E. Hulme explains that:

> In order to understand a period it is necessary not so much to be acquainted with its more defined opinions as with the doctrines which are thought of not as doctrines, but as FACTS. There are certain doctrines which for a particular period seem not doctrines but inevitable categories of the human mind. Men do not look upon them merely as correct opinions, for they have become so much a part of the mind, and lie so far back, that they are never really conscious of them at all. They do not see them, but other things through them. It is these abstract ideas at the centre, the things which they take for granted, that characterise a period.[12]

Hulme's point here is that every period has ideas that are core to the period; intrinsic philosophies, cultures or sciences that help to define the period. Even if those core ideas and philosophies are later found to be misleading or wrong, the period would not be the same without them. What would the Dark Ages be without religious organizations controlling knowledge? What would the Roman Empire be without roads? Is ancient Greece still ancient Greece without philosophy and their pantheon of gods? The steampunk neo-Victorian aesthetic uses not only the 'doctrines' and 'abstract ideas' of the Victorian period, but also the doctrines and abstract ideas that the present associates, rightly or wrongly, with the period.

[12] T. E. Hulme, *Speculations: essays on humanism and the philosophy of art*, ed. by Herbert Read, 2nd edn (London: Routledge and Kegan Paul, 1936) pp. 50-51.

I have placed the created worlds in which steampunk fictions take place into three categories which aid in discussing the neo-Victorian aesthetic used by steampunk authors. These three categories are: 'the Long Nineteenth Century', 'elsewhere' and 'post-Victorian'. The first category, 'the Long Nineteenth Century', exclusively deals with stories set in our past which has been changed by some event or by overriding a fundamental 'law of nature'. Universal constants such as gravity remain, but other, lesser, laws or even physical geography can be changed, this category is most often found in steampunk texts employing the alternate history genre. The neo-Victorian tropes used in this category extend the Victorian era backwards and forwards to include the Romantic era on one end and the Edwardian era on the other. This extending of the 'Victorian era' in steampunk is in part due to the length of the 'Industrial Revolution' and, in part due to the significant social, economic and technological changes that this revolution ushered in, representations of this period range from nostalgic evocations of cosy Victorian world to dystopian nightmares.[13]

The second category, 'elsewhere', usually contains texts set on another world where the neo-Victorian aesthetic has been adapted to fit within entirely fictional worlds, often with a blend of magic and technology. This category is closely linked to the fantasy genre. The neo-Victorian aesthetic, in this category, is used to appropriate certain Victorian inspired ideals, and practices, to create a Victorian-like era in the 'present' of these other worlds. These texts at times present a very positive view of the

[13] The 'Industrial Revolution' used here is considered to encompass the First Industrial Revolution (around 1760 to 1830) and the Second Industrial Revolution (between 1830 and 1870).

Victorian period, co-opting the clothing, architecture, and culture of the period as a desired ideal, but also, like their Long Nineteenth Century counterparts, challenge Victorian hierarchies and attitudes towards race and class.

Finally, the 'post-Victorian era', which is usually a future or modern setting where the neo-Victorian aesthetic is either reinstated, as in *The Diamond Age*, or lingers on, having never dissipated as can be seen in *Syberia*. This category has close links to science fiction. By relocating parts of the Victorian era to either the future or the present, the neo-Victorian aesthetic is used to juxtapose and compare the Victorian era with the setting of the text and, by extension, our present and, as with those texts set in the Long Nineteenth Century, the neo-Victorian elements in these futuristic texts operate as both a celebration and a critique of the nineteenth century.

One of the neo-Victorian tropes most often used by steampunk authors is the class structure of the Victorian era. As a text that falls into the Long Nineteenth Century category, *The Difference Engine* uses Charles Babbage, an actual historical Victorian, to create steam-powered computers which cause history to unfold in a different manner than actual history records. While the natural laws of the universe have not changed in *The Difference Engine*, the technological and scientific changes initiated by Babbage's inventions provide a radically altered Victorian era. 'Lord Charles Babbage, father of the Difference Engine and the Newton of our modern

age!'[14] Mick Radley proclaims by way of explanation of the steam powered computers in Victorian London.

The resulting social, technological and scientific revolutions are forced onto the Victorians who have barely come to grips with the, then current, Industrial Revolution. Using Victorian texts, in particular *Benjamin Disraeli's Sybil*, *or The Two Nations* (1845) as a foundation, Gibson and Sterling construct an alternate Victorian era where the class system remains intact, but inventors, scientists and programmers (clackers), often called savants, supplant the aristocracy.[15] Ada Byron, for instance, has become near royalty due to her work with punch-card programming, hailed as 'The Prime Minister's daughter, and the very Queen of Engines!'[16] By maintaining the Victorian class system while changing it so that 'savants' are now considered the 'upper class', Gibson and Sterling create a neo-Victorian era in place of the Victorian era. Steampunk uses aspects of the Victorian era as a nostalgic critique. By maintaining the Victorian hierarchies, but making them merit based, Gibson and Sterling's text looks back to the Victorian era with longing while also judging it and proposing practical changes that allow the Victorian class system to operate in the modern world. The key point here is that the setting is still recognizably Victorian, despite the changes caused by Babbage's steam-powered computers.

[14] William Gibson and Bruce Sterling, *The Difference Engine* (Bantam Books, 1992), p. 21.
[15] The lead female character's name is Sybil Gerard in *The Difference Engine*, the name and family is taken from Benjamin Disraeli's *Sybil, or The Two Nations* (1845).
[16] Gibson and Sterling, p. 21.

Another example, in the Long Nineteenth Century category, of the Victorian class system being exposed to the neo-Victorian lens is the 'Parasol Protectorate' series by Gail Carriger. The series also takes place in the Victorian era, but has the supernatural – vampires and werewolves introduced into society by Henry VIII – as a central theme, delving into technofantasy and a scientific examination of the soul.

History, culture and society are most often the subjects that are examined in the Long Nineteenth Century steampunk. Like *The Difference Engine*, the Victorian class structure is still recognizable in Carriger's series, however, vampires and werewolves are inserted into that structure, creating another class level: supernaturals. Simply being supernatural is a distinction above that of the middle class, and if a vampire or werewolf is a lord or lady, their status is higher than lords or ladies of the same class level. Adding to this, Carriger constructs 'hives' and 'packs' with their own class structure which has, over many hundreds of years, become the foundation of the Victorian class system.[17] Again, the Victorian class system remains largely intact, only modified slightly to allow for supernatural beings. In contrast to the way in which Gibson and Sterling interrogate the limitations of Victorian class hierarchies, Carriger's novel is far more playful, celebrating a world of status and order and rewarding her heroine at the end of the first novel with the position of muhjah to Queen Victoria, a position for which Alexia is uniquely suited as one of the only preternaturals in Britain, and the only one

[17] Gail Carriger, *Soulless* (London: Orbit, 2009), pp. 77, 78.

near London.[18] Though Alexia is born into status, she, like the characters in *The Difference Engine*, gains higher status due to her own merit. It is her investigations and actions which cause Queen Victoria to grant her the position of muhjah on the recommendation of Lord Maccon. The position itself is vacant because, despite there being other preternaturals in Britain, none had distinguished themselves enough to be recommended for the position until Alexia.

The Victorian class system is transported to other worlds in the 'elsewhere' category and an example of this can be seen in *Arcanum*.[19] The world of *Arcanum* has magic and technology in conflict; the magic-associated areas run on the feudal system of government while the technological areas have a parliamentary structure much like the Victorian era. The parliament is run by human lords who dictate how the countries are run; the working class is made up of humans and orcs, humans being more privileged and orcs being consigned to perform the menial types of manual labour. *Arcanum*'s inclusion of race as a factor in the class system underscores the way popular opinion imagines the way upper-class Victorians saw the poor (the orcs) and the way in which Britain and the West viewed people of other races. Orcs, in *Arcanum*, are considered to be lazy and uneducated, an impression which is subverted by Gar, the self-proclaimed 'World's Smartest *Orc*!', found in Tarant's '*H.T. Parnell's*

[18] Carriger, *Soulless*, pp. 274-5.

[19] NOTE: I have used the terra-arcanum.com site rather than the main Arcanum site for information for two reasons; the first is that the original Arcanum site managed by the publishers has been disbanded and is only available through web-archives such as the 'way back machine' <http://archive.org/web/web.php>, and the second is that terra-arcanum.com is both more up to date and has all the information from scattered reviews and interviews.

Emporium of Wonders'.[20] The racial tension, which leads to riots and strikes in Tarant – the largest city in *Arcanum* and thus comparable to Victorian London – is an allegory for the class tension in the Victorian era which led to the Luddite riots in the early nineteenth century and colony uprisings such as the New Zealand Wars, the Indian Mutiny. Although *Arcanum* does not directly import the whole Victorian class system, complete with Queen, it does take parts of it to create a blending of certain Victorian class aspects with the politics of race to form a neo-Victorian fantasy setting which operates as a critique of Victorian ideology.

Neal Stephenson's *The Diamond Age* is likewise selective in its utilisation of certain aspects of the Victorian class structure. As an example of the post-Victorian category, *The Diamond Age* is set in the future which sets up phyles, groups of people who adhere to strict laws and customs drawn from real-world historical cultural movements. One of the more powerful, and most prominent, phyles is the Neo-Victorian New Atlantis phyle which is based on Victorian culture and society. There is a clear class hierarchy with the monarch, Queen Victoria II, at the top and the aristocracy below her, with the general citizens of the phyle at the bottom. By cultivating the neo-Victorian aesthetic in the text, Stephenson introduces the first traces of steampunk into his novel.

While *The Diamond Age* has a Victorian class system, it is determined by ability, morality and intellect rather than birth, as evidenced by Finkle-

[20] *Arcanum,* 'Tarant', gamebanshee.com <*www.gamebanshee.com/arcanum/walkthrough/tarant.php*> [Accessed on 13 February 2013]

McGraw himself who was an adopted child of Asian descent but managed to join the Neo-Victorian phyle and become a 'duke-level Equity Lord'.[21] This adjustment to the Victorian class system does not glorify the whole Victorian class system, just the parts that are most appealing. Like the characters in *The Difference Engine*, Stephenson's characters obtain the wealth and privilege of a system that rewards those at the top, but they make their own way to the top rather than being born to it. Finkle-McGraw is disgusted by his own children, who have achieved status through him, simply by being born his children, and so plans to have his granddaughter achieve status though her own abilities, her own merit, and not through connection to him. Stephenson explores the Victorian class system, holds Finkle-McGraw's children up as examples of that system, and then breaks it down, declaring it unfit for the modern world. A new system is then constructed; a class system modelled on, but not constrained by, the Victorian class system.

The Difference Engine, the 'Parasol Protectorate' series and *The Diamond Age* all maintain a nostalgic attitude towards the Victorian class system, while at the same time propose merit-based class mobility as the deficiencies of the Victorian class system are examined. This has the effect of allowing the fascination with Victorian hierarchies to be entertained while re-inventing the Victorian era to appeal to an audience which is more democratic in its politics and social views.

[21] Neal Stephenson, *The Diamond Age* (London: Penguin Books, 1995), pp. 18-21.

Alongside the class structure, Victorian mannerisms are also emulated in steampunk texts. In *The Difference Engine*, when Sybil sends a message to Charles Egremont who has 'dishonoured' her, the dictating clerk 'stare[s] in horror at his pen, a hot flush creeping up past his collar.'[22] Sybil's message is a rebellion against the mannerisms imposed by Victorian society. The contents are of a rather private matter and the clerk does not know how to react. On the one hand he must do his job, on the other hand he has suddenly become privy to a deeply personal affair between two people he does not even know.

The clerk, bound by Victorian manners, is both embarrassed for Sybil and her situation, and for himself for knowing these intimate details. Gibson and Sterling are critical of the social conventions which dictate the clerk's behaviour; Sybil uses the Victorian mannerisms to her advantage as a distraction, something that could not be done if the Victorians were not so consumed with the protocol of 'proper' or 'improper' behaviour. Had the clerk not been so embarrassed, he would not have tunnelled his vision to the paper before him and he would have seen Mick Radley trying to sneak past. There is also a larger issue explored here with regards to Victorian mannerisms: Charles Egremont's actions cause Sybil to be shamed and shunned. The clerk cannot even look at Sybil. Gibson and Sterling are critical of the Victorian system that causes Sybil to be shamed because of Egremont's hidden actions and rile against that system by having Sybil tell

[22] Gibson and Sterling, p. 60.

her story to others as well as help Laurence Oliphant to blackmail Egremont.[23]

The character traits ‘charisma’ and ‘intelligence’, in *Arcanum*, are used when the player interacts with the characters in the game world. A high intelligence score opens up more informed dialogue choices for the player, while a high charisma score allows the player to be more charming and conform better to the mannerisms demanded by Victorian etiquette. The converse is also true, a low intelligence score limits the player’s dialogue options to stupid responses and misunderstandings and a low charisma score forces the player to choose less socially acceptable dialogue options. Depending on the combination of these traits, a player in *Arcanum* will either fit in well with the aristocracy or relate better with the working class, or even be shunned by everyone. This complex mechanism is positioned between the player and the characters in the game to create an authentic neo-Victorian experience based on the player’s character traits. In giving the player all these choices, and the game responding to the choice, the developers offer up no agenda beyond relativism.

The player’s choices for character, traits and morality elicit different reactions from the characters in the game; some will agree with a noble born character’s demeaning attitude towards the poor or the orcs while others of the same class will disagree – often violently. Likewise, a poor half-ogre thief will be encouraged to steal by other criminals and looked

[23] Gibson and Sterling, pp. 390-3.

down on by everyone else, while an intelligent or charismatic half-ogre attempting to make his (there are no half-ogre females) way in high society will be mocked by some and accepted and encouraged by others. As Mathew Sweet points out, the Victorians were just as complex as the people in the present are. There were upper class Victorians who were indifferent, aggressively against and aggressively for class mobility which caused those of the lower classes to move up and better their station in life.[24] The same complexity of views was true of the middle and lower classes.

In much the same way, Nell's progress out of the Leased Territories and into the Neo-Victorian phyle is predicated on her learning Victorian mannerisms. Her book, the Primer, teaches her to talk like a Victorian in contrast to the way her brother, Harv, speaks.[25] In adopting this mode of speech, Nell convinces the Constable to let her and Harv seek safety in Dovetail, which leads to Nell being allowed to live in Dovetail and attend Miss Matheson's Academy. The Academy teaches Nell more precepts of the Neo-Victorian phyle, such as politeness and respect for those of higher station. Nell, due to her age and limited knowledge, is eager to learn more, but in trying to learn more she makes a social blunder:

> Rita came out of the house. "Sorry," she said, "I got out as fast as I could, but I had to stay and socialize. Protocol, you know."
>
> "Explain protocol," Nell said. This was how she always talked to the Primer.

[24] Sweet, pp. xi-xii.
[25] Stephenson, p. 215.

> "At the place we're going, you need to watch your manners. Don't say 'explain this' or 'explain that.'"
>
> "Would it impose on your time unduly to provide me with a concise explanation of the term *protocol*?" Nell said.[26]

Nell quickly changes her tone to conform to the proper Victorian way of speaking. Nell's quick adoption of different mannerisms of speech is a commentary on the social mannerisms imposed by the Victorians. Stephenson seems to be saying that adapting to the current social setting is more important than rigidly sticking to one set of mannerisms. In the Neo-Victorian phyle, Nell adapts her way of speaking to not only fit in with the Neo-Victorians, but to raise herself in their esteem. Yet, when she interacts with her brother, she adopts the mannerisms that he uses so that he is comfortable with her. Rather than exposing and condemning the mannerisms of the Victorians as superficial, though, Stephenson accepts that no matter which mannerisms are used, they are important to someone. His point is that respect for others, the kind of respect that gets returned, is predicated on respecting and adopting – even if only temporarily – the mannerisms of others: When in the Victorian era, do as the Victorians do.

Rita's reaction to Nell's quick adaptation is nervousness: 'Again Rita made that nervous laugh and looked at Nell with an expression that looked like poorly concealed alarm.' [27] Rita explains protocol to Nell, but Nell is distracted 'trying to figure out why it was that, all of a sudden, she was

[26] Stephenson, p. 262.
[27] Stephenson, p. 263.

capable of scaring grown-ups like Rita.'[28] Part of what makes Rita nervous about Nell is her ability to adapt so well to her surroundings. In the previous chapter I discussed the idea, in relation to *The Diamond Age*, that the characters in Stephenson's text have turned to the mannerisms and customs of a previous era – Victorian – in order to find worthy role models. By harkening back to the past, steampunk works are able to view the problems of a particular era through the eyes of what is now history. In this way, steampunk authors are able to take just the parts that they like.

For example, Hackworth's deference and attitude towards Finkle-McGraw are requirements of the Victorian era mannerisms placed upon them by the Victorian themed phyle they belong to.[29] This is further examined when Hackworth's wife, Gwendolyn, talks to Finkle-McGraw '"I'm sure you could never be humiliated in my presence, Your Grace," Mrs. Hackworth said. It was something she had to say, and he did not really hear it.'[30] Gwendolyn is going through the motions dictated by the Victorian social mannerisms. The people, who practice and come across their own customs most often, hardly notice when everyone around them does the same. However, if someone were to break those customs, then they get noticed. Just as Nell gets noticed when she breaks from the Neo-Victorian imposed mannerisms. It is by using Nell and her adaptability that Stephenson is able to examine these mannerisms.

[28] Stephenson, p. 263.
[29] Stephenson, pp. 23-4,
[30] Stephenson, p. 288.

As the subtitle of this chapter suggests, one of the most clear steampunk links to the Victorian period is through costume. Steampunk authors, artists and subcultures appropriate aspects of Victorian fashion, such as the top hat, and frequently subverting and modifying its typical use. The iconic display of the corset as an over- rather than under-garment and its associations with female empowerment and autonomy highlights this. Gail Carriger's 'Parasol Protectorate' series embraces Victorian fashion. Alexia is severely critical of anyone being inappropriately dressed; she derides the vampire she has just killed: 'Badly tied cravat and a cheap shirt? No hive worth its salt would let a larva like that out without dressing him properly for public appearance.' [31] When Conall Maccon tells her that '[c]heap clothing is no excuse for killing a man' she responds with '[m]mm, that's what you say' and starts to critique his appearance. [32] The neo-Victorian aesthetic does not demand that all Victorian aspects need to be changed or re-invented. However, the aspects least changed are usually those that are based on the popular view of 'Victorian-ness' which is itself a re-invention of the Victorian era. [33] As previously mentioned, Madame Lefoux's clothing is that of a man's.[34] This is set in sharp relief to the other characters who all dress as their gender and station demand.

Madame Lefoux's clothing is not just a rebellion against Victorian social norms though. Her choice to dress as a man is a practical one too, as an inventor and engineer, Lefoux spends a lot of time working with

[31] Carriger, *Soulless*, p. 10.
[32] Carriger, *Soulless*, p. 11.
[33] Sweet, p. xii.
[34] Carriger, *Changeless*, p. 64.

machines, often on her back underneath various contraptions to get at the cogs and gears out of reach. If she were to dress like a Victorian woman, her skirts and bustle would get caught in those gears and cogs, a corset would hinder her movement and lace and frills would get tattered rather quickly. As an inventor, Lefoux has also added many gadgets to her attire; her pocket watch shoots poisoned darts and her hat pins are sharpened stakes that are made of wood and silver, for use against vampires and werewolves respectively.[35]

Amy L. Montz, in her article '"In Which Parasols Prove Useful": Neo-Victorian Rewriting of Victorian Materiality' argues that '[b]y their very nature, accessories are considered mostly useless. They are thought to provide decoration alone. But …. the Victorians themselves already adapted and reconstructed fashionable accoutrements into more accommodating or useful items.'[36] Montz goes on to argue that while the Victorian fashions themselves had purpose, such as a corset providing support for the outer layers of clothing or the parasol protecting a woman from the sun, authors often add extra purpose to these garments. Lefoux's pocket watch is an example of this; it has a primary function, to tell the time, and it has added functionality in the form of poisoned darts. The parasol Lefoux makes for Alexia is essentially, and practically, protection from the sun. However, she has added a host of gadgets to it: Alexia's parasol emits acid, a toxin which harms vampires and one that harms werewolves, poisoned darts, a wooden stake at the tip along with a silver one, and a brass weight so Alexia can

[35] Carriger, p. 64.
[36] Amy L. Montz, '"In Which Parasols Prove Useful": Neo-Victorian Rewriting of Victorian Materiality', in *Neo-Victorian Studies*, 4:1 (2011), pp. 100-118 (p. 105).

more effectively continue her tradition of hitting people with her parasol while not being concerned that it will break. The parasol is an accessory, like Lefoux's pocket watch, and is considered mostly useless. But with a judicious application of technology, it has become something very useful indeed.

The Victorians themselves were not above adding extra functions to accessories. Indeed, the chatelaine – a mediaeval fashion accessory that was re-popularised by the Victorians – was a chain worn about the waist and held many different items that a woman might find useful such as scissors, keys, tiny notebooks or perfume bottles. They were individualized; a nurse's chatelaine might hold a thermometer while a seamstress' would include a thimble and a tape measure. Steampunk authors explore this approach to fashion in their texts, Montz explains that 'neo-Victorianism takes material items apart with the intention of putting them back together again in some recognisable semblance of its original construction, albeit a repetition with variation'.[37] While the functionality of the chatelaine is vastly different to Alexia's parasol, Lefoux's invention is effectively an extension of Victorian thinking in terms of accessories.

While the Neo-Victorian aesthetic is not as strong in *Torchlight* as it is in *Arcanum* or *The Diamond Age*, there are slight hints that denote the world of *Torchlight* as using the neo-Victorian aesthetic. Examples of this can be

[37] Montz, p. 106.

seen in the monocle wearing Engineer in clothing reminiscent of Victorian explorers:[38]

Figure 1, Engineer. Figure 2, Engineer Battle Armour[39]

These visual representations are not so much markers of the Victorian era; rather they invoke an imagined Victorian era. The clothes worn by the Engineer depict a certain point in our history that the player recognizes as 'Victorian'. While the armour depicted above is plainly medieval, the application of steam power brings it forward to the Victorian era. The fashion displayed in *Torchlight* is an example of equality between men and women. The costumes are similar in every respect, except for obvious accommodation for biological differences, even down to the monocle accessory. Like the fashions in Carriger's novels, the clothing in *Torchlight* is also useful. There are pockets and pouches built into the clothing, and the gloves are fingerless to allow unencumbered fingers to tinker with the machinery used by the Engineer. This idea of utility in fashion is an intimate

[38] Runic Games, 'Engineer', *Torchlight* (2009), <http://www.torchlight2game.com/classes>, [accessed on 27 January 2013]

[39] Figure 1 is the male and female models for the Engineer. Figure 2 is the male Engineer is full steam-powered battle armour.

part of the neo-Victorian aesthetic. Clothing, accessories, fashion in general, is useful as well as aesthetically pleasing in steampunk.

Moorcock's *The Warlord of the Air* also comments on clothing. Tapping into Bastable's Victorian attitudes, Moorcock makes note of the knee length skirt worn by a nurse: 'A fairly ordinary nurse's uniform, save for one thing: her skirt was at least *twelve inches* clear of the floor'.[40] Bastable's reaction to this clothing is shock: 'It was hard to see her as an ordinary, decent – indeed, rather prim – young woman when she was, in the terms of my own day, dressed like a ballet girl!'[41] However, he also sees that the shorter skirt is both practical, and alluring: 'It certainly gave the nurse greater freedom of movement and was, essentially, practical …. I wondered if all women were dressed in this practical and attractive way.'[42] Bastable notices the added utility of a shorter skirt because it allows 'greater freedom of movement', though his reaction to the short skirt is what the reader expects of a Victorian male; he finds it difficult to see her as 'decent', but at the same time he finds this attractive. This is the perceived 'hypocrisy' Mathew Sweet comments on in his introduction, but it is not, as Sweet notes, an accurate assessment of the Victorian era.[43] It is an invention, a re-imaging of the Victorian era: neo-Victorian.

It is tempting to imagine that the top hat is merely a signifier of the Victorian era and that is why it is found in steampunk. But the top hat has

[40] Moorcock, p. 71.
[41] Moorcock, p. 71.
[42] Moorcock, p. 71.
[43] Sweet, p. xii.

many more functions in steampunk literature. It identifies rank and social standing, which is important given steampunk literature's fascination with aristocracy and the Victorian hierarchy. The top hat in *The Diamond Age* has, like Alexia's parasol, added functionality which is revealed when Hackworth loses it: 'His top hat flew off. It was a good one, with a smart band that was supposed to make these mishaps a thing of the past'.[44] Hackworth's top hat bears his name on the inside, giving a hint as to the hat's worth. It is not simply another accessory, but a part of his identity, and it is through this that he able to be tracked down by Judge Fang. It is significant that Hackworth's fall from grace in the Neo-Victorian phyle is accompanied by the loss of his top hat. On all his further travels he makes use of a bowler hat instead. Thus, his accessories imitate his own drop in status.

K. W. Jeter's coining of the term indicates that the 'technology of the time' is one of the key elements of steampunk. The effect of technology extrapolated from the Victorian era is part of the overall neo-Victorian aesthetic, and this effect can be seen in the appropriation of Victorian era technologies in steampunk. The goggles used in many steampunk works sit astride fashion and technology. In the case of Cherie Priest's *Boneshaker*, goggles are used as eye protection for airship pilots and engineers.[45] While in Carriger's 'Parasol Protectorate' they are complex 'glassicals': 'He clicked [the leather case] open and removed a most bizarre pair of gogglelike things. They were gold in color with multiple lenses on one side, between which

[44] Stephenson, p. 84.
[45] Cherie Priest, *Boneshaker* (New York: Tor Books, 2009), pp. 87, 115.

there appeared to be some kind of liquid. The contraption was also riddled with small knobs and dials.'[46] Goggles, like the airship discussed below, were not a part of the Victorian era, in fact it was not until 1903 when the first recorded mention of goggles is found; used by Charles Manly when he attempted to fly Samuel Langley's aerodrome. Yet steampunk authors and fans continue to associate goggles with the Victorian era as part of the neo-Victorian aesthetic.

Airships, for example, are one of the most easily recognisable steampunk tropes. Michael Moorcock's *The Warlord of the Air* hinges on the 'airship'; typically airships are a platform – usually that of a water-bound ship – suspended below a large gas filled balloon (of some light weight material). In history the most famous example of an airship would be the Hindenburg and we know that the design was not only impractical and near useless, but that airships never saw mainstream use in favour of aeroplanes.

The key difference between airships in steampunk and airships in the real world is that steampunk bypasses the 1937 Hindenburg Disaster – a fire of unknown origin started and the airship burned up and crashed killing 36 people (35 on the airship and 1 person on the ground crew) – by using gases other than hydrogen or inventing lighter metals in which to safely contain the hydrogen to make disasters like the Hindenburg less likely. In steampunk they are so common that whole fleets of them are created, as is the case in *The Warlord of the Air*. Airships are so prolific in steampunk that

[46] Carriger, *Soulless*, p. 8.

they have become a steampunk icon, along with goggles and corsets worn as outer clothing.

In *Airborn* (2004), a young adult novel by Kenneth Oppel, the airships use 'hydrium' to keep aloft; hydrium is a gas lighter than both helium and hydrogen.[47] Michael Moorcock's *The Warlord of the Air* utilises a Boron fibre[48] to construct the 'balloon' and a mix of plastic and fiberglass for the ship to make the whole airship lighter – despite the fact that Boron is incredibly rare and hard to manufacture in significant enough quantities – to produce fleets of airships and thus able to use helium which is a heavier gas, but non-flammable. But because of the alternate physics – and, one assumes, due to the abundance of Boron in Moorcock's alternate 1974 – airships are a practical and useful device in Moorcock's world. Somewhat ironically, the 'Golden Age of Airships' was not, for the most part, during the Victorian era. Instead, it started six months before Queen Victoria's death and ended with the Hindenburg Disaster. Though an Australian, Dr William Bland, did send designs for a steam-powered airship to the Great Exhibition in March 1851. Despite this, the airship is connected, in the public imagination, with the Victorian era

Moorcock's novel also features a curiosity with his steam-powered cars. When the protagonist, Bastable, asks what is powering the van he gets told '[w]hat did you expect? It's steam, of course. This is an ordinary Stanley flash-fried steamer van.' Confused, Bastable asks '[n]ot a petrol

[47] Kenneth Oppel, *Airborn*, (2004), p. 34.
[48] Michael Moorcock, *The Warlord of the Air* (London: Titan Books, 2013) p. 75.

engine?' and gets the disbelieving response of 'I should hope not! Primitive things. The steam motor is infinitely more efficient.'[49] Bastable's confusion is mirrored by the reader who knows that, at least in our world and time-line, it is the other way around with the steam engine being less efficient. In Moorcock's world, at least, science has created a steam engine which is more efficient than the internal combustion engine. Whether or not this is due to another twisting of natural laws, it does allow Moorcock to keep Victorian inspired technology in the future Bastable experiences and, thus, to create his steampunk world.

Brian J. Robb claims that steampunk is '[f]uelled by a cultural nostalgia for the Victorian age, an ironic or critical approach to its ideals'.[50] The nostalgia inherent in steampunk is, then, tempered by a need to change, to fix or just to tinker with, the Victorian era. The neo-Victorian aesthetic runs through steampunk like a steam-powered train, leaving puffs of Victoriana in its wake. These puffs are the neo-Victorian tropes: a Victorian social structure, Victorian mannerisms, clothing and architecture. Technology is also affected by the neo-Victorian lens, though this – and the technofantasy lens – will be discussed in the next chapter.

[49] Moorcock, p. 69.
[50] Brian J. Robb, *Steampunk: An Illustrated History of Fantastical Fiction, Fanciful Film and Other Victorian Visions* (London: Aurum Press, 2012), p. 9.

Chapter Three – The Supernatural Science of Magic

A Victorian gentleman descends into London's sewer system. During his underground sojourn he discovers remnants of Atlantis, a Vern-inspired submarine, invading Morlocks, and his own destiny as the reincarnated Arthur and the saviour of England. These are the core narrative ingredients of K. W. Jeter's *Morlock Night*. Within this text – one of the first steampunk novels – steam-powered technology cohabitates happily with magic and the supernatural. This fusion of science and the fantastical is a feature of many steampunk texts and is the subject of this chapter. As Julie Anne Taddeo and Cynthia J. Miller highlight, the steampunk inventor is typically 'half scientist, half magus' and in steampunk narratives the boundaries between 'the rational and the rational, fantasy and realism' are frequently blurred and sometimes erased.[1]

Steampunk appropriates several tropes from science fiction, fantasy and historical fiction, and it is these tropes that I will discuss here. These tropes can be classed under three distinct headings: possible science, pseudo-science and fantastical science. These three different tropes are used – to varying degrees – in all steampunk works and, when combined, create what Mike Perschon terms 'technofantasy' which, simply put, is

[1] Julie Anne Taddeo and Cynthia J. Miller, *Steaming Into a Victorian Future: A Steampunk Anthology* (Lanham, Toronto, Plymouth: The Scarecrow Press, 2103), p. xvii.

technology that appears scientific, but is never explained using the physical sciences.'[2]

In his essay 'Hazards of Prophecy: The Failure of Imagination', Arthur C. Clarke maintains that science fiction itself does not always rigorously follow science, cautioning that 'even things that are undoubtedly impossible with existing or foreseeable techniques may prove to be easy as a result of new scientific breakthroughs'.[3] Science fiction deals in possible science; science that *could be*. Steampunk shares this interest. The science and technology contained in steampunk is either science ahead of its time, thrust back into a Victorian era setting and treated with the Victorian aesthetic (the computers in *The Difference Engine* and the mechanical walkers and nano-technology in *The Diamond Age*[4]), prophetic sciences that the Victorians speculated about but had not realized yet (Cowperthwait's genetically engineered newt in 'Victoria'), or discarded sciences (the airships in many steampunk works). Possible science includes both technology that can be replicated in the real world and science on the verge of being realized in the modern era.

Pseudo-science is much broader than possible science. This category of science in steampunk relates to debunked theories, such as phrenology and alchemy. Agassiz's 'Cosmogonic Locus' in 'Hottentots', the 'Paganinicon' automation in *Infernal Devices*, Doctor MacDougall's 'weight

[2] Mike D. Perschon, 'The Steampunk Aesthetic: Technofantasies in a Neo-Victorian Retrofuture' (unpublished doctoral thesis, University of Alberta, 2012), p. 238.
[3] Arthur C. Clarke, 'Hazards of Prophecy: The Failure of Imagination', *Profiles of the Future* (London: Victor Gollancz LTD, 1982), p. 28.
[4] Neal Stephenson, *The Diamond Age* (London: Penguin Books, 1996) p. 231.

of the soul' theory, the mesmerism in *The Strange Affair of Spring Heeled Jack*, Jack's time-suit and the resultant genetically engineered bugs, flowers and animals are all examples of this.[5]

Fantastical science refers to sciences based in magic, the supernatural or invented substances. In the game *Torchlight,* the fictional substance known as Ember powers machines, weapons, potions and special superhuman abilities. The fetish used to summon Lovecraft's Dagon in 'Hottentots' is an example of magic and ritual being part of the natural laws of that universe.[6] The diamonds in Hodder's 'Burton and Swinburne' series, however, cause the supernatural to become real. Cherie Priest's *Boneshaker* and subsequent novels in the 'Clockwork Century' series include a gas that turns people into zombies. While the examples of these fantastic sciences are largely fictional, the laws governing them in the steampunk worlds are both internally consistent enough to make them natural laws and allow for the study of them as sciences; which is exactly how they are treated in these alternate worlds.

By creating these different worlds, steampunk is able to introduce changes to the science and technology we would expect to find in these neo-Victorian settings. The distinction between science and technology is important to an understanding of how steampunk uses each. Technology is the physical by-product of applied science. Some of the key technologies found in steampunk texts were explored at the end of the last chapter –

[5] Di Filippo, 'Hottentots', p. 122; Jeter, p. 239; Mark Hodder, *The Strange Affair of Spring Heeled Jack* (London: Snowbooks, 2010), pp. 79-83.
[6] Di Filippo, 'Hottentots', p. 233.

airships, dart-shooting pocket watches, steam cars and gadget infested parasols. In this chapter the focus is on the scientific theories that lie behind these inventions, on abstract ideas and philosophies as well as the tangible and concrete.

Steampunk texts often use alternative natural laws, which I will be examining through a consideration of K. W. Jeter's novel *Infernal Devices*, the computer game *Torchlight* by Runic Games and *The Steampunk Trilogy* by Paul Di Filippo. *The Strange Affair of Spring Heeled Jack* and *The Curious Case of the Clockwork Man* by Mark Hodder also offer examples of alternate natural laws but set within the real world, while *The Diamond Age* by Neil Stephenson and *The Warlord of the Air* by Michael Moorcock aid in further exploring science in a futuristic steampunk setting. All the texts examined in this chapter are dependent on alternative science; some require the very environment to be different; the abundance of boron in *The Warlord of the Air* and the wellsprings of creation in 'Hottentots' are examples of the different conditions on alternate earths.[7]

In Jeter's *Infernal Devices* clockwork automata function at the same independent and cognitive level as the average human by being able to 'share' the brain of a human being.[8] Automata are appropriated from science, in which genre automata are classed as a trope of possible science. Such things are completely plausible in Jeter's universe where

[7] Michael Moorcock, *The Warlord of the Air* (London: Titan Books, 2013), p. 75; Paul Di Filippo, 'Hottentots', *The Steampunk Trilogy* (New York; London: Four Walls Eight Windows, 1997), p. 119.
[8] K. W. Jeter, *Infernal Devices* (Oxford: Angry Robot, 2011), p. 238.

physics works differently from the real world and where the fundamental laws of nature are tweaked to produce alternate sciences. From our own perspective, then, these 'sciences' are effectively magic. Lavie Tidhar, in a discussion of steampunk for *The Internet Review of Science Fiction*, asserts that '[o]n the one hand, technology in Steampunk has become magical; on the other, what magic there is has become highly scientific'.[9] It is within this context that magic and spiritualism works as science in steampunk.

It is necessary to point out a small, but important, difference between the Tidhar quote above, and the frequently quoted Clarke's Third Law by Arthur C. Clarke which states that '[a]ny sufficiently advanced technology is indistinguishable from magic.'[10] Where Clarke's Third Law assumes that the science or technology used in science fiction is based in sound science and engineering, steampunk is not bound by natural or scientific law. As Jeff VanderMeer explains it: 'Science fiction, in its purest sense, is a forward-looking genre that relies on scientific accuracy, theory, and logic. Steampunk, on the other hand, leaves much more room for madcap fantasy, strangeness and escapism'.[11] Tidhar's assertion about steampunk mirrors the second part of VanderMeer's statement; steampunk's science and technology is firmly situated in whimsy, the 'madcap', magic and the supernatural.

[9] Tidhar, Lavie, 'Steampunk', The Internet Review of Science Fiction (2005) <http://www.irosf.com/q/zine/article/10114> [accessed 20 January 2013].
[10] Clarke, p. 36, footnote 'Clarke's Second Law'.
[11] Jeff VanderMeer and S. J. Chambers, *The Steampunk Bible* (New York: Abrams, 2011), p. 69.

Real science has no answer for the supernatural simply because science is the study of, specifically, the natural world. The supernatural, by definition, is outside the bounds of nature and science, as is magic. That is not to say that some science used in steampunk would not be possible within 'real world science' (for example, the helicopter chairs in *Spring Heeled Jack*), just that 'steampunk science' tends towards the more magical, and the more supernatural. At the same time, as Tidhar notes, the magic that is in steampunk becomes more scientific. Alchemy is a 'science' used in many steampunk stories because it is magic which is based on scientific principles. In fact, modern chemistry derives from alchemical roots and one of the most famous scientists in our history, Isaac Newton, developed many of his theories from alchemical studies. It is this blending of what amounts to a mix of magic and science which is a key trope of steampunk.

Infernal Devices was first published in 1987, the same year as Jeter's letter to *Locus* magazine, wherein he coined the term steampunk, which is critical for two reasons. The first is that it identifies *Infernal Devices* as early steampunk, making it a fitting text to start with to track any changes to the steampunk aesthetic. The second critical point is that, because of its proximity to the coining of the term, *Infernal Devices* is a useful text to use to tease out Jeter's full meaning. Jeter uses the phrase 'based on the appropriate technology of that era' with reference to the Victorian era.[12] However, if 'technology' was really a defining characteristic of steampunk,

[12] K. W. Jeter, 'Letter to the Editor of Locus', *Locus* (April, 1987).

rather than simply a hook so that Jeter could play with the term cyberpunk, then *Infernal Devices* would not fit within the steampunk rubric because the technology in the text has little to do with the technology of the Victorian era. Instead, the text makes use of a popularized idea of what constituted the 'science' of the Victorian era.

The science in steampunk blurs what we would consider science with magic and the supernatural, allowing the creation of fantastical technology. From the title of Jeter's *Infernal Devices* we are given an indication as to what to expect. 'Devices' are objects, technology, any kind of equipment really. They are the 'things' that Forlini is talking about when she says '[f]irst and foremost, steampunk is about things – especially technological things – and our relationships to them.'[13] The 'devices' are the by-product of the science in the text, and the science is 'infernal'. It is not natural or normal science, it is connected to devils and spirits, the word 'infernal' conjures up Faustian images of deals with devils for knowledge beyond that of humans.

These kinds of images are at play throughout the text as the protagonist, George Dower, discovers that his father was more than just an exceptional clock-maker. Dower's father was a scientist and an inventor who, using his own intellect and the knowledge of science gifted to him by a race of fish-like humans (the Selkies), built many devices. Some of these devices decimate, some entertain and some are simply marvels. One of

[13] Stefania Forlini, 'Technology and Morality: The Stuff of Steampunk', *Neo-Victorian Studies*, 3.1 (2010), pp. 72-98 (p. 72).

these devices is a doomsday device of sorts. It is based on the idea of causing destruction through vibrations:

> Glancing over his shoulder, Lord Bendray read the awful surmise visible in my face. “Yes – you've got it – you've got it, my boy! Exactly so! The senior Dower was a master of that science properly known as Cataclysm Harmonics. Just as the marching soldiers transmit the vibrations that bring the bridge tumbling into bits, so this grand construction-” He gestured towards the stone pillars stretching down into the pit. “Your father's greatest creation – so it is designed to transmit equally destructive pulsations into the core of the earth itself. Pulsations that build, and reinforce themselves – marching soldiers! Hah! Yes – until this world is throbbing with them, and shakes itself to its component atoms!” The vision set him all a-tremble. “The bridge collapses; the world disintegrates ... Just so, just so.” He nodded happily.[14]

The idea here is most likely taken from the Broughton Suspension Bridge, which collapsed in 1831 after 74 soldiers marched across it; four abreast and all in step. As they crossed, they felt the bridge vibrating along with each step and whistled along with it. Just before the first men reached the other side, a pillar at the Broughton end of the bridge collapsed sending more than half of the soldiers into the water. Following this incident the British army instituted the 'break step' rule.[15]

[14] Jeter, pp. 183 – 4.
[15] G. P. Tilly,, D. W. Cullington and R. Eyre, "Dynamic behaviour of footbridges." IABSE Surveys, S-26/84, IABSE Periodica, No. 2/84 (1984), pp. 13-24.

While the cause of the bridge's collapse was eventually attributed to poor construction materials and the bridge being in some small state of disrepair, it is believed that the vibrations of the soldiers marching in time caused an osculation effect, '[p]ulsations that build, and reinforce themselves', which contributed to the collapse. Based on this science of 'Cataclysm Harmonics', Dower's father constructed a doomsday device that, like the Broughton Suspension Bridge, would cause the Earth to vibrate at just the right frequency to destroy it. The Earth itself, in Jeter's text, then becomes one giant machine, pulsating and throbbing with its internal vibrations until it finally breaks up into 'its component atoms'.

It is this same science that produces the 'Paganinicon', an automaton created in Dower's likeness to play the violin like the Italian musician Niccolò Paganini. This device shares Dower's brain through 'the principle of sympathetic vibrations' or, in engineering terms, 'mechanical resonance'.[16] The doomsday device, and the Paganinicon, are both derived from science beyond human knowledge at the time. It is granted to humans by an 'infernal' race – infernal meaning '[o]f or belonging to the world or 'regions' below' – the Selkies that Dower's father befriends.[17]

The magical ability to transport brain function through vibrations is not 'science' as we know it, but within the context of the text, within this alternate world where everything is identical to the historical Victorian world

[16] Jeter, p. 240.
[17] *OED Online*, Oxford University Press, updated 2013, <http://www.oed.com.ezproxy.waikato.ac.nz/view/Entry/95323> [Accessed on 28 March 2013], s.v. infernal; Jeter, p. 281.

except that a race of fish people exist and they have advanced knowledge about pseudo-science, it is science because it is magic and the supernatural wrapped up in the scientific method. Jeter uses a possible science, mechanical resonance, to create an extension into quirky science where the vibrations caused by mechanical resonance – or in this case acoustic resonance – can be used to mirror or mimic brain function in an automaton. The ‘principle of sympathetic vibrations' is magic that has been given a sound scientific basis by Jeter.

The diamonds in Hodder’s *The Curious Case of the Clockwork Man* (2011) offer another example of fantastical science. Through the use of time-travel in *The Strange Affair of Spring Heeled Jack*, Hodder creates a paradox which causes the supernatural to become part of the natural world. Edward Oxford creates a time-suit in the future to go back and stop his ancestor from attempting to assassinate Queen Victoria; an act which Edward believes has tainted his family name for generations. He incorporates a black diamond into his time-suit and when he travels back in time the diamond from the future amplifies its own powers in its past incarnation. With Edward’s further jumping around in time, the low hum coming from the original diamond is amplified further because there are more instances of it occupying the same time.

The effect of this is that certain people who claim to have psychic abilities actually gain them. This concept is similar to Jeter’s ‘sympathetic vibrations’ but instead of an automaton sharing the brain of a human,

humans who are attuned to the specific frequency of the diamond (those who claim to have supernatural abilities) find their abilities enhanced as more instances of the black diamond are brought into the world through time-travel.[18]

This use of outmoded science is also seen in Gail Carriger's novel, *Soulless*, in the character of Mr MacDougall, who is a scientist and expert in the weight of souls. Carriger bases her character on the actual MacDougall – a physician who, in 1901, weighed dying patients to try to determine the weight of the soul. MacDougall determined that, based on the weight discrepancy between the readings of patients pre- and post-mortem, the soul actually weighed approximately 21 grams.[19] Gail Carriger casts this research as proven science in her novel. MacDougall boasts '" … a bit of an academic interest in the state of the human soul."'[20] He goes on to explain: '"My particular study focus would be the weighing and measuring of the human soul."'[21]

Science is central to Paul Di Filippo's *The Steampunk Trilogy*, which highlights the complex nature of the relationship between the scientific and the fantastical in the steampunk universe. *The Steampunk Trilogy* exhibits a deep enthusiasm for unconventional science, falsified theories, alternative

[18] Hodder, *The Curious Case of the Clockwork Man*, p. 343.
[19] 'Soul Has Weight, Physician Thinks', *New York Times*, 11 March 1907 <http://query.nytimes.com/mem/archive-free/pdf?res=9D07E5DC123EE033A25752C1A9659C946697D6CF> [Accessed 20 March 2013].
[20] Gail Carriger, *Soulless* (London: Orbit, 2010), p. 103.
[21] Carriger, *Soulless*, p. 104.

natural laws, scientifically driven exploration of the spiritual and supernatural and a good dose of magic.

The first text in *The Steampunk Trilogy*, 'Victoria', features a genetically engineered newt which replaces Queen Victoria on the throne: '"That's ludicrous," expostulated Cowperthwait. "A newt sitting on the throne of England? Oh, I concede that with a wig, she might deceive from a distance. But up close – never!"'[22] Genetic engineering is a science not yet fully grasped by today's minds and barely having started in the Victorian era. In fact, it was not until 1906 that William Bateson gave that particular field of science the name 'genetics'.[23] Though interest in genetics was sparked by Charles Darwin and Herbert Spencer, it was not until years later that it was developed into a distinct field of science.[24] Cowperthwait explains the science to Lord Melbourne: '"In my work with native newts, I have succeeded, you see, in purifying what I refer to as a 'growth factor.' Distilled from the pituitary, thyroid and endocrine glands, it has the results you see. I decided to apply it to a Hellbender, since they normally attain a size of eighteen inches anyway … "'[25] This science is well in advance of its time, though it is still possible, which causes the science in 'Victoria' to fall under the 'possible science' category.

Rachel Bowser and Brian Croxall comment that '[steampunk] takes us out of our present moment; but instead of giving us a recognizably futuristic

[22] Di Filippo, 'Victoria', p. 18.
[23] *Science, Technology and Society: An Encyclopaedia*, ed. by Sal Restivo (New York: Oxford University Press, 2005), p. 156.
[24] *Science, Technology and Society: An Encyclopaedia*, pp. 156-7.
[25] Di Filippo, 'Victoria', p. 15.

setting, complete with futuristic technology, [it] provides us with anachronism: a past that is borrowing from the future, or a future borrowing from the past.'[26] *The Difference Engine* provides a similar example to 'Victoria', with Babbage's analytical and difference engines actually working, thus issuing in the computer revolution nearly one hundred years before our history records it.

In both texts, a science is pulled from the future and given to Victorian-era scientists and inventors. In *The Difference Engine*, computer science is taken from the future, which causes a departure point from history. However, in 'Victoria' it is genetic engineering and nuclear science which creates a departure point from our time-line and spawns the timeline inhabited by Cowperthwait. Furthermore, Cowperthwait's failed experiment with uranium and steam power brings about a nuclear explosion, something not ordinarily possible without using neutrons to split uranium atoms. This means that 'Victoria' is set in a world of alternate science in which there is the ability to cure radiation poisoning through the use of a 'Naturopathic garment'. This is science well ahead of its time given that even today there is no cure for this illness, merely a treatment. [27]

In the second story in Di Filippo's trilogy, 'Walt and Emily', the transportation of the characters from the 'real world' to that spiritual world of Summerland is a scientific endeavour. The fuel used in the transportation is a mixture of science and the supernatural. Using a substance dubbed

[26] Rachel A. Bowser and Brian Croxall, 'Introduction: Industrial Revolution', *Neo-Victorian Studies*, 3.1 (2010), pp. 1-45, (p. 2).
[27] Di Filippo, 'Victoria', p 23-5.

'ideoplasm' which is milked from the breasts of a (fake) spiritual medium, and a Crookes tube – an actual invention – Crookes runs a current through the tube filled with ideoplasm which causes the tube and objects near it to travel to Summerland.[28]

Like the science behind the Summerland expedition, 'Hottentots' also features a mix of science and the supernatural. Agassiz believes he has stumbled on a great scientific breakthrough when he is told of an area where life spontaneously spawns, thus vindicating his theory that Evolution is a false theory and that new species spring out of these 'wellsprings of creation' in various countries around the Earth which he dubs a 'Cosmogonic Locus'.[29] These wellsprings of creation are places of magical power too. The sorcerer, T'guzeri, is able to summon a Lovecraftian monster:

> A head big as a locomotive emerged from the water. It was slope-browed and covered with sleek mottled skin. Its eyes were big as cartwheels. Weeds hung from its open jaws.
>
> The head was supported by a neck thick as one of the Corinthian columns of the Central Congregational Church on Winter Street.
>
> The neck pushed the head up, up, up, into the night sky, till it towered steeple-high.
>
> Following the neck was a barnacle-covered body twice as long as the *U.S.S Bibb*.

[28] Di Filippo, 'Walt and Emily', p. 278.
[29] Di Filippo, 'Hottentots', pp. 119, 122.

> The Surviving wounded Deep Ones – including T'guzeri, who squirmed in the grip of a beefy sailor – began to sing out the creature's name.
>
> "Dagon! Dagon! Dagon!"[30]

The monster's likeness to a locomotive in size is an indication of how steampunk treats magic. T'guzeri uses the magic of the fetish as science, and the by-product of science is technology, which is how the monster is described, as a piece of technology. The religious symbolism of the 'Central Congregational Church' and the head that is 'steeple-high' is mixed neatly in with the science and magic, showing how steampunk texts blur the lines that separate them. Di Filippo uses many Lovecraftian tropes in 'Hottentots'. The 'Deep Ones'[31] and 'Dagon'[32] are from H. P. Lovecraft's Cthulhu Mythos. Jeter's *Infernal Devices* uses the Selkies which can be seen as 'Deep Ones', fishlike humanoids who give gifts to humans and interbreed with them producing, in Jeter's text, humans with distinctly fishlike features. Likewise, in 'Hottentots' the Deep Ones also breed with humans.

Just as the Deep Ones from the Cthulhu Mythos, the 'Hottentots' Deep Ones and the Selkies, from Jeter's *Infernal Devices*, ultimately seek to destroy the human world. The Brown Leather Man taunts the humans after arranging for Dower to activate the doomsday device that will shake the world apart:

---

[30] Di Filippo, 'Hottentots', p. 233.
[31] Daniel Harms, 'Deep Ones', *The Encyclopaedia Cthulhiana*, 2nd ed., (Oakland, CA: Chaosium 1998), pp. 81-2.
[32] Harms, 'Dagon', p. 73.

> The Brown Leather Man stood there, gazing down upon us, his arms lifted above his head.
>
> He had gained entrance through secret ways, and now gloated at our despairing situation. “See!” His voice was a wild howl, all resemblance to humanity removed. “Your folly is this! This you brought upon yourselves – your blood cares not for others’ blood! Their death you bring about, your stupidity and greed kills, and you care not! Now has come your death!”[33]

In Jeter’s text, the Brown Leather Man tries to destroy humanity using the doomsday machine built by Dower’s father from scientific knowledge gained from the Selkies. Likewise, the Deep Ones in ‘Hottentots’ seek to destroy humanity using knowledge of infernal magic powered by the fetish. As in ‘Hottnetos’ it is not science that saves the day in Jeter’s text, but something more primal. Dower’s brainwave frequency is altered by a primal act, he has sex. This can be seen as primal magic; sex – an act of creation – is used to negate the destructive science of the doomsday device. The result is that ‘Bendray Hall still stood after the shuddering vibrations emanating from its cellar had ground to a halt’.[34]

In Di Filippo’s text, Agassiz’s ‘science’ is useless against Dagon; he uses guns against what is essentially a magical creature and they have little effect. Instead, it is Dotty, who – using rituals – manages to defeat the monster and send it back to the depths from which it was summoned.[35] The fetish T’guzeri uses to summon the creature is a tool, a piece of technology

[33] Jeter, p. 329.
[34] Jeter, pp. 333-4.
[35] Di Filippo, ‘Hottentots’, p. 235.

created using rituals. Ritual magic is a set of actions and procedures which, when followed, produce a set outcome. This is essentially a simplistic description of scientific methods where mixing chemical A with chemical B produces result C and the end result is not only expected, but – when performed correctly – happens every time. Cezar informs Agassiz that T'guzeri must perform certain rituals in order for the fetish to become 'activated'. That T'guzeri is able to summon a Lovecraftian monster from the depths indicates that, in this alternate universe, the rituals work – they are part of the natural laws governing the universe – and as such are 'science' or, rather, fantastical science.

The Cosmogonic Locus that Agassiz searches for offers an alternative scientific explanation for evolution, similar to that offered by Creationists in modern times.[36] Di Filippo engages with this topic, but with a Victorian era understanding of the sciences involved:

> Agassiz, however, belonged to those sensible types who maintained that the Creator had brought into being all the different species and races separately and fully formed, each in their own country. And as for "evolution" – Well, the fossil record plainly revealed that one kind of creature did not flow into another, but that all the vanished species had died in different catastrophes, whereupon new ones had arisen from the same wells of creation.[37]

[36] Di Filippo, 'Hottentots', p. 119.
[37] Di Filippo, 'Hottentots', p. 119.

This can be roughly considered the Creationist view of evolution, and Agassiz's discovery of the Cosmogonic Locus, or 'wells of creation', is a vindication of this theory.

It is intriguing that in both 'Hottentots' and 'Walt and Emily' Di Filippo actively seeks to undermine the very sciences he has put in place to cause the stories to happen. The 'Cosmogonic Locus' in 'Hottentots' and Agassiz's vindication of his scientific theories are robbed of their veracity by Di Filippo imparting some future knowledge, using the narrator's voice at the end:

> But Agassiz could not foresee that even now a man named Charles Darwin was at work on a book called *The Origin of Species*, a book which would forever link man and animal, yoke white and black, through Civil War and beyond, and replace Agassiz's beloved creationism with a disgusting notion called "evolution," rendering Agassiz in his old age a cranky, outmoded, derided fossil himself.[38]

This appears to undermine the whole story. It is almost as if Di Filippo is giving the reader a nod and a wink and saying 'Yes, that Agassiz is a crazy man, you just can't trust him', or perhaps, more likely given the already altered setting in which the story takes place and the tone of the story; 'It is amazing how the Truth (with a capital T) will get covered up, poor Agassiz – our true hero – will never get the recognition he deserves.'

[38] Di Filippo, 'Hottentots', p. 236.

A similar sentiment is used in 'Walt and Emily' when the reader discovers that, despite the adventurous group making their way to Summerland, the 'ideoplasm' is a fakery concocted by Andrew Davis and Madame Selavy, though since they *are* actually there, Crookes muses that there must be something in the recipe for the fake ideoplasm to have worked: 'Crookes was cupping his chin thoughtfully. "We must attempt to quantify your ideoplastic recipe, Mister Davis. It would put our whole transdimensional expedition on a more scientific footing"'. [39] Di Filippo pushes the reader to further conflict as to the veracity of the story by making the whole journey, which took at least three days, take less than a second for the people watching the party leave on their ship. Even if, as Di Filippo implies, the group never leave America, they do go *somewhere* together.[40] Whether it is the spirit world of Summerland, or merely a shared dream, they travel beyond the bounds of the physical world; through science, or magic, or some supernatural agent, or a combination of all three.

The 'time gates' or 'gaps' in *The Anubis Gates* are only possible because of magic and gods.[41] This makes the science used in *The Anubis Gates* fantastical science. As one of the founding steampunk novels, *The Anubis Gates* contains very little science at all. There is some hand-waving at science for possible explanations for the time gates and being able to travel forward and back through them. Ultimately, though, the science in the text is simply an attempt at a rational front for magic. Darrow explains the situation to Doyle:

[39] Di Filippo, 'Walt and Emily', p. 342.
[40] Di Filippo, 'Walt and Emily', p. 349.
[41] Tim Powers, *The Anubis Gates* (London: Orion Publishing Group, 2005), p. 39.

> My God, *first* I exhaust the entire structure of modern science – try to grasp that! – and then I spend years wringing the drops of truth out of … certain ancient writings, and testing the results and systematizing them, and *then* I have to browbeat, coerce, and in two cases even blackmail the boys at my chrono labs in Denver – the Quantum Theory Lads, for God's sake, supposed to be the most radically brilliant and elastic-minded scientists at work today – I have to *force* them to even consider the weird but dammit empirical evidence, and get them to whip it up into some practical shape – they did it, finally, and it requires the synthesis of a whole new language, part non-Euclidean geometry, part tensor calculus and part alchemical symbols – and I get the findings, the goddamn most important discovery of my career, or anyone's since 1915…[42]

This passage nicely demonstrates the way that science and magic cohabit within the steampunk aesthetic. Science is bent, twisted, torn, stretched, stitched and bashed into a shape capable of accommodating magic. Beyond a mention of gamma rays, photons and radiation reminiscent of the barebones 'science' used in superhero comic books there is no more mention of science.[43] The rest of the text deals exclusively with magic and the supernatural.

The natural laws governing Powers' alternate world dictate that the ancient Egyptian gods are real, and that magic does exist there, though the

[42] Powers, p. 38.
[43] Powers, p. 48.

rules of that magic are never really delved into by Powers. Darrow's 'weird but dammit empirical evidence' suggests that the 'alchemical symbols' and the 'gates of Anubis' work on natural laws that science can explain and predict. The creation of a whole new branch of science is established by Darrow's team of scientists whose approach is based on 'a whole new language, part non-Euclidean geometry, part tensor calculus and part alchemical symbols'. This new science is a synthesis of science and magic and forms the basis for calling the magic in the rest of the text 'fantastical science'.

Mike Perschon notes that even at the genesis of steampunk the lack of adherence to strict science is seen when he relates a story from James Blaylock set in the pub the three early steampunk writers – Jeter, Blaylock and Powers – frequented:

> So there we were at O'Hara's Pub, talking about something vital . . . K.W. [Jeter] rolled his eyes at something I'd said (something involving "science") and suggested that given my curious notions of that subject I'd be likely to write a story in which someone plugged a black hole with a Fitzall Sizes cork. After a momentary silence I asked him whether, with all due respect, he was willing to let me have that idea or whether he wanted it for himself. He said I was welcome to it, and I went home and wrote 'The Hole in Space.'[44]

[44] Perschon, p. 36.

From this, Mike Perschon notes that even at the inception of steampunk there is a 'decided absence of interest in real physics or astronomy'.[45] This observation, I believe, is close to the mark, but Perschon forgoes explaining the idea fully. Most steampunk works do show little interest in real physics or astronomy, this is true. The automatons present in many steampunk works offer an example of this. These automations are often imbued with intelligence far exceeding what gears and springs could produce, such as Jeter's 'Paganinicon' and Admiral Lord Nelson from Hodder's *The Curious Case of the Clockwork Man*.[46] They are the equivalents to science fiction's androids, a possible science and an example of steampunk borrowing the science from science fiction while displaying the 'decided absence of interest in real physics'. But there is more to it, it is not just an 'absence of interest', it is a rejection of real physics or astronomy on the grounds of '*but what if it worked like this?*' Flimsy grounds for the real world but, happily, steampunk is a twisted reflection of the real world, as Perschon argues: 'a resonant, not accurate, mimesis'.[47]

The computer game *Torchlight* is another example of this mimesis. Because *Torchlight* is set in an alternate universe where the laws of physics are drastically different, new laws must be developed and the people who populate the alternate universe must find ways to explain those laws. Unlike the possible science of automatons, *Torchlight* features fantastical science like that used in *The Anubis Gates*, mirroring Darrow's new science based on 'a whole new language, part non-Euclidean geometry, part tensor

[45] Perschon, p. 36.
[46] Jeter, p. 238.
[47] Perschon, p. 6.

calculus and part alchemical symbols'. In the lore for *Torchlight* and *Torchlight 2* we find explanations for how different characters interact with the world. The Alchemist is a character from *Torchlight* who uses Ember – Ember is the essence of magic and the keystone of alchemy – to create various potions, machines and magical effects through the science of alchemy.[48] Alchemy is a useful science for steampunk authors because it was still practiced in the Victorian era and, as mentioned earlier in this chapter, was the foundation on which modern chemistry was built. Ember is the power source used not only by Alchemists, but also by Engineers and Embermages from *Torchlight 2*.

Embermages are actually scientists: '[a]s the name suggests, Embermages study the magical mineral known as Ember, through which process they gain a better understanding of thaumaturgic principles.'[49] They experiment with Ember and also find new ways to use it through meditation.[50] The use of the term 'thaumaturgic principles' indicates that there is careful study and experimentation such as one would expect from the scientific method which governs how we, in the modern world, practice science. In a similar way, Engineers are '[t]he workhorse of the Empire, the modern Engineer's strength lies in his Ember-fueled, steam-driven armor—a technological marvel devised by top scientists at the Industrium (the

[48] Runic Games, 'Alchemist' <http://www.torchlightgame.com/about/>, [accessed on 20 January 2013].
[49] Runic Games, 'Embermage' *Torchlight2*, (Runic Games, 2012), <http://www.torchlight2game.com/classes/embermage>, [accessed on 20 January 2013].
[50] Runic Games, 'Embermage'.

Empire's academy of science and technology), and crafted personally by the Engineer as his journeyman project.'[51]

Each of these classes in *Torchlight* and *Torchlight 2* embodies a different aspect of the study of Ember. Much like different fields of our science – the Chemist, the Physicist and the Engineer – the Alchemist, the Embermage and the Engineer, respectively, are scientists in different fields of the science of Ember. This allusion to the way real science in the real world is conducted is how steampunk turns magic and the supernatural into science. In this world, magic and technology are intertwined. The technology used by both the Engineer and the Alchemist will not function without the magical Ember, while the Ember is near useless to anyone without machines to power it.

The exception to this, of course, is the Embermage, who has unique abilities that do not require either machines or Ember to function: '… unlike the Empire's legion of Alchemists, Embermages do not actually draw energy from Ember itself; instead, they observe its properties, and, through meditation and experimentation, learn to recreate the effects of Ember in a wide range of magical applications.'[52] Even though Embermages are unique in their abilities, they still study Ember, they still experiment with it and experimentation is the basis for the development of the scientific method.

[51] Runic Games, 'Engineer' <http://www.torchlight2game.com/classes/engineer>, [accessed on 20 January 2013].
[52] Runic Games, 'Embermage'.

In *The Strange Affair of Spring Heeled Jack*, Edward Oxford's time travel and subsequent discussions with Henry Beresford, gives the scientists of the Victorian era enough information to cobble together technologies and scientific theories well in advance of their time. As mentioned previously, Hodder's series contains fantastical science like that of the science found in Jeter's *Infernal Devices*. However, Hodder's series also contains possible science. Isambard Kingdom Brunel, the great Victorian engineer, for instance, builds himself a mechanical body and keeps his brain in a jar which effectively makes him immortal. Charles Darwin takes his theory of evolution and, spurred on by the knowledge Beresford gleans from the future Edward Oxford, constructs a kind of uber-Darwinism which fuels a genetic revolution.

Scientists, using this uber-Darwinism, create greyhounds who 'come into the world knowing every address within a fifty mile radius of its birthplace and with the ability to carry mail between those locations; barking and scratching at a recipient's door until the letter was collected'.[53] The dogs are flawed, however, as are all the 'eugenicists' creations, and have to keep eating or they die of starvation. To complement the dogs, messenger parakeets are created '[t]hese phenomenal mimics carried spoken communications. A person only had to visit a post office and give one of the birds a message, the name of the recipient and the address, and the parakeet would fly straight to the appropriate set of ears.'[54]

[53] Hodder, *The Strange Affair of Spring Heeled Jack* (New York: Pyr, 2010), p. 38.
[54] Hodder, p. 38.

However, since the eugenicists skip steps in the discovery of the science – due to only gaining general ideas about the science from Edward Oxford – there are problems with all their creations: 'an issue that had troubled the Eugenicist scientists from the start; namely, that whatever modification to a species they made, it always seemed to bring with it an unexpected side effect.'[55] Beresford takes the sketchy information about the future science and technology he gains from Oxford and shares it with the Victorian scientists.[56] Later those same sciences, through the work of Darwin and Florence Nightingale, save his life as his brain is transplanted into the body of a gorilla after he breaks his neck.[57] This pseudo-medical science is not likely, within the bounds of real genetics, to ever be possible, meaning that it falls into the pseudo-science category. Hodder's use of fantastical science, possible science and pseudo-science is a well-rounded example of all the different approaches to science that steampunk texts take. Hodder uses each category of science to overcome the limitations of the others.

Looking at the science found in Hodder's text provides further insight into Jeff VanderMeer's statement: 'Science fiction, in its purest sense, is a forward-looking genre that relies on scientific accuracy, theory, and logic. Steampunk, on the other hand, leaves much more room for madcap fantasy, strangeness and escapism'.[58] In Hodder's series there is 'serious' possible science, 'madcap fantasy' which is fantastical science, and the 'strangeness'

[55] Hodder, p. 38.
[56] Hodder, p. 368.
[57] Hodder, p. 394-5.
[58] Jeff VanderMeer and S. J. Chambers, *The Steampunk Bible* (New York: Abrams, 2011), p. 69.

of pseudo-science. Fantastical science is used, more often than not, for humorous effect, while pseudo-science often goes hand in hand with a more gothic theme. It is possible science that often grounds steampunk texts, allowing readers to engage with the simulated Victorian era because the reader is able to accept these sciences more readily.

Whether it is with seriousness, strangeness or 'madcap fantasy', Steampunk texts articulate a reaction against the 'black box' of technology in both our current times and the posited future worlds of science fiction, as Bowser and Croxall explain:

> Where today's computers are small and light as possible, difference engines in Steampunk literature are extremely large and heavy … Where much of our technology today embraces a clean, glossy, or polished aesthetic, the technologies within Steampunk are often dirty and have rough edges … Where today's technologies tend to be electrical, Steampunk technologies are mechanical.[59]

Steampunk's blending of magic, science, technology and the supernatural is a consistent trope in steampunk, and part of that reaction against the 'black box' mentality in the modern world. Perschon's 'technofantasy lens' allows an examination of this trope without having to argue whether a more magic-influenced text like *Torchlight* is actually fantasy rather than steampunk, or if a more technology focused text such as *The Diamond Age* is science fiction rather than steampunk. This is because the science used in steampunk is a mixed bag of possible science, pseudo-science and fantastical science.

[59] Bowser and Croxall, p. 17.

Technofantasy, retrofuturism and the neo-Victorian aesthetic all influence the science in steampunk. The neo-Victorian aesthetic provides the basis for the look and feel of the technology, grounding it in pseudo-Victorian imagery that evokes powerful steam-engines, and intricate mechanical intestines that are open for display. All the texts examined here contain some element of blending between science, magic and the supernatural, whether it is rational explanations for the supernatural, magical science or all three, as can be seen in Hodder's series. These texts span from the birth of steampunk to current works, and show that science in steampunk is the supernatural science of magic.

Chapter Four – Steamed Ground and the Characters Who Walk There

> 'The past is a foreign country: they do things differently there.'[1]

An airship pilot, an inventor and an engineer walk into a laboratory… The punch-line is lost in a haze of steam from other worlds and a cacophony of character archetypes screaming to make themselves heard. This could have been the opening of a steampunk joke, but is rather the start of a steampunk joke, but it is the start of an examination of the people and places in steampunk worlds. This chapter discusses the characters in steampunk, focussing on the archetypes of the alchemist, the inventor, the engineer, the airship captain, the explorer and the 'damsel without distress'.[2] While these archetypes are a constant within most steampunk texts, steampunk characters do fall into three related but distinctive broader categories: characters in alternate histories, characters out of time and characters in alternate worlds.

Before turning to these character types, however, I will explore the locations these characters inhabit. Steampunk texts vary greatly with regards to place. Typically, most steampunk uses Victorian London for its setting, although, more recently, authors increasingly move the settings to

[1] L. P. Hartley, *The Go-Between* (London: Hamish Hamilton 1953), p. 9.
[2] Perschon, p. 203.

non-British locations ranging as far as America, Siberia, China and Japan. There are even steampunk stories set in different worlds entirely, such as China Miéville's *Perdido Street Station* and Troika Games' *Arcanum*. Some steampunk works offer a view of the future, sometimes dystopian and sometimes utopian. The dystopian descriptions are more often the results of cyberpunk authors writing steampunk novels, though this is by no means a rule. Steampunk texts explore both dystopian and utopian societies and cities in order to tease out the faults in both alternate worlds and our own world.

The utopian features apparent in some steampunk texts are prominent in Stephenson's *The Diamond Age*, which posits a bright future where the poor are taken care of, upward social movement is dictated by ability and moral code rather than birth and class status, and all members of a phyle are considered to have equal advantage. In contrast, *The Difference Engine* depicts a dystopic society run by the intellectual elite in which poverty is a looming problem and rebellion in the streets of London is inevitable. Some steampunk texts are situated in the future such as Neal Stephenson's *The Diamond Age* and *Syberia* by Microïds, while others remain in the past like *The Difference Engine* or Gail Carriger's 'Parasol Protectorate' series. Some provide multiple timelines, such as Mark Hodder's 'Burton and Swinburne' series, and then there are the texts set in other worlds completely, such as the above mentioned *Perdido Street Station* and *Arcanum* and Runic Games' *Torchlight*. All these aspects will be examined, as well as the effects of technology and social change on these places.

In most early steampunk texts the city of London plays a large role, in part due to the omnipresence of the city in public consciousness when the Victorian era is mentioned. Since Victoriana plays an important role in steampunk works as a whole, it is no surprise that London has such a prominent role in early steampunk texts. *The Difference Engine* is a text set almost completely in London, with just a few chapters following characters leaving, arriving in or thinking about London. It is fair to say that in the context of place, London is central to *The Difference Engine*.

Technology and science in steampunk worlds change landscapes and cityscapes; pollution is seen as the by-product of Victorian technologies and it is pollution that gives one of the most prominent descriptions of locations in steampunk texts, particularly of London. By contrasting the description of London in Charles Dickens' *Our Mutual Friend* (1864–65) with *The Difference Engine*, similarities become apparent. Dickens writes of:

> Such a black shrill city, combining the qualities of a smoky house and a scolding wife; such a gritty city, such a hopeless city, with no rent in the leaden canopy of its sky; such a beleaguered city, invested by the great Marsh Forces of Essex and Kent.[3]

Dickens is clearly a looming influence in Gibson and Sterling's *The Difference Engine*:

> … the London sky was a canopy of yellow haze. It hung above the city in gloomy grandeur, like some storm-fleshed jellied man-

[3] Charles Dickens, *Our Mutual Friend* (New York; Toronto: 1992), p. 20.

> o'-war. Its tentacles, the uprising filth of the city's smokestacks, twisted and fluted like candle-smoke in utter stillness, to splash against a lidded ceiling of glowering cloud. The invisible sun cast a drowned and watery light.[4]

Both descriptions use the words 'canopy' to describe the smoggy air above London, the covering of smog extends over the whole city, shielding it from sunlight. Dickens conjures up the 'qualities of a smoky house and a scolding wife' while *The Difference Engine* uses 'smokestacks' and 'storm-fleshed jellied man-o'-war'. For Dickens it is a 'gritty', 'hopeless' and 'beleaguered' city, while Gibson and Sterling describe it as 'gloomy', 'glowering' and 'drowned'. The description of '[t]he invisible sun cast a drowned and watery light' in *The Difference Engine* brings up comparisons to the Thames, which is typically depicted by nineteenth century authors as polluted; sewage ran into the Thames constantly, the mud at low tide was a mix of human waste and garbage and human remains were often found in the Thames.[5]

Victorian literature often focuses on the Thames as a place where everything foul about Victorian society either comes from or ends up. *Our Mutual Friend* is a representative text: 'down by where accumulated scum of humanity seemed to be washed from higher grounds, like so much moral sewage, and to be pausing until its own weight forced it over the bank and sunk it in the river.'[6] *The Difference Engine* offers a similar depiction of the

[4] William Gibson and Bruce Sterling, *The Difference Engine* (Bantam Books, 1992), pp. 179-80.
[5] Peter Ackroyd's *Thames: Sacred River* (London: Random House, 2007) is the most comprehensive account of the Thames, detailing not only the history of the Thames, but also its perception in public consciousness and in literature.
[6] Dickens, p. 20.

Thames: ‘Something like a river-breeze – not a breeze at all, but a soft liquid ooze of gelatinous Stink – rose from the Thames and spilled over them where they stood’.[7] In Gibson and Sterling’s text the sky above London has become as polluted as the river running through it. The advent of Babbage’s steam powered computers exacerbate the famed London pea-soup-fog, producing a constant stream of smoke from the kinotropes that are used practically everywhere.

The London depicted in Gibson and Sterling’s novel is very much the London as recorded in history and in the literature from that time. However, there are some changes brought on by the advances to science, technology and society due to Babbage’s working analytical engines. Steam powered cranes and scaffolding feature prominently in this London’s cityscape as the city’s architecture is remade with a new look:

> The skyline west of Whitechapel was spiky with construction cranes, stark steel skeletons painted with red lead against the damp. Older buildings were furred with scaffolding; what wasn’t being torn down, it seemed, to make way for the new, was being rebuilt in its image.[8]

The ‘new image’ which London is being built into is a sign of drastic change in the social attitudes of the Victorians we know from history due to the changes Gibson and Sterling have made in their alternate history. This is noted by Sibyl as she muses about the proprietor of Aaron & Son: ‘Someday Mr. Aaron, a whiskery old merchant Jew from Whitechapel, would

[7] Gibson and Sterling, p. 281.
[8] Gibson and Sterling, pp. 158, 11.

have a lordship' because '[t]he Rad Parliament wouldn't care that Mr Aaron was no Christian. They'd given Charles Darwin a lordship, and he said that Adam and Even were monkeys.'[9] It is science, now, that is more sacred to the Victorians than religion, and new hierarchies have emerged determined by achievement and intelligence rather than aristocratic birth.

Significantly, the London in *The Difference Engine* increasingly mimics the cityscapes found in cyberpunk texts:

> … she gazed up at the shifting letters that ran the length of Aaron's frontage. A mechanical frieze, a slow sort of kintotrope for Aaron's adverts, made all of little bits of painted wood, clicking about each in turn, behind leaded sheets of bevel-glass. CONVERT YOUR MANUAL PIANO, the jostling letters suggested, INTO A KASTNER'S PIANOLA.[10]

The steam powered turning, painted wood advertisements on Aaron & Son's frontage are a far cry from the neon light adverts infusing present day cities, or the holographic displays found in popular cyberpunk texts, but the suggestion is there. Babbage's steam powered computers cause a blending, or merging, of the past and the future in more ways than simply allowing Victorians to do more complex math, as Sir William Thomson's (Lord Kelvin) tide predicting machines, first constructed in 1873, allowed. Victorian culture, in Gibson and Sterling's text, has been irrevocably changed, and that change is reflected in the places the Victorians inhabit.

[9] Gibson and Sterling, p. 10.
[10] Gibson and Sterling, p. 10-11.

It is not just London's sky and buildings that are changed in Gibson and Sterling's novel, but also the streets and the London Underground. 'There was a distant huffing of excavation, and a tremulous feeling below the pavement, of vast machines cutting some new underground line.'[11] In actual history the Underground was dug out by men, but in *The Difference Engine* the work is done by 'vast machines'. The roads are also being repaved: 'The cobbles of London were vanishing month by month, paved over with black stuff that poured stinking hot from the maws of great wagons, for navvies to spread and smooth with rakes before the advance of the steam-roller.'[12] Everywhere in the novel there is a sense of the future coming faster and faster, changing the city of London in exciting and, also, horrifying ways. At the end of the text Gibson and Sterling describe what the city has become by 1991:

> It is London. Ten thousand towers, the cyclonic hum of a trillion twisting gears, all air gone earthquake-dark in a mist of oil, in the fractioned heat of intermeshing wheels. Black seamless pavements, uncounted tributary rivulets for the frantic travels of the punched-out lace of data, the ghosts of history loosed in this hot shining necropolis. Paper-thin faces billow like sails, twisting, yawning, tumbling through the empty streets, human faces that borrowed masks, and lenses for a peering Eye…. It is *not* London – but mirrored plazas of sheerest crystal, the avenues atomic

[11] Gibson and Sterling, p. 11.
[12] Gibson and Sterling, p. 49.

lightning, the sky a super-cooled gas, as the Eye chases its own gaze through the labyrinth…[13]

The image of London in *The Difference Engine* is reminiscent of the opening scene in the film adaptation of Philip K. Dick's *Do Androids Dream of Electric Sheep?* (1968). The cyberpunk film adaptation, *Blade Runner* (1982), opens with a dramatic view of an endless city seen from the sky. The city, despite millions of lights, is dark; thick smog smothers the city that feeds it constant streams of more black smoke from towering industrial chimneys. The only thing missing from Gibson and Sterling's text is the gouts of fire that occasionally illuminate the tops of the industrial chimneys in *Blade Runner*. In the film, the viewer is left with the distinct impression that technology's pollution is strangling the whole world. *The Difference Engine*'s prophetic qualities are found in this quote too, London now has over one million closed-circuit television cameras on street corners and, ironically, a giant Ferris wheel called 'the London Eye' from which, at the top, the whole of London can be observed.

The 'mirrored plazas of sheerest crystal' are like the Crystal Palace; constructed by the Victorians to house the 'Great Exhibition of the Works of Industry of all Nations' in 1851. It was an exhibition of technology and industry to promote the British Empire as the leader of industry. *The Diamond Age* features a similar structure, the Diamond Palace:

[13] Gibson and Sterling, p. 428.

> The lilies sprouted from a stadium-sized cut-crystal vase, the Diamond Palace, which was open to the public. Tourists, aerobicizing pensioners, and ranks of uninformed schoolchildren marched through it year in and year out, peering through walls of glass (actually solid diamond which was cheaper) at various phases of the molecular disassembly line that was Source Victoria.[14]

Gibson, Stirling and Stephenson all have a history with cyberpunk literature, but while Gibson and Stirling keep to their cyberpunk roots with dystopian depictions of cities and the future, Stephenson's text posits a brighter future. *The Diamond Age* draws more from the Victorians' hope for a clean future, a dazzling Diamond Palace, nano-mites that clean the air and free basic necessities from public matter compilers.[15]

Perschon's retrofuturism lens explains how these cyberpunk futures are applied to the Victorian past in order to create an imagined Victorian-inspired future. And that is what the London in *The Difference Engine* becomes, a Victorian-inspired cyberpunk future that sits in an imagined past. The analytical engines created by Babbage have transformed the city of London into one giant computer, 'the Eye'. The city itself appears to become sentient on the final page of the text, in mimicry of cyberpunk themes. Before that point, still in the Victorian era timeframe, the city mimics aspects of cyberpunk; pollution is built up over time in cyberpunk novels, hence the future setting, yet in Gibson and Sterling's text, the pollution is hurried in due

[14] Neal Stephenson, *The Diamond Age* (London: Penguin Books, 1996), pp. 7-8.
[15] Stephenson, pp. 59-61, 216.

to the abundance of steam based technology which mixes with the already heavily polluted Victorian past.

In cyberpunk, steampunk and literature from the Victorian era, the city becomes a character. This is particularly apparent in *The Difference Engine* in which the city becomes alive, self-aware:

> In this City's center, a *thing* grows, an auto-catalytic tree, in almost life, feeding through the roots of thought on the rich decay of its own shed images, and ramifying, through myriad lightning-branches, up, up, toward the hidden light of vision,
>
> Dying to be born.
>
> The light is strong,
>
> The light is clear;
>
> The Eye at last must see itself
>
> Myself …
>
> I see:
>
> I see,
>
> I see
>
> I
>
> !16

Here the Eye becomes self-aware; self-awareness denotes intelligence. Up until this moment, the Eye was just a computer programme, but once it gains self-awareness the Eye as a sentient entity, an artificial intelligence, is born. To paraphrase Victor Frankenstein from Mary Shelly's *Frankenstein;*

16 Gibson and Stirling, p. 428-9.

or, The Modern Prometheus (1818): 'It lives!' Likewise, the city in *The Diamond Age* is alive with millions of nano-mites. The air sparkles with their communication and they display rudimentary intelligence, dubbed 'pseudo intelligence' since, in *The Diamond Age*, true Artificial Intelligence is impossible.[17]

In Jeter's *Infernal Devices* the city of London is just as much a character as in *The Difference Engine*; in fact, despite George Dower's adventures taking him from London to the fictional village of Dampford and Groughay – an island in the Outer Hebrides off the coast of Scotland – the story is framed within the narrative Dower relates from a place of 'seclusion in this little-trafficked district of London.'[18] In Jeter's text London is both a place where people can hide – as Dower does while narrating his tale – as well as a place where people come to *find*.

Dower is found by the Brown Leather Man as well as Graeme Scape and Jane McThane. It is being 'found' that causes Dower to be plunged into his adventure which starts as a 'search'. Dower's adventure, or as he calls it in retrospect, his folly, begins as he searches London for the origins of the coin he receives from the Brown Leather Man.[19] His 'London bounded voyage of discovery' takes him from churches to Tottenham Court Road, 'that costermongers' thoroughfare, where all things are bought and sold' to a coin collector and finally to a pub, where he finds that the coin is a token of

[17] Stephenson, pp. 60, 22.
[18] K. W. Jeter, *Infernal Devices* (Oxford: Angry Robot, 2011), pp. 171, 261, 335.
[19] Jeter, p. 62.

passage to a district of London (Wetwick) he has never heard of and which seems to move its geographic location around London.[20]

Other than the shifting district of Wetwick, the London evoked in Jeter's novel is exactly the same as the London we know in history. The central hub of the British Empire is a place where 'all things are bought and sold', if it cannot be found in London, it does not exist! If it were not for the fictional locations Jeter creates in his text, *Infernal Devices* could very well be classed as a secret history steampunk novel. But the addition of these extra places ensures that *Infernal Devices* is an alternate history.

The point of departure is not described in the text, though the creation of the 'Selkies' race heavily implies that the point of departure from our time-line is at the evolution of the races of Earth.[21] It is Dower's father's and Lord Bendray's actions that cause the founding, of the village of Dampford and the Wetwick district in London. Unlike *The Difference Engine*, the places in Jeter's novel are not affected by technological changes, but rather by a fundamental change in the universe by having a second intelligent race created on Earth. On the whole, the places in Jeter's world are changed very little by the steampunk aesthetic – London in the text is much like London in real history – while *The Difference Engine* produces drastic changes due to the steampunk aesthetic.

[20] Jeter, p. 68.
[21] Jeter, p. 279.

This seems to be because the events in *Infernal Devices* are largely kept secret from the population as a whole. Even the true nature of Dower's automaton clone is known only to a few. Had the automaton's technology been introduced to the populous, the London in *Infernal Devices* would be drastically changed. Clockwork bellhops could be produced – even from a limited understanding of the technology which produced the skilled mechanical violinist – from gears, springs and the frequency vibrations from a human bellhop's brain.

If the idea is taken further to include a frequent character in steampunk texts, the great Victorian engineer Isambard Kingdom Brunel for instance, it is possible that all the construction and engineering could be done by automatons sharing the same vibrational frequency as Brunel's brain. But Jeter's London is spared these changes by virtue of keeping the technology a secret. In *The Difference Engine*, however, Babbage's steam powered computers are known and the public readily uses them. This implies that it is not only technology, which has an effect on the places in steampunk works, but also culture and society. Technology is, after all, just objects. People are needed to interact with it.

In their Introduction to the special steampunk issue of *Neo-Victorian Studies* Bowser and Croxall discuss the idea that the Industrial Revolution caused a 'perceptual shrinking of space and time'.[22] While their focus was on time – in particular the 'revised temporal paradigms' offered in works of

[22] Bowser and Croxall, 'Introduction: Industrial Evolution', *Neo-Victorian Studies* 3:1 (2010), pp. 1-45 (p. 3).

steampunk which allowed texts to work with a neo-Victorian aesthetic while set in the past, present or future – the idea that space, or more specifically place, was perceptually shrunk is also relevant to an examination of steampunk.[23]

The invention of the steam engine drastically reduced the time it took to cross vast distances, which had the obvious effect of making the world smaller. Railroads brought places all over England closer to London, and steam ships brought the rest of the world closer in terms of travel time and news. The iconic airship in steampunk works adds yet another route of travel and allows easier access to places where railroads have trouble either catching up – such as new frontiers where it takes a long time to transport materials and construct railroads – or passing such as mountains and oceans. Even distances within London itself become smaller with the ornithopers, steam-cars and velocipedes which steampunk texts introduce alongside the London Underground.

This shrinking of the world is alluded to in 'Hottentots' too when Cezar explains to Agassiz that:

> Dis vorld is not as large a place as it vunce vas. Ven a steamship can bridge der Atlantic in nineteen days, ven dousands of miles of drain-dracks crisscross der globe, ven der darkest corners of der volrd are beginning to be lit by der arc lamps of science …

[23] Bowser and Croxall, p. 3.

> vell, den even a zimple farmer like Jacob Cezar can learn vot he has to.[24]

And in 'Victoria', Di Filippo explains the unlikely friendship between Cowperthwait's father and Marc Isambard Brunel: 'At first frostily, then more warmly, the men began to discover their shared vision of a world united by railroads and steamships, a world shrunken and neatly packaged by the magnificent inventions of their age.'[25] It is because of this 'vision' that Cowperthwait invents his uranium-enhanced steam powered locomotive, an invention that would further shrink the already 'neatly packaged' globe.

Tim Powers indicated, during a panel discussion at Eastercon in Bradford (2009), that *London Labour and the London Poor* (1861) by Henry Mayhew was a significant influence on the early steampunk trio: Jeter, Powers and Blaylock. Mayhew describes a district of London between St. Katherine's Docks and Rosemary Lane: 'Foul channels, huge dust-heaps, and a variety of other unsightly objects, occupy every open space'.[26] The London in Di Filippo's text is full of depictions that mirror Mayhew's descriptions of London as an 'urban squalor' and a 'metropolis of sin and greed' with streets that 'were in many cases running sewers and rubbish bins. Offal and manure presented an obstacle ankle-deep'.[27] This is not a pleasant picture to be faced with. Some, like Charlie Stross and Catherynne

[24] Di Filippo, 'Hottentots', p. 115.
[25] Paul Di Filippo, 'Victoria', *The Steampunk Trilogy* (New York; London: Four Walls Eight Windows, 1997), p. 21.
[26] Henry Mayhew, *Mayhew's London*, ed. by Peter Quennell (London: Bracken Books, 1984), p. 305.
[27] Di Filippo, 'Victoria', pp. 30-1, 32.

M. Valente, argue that steampunk should portray unpleasant pictures such as this if it is to be considered 'steampunk':[28]

> But there's a dark side as well. We know about the real world of the era steampunk is riffing off…. Life was mostly unpleasant, brutish, and short… It was a vile, oppressive, poverty-stricken and debased world *and we should shed no tears for its passing*.[29]

The reasoning appears to be that if a text is going to portray a Victorian past, steampunk must portray the 'dark side' of Victorian life. Stross claims that this 'dark side' is how London was and that steampunk texts should stay close to this 'real' London. This may be true, though I think the Stross/Valente idea of London is more influenced by the literature of the Victorian era which gives the term 'Dickensian' than by historical accuracy. While there were poorer places in London, that was not the case for all of London. Limiting steampunk to only the perceived 'real' London which is influenced by literature such as Dickens' texts ignores the rest of London. It also ignores the fact that steampunk is not constrained by physical locations, as will be explored further in this chapter.

While I do not agree with the direction of Stross and Valente's arguments – excluding works from the steampunk oeuvre simply because they do not delve into the 'dark side' of Victorian life – their arguments do imply that Di Filippo's text succeeds rather well in describing London

[28] Charlie Stross, 'The hard edge of empire', (2010) <http://www.antipope.org/charlie/blog-static/2010/10/the-hard-edge-of-empire.html>, [Accessed on 13 February, 2013]; Catherynne M. Valente, 'Blowing Off Steam', updated 2011 <http://catherynnemvalente.com/essays/blowing_off_steam>, [accessed 27/08/2012].

[29] Stross, 'The hard edge of empire'.

according to a more Dickensian view of the city. Di Filippo, however, tempers this description of London with what he imagines the Victorians thought of the future when Cowperthwait explains his hopes of the future to his American companion, Nails: 'In any case, someday, thanks to science, the streets of London will be clean of organic wastes, and such poor urchins [streets-weeps], if they exist at all, will be maintained by a wealthy and benevolent state.'[30]

This longing for a better world through science is apparently made manifest in Moorcock's *The Warlord of the Air* when Bastable describes the London he finds in the future:

> In this London there were no ugly billboards, no illuminated advertisements, no tasteless slogans and, as we climbed into the steam-brougham and began to move along one of the ramps, I realized that there were no seedy slums of the sort found in many parts of the London I had known in 1902. Poverty had been banished! Disease had been exiled! Misery must surely be unknown![31]

Bastable's elation at discovering the future to be so utopian is what Cowperthwait longs for, but Bastable's elation soon turns to disgust as he discovers that while science has made London so wonderful, the rest of the world suffers due to the colonialist attitudes of the world powers. This attitude is further explored in Chapter Five since it is inextricably linked to the revolution theme so central to steampunk.

[30] Di Filippo, 'Victoria', p. 33.
[31] Stephenson, p. 83.

The Steampunk Trilogy does not remain in London, however, and is thus representative of the way in which steampunk texts have increasingly expanded the geography of steampunk beyond London and Britain. 'Hottentots' takes the setting to America where Louis Agassiz searches Boston for the elusive 'wellsprings of creation'. Agassiz's attitude towards places outside of 'Western civilization' is summed up when Cezar mentions that Agassiz's clothes – and by extension the rest of Agassiz and his social attitudes – would not last long in the wilds of Africa: 'I have no intention of dwelling in your wasteland.'[32] Agassiz claims that '[t]he sooner all such places are subsumed within Western civilization, the better off the world will be.'[33] This remark is indicative of the colonial mind-set dominant in the Victorian era where the British Empire colonized other countries and forced the inhabitants to adopt British culture.

The end result of this philosophy is, of cause, the homogenization of all countries and places to resemble the same country or place; in this case, Britain. In effect, this is one of the final results of the steampunk neo-Victorian aesthetic. The past, the future and the present are all represented using the same aesthetic, as seen through Perschon's neo-Victorian lens. As much as all these time periods are represented in steampunk, so too are many countries. 'Hottentots' uses people from all over the world; geographically speaking the text covers nearly the entire planet. The people hunting for the fetish come from all over: Cezar and his wife arrive in Boston

[32] Di Filippo, 'Hottentots', p. 146.
[33] Di Filippo, 'Hottentots', p. 146.

from South Africa; the head of the Prussian secret police, Hans Bopp, travels from Germany; the revolutionary Feargus Kosziusko makes the journey from Poland, and Agassiz himself originally came from Austria.[34] Africa, America and Europe are all represented in 'Hottentots'.

Di Filippo's 'Walt and Emily' moves even further afield than America as the characters explore Summerland, the spiritual world. Even if, as Di Filippo implies, the group never leave America, they do go *somewhere* together.[35] Whether it is the spirit world of Summerland, or merely a shared dream, they travel beyond the bounds of the physical world. They find themselves in the middle of an endless prairie where '[t]he *Thanatopsis* sat on its wheels in the middle of an apparently infinite, perfectly flat plain, whose circumambient horizon seemed queerly *further off* than its earthly counterpart.'[36] Di Filippo goes on to describe the plain as 'covered with emerald-green, almost self-luminous grass, cropped or mown or inherently self-limited somehow as smooth as the lawn of some Vast Estate. Any other feature there was none.' [37] These descriptions are other-worldly, supernatural. Clearly they are no longer on Earth. *The Steampunk Trilogy* is a text that covers the whole spectrum with regards to place. 'Victoria' is situated in Victorian London, the centre of the British Empire, while 'Hottentots' moves the narrative to Boston, America. 'Hottentots' also hints at other places with the introduction of the Cthulhu Mythos. The creature 'Dagon' is summoned from the sea, but inhabits other 'realms' like the rest

[34] Di Filippo, 'Hottentots', pp. 113-115.
[35] Di Filippo, 'Walt and Emily', p. 349.
[36] Di Filippo, 'Walt and Emily', p. 311.
[37] Di Filippo, 'Walt and Emily', p. 311.

of the Great Old Ones in the Cthulhu Mythos.[38] 'Walt and Emily' finally takes the reader to another place, removed from Victorian Britain, America and even the earth itself.

L. P. Hartley is right, '[t]he past is a foreign country: they do things differently there', and steampunk texts display this quality well. However, it could also be said that 'the future is a foreign country: they do things differently there'. *The Diamond Age* exemplifies this notion. Stephenson's text is set in the future where nano-technology is revolutionizing industry and where, by the end of the text, a new form of technology known as 'seed technology' surpasses nano-technology. Not only is Stephenson's text set in the future, but it is in the Victorian 'other', the Orient. Atlantis/Shanghai is geographically set on the artificial island, New Chusan, which is offshore from the mouth of the Yangtze River, northwest of Shanghai. By doing this, Stephenson is able to construct a curious form of colonialism without actual colonialism taking place. The Neo-Victorian phyle is intruding on China, the Han phyle, geographically and culturally. This cultural intrusion is in part caused by the geographic proximity of the Neo-Victorian phyle.

Madam Ping explains this best when revealing to Nell why the Neo-Victorian phyle is so important to her business:

> The wealth of New Atlantis is great, yes. But the population is just a few percent. … No, this market is important because everyone else – the men of all other phyles, including many of [the Han] –

[38] Daniel Harms, 'Dagon', *The Encyclopaedia Cthulhiana*, 2nd ed., (Oakland, CA: Chaosium 1998), p. 73.

> want to be like the Victorian gentlemen. Look at the Ashantis – the Jews – the Coastal Republic. Do they wear traditional costume? Sometimes. Usually though, they wear a suit on the Victorian pattern. They carry an umbrella from Old Bond Street. They have a book of Sherlock Holmes stories. They play Victorian ractives, and when they have to spend their natural urges, they come to me, and I provide them with a scripted fantasy that was originally requested by some gentleman who came sneaking across the Causeway from New Atlantis.[39]

The Neo-Victorians practice unintentional colonialism by going into the Han phyle's district and spreading their culture unknowingly through places such as Madam Ping's. It is the proximity between the Neo-Victorian phyles and the other phyles that causes this jostling of cultures. The physical location of the Neo-Victorian phyle causes the clash of cultures and aids the process of homogenisation. If the Neo-Victorian phyle were on the other side of the world, the cultural contamination would not be so readily adopted, showing that place and proximity extends great influence over culture. The Han phyle, as in the historical Boxer Rebellion, rejects this homogenization; the practice of making all things in the image of the Victorian era.

Stephenson's text ends with a pseudo historical retelling of the Boxer Rebellion and a reclaiming of ancient culture for the Han phyle:

> By the time the last girl's foot broke contact with the sandy ocean button, the end of the land had already been claimed by a man

[39] Stephenson, p. 374.

> with a scarlet girdle around his waist, who stood on the shore laughing to think that now the Middle Kingdom was at last a whole country once more.[40]

The man with the 'scarlet girdle' is standing on the shore of a country that has resisted homogenization by rejecting everyone not of the Han phyle. Ironically, even this resistance is intrinsically part of the neo-Victorian aesthetic. It is a repeated moment in the history of the Victorian era; Stephenson is going over that ground again. The past is being re-lived as if it were another country that one could travel to for a holiday and then come back and say 'the past is a foreign country: they do things differently there.'[41]

There is a link to Victorian London in *The Diamond Age;* the 'early protocol' which turns the world 'the color of pencil lead' mimics the pea-soup fog of Victorian London.[42] This smog is caused by the 'dead bodies' of the microscopic mites which filter the air and keep hostile mites from harming anyone. The cityscape of Atlantis/Shanghai is described as a more modern city than Victorian London:

> [Hackworth] was struck, as ever, by the sheer clunkiness of old cities, the acreage sacrificed, over the centuries, to various stabs at the problem of Moving Stuff Around. Highways, bridges, railways, and their attendant smoky, glinting yards, power lines, pipelines, port facilities ranging from sampan-and-junk to stevedore-and-cargo-net to containership, airports….

[40] Stephenson, p. 494.
[41] Hartley, p. 9.
[42] Stephenson, pp. 59-60.

> Atlantis/Shanghai had imbued him with the sense that all the old cities of the world were doomed, except possibly as theme parks, and that the future was in the new cities, built from the bedrock up one atom at a time… The old neighborhoods of Shanghai, Feedless or with overhead Feeds kludged in on bamboo stilts, seemed frighteningly inert, like an opium addict squatting in the middle of a frenetic downtown street, blowing a reed of sweet smoke out between his teeth, staring into some ancient dream that all the bustling pedestrians how banished to unfrequented parts of their minds.[43]

Even this description, however, contains throwbacks to the Victorian era. The references to opium addicts and railways are very much part of the Long Nineteenth Century. The old and new, the past and the future, are both represented in Atlantis/Shanghai. But it is not a city like the London described in *The Difference Engine*, there are no cranes or scaffolding which would indicate new construction over, or in between, the older buildings. Instead, Atlantis/Shanghai is a city that sits, as it were, on a temporal instability. The old mingling with the new, the city composed of both the past and the future. This idea is further reinforced by the conflict of culture and technology. The Neo-Victorian phyle looks to the past for its cultural and moral guidelines while keeping a firm grip on nano-technology so as to be technological leaders.[44]

[43] Stephenson, p. 71.
[44] Stephenson, p. 24.

The mingling of the old and new is also seen in *Syberia*, though from a different perspective. The locations visited by the player throughout the game are all decidedly old, although set in the context of the modern world where the player takes control of Kate Walker as she comes from New York in the present day to the remote Northern French village of Valadilène – showing again how steampunk texts increasingly stretch geography beyond Britain.[45] The village still clings to the Victorian era, as evidenced by the Victorian buildings, cobblestone streets, and gear, spring and steam powered technology. Walker is immediately out of place; as evidenced by the opening sequence where a clockwork funeral procession passes Walker on her way into the village. She carries a cellular phone which she uses to call back and report in to her offices in New York and each time she does so the contrast between the present day and the neo-Victorian aesthetic is more pronounced. Her phone becomes a 'relic of the future' as she journeys through locations seemingly stuck in the past.

The puzzles in *Syberia* are centred on large machines, sometimes occupying whole buildings, which would fit well into any scene from *The Difference Engine*. Walker uses a spring-wound train as her base of operations. This train makes Walker's 'home', for the duration of the game, a mobile space. Instead of Atlantis/Shanghai in *The Diamond Age*, which is a single space that occupies different times, Walker's spring-wound train is seen as technology, and Walker's base of operation, from a single time that occupies different spaces. Each time the spring becomes fully unwound,

[45] Microïds, *Syberia* <http://www.mobygames.com/game/windows/syberia/screenshots/gameShotId,28315/>, [Accessed on 23 March, 2013], screenshot of Valadilène.

stopping the train, Walker finds herself in yet another place clinging to the neo-Victorian aesthetic.[46] A train station which has become an aviary attached to a university is Walker's first stop. The grand looking Barrockstadt University is also in the neo-Victorian style, though like all steampunk works, it is modified slightly.[47] The University's train station has been converted into an aviary, signalling a decline in technology and a return to nature.

The places visited in *Syberia* are zones forgotten by the modern world and the stagnation of industry has allowed nature to reclaim parts of it. Yet even in this, the caged nature of an aviary, the Victorian attitude of organizing the natural world is found. The Industrial Revolution and adaptation of the scientific method caused the Victorians to look at the natural world as something to be overcome, catalogued and filed away. The locations are all wildly different, but are tied together with the neo-Victorian aesthetic. Walker's phone becomes the only indication that the game is set in the present day, and in the final scene Walker abandons that relic of the future as she joins Hans Voralberg in his quest; effectively leaving behind the present day and delving into the neo-Victorian inspired landscape.

Many steampunk works, usually fantasy-based steampunk, create unique fictional worlds while still maintaining a neo-Victorian look and feel.

---

[46] Microïds <http://www.mobygames.com/game/windows/syberia/screenshots/gameShotId,314237/>, [Accessed on 23 March, 2013], screenshot of the spring wound train.

[47] Microïds <http://www.mobygames.com/game/windows/syberia/screenshots/gameShotId,28353/>, [Accessed on 23 March, 2013], screenshot of Barrockstadt University.

For instance, *Arcanum* takes place in the land of Arcanum. Geographically *Arcanum* is one large continent surrounded by a few smaller islands:

Figure 3, Map of Arcanum[48]

In the game there are four main locations for the player to visit: Tarant (the main industrial city) located at the river mouth to the sea in the centre of the map, Dernholm (the ruined kingdom which embraced magic over technology) located on the coast just north of the island Cattan at the bottom of the map, the Glimmering Forest (Home to the Elves), and the Vendigroth Wastes (the ruins of the greatest empire on Arcanum). Trains connect some, but not all, of the locations to Tarant. Travel between places

[48] Fig 4, map of Arcanum <http://mikesrpgcenter.com/arcanum/maps.html>, [Accessed on 13 February, 2013].

takes a long time, and is dangerous, until the player gets to a place with a train station, and then it becomes almost instantaneous. The map above is produced in a particular style so as to fit in with the Victorian aesthetic which *Arcanum* utilizes for the retrofuturistic depictions of technology, the social structures in the game and the architecture and clothing found in *Arcanum*.

The physical locations in the game are a mix of standard fantasy tropes – castles, wilderness and forests inhabited by strange and deadly creatures – and Victorian era inspired locations such as inventor's labs, train stations, universities and 'frontier' towns. While London and other industrialized cities are considered to be very 'Victorian' in popular consciousness, there were still other parts of both the 'civilized' and 'uncivilized' world that had not yet become industrialized during the Victorian era. *Arcanum* depicts both industrialized and pre-industrial places as part of a world that is still undergoing industrialization. The first town the player travels to is Shrouded Hills (located near where the bottom most river meets the mountains) which has a town bank, a general store and a prototype steam engine. This break from the traditional fantasy era, the medieval, allows a closer connection to the present since the Victorian era is a more modern time, while still allowing for the feel of a traditional fantasy world.

In *Arcanum* humans, dwarves and elves each inhabit their traditional 'home' locations as found in high fantasy. Elves live in forests, dwarves in mountains and humans in cities. The human cities become cultural hubs where halflings, orcs and ogres come for work and safety, even some elves

and dwarves make their way to the human cities. The architecture in the human cities is largely based on Victorian designs, with some remnants of the past – such as medieval castles – still found in older cities. The smaller towns and villages are a mix of pre-industrial and industrial aged buildings. The game designers were trying to portray a world that had only recently started its own Industrial Revolution.[49]

This re-imaging of the Victorian is also seen in the structures and cities in steampunk texts. The buildings and structures in *Arcanum*, for example, evoke the same aesthetic as Victorian era buildings and structures. The streets in the industrial city of Tarant are cobble stone, there are scattered electric street lights, a rudimentary sewage system and the buildings are made of large grey brick. Posters hang on walls and inside the furnishings are ornate early-Victorian elegance:

Figure 4, Mayor's House[50]

The developers explain the setting: 'As to the industrial revolution and accuracy … Arcanum is a magickal world, that is going through AN industrial revolution, not THE industrial revolution. So it will be similar to

[49] Troika Games <http://www.terra-arcanum.com/council/faqs/uberFAQ#The%20World%20of%20Arcanum>, [Accessed on 14 September 2012].

[50] Fig 3, 'Mayor's house'

Europe in the 1880's, but not identical.'[51] The setting mirrors the Victorian era, but it is not 'the' Victorian era. It is a neo-Victorian representation of the era in a fantasy world. This puts the player in a setting they find familiar while at the same time allowing for exploration and discovery of what makes this different. It also allows the developers to explore social issues without the baggage of the real world, but still connected to the real world in order to ground the player's experience in something tangible.

This effectively creates a clean slate from which to explore social issues, but constructed from a familiar framework.

Although, as in Arcanum, the locations in *Syberia* are fictional, the world of *Syberia* is a mirror of our own current world and the locations have a distinctly Victorian atmosphere – a 'resonant, not accurate, mimesis'.[52] *Syberia* depicts a future when seen from the perspectives of the Victorians, but is part of the present when seen from the modern day. Along with this depiction of the future, *Syberia* is also an example of the way in which the neo-Victorian aesthetic is extended beyond Britain. The story takes place in Europe as Walker travels from New York to Northern France and from there travels North through Europe towards the fictional land of *Syberia*. No mention of London or Britain is found within the game. Benoit Sokal, *Syberia*'s lead designer, states that 'these events are represented in the towns that we visit along the adventure and are typical of specific moments

[51] Troika Games, *Arcanum: Of Magic and Steamworks Obscura*, (Sierra Entertainment, 2001) <http://www.terra-arcanum.com/council/faqs/uberFAQ#The%20World%20of%20Arcanum>, [Accessed on 14 September 2012].

[52] Perschon, p. 6.

of European history'[53] and that '[w]e are dealing with something much more than a simple voyage. The worlds have been reinvented by abstracting reality to bring out the fantasy elements.'[54] The furnishings and buildings in *Syberia* are rendered in much the same style as *Arcanum*, except there is a decidedly more industrial look.

Figure 5, Anna's Office[55]

Perschon's retrofuturistic lens is most easily applied to technology – tesla-guns, dirigibles, ornithopers and other technology found in steampunk – or in the depiction of places – architecture, and cityscapes, countries and worlds - because they can be expressed both visually and textually. The representation of a chair that flies through the air using helicopter blades or a city that resembles Victorian London are easier to explain than a subversive character who takes political, ethical, moral and societal views from our present and espouses them in an alternate Long Nineteenth Century, simply because of the ability to flavour the text with visual cues. While some steampunk texts – *The Anubis Gates* and *The Warlord of the Air* for example – explain such characters through the use of time-travel, other texts – *Arcanum* and *The Diamond Age* – simply create such

[53] *Making of Syberia*, Microïds (2002) <http://www.youtube.com/watch?v=uUeNA_TqWqk&feature=related>, [Accessed on 3 June 2013].
[54] *Making of Syberia*.
[55] Fig 4, 'Anna's Office'.

characters along with the alternate worlds or time-lines. Sometimes this is done using key figures from real history – as in 'The Burton and Swinburne Series' and *The Difference Engine* – who have adapted to, or caused the change of, the alternate worlds they inhabit.

Before discussing these retrofuturistic characters, I will survey the common character archetypes found in steampunk texts. As indicated at the start of this chapter, the alchemist, the inventor, the engineer, the airship captain and the explorer are common archetypes in steampunk. The most striking alchemist character is the one who takes his name from the 'science'. The Alchemist character in *Torchlight* uses a mix of technology, chemistry and magic to affect the world around him.[56] To distinguish the Alchemist as a steampunk character there are visual clues, such as goggles, a mechanical ember-infused gauntlet and either a wand or a staff.[57] The Alchemist is able to summon either (pre-built) technological robotic contraptions to aid him in battle or summon minion monsters to do his bidding. By now, the blending of magic and science/technology should be apparent as a trope of steampunk. If an Alchemist is present in a steampunk text, he or she is depicted as either a chemist who dabbles in magic, or a sorcerer who dabbles in chemistry. In both *Torchlight* games, combat is the major way in which players interact and change the world. Thus, the character is simply a choice of how the player acts in a combat environment.

[56] Runic Games, 'Alchemist' <http://www.torchlightgame.com/about/>, [Accessed on 3, January, 2013].
[57] Runic Games, 'Alchemist'.

The Alchemist uses a mixture of science, magic and engineering in combat. Able to summon magical creatures to do his bidding, the Alchemist also uses Ember and steam powered mechanical constructs to aid him in combat. As mentioned in Chapter Three, alchemy is considered the precursor to modern chemistry, and the Alchemist character also uses a form of pseudo chemistry to create potions that restore health and mana (the energy pool a magic user draws from to cast spells).

Torchlight II's Engineer and Embermage characters essentially split the Alchemist character in two. The Embermage is the first half of the Alchemist character from *Torchlight*. Employing a science-based approach to their special abilities and a study of Ember, the Embermages use the Ember, not as fuel for machines as the Engineer does, but as fuel for their own abilities. They study the nature of the universe and try to tap into the natural laws that govern it twisting them to suit their purposes like physicists do – or have done – with aerodynamics, space, electricity and gravity.

The second half is the Engineer who, swinging his large wrench around like a club, creates an army of mechanical ember-infused minions to fight enemies or heal allies. While the Alchemist can be compared to the alchemists of our history or to chemists during the Victorian era, and the Embermages are closest to physicists, the Engineer can be compared to the engineers of the Long Nineteenth Century, The monocle-wearing, moustache-toting Victorian-gentleman-inspired Engineer is described as:

> The workhorse of the Empire, the modern Engineer's strength lies in his Ember-fuelled, steam-driven armor—a technological marvel devised by top scientists at the Industrium (the Empire's academy of science and technology), and crafted personally by the Engineer as his journeyman project.[58]

The 'steam-driven' armour which is 'Ember-fuelled' is the symbol of an Engineer. Not just steam-driven armour, but particularly 'Ember-fuelled, steam-driven armour'. The Engineer is depicted in full steam-powered armour, but there is another depiction of the Engineer as he appears on character creation, without the armour.[59] The clothes are those of an explorer like Sir Richard Francis Burton or Doctor Livingstone, but the distinctive, overly large wrench shows that the Engineer is not just a simple explorer and marks him out as part of the working class. Like the inventor, the Engineer character produces machines. These machines, however, are usually larger, bulky constructions that radiate brutish power. Brunel in Hodder's series constructs large machines and encases himself in one such machine to extend his life while constructing flying platforms using technology from the future. His mechanical constructs are seen in general use such as the rotochairs and the steam-powered penny-farthings.[60] As with Brunel, the Engineer from *Torchlight II* constructs mechanical devices such as set of steam and Ember powered battle armour and, humorously, goes into battle wielding a giant wrench.[61]

[58] Runic Games, 'Engineer'.
[59] Reference Figure 1 and Figure 2 on page 60 of this thesis.
[60] Hodder, *The Strange Affair of Spring Heeled Jack*, pp. 156, 167.
[61] Runic Games, 'Engineer'.

The inventor in steampunk texts can come in a variety of forms. Cowperthwait in Di Filippo's 'Victoria', Hackworth in *The Diamond Age*, Dower's father in *Infernal Devices*, Babbage in Hodder's 'Burton and Swinburne series' and Grimnebulin from *Perdido Street Station* are all examples of inventors. The technology they use is not just the technology of the time, but technology which they, themselves, create, usually for personal use. Cowperthwait is an inventor, a scientist and a gentleman. Though not all of his inventions work as he intends, such as his misfiring cane with a hidden blade or his uranium powered steam train which explodes in a giant mushroom-shaped cloud, he does have successful inventions such as the 'Naturopathic garment' which cures him of radiation sickness and his mechanical writing table.[62] Like Dower's father in *Infernal Devices*, there is a Faustian connotation in the character of Bates in *Arcanum* who 'obtained' steam technology from another race – dwarves – who inhabit a subterranean world. As an inventor, Bates' contraptions are new machines and gadgets. Cowperthwait and Bates both invent new forms of travel, Cowperthwait with his uranium powered steam train and Bates by inventing the steam train in *Arcanum*.

China Miéville's *Perdido Street Station* features another inventor. Isaac Dan der Grimnebulin is a scientist, ostracized by the greater scientific community because of his odd theories of, and dangerous tinkering with, Crisis Energy. Working in a small converted warehouse he shares with two other disenfranchised scientists, Grimnebulin builds a Crisis Energy device

[62] Di Filippo, 'Victoria', pp. 24, 7-8.

that utilizes a semi-mystical energy source to be able to, well, do anything.[63] In any other story, this would result in some catastrophe or other that Grimnebulin must fix. But in steampunk, it is the invention which ends up saving the day from a catastrophe unrelated to the device which is invented. The inventor character is not always the hero of the story, though.

In Hodder's *The Strange Affair of Spring Heeled Jack* the inventor and time-traveller, Edward Oxford, is the villain Spring Heeled Jack. Though at first unintentionally the villain, his resolve to start raping young women pushes him into that role. Cherie Priest's *Boneshaker* has two inventor villains; Leviticus Blue and Minnericht who both use their inventions for nefarious ends. These villains succumb to the vices of greed – Leviticus Blue tunnels into a bank vault with his Boneshaker machine – and a hunger for power – Minnericht uses his knowledge and skills to dominate those still living in the walled off section of Seattle. This 'misuse' of science and technology implies that steampunk does not simply glorify technology and science, but is appropriately aware of the dangers and, in general, does not ignore the lessons of the past. Likewise, Brunel as engineer is also a villain in Hodder's *The Strange Affair of Spring Heeled Jack*, though he switches sides in the second book, *The Curious Case of the Clockwork Man*, implying that while his morals are flexible, his impetus is for engineering and everything he does is for that goal. 'Brunel, the great engineer, seems to have stooped to common burglary' claims Burton. Babbage answers for Brunel stating, 'I can assure you there was nothing common about it ….

[63] China Miéville, *Perdido Street Station* (New York; Toronto: Random House, 2000), p. 148.

does the theft of diamonds qualify as a crime when millions of people – in fact, the entire Empire – will benefit from it?'[64]

Morality, Babbage argues, gets in the way of logic and reason. Burton responds by stating that 'there are certain decisions a man is called upon to make which transcend the dictates of reason'.[65] Despite Babbage's claim that '[m]iscalculations slow us down! I don't make them' and his instruction to Burton to kill him because his mind will be transferred to the diamonds, he instead just dies because he has miscalculated: the diamonds are not real. In killing Babbage in this way, Hodder seems to be saying that Babbage's argument is flawed and Burton's is correct. Reason, logic, and progress need to be tempered with morality. Burton turns to Brunel and tells him to '[s]top associating with insane scientists. The authorities are already concerned about you after your involvement with Darwin and his cronies. This latest caper will do your reputation no good at all. Redeem yourself, Isambard. Redeem yourself.'[66] Brunel does, indeed, redeem himself and puts his mind to work helping Burton.

Airship captains and explorers are similar and often come as part of the same character or party. Airship captains fly around the world in their airships; either as merchants, pirates and smugglers, such as Andan Clay and his crew in Cherie Priest's *Boneshaker*, or, like Bastable in *The Warlord of the Air*, as part of military empires.[67] Airship captains and their crew are

[64] Hodder, *The Curious Case of the Clockwork Man*, pp. 42-3.
[65] Hodder, p. 47.
[66] Hodder, pp. 48-9.
[67] Priest, pp. 80-90.

the cutting edge explorers of steampunk worlds. They inhabit a world little explored by the Victorians themselves, the sky, and are much like the space explorers of early science fiction.

While the explorers often travel by airship, to reach areas not yet tamed enough for railroads, they can also be found on foot or on the backs of genetically engineered swans such as in *The Strange Affair of Spring Heeled Jack*.[68] In a similar vein to airship pilots and crew, explorers can also be likened to early science fiction heroes. Though they are not the space faring, lazer-gun toting spaceship heroes, instead they can be likened to the colonists who seek to tame new worlds. Kate Walker, from *Syberia*, explores a lost Victorian inspired world as she travels across Europe; a less athletic and violent Lara Croft.

Steampunk characters are linked by their retrofuturism, the way in which they both inhabit the past (or a future resembling the past) and reflect contemporary attitudes and values. However, there are also subtle divergences of type. Characters in steampunk novels fall into three different categories: characters in alternate histories, characters out of time and characters in alternate worlds. In the first category the readiest examples are from 'The Burton and Swinburne Series' and *The Steampunk Trilogy*. Characters out of time can be found in *The Warlord of the Air* and *The Anubis Gates* and, finally, characters in alternate worlds are found in *Arcanum* and *Torchlight*.

[68] Hodder, *The Strange Affair of Spring Heeled Jack*, pp. 50-1.

Steampunk works, most notably those using the alternate history genre, are able to incorporate historical figures directly into their narratives. In Hodder's acknowledgements to *The Strange Affair of Spring Heeled Jack*, he thanks the historical figures who make appearances in his book:

> Finally, the "famous names" who feature herein are national heroes who loom large in the British consciousness. In this novel I have, with my tongue in my cheek, mercilessly trampled on their reputations and turned them into something they most definitely were not. I did so secure in the knowledge that my tampering will damage their stature not one little bit.[69]

This is an excellent description of steampunk's appropriation of historical figures. Most of the characters in 'The Burton and Swinburne Series' are real historical figures. Burton is Sir Richard Francis Burton the explorer and his companion Swinburne is Algernon Charles Swinburne the poet. A young Oscar Wild also makes an appearance[70] as a recurring character well as many prominent Victorians like Darwin, Brunel, Lord Palmerston and Florence Nightingale. The appropriation of historical figures is by no means limited to Hodder's texts.

Steampunk works thrive on historical figures due to the connection with the history genre and, by appropriating historical figures, steampunk authors are able to take ready-made caricatures and modify them as they do with other tropes from other genres. Using historical figures also allows

[69] Hodder, 'Acknowledgements'.
[70] Hodder, p. 32.

for some form of continuity for the reader who can then trace back the connections to the real world through these characters, just as with the locations found in steampunk.

While using historical figures, steampunk authors are keenly aware of the social and moral issues surrounding the Long Nineteenth Century, as evidenced by *The Diamond Age*. The conversations between Hackworth and Finkle-McGraw demonstrate Stephenson's awareness of these issues – and his characters' awareness too.[71] Hackworth acknowledges that there were faults with the Victorian system, without going into specific detail, but claims that in the future world of *The Diamond Age* they have improved upon the Victorian social systems and overcome the problems with that system. *The Anubis Gates* also displays an awareness of these same issues as Powers takes a twentieth century scholar, Doyle, and throws him back in time. With no money to his name, Doyle must make his way – first as a beggar until he is able to find some work cleaning out stables, then as a poet whose work causes a causality paradox – and he does so by starting at the bottom of society.

In Moorcock's *The Warlord of the Air*, Bastable, despite his devotion to the British Empire, ends up switching sides and helps to fight the British Empire. Initially Bastable assumes that since Britain is a utopia, all British colonies are too. Like Agassiz, he is under the impression that the Western world is needed by the rest of the world to keep it elevated and out of

[71] Stephenson, p. 24.

barbarianism.[72] Bastable shares a commonality with many steampunk characters, he is a revolutionary. Though he was loath to admit it, and though it comes on gradually for him, in the end he sides with the rebels, who fight against the British Empire to end colonialism. Moorcock's Bastable, Stephenson's Hackworth and Finkle-McGraw and Powers' Doyle are all aware of the deficiencies in the Victorian era. While Doyle, armed with knowledge of the future, does not seek to circumvent these deficiencies as the others do, he does have to deal with them by working his way up through society.

Several steampunk characters inhabit an uneasy location within 'time'. They are often forced through time by some event, or are conscious of a change in the timeline which sets them on a different path from what history records for them. Isabel's fiancé, Burton, in *The Strange Affair of Spring Heeled Jack*, is an explorer and an example of this kind of character who is dislocated in time. Because of a change in the timeline, Burton becomes, effectively, the first 'James Bond': 'It has been mooted that, with your rather unusual range of skills and – shall we say *Forceful?* – personality, you can do the Empire a unique service; something no other man can offer. That's why this position has been created; specifically for you.'[73] Burton brings his friend, the poet Swinburne, along with him on his adventures; the two resembling an alternate Sherlock Holmes and Watson as they follow clues and solve cases. 'Palmerston calls me the 'King's agent,' though

[72] Moorcock, pp. 161-78. The conversations between Bastable and Shaw in these pages detail Bastable's change of mind from a state of British, and Western, superiority to finally wanting the rebels to succeed and establish their own utopia.
[73] Hodder, *The Strange Affair of Spring Heeled Jack*, p. 66.

'investigator' or 'researcher' or even 'detective' might do just as well',[74] Burton explains. A skilled linguist, Burton is a master of disguise and uses deductive reasoning to solve his cases and, as a steampunk character, he uses strange gadgets – a poison needle shooting, genetically modified cactus gun among them – and throws himself into danger. Burton is tasked with hunting down apparent werewolves and Spring Heeled Jack.[75] He learns that history has been altered and the steampunk world he lives in is not as it should be. Burton becomes, with this knowledge, a character out of time.

The character of Doyle is particularly significant because Powers creates a fictional historical figure in the poet William Ashbless, and then concludes by having Doyle *become* Ashbless in the Victorian past. Ashbless' poetry then becomes a sort of 'chicken-or-the-egg' philosophical problem. Doyle, an expert on Ashbless' poetry in the 'present' (the novel was published in 1983), goes back in time – trades bodies with a body-switching sorcerer – and assumes the identity of Ashbless, writes the original poetry, lives out Ashbless' history and dies in the way history records Ashbless' death. The problem, then, is summed up by Doyle as he realizes what he has just done:

> My God, he thought, then if I stay and live out my life as Ashbless – which the universe pretty clearly means me to do – then *nobody wrote Ashbless' poems*. I'll copy out his poems from memory, having read them in the 1932 *Collected Poems*, and my

[74] Hodder, *The Strange Affair of Spring Heeled Jack*, p. 179.
[75] Hodder, *The Strange Affair of Spring Heeled Jack*, p. 67.

> copies will be set in the type for the magazines, and they'll use tear sheets from the magazines to assemble the *Collected Poems*! They're a closed loop, uncreated! I'm just the … messenger and caretaker.[76]

Essentially the poems get written by Doyle/Ashbless from Doyle's memory of the *Collected Poems* and the *Collected Poems* are assembled from the pages Doyle/Ashbless' writing. This means that the poems were not ever actually *conceived* by anybody. Like Atlantis/Shanghai in Stephenson's novel, Doyle himself is a temporal instability. Consisting of both Doyle, from the future/present, and Ashbless, from the past; Doyle is both past and future living in a present that constantly shifts in time. He is also both a time-traveller from the future and a (fictional) historical figure from the past; another character out of time.

Another character who shares some connection to Doyle/Ashbless' temporal instability and Burton's 'out of time' nature is Oswald Bastable from Michael Moorcock's *The Warlord of the Air*. But where Doyle goes back in time and Burton shifts sideways through time, Bastable goes forward. An army officer, Bastable is flung through time during an earthquake while in a temple to 'the Future Buddha'.[77] Bewildered, but determined to still serve his country, Bastable goes on to become an airship pilot by joining the Special Air Police.[78]

[76] Powers, p. 331.
[77] Moorcock, p. 46.
[78] Moorcock, p. 90.

Bastable's adventure in the future, however, is cut short as he gets pushed back through time by the explosion of an atomic bomb, arriving back in his original time.[79] Like Doyle/Ashbless, Bastable does not belong in the future, but his anxiety over the future he has lived through, and the changes he has undergone in that future, make him doubt his place in the past. This is explained when Michael Moorcock – the author's grandfather who narrates the tale – asks Bastable if he looked up any of his relatives or friends since his return from the future:

> Bastable looked at me seriously. "I was afraid to. You see this is not completely the world I remember. I'm sure it's my memory. Something caused by my passage to and fro in time. But there are small details which seem wrong…" He cast about with a wild eye, like one who suddenly realizes he is lost in a place he presumed familiar. "small details…"[80]

Time in Moorcock's novel, as in *The Anubis Gates* and Hodder's series, is an actual place; a place that can be travelled to and returned from. Bastable is lost in time, unable to determine where he belongs. Small details about the world/time he is in do not match with his memory of his original time. Much like Doyle/Ashbless, Bastable occupies both the future and the past. Convinced he, himself, is mad,[81] Bastable turns to the shallow comfort of opium which causes dreams that are 'less horrifying.'[82] It is ironic that he does so, since he knows from his experience in the future that opium is one of the ways the British conquered China. By taking opium he is surrendering

[79] Moorcock, pp. 209-10.
[80] Moorcock, p. 211.
[81] Moorcock, p. 31.
[82] Moorcock, p.31.

himself to British colonialism which he fought against in the future he experienced.

Characters out of time in steampunk texts, such as Doyle/Ashbless and Bastable, usually know they are displaced in time. The characters in alternate histories, however, do not see any difference in the world they inhabit because, for them, the world and history is unfolding in a straight line – Burton, as mentioned above, in Hodder's series is an exception to this. Cause leads to effect, Cowperthwait does not know that his uranium powered steam train, or his genetically altered newt, is not the way that history unfolds in our original history.

Characters in alternate steampunk worlds share many of the characteristics of those in alternate histories. Since magic, science and the supernatural are an implicit part of the world they inhabit, they see no deviation from the normal when such things affect their lives. In *Arcanum* there are two sets of characters. This is derived from the Dungeons and Dragons separation of Player Characters and Non-Player Characters. In most role playing games the player is able to construct their own character from templates and then modify them. The player is further able to, during the course of the game narrative, flesh out their character through the use of dialogue choices and in game actions. Much like an author who starts out with the idea of a character, Nell from *The Diamond Age* for example: race, gender, age and 'class' are chosen – Nell is a human female, about five years old and will become a princess and a programmer. Once the player

defines these, from the choices available, the game starts. Each time Nell interacts with something, her character is being developed. Because Nell is controlled by the author – Stephenson – Nell is actually an non-player character. If Nell were able to be controlled, her actions and reactions dictated, by the reader she would be a player character.

Thus far, my discussion has primarily focused on male characters. This is not in any way to suggest that steampunk ignores the importance of heroines. Indeed, in many steampunk texts female characters take centre stage, embodying many of the core aspects of the games steampunk plays with time. Reflecting contemporary attitudes about female empowerment and autonomy, these retrofuturistic heroines transform the Victorian woman. Perschon argues that these heroines both draw on and depart from the historical record. He calls these heroines 'damsels without distress', the steampunk alternative to the nineteenth century New Woman. Perschon describes these damsels without distress as 'a woman with the sort of agency necessary for her to appeal to twenty-first century readers used to female protagonists portrayed by Sigourney Weaver as Ellen Ripley in the *Alien* film franchise (1979-1997), Sarah Michelle Gellar in the *Buffy the Vampire Slayer* television series (1997-2003), or Trinity from *The Matrix* (1999).'[83] They take up the mantle of the other archetypes, not constrained by the trappings of women in the Victorian era. Steampunk women are capable, smart and determined. They are not trying to be the equal of men, instead, they simply ignore the implication that inequality was even a

[83] Perschon, p. 206.

question. They simply *are*. Nell, from Stephenson's *The Diamond Age* and Jacky/Elizabeth from *The Anubis Gates* are examples of this, and Isabel Arundell from *The Strange Affair of Spring Heeled Jack* further exemplifies the New Woman in steampunk.

Isabel is a strong willed character who takes it upon herself to further her fiancé's career. While Burton do not appreciate her actions, she does what she believes is best.[84] Even after Burton tells her she cannot be his wife, she does not simply shrink away, instead, she becomes determined to prove herself to him by taking on an adventure of her own, she explains as much to her parents in a letter:

> Mama, Papa, I will be mistress of my own fate! I will be answerable for my own mistakes and I will claim credit for my own triumphs! Though the world may change around me, it will be I who chooses how to meet its challenges and disappointments, and nobody else…
>
> What do I do? Do I retreat from this breech and hide from the infringing outer world? Or do I flow out into it to discover new possibilities and perhaps to take on a new shape for myself?
>
> You know your daughter, dear parents! I will not flinch!
>
> Richard has made my long-held future impossible. Should I therefore abandon it all? NO, I say! NO!

[84] Hodder, *The Strange Affair of Spring Heeled Jack*, p. 177.

> I am in Trieste en route to Damascus. I know not what awaits me there. I hardly care. Whatever; I will at least be creating an Isabel Burton who is defined by her own choices.[85]

Perschon notes that female steampunk characters are 'the New Woman amplified and exaggerated, refusing to simply be domestically useful, but determining to be as useful, if not more, then the men around her.'[86] Isabel is not content to simply wait for Burton to change his mind, she goes out into the world without him, determined to use the name 'Isabel Burton' as if his marrying her is a forgone conclusion whether he accepts it or not. In the meantime, she will go and make her own destiny, failing or succeeding on her own terms.

The same is true of Jacky/Elizabeth, in *The Anubis Gates*, who does not sit by and let the world dictate terms to her. Convinced that she can be useful in finding her fiancé's killer, Jacky/Elizabeth goes looking for Dog-Face Joe to 'kill him with Minimum of Risk to [herself], as soon as it may be feasible.'[87] She disguises herself as a man and infiltrates the two beggar gangs looking for clues. Jacky also rescues Doyle,[88] escapes a dungeon,[89] and finally kills Dog-Face Joe.[90] These are not the actions of Victorian damsels, but of steampunk heroines; 'damsels without distress' who, though

[85] Hodder, *The Strange Affair of Spring Heeled Jack*, pp. 476-7.
[86] Perschon, p. 212.
[87] Powers, p. 126.
[88] Powers, pp. 140-7.
[89] Powers, pp. 180-91.
[90] Powers, pp. 414-7.

they might find themselves in distress, can handle it all on their own thank-you very much.

Jacky/Elisabeth does not don the disguise of a man because she believes them more capable, though, she does so because it is practical for her to do so in pursuit of her prey. Later, when Jacky is captured by Horrabin, she escapes the cells and, by removing her disguise and playing the role of a prostitute sent to broker a deal between Horrabin and Katie Dunnigan who 'runs all the accommodation houses around Piccadilly',[91] makes her way free of Horrabin's 'Rat's Castle'. Jacky/Elisabeth finally gets her revenge on Dog-Face Joe, but she also rescues Doyle twice.[92] The first time when her quick wits manage to keep Doyle's American accent hidden when they first meet, and later on when she pulls him out of the Thames and gets him away from Horrabin and Romany.[93]

The Difference Engine offers another 'damsel without distress'. Though not as forthright or brave as Jacky/Elisabeth, Sybil Gerard grows into her role well. She starts out as a prostitute, the disgraced daughter of a martyred revolutionary, but she becomes apprenticed to Mick Radley as an adventuress.[94] As an adventuress, she is able to meet the world on her own terms. She throws off the social demands for polite behaviour and instead uses the social conventions, which previously gave her cause for shame, to her own benefit when she distracts the clerk with the story of her fallen

[91] Powers, pp. 189-91.
[92] Powers, pp. 416-7.
[93] Powers, pp. 113-5, 143-8.
[94] Gibson and Sterling, p. 14.

status so that Radley can steal a hotel room key. It is a revolutionary act that is only open to her once she has become an adventuress, since before that she was stuck in the role prescribed to her by social conventions: a fallen woman is a fallen woman and must behave as one. After Radley's death she does not shrink back to being a prostitute, instead she heads for Paris to obtain a new identity. At the end of the novel she returns to London a New Woman; confident enough to approach Lady Ada Byron and even mock her.[95] She has changed herself in such a way that she is no longer afraid of authority and is brave enough to call out its failings. There is another motivation in Sybil giving Lady Ada Byron's a diamond for her public speaking –a spiteful gesture, calculated to undermine Lady Byron because Sybil knows of Ada's gambling addiction. The diamond will inevitably lead to Lady Byron getting caught up in more scandal due to her addiction. Gibson and Sterling's text shows a different side to women. No longer the angel of the house; Sybil starts to take on qualities associated with a villain, plotting to undermine her enemies.

Nell, in *The Diamond Age* mirrors this behaviour. After leaving the Neo-Victorian phyle, she sets out to both provide for herself, and find the woman who has been a mother to her though they have never met. It does not cross her mind that she cannot, or will not be allowed to, do whatever she wants. The Primer was created to encourage a rebellious nature and so Nell was never taught that she could be less than a man. When Nell goes looking for a job at a reactive brothel, she is asked '"As a performer," he

[95] Gibson and Sterling, p. 425.

said. The intonation was somewhere between a question and a declaration', to which Nell responds '[a]s a scriptwriter'.[96] While the young man Nell is talking to makes assumptions based on her sex, Nell is unconcerned and continues to make her pitch.

Nell is aware of her physical attributes, but that knowledge does not matter to her: 'When she was presented to society a few months ago, along with several other External Propagation girls at Miss Matheson's Academy, she has not been the prettiest girl at the dance, and certainly not the best dressed or most socially prominent. She had attracted a crowd of young men anyway.'[97] It is Nell's eyes, Stephenson explains, that draw the attention of people with their 'feral awareness'. There are many pretty women around, but Nell finds herself the centre of attention. Not because of her looks, but because of her bearing, her confidence and her nature, all expressed through her eyes.

Unlike most women during the Victorian era, the women in steampunk are not confined by traditional gender roles. They can, and do, undertake any activity they find appealing. Nell learns programming from the Primer, but she also becomes a ractive writer and, eventually, a queen with her own phyle. Jacky/Elizabeth becomes a detective, a beggar, a spy and an adventuress as she tries to track down Dog-Face Joe, while Sybil goes from minor aristocracy to prostitute to adventuress. The opportunities open to them are the same as those open to men.

[96] Stephenson, p. 372.
[97] Stephenson, p. 330.

These damsels without distress can, in many ways, be viewed as rebels. Their autonomy and refusal to be defined and caged by others is a feature of male and female steampunk protagonists. This rebellious spirit is embodied by Cowperthwait in Di Filippo's 'Victoria' who is critical of the social conventions that dominate the Long Nineteenth Century. When he is shown the way Horseapple runs the workers at the slave-like pumping station Cowperthwait challenges Horseapple: 'My Christ, man, this is absolutely barbaric! A steam engine or two would easily outperform all these poor wretches.'[98] While Cowperthwait's solution would put the workers out of work, his intentions, at least, are pure. Earlier he laments that his scientific endeavours have not, to date, 'improved the lot of mankind'.[99] Cowperthwait's conflicting duality is also explored in the text with regards to his professed desire for progress, while at the same time his disgust at finding the woman he loves to be a lesbian.[100]

Grimnebulin himself is also a bit of a rebel. Apart from his scientific ideas being against the dominant scientific thinking, Grimnebulin is also in an inter-species relationship with a woman who has a bug for a head. This breaking of social conventions, it is seen as disgusting and immoral by most people – except for the artists and other creative thinkers of the time – marks him further as a typical steampunk character. Steampunk characters are often singular in their views and social attitudes, more willing than most to embrace the unusual. Doyle/Ashbless accepts that he has been thrown

[98] Di Filippo, 'Victoria', p. 35.
[99] Di Filippo, 'Victoria', p. 10.
[100] Di Filippo, 'Victoria', pp. 63-4.

through time, comes to terms with magic being real and even uses some magic when he slips a chain around his ankle and through the bottom of his boot to ground himself, thus negating the Egyptian magic cast at him.[101] While magic is common, and thus accepted, in Grimnebulin's world, inter-species relations are not. Yet he has a sexual relationship with Lin the bug-headed khepri anyway. He is more willing to accept and embrace the unusual.

Rebellion appears to be in the very nature of steampunk protagonists. Agassiz's scientific theories regarding the 'wellsprings of creation' are against the mainstream views, Cowperthwait's social attitudes regarding the poor and the street sweeps, Burton's subversive attitudes towards the British Empire and colonialism, Nell's rejection of the Neo-Victorian phyle and aesthetic to form her own phyle, Hackworth and Finkle-McGraw's theories on how an 'interesting life' leads to success. These are all effects of a rebellious nature. But the theme of rebellion is not limited to characters, it is contained in a wider topic with relations to social problems, technology and science and conflicts between magic, the supernatural and technology. Steampunk, as I will discuss in the next chapter, is completely saturated in the idea of revolution.

[101] Powers, p. 266.

Chapter Five – Revolution: Steampunk as Reaction to the Current Zeitgeist

A fifteen year old girl, caught pickpocketing, propositions the bailiff meant to watch over her. As he strips her dress from the girl he finds revolutionary pamphlets, calling for revolt against the machines, hidden against her breasts, her thighs and in her shoes. The first pamphlet speaks of the machines which are taking jobs away: 'do not simply Bow your Head and agree that the Programmable Home Tailor and its unholy kin are your Superiors in Every Way'.[1] Another one claims: 'Yet still Women struggle against the Foe of Simple Laundry, burning their Flesh with Lye and going Blind from Fumes so that their dandy-Lords may have silk Cravats'.[2] Three days later, before she is convicted of anything, an automaton whisks her away – she is happy to go with it – and she is never seen again.[3]

As an advocate for more 'punk' in steampunk, it is no surprise that the above is a précis of Catherynne M. Valente's 'The Anachronist's Cookbook'. It is a short story about many kinds of revolution– sexual, feminist, class and social revolution. This chapter explores the theme of revolution in steampunk texts. Many commentators have pointed to the 'punk' in steampunk as an indication that steampunk works should contain elements of social rebellion or change.[4] Brian J. Robb claims that:

[1] Catherynne M. Valente, 'The Anachronist's Cookbook', *The Mammoth Book of Steampunk* (London: Robinson, 2012), p. 161.
[2] Valente, 'The Anachronist's Cookbook', pp. 158-9.
[3] Valente, 'The Anachronist's Cookbook', *The Mammoth Book of Steampunk*, pp. 158-169.
[4] Catastrophone Orchestra and Arts Collective, 'What then, is Steampunk?', p. 4., in

> … what Steampunk actually is relates more to the 'punk' element than the 'steam'... Jeter simply repurposed the word Cyberpunk … [which] ... was a more political and dystopic genre, preoccupied with the rise (and often misuse) of technology, and foretelling the collapse of society or governments… The meaning 'punk' within Steampunk is far more ambiguous.[5]

He goes on to explain that steampunk 'is counter-factual, occasionally counter-cultural, and often displays a resistance to the imperialism of the Victorian age'.[6]

These sentiments are echoed in the work of a range of steampunk scholars and practitioners. Michael D. Gordin notes that 'utopias and dystopias' - both of which are found in steampunk texts - 'by definition seek to alter the social order on a fundamental, systemic level. They address root causes and offer revolutionary solutions.'[7] Ekaterina Sedia's definition of 'punk' is that it constitutes 'a rejection of calcified norms and either examining them or appropriating them'.[8] This is connected to the idea that the revolutionary aspects of steampunk texts, particularly in terms of ideology, consist of a reworking of the past so that it reflects contemporary attitudes. Catastrophone Orchestra and Arts Collective claim that anything

---

Steampunk Magazine, 3 March 2007 <http://www.combustionbooks.org/downloads/SPM1-web.pdf>, [Accessed on 23 October 2012]; Brian J. Robb, *Steampunk: An Illustrated History of Fantastical Fiction, Fanciful Film and Other Victorian Visions* (London: Aurum Press, 2012), p. 10.

[5] Robb, p. 10.

[6] Robb, p. 10.

[7] Michael D. Gordin and others, 'Introduction: Utopia and Dystopia beyond Space and Time', in *Utopia/Dystopia: Conditions of Historical Possibility* (Princeton: Princeton University Press 2010), p. 2.

[8] Ekaterina Sedia, 'Steampunk: Looking to the Future Through the Lens of the Past', *The Mammoth Book of Steampunk* (London: Robinson, 2012), p.2.

which does not trumpet the 'punk' in steampunk is 'simply dressed-up, recreationary nostalgia'.[9] Though their idea that steampunk requires 'punk' is one I agree with, I find their view of what is considered 'punk' to be limited, a point I will go into in more depth later on in this chapter.

Steffen Hantke argues that

> … the shaping force behind steampunk is not history but the will of its author to establish and then violate and modify a set of ontological ground rules…. Victorianism… appears not as a historical given but as a textual construct open to manipulation and modification.[10]

The characters inhabiting steampunk worlds are frequently utilised by their creators to critique aspects of nineteenth century culture and conduct. At times the characters are self-conscious rebels seeking to overturn dominant social policies and practices. On other occasions they inhabit worlds in which class, gender and race equality are in the process of being achieved and thus reflect these values and ideologies. In both cases these characters are a cypher for the contemporary attitudes of their creators. The technology used in steampunk is also revolutionary, in part because steampunk narratives usually take place within the period of the Industrial Revolution and in part because the technofantasy creations typically shift the balance of power in ahistoric ways. The question is: what is the attraction of looking *backwards* in this way?

[9] Catastrophone Orchestra and Arts Collective, p. 4.
[10] Steffen Hantke, 'Difference Engines and Other Infernal Devices: History According to Steampunk', *Extrapolation*, 40.3 (Kent State University Press, 1999), pp. 244-254 (p. 248).

In her introduction to *The Mammoth Book of Steampunk*, Ekaterina Sedia explains that steampunk texts examine the problems of the past through the lens of our modern age, in order to question how far we have really evolved:

> [G]reat steampunk stories confront an uneasy past with its history of oppression and science that serves to promote dominance, where women are chattel and where other races are deemed subhuman and therefore fit to exploit, where we can take things because we feel like it, where the code of moral conduct does not apply to the treatment of the lower classes. Industrial revolution came with a heavy price, and now as its inheritors we cannot help but look back and ask, is this really progress? And if it is, can we have progress without the horror that accompanies it?[11]

Steampunk is written in an age which is itself in a constant state of technological flux that also often 'comes at a heavy price' at both an individual and an environmental level. The emphasis on the modern age is on gadgets constantly becoming smaller and faster which has the corollary effect of speeding up our lives as though we are hamsters in a wheel. Steampunk makes use of hindsight, adopting the neo-Victorian aesthetic of the first great age of machines, and placing it in alternate timelines, in futuristic settings and even on different worlds in order to explore different possibilities for human evolution.

[11] Ekaterina Sedia, 'Steampunk: Looking to the Future Through the Lens of the Past', in *The Mammoth Book of Steampunk*, ed. by Sean Wallace (London: Robinson, 2012), pp. 1-3 (pp. 1-2).

Does our future, as Stephenson implies in *The Diamond Age*, lie in the reclamation of old cultures as humans search for 'stable social models'?[12] Is steampunk an attempt to retroactively 'fix' the problems we now encounter owing to technology at their source, and put us back in control of our lives at a slower pace and on a more human scale? Gail Carriger provides an answer to these questions:

> [A] good portion of the lure of the Steampunk aesthetic has to do with rebelling against modern design. We are living in an age where technology is trapped inside little silver matchboxes. Functionality has become something shameful, a tiny thing to be hidden away behind plastic and metal. But with Steampunk fashion the inner workings of a machine become not just approachable but glorified.[13]

It is contemporary philosophies and culture that the Neo-Victorians in Stephenson's text are rebelling against, so they look to the Victorian era to find their 'stable social models' which they then adapt to the future which has 'outgrown much of the ignorance and resolved many of the internal contradictions' of the Victorian era. [14]

The technology in steampunk has gears and moving parts, things to tinker with if something breaks. In steampunk, pulling the machinery of the Victorian era apart allows for an examination of wider, and still relevant, social issues through a contemporary lens. The following textual discussion

[12] Neil Stephenson, *The Diamond Age* (London: Penguin Books, 1996), p. 24.
[13] Gail Carriger, 'What is Mightier, the Pen or the Parasol?', in *Steampunk II: Steampunk Reloaded*, ed. by Ann and Jeff VanderMeer (San Francisco: Tachyon, 2010), pp. 399-403 (p. 402).
[14] Stephenson, p. 24.

considers a range of steampunk rebellions. Mark Hodder's *The Curious Case of the Clockwork Man* explores the dissatisfaction of the working class, as does *The Difference Engine*. Paul Di Filippo's 'Hottentots' also delves into the dissatisfaction of the working class while examining issues of race. Michael Moorcock's *The Warlord of the Air* is an exploration of anti-colonialism and ethnic equality. *Arcanum* examines ideals of racial equality and feminism. *The Strange Affair of Spring Heeled Jack* is inflected with feminism, as is *The Diamond Age*.

I begin my textual analysis with a consideration of *The Diamond Age* and *The Difference Engine*. Technological revolution has transformed the world in each text, the first of which is fundamentally utopian and the second of which is profoundly dystopian. Rebellion is central to both texts and a comparison of the two highlights the way in which contemporary thinking about class, race and gender shapes steampunk reimaginings of both past and future neo-Victorian cultures. The 'revolutionary solutions' offered by steampunk utopias and dystopias stem from creating either positive or negative parallels to our current society. It is not only the contrast between 'now' and 'then', but the contrast gained by inserting 'now' into the neo-Victorian aesthetic or the neo-Victorian aesthetic into 'some-when-else'. In doing so, the similarities, as well as the differences, in terms of ideas, motivations and philosophies can be re-examined from a distance, from the outside - weighing and measuring, teasing out the dreams and nightmares. When discussing revolution in steampunk I will be using both the terms

‘rebellion’ and ‘revolution’, acknowledging that it is people that rebel while ideas, sciences, technologies and cultures are revolutionized.

In his Introduction to *Utopia/Dystopia: Conditions of Historical Possibility* Michael D. Gordin explains that ‘[u]topia and dystopia in practice tend to test the boundaries of reality: the former approaches an ideal but rarely reaches it— stopped by the real world— and the latter makes visible various breaking points and vulnerabilities.’[15] Gibson and Sterling’s text examines the ‘breaking points and vulnerabilities’ of the Computer Age. By using 1991 as the future, which was the present at the time of writing, the authors juxtapose the present and the possible future. *The Diamond Age*, by contrast, offers a utopian view of a highly technologically advanced future in which the descendants of the present look to the Victorians for stable social models. Governments are replaced by ‘phyles’ - constructed societies to which membership is by personal volition, and which have their own laws and customs. These juxtapositions allow an examination of where our future could lead, leading to a comparison of two places in time. It is via this scrutiny that revolutionary ideas are formed and a crucial question can be asked: how can the present change or adapt to avoid or overcome this possible future?

Hackworth’s claim to Finkle-McGraw that the Neo-Victorian phyle has ‘outgrown much of the ignorance’ and ‘internal contradictions’ of the

[15] Michael D. Gordin and others, p. 6.

Victorian era is met with the response: 'Have we, then? How reassuring.'[16] Finkle-McGraw's response is perhaps overly sarcastic. The Neo-Victorians have managed to create a largely utopian society based on that of the Victorian era, but that utopia ignores the poor right on the Neo-Victorian phyle's doorstep. While there is free food for the poor, Nell starts life in a slum along with the rest of the Thetes – those not associated with any phyle – who live in the Leased Territories. It is noteworthy that the Neo-Victorians in Stephenson's novel have 'outgrown' the problem of the poor in the Victorian era by simply placing themselves apart from the poor. Had the Neo-Victorians actually outgrown the 'internal contradictions' of the Victorian era, a true revolution, the Neo-Victorian utopia would be a utopia for all, including the Thetes. Instead, in *The Diamond Age* the poor are relegated to a city sized slum in the Leased Territories. This raises the question of whether or not *The Diamond Age* represents a utopia at all or, perhaps, only a partial utopia. Given that Nell is able to rise above her humble beginnings, though only through the lucky intervention of the Primer which is designed by and for the Neo-Victorians, and the free food and medical help available to the poor, *The Diamond Age* is perhaps best described as a limited utopia.

The Difference Engine offers an example of technological revolution matched only by that in *The Diamond Age*. By having Babbage's steam-powered computers run wild through Victorian London, Gibson and Sterling are able to explore how a Computer Age might have affected an earlier age. Partly because the technological advance is so rapid in *The Difference*

[16] Stephenson, p. 24.

Engine and partly because the Victorians in the novel have not yet even had time to adjust to the Industrial Revolution, the steam-powered computers come to almost completely dominate Victorian society, causing a new ruling class to emerge. It is no longer the aristocracy who control England in this alternate history, but the scientists, engineers and programmers (clackers):

> The Byron men, the Babbage men, the Industrial Radicals, they own Great Britain! They own us, girl- the very globe is at their feet, Europe, America, everywhere. The House of Lords is packed top to bottom with Rads. Queen Victoria won't stir a finger without a nod from the savants and capitalists.[17]

These people who 'play fair, or fair enough to manage' and who live and swear by 'the power of gray matter' are in some ways reflected in our own society, where many computer corporates are engaged in an unequal digital rights management war against the consumer.[18] Despite Radley's insistence that the Industrial Radicals and savants 'own' the British people, he also expresses pleasure with the fact that their ranks are open to anyone, as long as they are smart enough and prove themselves by their own merit. This approval of a merit and intellect based hierarchy is contrasted by a warning of the dangers of surveillance. While anyone can join the ranks of the elite, it is the elite who monitor those below them with their extensive surveillance system due to the working steam-powered Babbage computers.

The novel offers a potential future where 'Paper-thin faces billow like sails, twisting, yawning, tumbling through the empty streets, human faces

[17] William Gibson and Bruce Sterling, *The Difference Engine* (Bantam Books, 1992), p. 22.
[18] Gibson and Sterling, p. 22.

that are borrowed masks, and lenses for a peering Eye'.[19] The people in London by 1991 have become mere modes of transport for the information going to and from the Eye - (a fictional entity that, as it turns out, has inadvertently foreshadowed contemporary leaks regarding the data-collection policies of the United States and the United Kingdom). Everything the populace in the novel experience is a 'punched-out lace of data, the ghosts of history loosed in this hot shining necropolis.'[20] People have become part of the machine, the gears of a city sized computer. The text constitutes a warning: if computers are allowed to completely dominate social interactions, 'human faces' will eventually become mere 'masks'.[21]

The Difference Engine also deals with issues relating to the working class, who are rebelling against their jobs being taken by machines – a threat definitely analogous to many employment arenas today. The Luddites in Gibson and Sterling's text are much like the Luddites in history who rioted in protest to factories being equipped with machines, thus replacing people and putting them out of work. 'Kneel no more before the vampire capitalist and the idiot savantry!' a revolutionary poster proclaims, '[w]e crusade for the REDEMPTION of the oppressed, of the rebels, of the poor'.[22] The rioters have ambitions to create a better life for themselves, spurred on by the philosophies of Karl Marx and Communism. It is somewhat ironic that, historically, Lord Byron defended the Luddites, while in *The Difference Engine* the Luddites gloat over his death. The Luddite fears, in Gibson and

[19] Gibson and Sterling, p. 428.
[20] Gibson and Sterling, p. 428.
[21] Gibson and Sterling, p. 428.
[22] Gibson and Sterling, p. 273.

Sterling's text, are exacerbated by the communist dogma, causing them to take over whole sections of London while the aristocracy is out of London due to the stink of the Thames. An end to the riots comes in two forms; rain which will dampen the stink of the Thames, and Lord Babbage who shells the Luddite stronghold with artillery.[23] The government's response to this new Luddite uprising is the same as that recorded in history. The British army is sent in to stop it. In Gibson and Sterling's dystopia, each event leads to violence, more violence and still more violence.

By contrast, Stephenson's utopia is a place where everyone, rich and poor alike, has free access to basic necessities: food, shelter, warmth and medicine.[24] The different phyles are able to live in any manner they choose due to the advent of nano-technology and this causes some to revert to a way of life that is pre-Industrial Revolution, such as the Dovetail phyle which makes everything by hand.[25] They sell what they make to the Neo-Victorians and other rich phyles to buy the material to make more goods. The Neo-Victorian phyle is a revolution of Victorian culture which has 'outgrown much of the ignorance and resolved many of the internal contradictions that characterized that era'.[26] Within Stephenson's utopia it is possible for any lifestyle to flourish due to this particular future being 'past the point of scarcity': technology, rather than oppressing the populace, has instead evolved to a point where Matter Compilers can create anything.

[23] Gibson and Sterling, p. 317.
[24] Stephenson, pp. 9, 216.
[25] Stephenson, p. 240.
[26] Stephenson, p. 24.

Stephenson's utopian model adheres to Ekaterina Sedia's 'rejection of calcified norms'.[27] He posits that in order to keep the utopian system running, it must be continually subverted by revolutionaries who will choose to keep the 'good bits' and get rid of the 'bad'. The character Finkle-McGraw, is 'unhappy because his children [are] not subversives and [is] horrified at the thought of [his granddaughter] Elizabeth being raised in the stodgy traditions of her parents', so he tries to subvert her upbringing by commissioning the Primer.[28] While both Finkle-McGraw and Hackworth approve of the Neo-Victorian phyle - they would not have joined it otherwise - they also believe that in order to produce great people – they need to foster subversive tendencies in their children.

> "That implies, does it not, that in order to raise a generation of children who can reach their full potential, we must find a way to make their lives interesting."[29]

Finkle-McGraw's plan comes to fruition in three separate ways; his own granddaughter, Elizabeth, rebels completely and joins a hacker collective known as CryptNet – a revolutionary phyle whose true purpose remains hidden: 'It represents itself as a simple, moderately successful data-processing collective. But its actual goals can only be known by those privileged to be included within the trust boundary of the thirty-third level.'[30] Hackworth's daughter, Fiona, joins an acting collective called Dramatis Personae and Nell forms her own phyle. In sociology and cultural studies,

[27] Sedia, p. 2.
[28] Stephenson, p. 82.
[29] Stephenson, p. 24.
[30] Stephenson, p. 383.

the term 'Dramatis Personae' is a means by which a person adopts many facets of different personalities in an attempt to construct their individuality. In this same context Karl Marx used it to refer to the Capitalist and the Worker as the dramatis personae of history.[31] Fiona's rejection of the Neo-Victorian phyle is, in this context, a rebellion against the concept of 'Fiona Hackworth' imposed on her by the phyle and her joining the acting collective – rather than becoming a ractive actor – is a further rebellion against the current social norms. All three rebel against the Neo-Victorian phyle - Elizabeth rebels for rebellion's sake, Fiona in order to obtain freedom, and Nell because she believes she can find a better way to live.

Nell contrasts the nature of people who grow up indoctrinated to a belief with those who choose a belief for themselves: 'Some of them never challenge it – they grow up to be small-minded people, who can tell you what they believe but not why they believe it. Others become disillusioned by the hypocrisy of the society and rebel'.[32] When Moore asks her which she will do, Nell responds: 'Neither one. Both ways are simple-minded – they are only for people who cannot cope with contradiction and ambiguity.'[33] Nell enacts a unique form of rebellion which culminates in complete revolution when she is declared, by Queen Victoria of the neo-Victorian phyle, to be a leader on equal footing with herself. Despite Nell rejecting the Neo-Victorian phyle, she still maintains the mannerisms of the phyle and is a woman who has become one of the most powerful leaders in the world. Queen Victoria's authority gives Nell authority which cannot be

[31] Karl Marx, *Capital*, Vol I (London: Penguin Books, 1976), p. 280.
[32] Stephenson, p. 256.
[33] Stephenson, p. 356.

retracted. From a feminist stand point, women in power is a good thing as it means that women are just as empowered as men in *The Diamond Age*. Nell's rebellion is a victory for feminism and shows that even outside of the Neo-Victorian phyle, gender equality is an accepted norm. Nell's new 'mouse army' is made up entirely of women and so has connections to the Amazons and Isabel from Hodder's 'Burton and Swinburne' series.

Paul Di Filippo's *The Steampunk Trilogy* and Jeter's *Infernal Devices*, on the surface, seem to have little overtly to do with revolution. However, at a deeper level both texts demonstrate the way in which revolution is intertwined throughout the steampunk canon. In Di Filippo's first story Cowperthwait revolutionizes Victorian science with his uranium-powered steam-train and his 'Naturopathic remedy' for radiation sickness. He also revolutionizes genetic science with his human sized newt that resembles Queen Victoria. Cowperthwait also envisions a future where science has revolutionized London, believing that 'someday, thanks to science, the streets of London will be clean of organic wastes, and such poor urchins, if they exist at all, will be maintained by a wealthy and benevolent state.'[34] Agassiz revolutionizes science with his discovery of the 'wellsprings of creation'[35] and his own ideas about science are in turn revolutionized when magic summons up the Lovecraftian monster Dagon.[36]

[34] Di Filippo, 'Victoria', *The Steampunk Trilogy* (New York; London: Four Walls Eight Windows, 1997), p. 33.
[35] Di Filippo, 'Hottentots', p. 119.
[36] Di Filippo, 'Hottentots', p. 233.

Many steampunk authors express sympathy for the poor and oppressed through their stories, reflecting contemporary social attitudes with regards to the role of governments and their duty to the poor. Class tension is examined in Di Filippo's 'Hottentots' which examines the revolutionary teachings of Communism. Agassiz's aid, Desor, arranges for his cousin, Maurice, to take employment with Agassiz's lab workers. Instead of joining them in their work, Maurice sets up a series of Communist lectures. '"You haven't read Marx, Professor? How can you call yourself educated?"'[37] Maurice asks. He goes on to claim that when the Communist Manifesto is published '"it will spell an end to the reign of wealth and privilege, of all aristocrats, whether endowed or self-made"'.[38] Maurice, however, is eaten by the Lovecraftian monster, Dagon. This monster, as mentioned in Chapter Three, is likened to a locomotive, a machine of industry.[39] The Communist ideology embodied in Maurice, is swallowed up by the monster of industry, ignoring Maurice's pleas for reason and authority as a representative of the proletariat.[40]

Mark Hodder's *The Curious Case of the Clockwork Man* also features a working class rebellion at the instigation of the Russian clairvoyant, Helena Petrovna Blavatsky, in order to weaken Britain so that when the war she foresaw comes, Britain will lose.[41] Using her abilities she dominates the minds of the working class and causes them to turn into mindless zombies

[37] Di Filippo, 'Hottentots', p. 137.
[38] Di Filippo, 'Hottentots', p. 137.
[39] Di Filippo, 'Hottentots', p. 233.
[40] Di Filippo, 'Hottentots', p. 234.
[41] Mark Hodder, *The Curious Case of the Clockwork Man* (New York: Pyr, 2011), p. 295.

whose souls are displaced to mingle with the polluted London air.[42] '"I insist – upon," the Claimant declared, "fair play for – for every maaan!"'[43] While the Claimant, controlled by Blavatsky through the black diamonds, continues to express communist dogma to the crowd, Swinburne explains to Burton that '"They're trying to make me think old flabby guts is Roger Tichborne … I can feel them prodding at my head. But this time they can't get in!"'[44] Blavatsky is able to dominate minds that have 'never given consideration to the notion of doing anything else', Burton explains.[45] Herbert Spencer adds that '[w]orking-class parents instil in their children the concept that reality offers nothing but hardship, that poverty always beckons, and that small rewards can be achieved only through strige and labour.'[46] It is these attitudes that Blavatsky exploits and that Hodder wants the reader to rebel against. The rebellion instigated by Blavatsky is simply there for Hodder to highlight how such people are apt to be manipulated into dissatisfaction. Hodder advocates that rebellion from the state of mind, explained by Spencer, is what people should strive for rather than a mindless riot of dissatisfaction which, Hodder alludes, is like the behaviour of zombies.

When the future Oxford identifies Burton as 'one of the great Victorians', Burton's confused reply comes as 'What the hell is a Victorian?'[47] By the end of the novel, Burton revolts against our real,

[42] Hodder, *The Curious Case of the Clockwork Man*, pp. 181-2.
[43] Hodder, *The Curious Case of the Clockwork Man*, p. 182.
[44] Hodder, *The Curious Case of the Clockwork Man*, p. 184.
[45] Hodder, *The Curious Case of the Clockwork Man*, p. 198.
[46] Hodder, *The Curious Case of the Clockwork Man*, p. 196.
[47] Hodder, *The Strange Affair of Spring Heeled Jack* (London: Snowbooks, 2010), p. 162.

established, history and the future our history records for him. 'You're not meant to be doing what you're doing now!' claims the future Oxford. 'The problem, Oxford,' admits Burton, 'is that, though the future isn't what it used to be, I like it the way it is.'[48] Burton further displays his revolutionary sympathies when confronted by Richard Milnes about the inhumanity of the Eugenicists who genetically alter the size of scarab beetles and then kill them so their shells can be hollowed out and used by the Technologists to create a 'Folks' Wagon'. Burton responds:

> "Interesting that you should rail against the exploitation of insects by scientists when, it seems, the greater percentage of London's population is currently up in arms over the exploitation of the working classes by the aristocracy … Are labourers no better than insects, in your view?"[49]

A similar question is addressed in Moorcock's *The Warlord of the Air*, although this text explores issues of race as well as class. While steampunk authors often critique the Victorian class hierarchy structures which cause the lower classes to be seen as 'no better than insects', they also explore the same issue in relation to race and colonialism. Steampunk texts often reflect postcolonial thinking about racial equality, deconstructing nineteenth century imperialist views in order to redress the social wrongs committed against other races in the name of colonialism. It is owing to having seen both the future and the past, that Bastable rebels against

[48] Hodder, *The Strange Affair of Spring Heeled Jack*, p. 351
[49] Hodder, *The Curious Case of the Clockwork Man*, p. 207.

colonialism and the subjugation of other races. When he is first flung forward in time, he believes himself to be in a utopian Victorian society:

> I was, I will admit, beginning to count myself the luckiest man in the history of the world. I had been taken from the grip of a deadly earthquake in 1902 and placed in the lap of luxury in 1973 – a world which appeared to have solved most of its problems.[50]

However, he later discovers that the problems that appeared to have been solved have actually just been shifted from one group of people to another. 'The Indian', Bastable is told by the revolutionary, von Bek, 'starves so that the Briton may feast'.[51] The revolutionaries in Moorcock's novel are fighting for ethnic and racial equality. 'I believe most strongly in the British idea of justice. But I should like to see that ideal spread a little further than the shores of one small island', Captain Korzeniowski explains to Bastable. He can 'admire what Britain stands for in many ways' but he does 'not admire what she has done to her colonies'.[52] The rebels do not seek to overthrow the government, or to change it into something completely different, rather they want to revolutionise it so that what holds true for British citizens holds true for the citizens of Britain's colonies. Bastable reflects:

> When I had first been hurled into the world of the 1970s I had thought I found Utopia, after seeing Dawn City and the equality of its inhabitants, '[a]nd now I was discovering that it was only a Utopia for some. Shaw wanted a Utopia which would exist for all.[53]

[50] Michael Moorcock, *The Warlord of the Air* (London: Titan Books, 2013), p. 81.
[51] Moorcock, p. 147.
[52] Moorcock, p. 143.
[53] Moorcock, p. 177.

This sentiment is mirrored by Cezar's character in Di Filippo's 'Hottentots'. Cezar is a white man married to an African wife and he considers Agassiz's – and by extension the Victorian – attitude to be backwards, calling them 'a bunch of narrow-minded barbarians' because of their disgust at his taking an African wife.[54] He warns Agassiz 'you mark mine vords: vun day you vill have cause to regret your prechudice.'[55] Cezar also wants equality for all, though he is satisfied with sitting to the side until Agassiz learns his lesson.

Writing from a modern perspective in which feminist thinking about gender equality is dominant, steampunk authors also explore gender issues. As was touched on in the previous chapter, women are major characters in many steampunk works and they reflect many of the ideas about equality articulated by social reformers, suffragettes and New Women in the nineteenth century. Mike Perschon highlights the way in which steampunk's 'damsels without distress' relate to, but extend, the idea of the New Woman:

> The retrofuturist vision of the steampunk New Woman can imagine a revolution of gender in ways the Victorian New Woman never could. Neo-Victorian writers will only be able to write about what was, or, in the rare case when their characters seek to break convention, their tales will likely end in tragedy. The steampunk New Woman, however, is not the New Woman as she was imagined in the nineteenth-century, or even reimagined

[54] Di Filippo, 'Hottentots', p. 109.
[55] Di Filippo, 'Hottentots', p. 118.

> by neo-Victorian writers in the twentieth and twenty-first centuries: she has far more agency than those women, often due to her access to steampunk technofantasy gadgets and weapons, and is given the option to have her proverbial cake and eat it too.[56]

Ekaterina Sedia likewise points out that steampunk challenges 'the common perception of men as movers of history as women stand quietly by the side',[57] indicating that this is an issue that contemporary society still has not completely resolved.

My previous discussion of Nell in *The Diamond Age* highlighted the agency and voice given to many steampunk heroines. This is also apparent in Di Filippo's *Steampunk Trilogy*. Agassiz finds himself beset by rebelling women. His maid and mistress, Jane, has been reading revolutionary propaganda which she then uses to confront Agassiz about his treatment of her and which results in the end of their affair.[58] The propaganda has been given to Jane by Dottie, Cezar's wife. Dottie herself is a well-educated, confident woman who manages to rescue Agassiz from death at least twice.[59] Dottie also repudiates slavery, something that astounds Agassiz on two accounts: he is being lectured to by a woman, and by an African.[60] Through this interaction, Di Filippo challenges two types of Victorian thinking: that women are not the intellectual equals of men, and that non-white – indeed, non-British – people are inferior savages. Agassiz embodies the

[56] Mike D. Perschon, 'The Steampunk Aesthetic: Technofantasies in a Neo-Victorian Retrofuture' (unpublished doctoral thesis, University of Alberta 2012), pp. 220-1.
[57] Sedia, p. 2.
[58] Di Filippo, 'Hottentots', p. 204.
[59] Di Filippo, 'Hottentots', pp. 153-4, 230.
[60] Di Filippo, 'Hottentots', pp. 199-202.

views that Di Filippo is deconstruction, declaring that Britain must colonize the earth so that all peoples will be 'subsumed within Western civilization' which will elevate them past the point of 'wearing soot and animal fat'.[61]

Other female characters rebel against the constraints of their corsets. In the final story in *The Steampunk Trilogy* the character Emily Dickenson rebels against the current social trends by having sex with Whitman when she is not married to him.[62] Even before that, however, Dickenson refuses to indulge in the 'demands of propriety' as her sister does when Whitman claims himself inspired by the two sisters, '"[t]he very folds of both your clothes, your style as I watched you pass in the street, and, most especially, the contours of your shapes downwards inspired me deliriously."' [63] Dickenson responds, after her sister has stormed off, '"Oh, don't believe her indignation for a minute, Walt. She was secretly pleased, I'm sure. It's just that she could not show so in public. I myself might have departed just so, a few days ago, in the mock affront demanded by propriety.'[64] Dickenson is rebelling against the social conventions that her sister, and society, still holds to.

Her rejection of the 'proper' way to act is Di Filippo's reaction to Victorian social norms. His argument is that in order to grow socially, people need to cast off stifling social conventions and embrace a free, honest expression of self. *Infernal Devices* deals with this motif of sexual rebellion

[61] Di Filippo, 'Hottentots', p. 146.
[62] Di Filippo, 'Walt and Emily', p. 331.
[63] Di Filippo, 'Walt and Emily', p. 287.
[64] Di Filippo, 'Walt and Emily', p. 288.

through the character of Miss McThane, who constantly tries to seduce Dower in complete contravention of the social norms of the time. ‘This is the way it’s gonna be some day', she claims, 'no more of that ladylike crap. In the Future, women are just gonna take what they want.’[65] Miss McThane’s attitude is a modern one, if a little crass. Jeter’s appropriation of crass, modern language, along with the disrespect for the ‘ladylike crap’ shows the contrast between the polite, respectful, Victorian attitude and the rather less polite mannerisms of the modern world. There is critique of both the Victorian mannerisms which would promote politeness over honesty, and the modern mannerisms which promote brutal truth without regard for the sensitivities of others. In rebelling against Victorian mannerisms and sexual views, McThane is highlighting not just the differences between the modern and the Victorian, but also the faults of both social conventions.

At the end of the novel, Dower must force his own brain to rebel so that its clockwork like vibrations can disrupt the doomsday device and stop it from destroying the world.[66] He does so by, finally, having sex with Miss McThane. ‘I watched, speechless, as she grasped the neckline of her gown in both hands. She tore the bodice open, the fabric bunched into her fists. “All right, sucker!” she shouted. “England expects every man to do his duty!”’[67] Dower’s brain vibrates at a frequency shared by the doomsday machine, but when he engages in a primal act, something completely at odds with the Victorian social models which demand restraint and

[65] K. W. Jeter, *Infernal Devices* (Oxford : Angry Robot, 2011), p. 274.
[66] Jeter, p. 331-332.
[67] Jeter, p. 332.

dispassion according to popular views of the Victorians, his brain – and indeed his character – is changed and the doomsday device is unable to continue functioning due to the changed harmonics of Dower's brain. Dower's rebellion here is not only against his brain, but against the Victorian model of propriety which would condemn such an action. In doing so, Dower becomes a revolutionary for the future, a post-Victorian world in which the satisfaction of and expression of sexual impulses is regarded as almost a right.

Like the steampunk aesthetic itself, the theme of revolution is stronger in some works than in others. But extensive reading has lead me to conclude that there is revolution in all steampunk texts, and as such I think it is fair to claim that revolution is a crucial part of the steampunk aesthetic. The do-it-yourself culture outside of literary steampunk often embraces the 'punk' in steampunk and steampunk narratives follow this trend. Whether a character is rebelling against the 'demands of propriety', their established roles dictated by, society or even their own brains, steampunk characters typically rebel against something. It is not, however, just the characters who rebel. The technology used in steampunk is retrofuturistic, a revolution of industry and anachronistic to its time. Setting steampunk texts in other times and other worlds opens up possibilities of social commentary, and examining where our own society will end up.

Granted, not all steampunk texts are as socially aware as Stephenson's novel, or as dystopian as Gibson and Sterling's, but they each

hold within their pages the tendency to rebel against, or revolutionize, *something*. Catherine Siemann writes of steampunk's 'potential as a medium of social critique and engagement'.[68] In reimagining the past steampunk authors frequently 'undo' what they perceive as social wrongs and social ills, empowering the oppressed and the historically marginalised. Yet these authors are not just post-modern revisionists who smugly castigate the past as they rewrite it. They also use the alternate and futuristic worlds that they create to turn the spotlight on the present, urging readers to think critically about current racial, class and sexual dynamics and the ways in which these can be improved. Even the most dystopian and cyperpunk of steampunk authors are thus in some ways curiously utopian, believing in the power of fiction to open minds and transform attitudes.

[68] Catherine Siemann, 'Some Notes on the Steampunk Social Problem Novel', in *Steaming into a Victorian Future: A Steampunk Anthology*, ed. by Julie Anne Taddeo and Cynthia J. Miller (Lanham, Toronto, Plymouth: The Scarecrow Press, 2013), p. 14.

Conclusions

The steampunk aesthetic and its imprint on a range of written and visual texts has been the core preoccupation of this thesis. My discussion follows in the footsteps of the VanderMeers and their informative steampunk anthologies, the steampunk authors and critics who have tried to explain steampunk in many different ways, Mike Perschon and his excellent thesis 'The Steampunk Aesthetic: Technofantasies in a Neo-Victorian Retrofuture', and the newly released essay collection *Steaming into a Victorian Future*. Ken Dvorak ends his foreword to *Steaming into a Victorian Future* with a call for 'further scholarly debate … as steampunk becomes an even greater presence in popular culture'.[1] This thesis contributes to that debate, drawing on the work of previous critics and practitioners while also making a fresh contribution to the growing body of steampunk scholarship.

Steampunk authors and critics alike have tried to define steampunk as a genre in many different ways. Taking into account the sheer diversity of the works that can be grouped underneath the banner of steampunk, these writers have acknowledged that this is not an easy thing to do. This thesis has outlined several relevant tropes and themes that are found in steampunk works from different literary genres in order to argue that there is

[1] Ken Dvorak, 'Foreword', in *Steaming into a Victorian Future: A Steampunk Anthology*, ed. by Julie Anne Taddeo and Cynthia J. Miller (Lanham, Toronto, Plymouth: The Scarecrow Press, 2013), p.xi.

in fact no such thing as a single 'steampunk genre', but rather that steampunk is an aesthetic - a collection of tropes and themes which can be applied to a greater or lesser degree to a work of literature to imbue it with 'steampunkness'. Viewed in this manner, it is possible to discuss steampunk in a critical manner without swinging one's personal definition around like a club, hoping to drag others into one's fold.

The places and characters found in steampunk texts, though varied, have certain things in common when seen through a neo-Victorian lens, such as Victorian era architecture and fashion, polluted Victorian-London-esque cities, and characters with revolutionary streaks who seek social change and colonial empires. The archetypal characters found in steampunk texts are: the airship captain (and crew), the scientist, the inventor/tinkerer, the 'damsel without distress' and the explorer. Steampunk equally features the poor, the dispossessed, the under-privileged and the marginalized while maintaining a fascination with aristocracy, particularly forward thinking ones who long for a better world for all.

The technology in steampunk – which is usually a blend of magic and technology, Victorian inspired myths and superstitions, the supernatural and since disproven scientific theory – is, in short, technofantasy. The magic is typically explained in scientific terms, given a basis in logic and reason that make it a natural fit with the Victorian's era's revolution of science and

technology. The technology resulting from this fusion of science and magic is big and loud and pollutes the land and sky around it. There are gears and moving parts, things to tinker with if something breaks, there is no warranty to void if the machines are opened up, everything is on display. It is strong, bold, gritty and dangerous, as Brian J. Robb explains:

> The core ideas of steampunk evoke the Industrial Revolution, engineering and automated manufacturing along with factories and machinery, the steam engine, railways and airships, coal, iron and brick. Melded with the anachronistic technological advancements of (relative to the Victorian age) the future, on the surface it all seems very masculine. It is grimy, dark and satanic, all oil, smoke, steam and hard materials, the heat of the workshop, the sweat and toil. And yet … it also brings to mind an age of women. The Empire was ruled by a woman on the British throne. An inventive female mind conceived the first computer program. …[2]

The Diamond Age, for all its nano-technology and gleaming surfaces, provides a description of a 'chevaline', a mechanical horse shaped machine used for transportation, detailing how 'no effort was made to disguise it as a real animal. Much of the mechanical business in the legs was exposed so that you could see how the joints and pushrods worked, a little like staring at the wheels of an old steam locomotive.'[3] This attention to the details of the machine, the exposing of the inner workings, is what Gail Carriger is talking

[2] Brian J. Robb, *Steampunk: An Illustrated History of Fantastical Fiction, Fanciful Film and Other Victorian Visions* (London: Aurum Press 2012) p. 74.
[3] Neal Stephenson, *The Diamond Age* (London: Penguin Books, 1996), p. 231.

about when she claims that in steampunk, 'the inner workings of a machine become not just approachable but glorified.'[4]

Steampunk takes place in many different settings, from the – little changed – historical London in Jeter's *Infernal Devices* to the future city of Stephenson's Atlantis/Shanghai. Alternate worlds, where the steampunk aesthetic mimics the Victorian era, carrying over customs and social norms from our history into the future of these other worlds, are created alongside alternate histories of our world. The neo-Victorian aesthetic in the form of Victorian fashion, architecture, technology, mannerisms and class hierarchies, is used, in one form or another, in steampunk texts as both a way to distance the text from the present and to allow the reader to relate to the new world. Since the Victorian era has had such an impact on our current use of these things, there is a connection between the past and the present that allows a projection into the future; a steampunk future.

Until recently, the problem of defining steampunk has been akin to classifying a new species. An undoubtedly marvellous beast, its problematic body lies across literary genres, clearly conceived from a union of fantasy and history, its genetically engineered legs grip science fiction and its often grotesque, wart covered underbelly touches social commentary. Perschon's

[4] Gail Carriger, 'What is Mightier, the Pen or the Parasol?', *Steampunk II: Steampunk Reloaded*, ed. by Ann and Jeff VanderMeer (San Francisco: Tachyon, 2010), pp. 399-403 (p. 402).

steampunk goggles allow a clearer look at the beast, and using them I join him in pronouncing steampunk to be an aesthetic.

There is just one final addition to be made to Perschon's steampunk goggle analogy. I will not dilute it by claiming that a fourth lens be applied, but rather, I believe that in order to grasp the whole of steampunk one needs to be aware of the theme of revolution that is a constant in steampunk texts. So I propose that in addition to the steampunk goggles – and in the tradition of steampunk in and beyond literature – one powers the goggles with liquid aether: a revolutionary power source to remind us that steampunk is not just straight forward Victorian fantasies, it is dripping revolution from every leaky valve.

When viewed from this perspective, steampunk can be enjoyed and analysed without critics getting bogged down in circular, reductive debates. Ken Dvorak is rightly concerned when he says that '[p]opular scholars are presented with an interesting challenge: how to define [the steampunk] movement without assigning it a homogenizing identity.'[5] With Perschon's goggles, powered by revolutionary liquid aether, steampunk can be identified without claiming that all steampunk is like 'this', or 'that'. Instead, steampunk can be described as something that uses a blend of the

[5] Dvorak, p. x.

concepts described by the goggles, retrofuturism, neo-Victorianism, technofantasy and the theme of revolution.

Bibliography

Ackroyd, Peter, *Thames: Sacred River* (London: Random House, 2007)

Baldick, Chris, *Oxford Dictionary of Literary Terms* (2008)

Benson, E. F., *King Edward VII An Appreciation* (London; Toronto: New York: Longmans, Green and Co., 1934)

Bowser, Rachel A. and Brian Croxall, 'Introduction: Industrial Evolution', *Neo-Victorian Studies*, 3.1 (2010), pp. 1-45

Carriger, Gail, *Changeless* (London: Orbit, 2010)

—, *Soulless* (London: Orbit, 2009)

—, 'What is Mightier, the Pen or the Parasol?', in *Steampunk II: Steampunk Reloaded*, ed. by Ann and Jeff VanderMeer (San Francisco: Tachyon, 2010), pp. 399-403

Catastrophone Orchestra and Arts Collective, 'What then, is Steampunk?', *Steampunk Magazine*, 3 March 2007 <http://www.combustionbooks.org/downloads/SPM1-web.pdf>, [Accessed on 23 October 2012]

Clarke, Arthur C., *Profiles of the Future* (London: Victor Gollancz LTD, 1982)

Clute, John and Peter Nicholls, eds., *The Encyclopaedia of Science Fiction* (New York: St. Martin's Press, 1993)

Dickens, Charles, *Our Mutual Friend* (New York: Toronto: 1992)

Di Filippo, Paul, *The Steampunk Trilogy* (New York: London: Four Walls Eight Windows, 1997)

Forlini, Stefania, 'Technology and Morality: The Stuff of Steampunk', *Neo-Victorian Studies*, 3.1 (2010), pp. 72-98

Game Banshee <http://www.gamebanshee.com>, [Accessed on 14 September 2012]

Gibson, William and Bruce Sterling, *The Difference Engine* (Bantam Books, 1992)

Gordin, Michael D. and others, *Utopia/Dystopia: Conditions of Historical Possibility* (Princeton: Princeton University Press 2010)

Hantke, Steffen, 'Difference Engines and Other Infernal Devices: History According to Steampunk', *Extrapolation*, 40.3 (Kent State University Press, 1999), pp. 244-254

Harms, Daniel, *The Encyclopaedia Cthulhiana*, 2nd edn (Oakland, CA: Chaosium 1998)

Hartley, L. P., *The Go-Between* (London: Hamish Hamilton 1953)

Heilmann, Ann and Mark Llewellyn, *Neo-Victorianism: The Victorians in the Twenty-First Century* (London: Palgrave Macmillan, 2010)

Hodder, Mark, *The Curious Case of the Clockwork Man* (New York: Pyr, 2011)

—, *The Strange Affair of Spring Heeled Jack* (London: Snowbooks, 2010)

Hulme, T. E., *Speculations: essays on humanism and the philosophy of art*, ed. by Herbert Read, 2nd edn (London: Routledge and Kegan Paul, 1936)

Jeter, K. W., *Infernal Devices* (Oxford: Angry Robot, 2011)

—, 'Letter to the Editor of Locus', Letters section, *Locus* (April, 1987)

—, *Morlock Night* (Oxford: Angry Robot, 2011)

—, 'On Steampunk and 'Steampunk'', *Infernal Devices* (Oxford: Angry Robot, 2011)

Kiernan, Caitlin R., 'The Steam Dancer (1896)', *Steampunk II: Steampunk Reloaded*, ed. by Ann and Jeff VanderMeer (San Francisco, CA: Tachyon, 2010)

Making of Syberia, Microïds (2002) <http://www.youtube.com/watch?v=uUeNA_TqWqk&feature=related>, [Accessed on 3 June 2013]

Map of Arcanum <http://mikesrpgcenter.com/arcanum/maps.html>, [Accessed on 13 February 2013]

Marx, Karl, *Capital*, Vol I (London: Penguin Books, 1976)

Mayhew, Henry, *London labour and the London poor* (New York: A.M. Kelley, 1967)

Microïds, *Syberia* (Microïds, 2002)

Miéville, China, *Perdido Street Station* (New York; Toronto: Random House, 2000)

Montz, Amy L., '"In Which Parasols Prove Useful": Neo-Victorian Rewriting of Victorian Materiality', in *Neo-Victorian Studies*, 4:1 (2011), pp. 100-118

Moorcock, Michael, *The Warlord of the Air* (London: Titan Books, 2013)

—, multiverse.org <http://www.multiverse.org/fora/showthread.php?s=5e48d2072b442bd034444acebbe2e1c2&t=7713>, [Accessed on 3 June 2013]

Nevins, Jess, 'Prescriptivist vs Descriptivists: Defining Steampunk', *Science Fiction Studies*, 38 (2011), pp. 513-518

Oppel, Kenneth, *Airborn* (New York: EOS, 2004)

Oxford English Dictionary Online, Oxford University Press, updated 2013 <http://www.oed.com>, [Accessed on 28 March 2013]

Petrie, Charles, Sir, *The Victorians* (London: Eyre & Spottiswoode, 1961)

Priest, Cherie, *Boneshaker* (New York: Tor Books, 2009)

—, quoted in 'It's Time to Rethink Steampunk' <http://io9.com/5879231/its-time-to-rethink-steampunk>, [Accessed on 4 February 2013]

Perschon, Mike D., 'The Steampunk Aesthetic: Technofantasies in a Neo-Victorian Retrofuture' (unpublished doctoral thesis, University of Alberta, 2012)

Powers, Tim, *The Anubis Gates* (London: Orion Publishing Group, 2005)

—, ‘Introduction’, *Morlock Night*, by K. W. Jeter (Nottingham: Angry Robot, 2011), pp 7-11

Pruncher, Jeff, ed., *Brave New Worlds: The Oxford Dictionary of Science Fiction* (Oxford; New York: Oxford University Press, 2007)

Robb, Brian J., *Steampunk: An Illustrated History of Fantastical Fiction, Fanciful Film and Other Victorian Visions* (London: Aurum Press, 2012)

Runic Games, *Torchlight* (Runic Games, 2009)

—, *Torchlight*, Runic Games, 2009 <http://www.torchlightgame.com>, [accessed on 20 January 2013]

—, *Torchlight II* (Runic Games, 2012)

—, *Torchlight II*, Runic Games, 2012 <http://www.torchlight2game.com>, [accessed on 27 January 2013]

Saxe, John Godfrey, *The Poems of John Godfrey Saxe* (Boston: Ticknor and Fields, 1868)

Science, Technology and Society: An Encyclopedia, ed. by Sal Restivo (New York: Oxford University Press, 2005)

Sedia, Ekaterina, ‘Steampunk: Looking to the Future Through the Lens of the Past’, *The Mammoth Book of Steampunk* (London: Robinson, 2012)

Shelly, Mary, *Frankenstein; or, The Modern Prometheus* (1818)

Stephenson, Neal, *The Diamond Age* (London: Penguin Books, 1996)

Stross, Charlie, ‘The hard edge of empire’, updated 2010 <http://www.antipope.org/charlie/blog-static/2010/10/the-hard-edge-of-empire.html>, [Accessed on 13 February 2013]

'Soul Has Weight, Physician Thinks', *New York Times*, 11 March 1907 <http://query.nytimes.com/mem/archive-

free/pdf?res=9D07E5DC123EE033A25752C1A9659C946697D6CF>, [Accessed 20 March 2013]

Surridge, Matthew David, 'Steampunk Thoughts: The Novels of Felix Gilman', Blackgate: Adventures in Fantasy Literature, updated 2011 <www.blackgate.com> [Accessed on 28 August 2012]

Sweet, Mathew, *Inventing the Victorians* (London: Faber and Faber, 2002)

Taddeo, Julie Anne and Cynthia J. Miller, eds., *Steaming into a Victorian Future: A Steampunk Anthology* (Lanham, MD: Scarecrow Press, 2013)

'Time Will Tell', *Warehouse 13*, directed by Stephen Surjik, (SyFy, 6 July 2010)

Tidhar, Lavie, 'Steampunk', *The Internet Review of Science Fiction*, updated 2005 <http://www.irosf.com/q/zine/article/10114>, [accessed 20 January 2013]

Tilly, G. P., D. W. Cullington and R. Eyre, "Dynamic behaviour of footbridges." IABSE Surveys, S-26/84, IABSE Periodica, No. 2/84 (1984), pp. 13-24

Troika Games, *Arcanum: Of Magic and Steamworks Obscura* (Sierra Entertainment, 2001)

Terra-Arcanum, 2001 <http://www.terra-arcanum.com/council/faqs/uberFAQ>, [Accessed on 14 September 2012]

Valente, Catherynne M., 'The Anachronist's Cookbook', *The Mammoth Book of Steampunk* (London: Robinson, 2012)

—, 'Blowing Off Steam', updated 2011 <*http://catherynnemvalente.com/essays/blowing_off_steam*>, [Accessed on 27 August 2012]

VanderMeer, Jeff and S. J. Chambers, *The Steampunk Bible: An Illustrated Guide to the World of Imaginary Airships, Corsets and Goggles, Mad Scientists, and Strange Literature* (New York: Abrams, 2011)

Wilson, Katharine, ‘Steampunk’, *Meanjin Quarterly*, 69.2 (2010), pp. 20-33

Wells, H. G., *The Wheels of Chance & The Time Machine* (London: J. M. Dent & Sons, 1954)

Westfahl, Gary, ed., *Greenwood Encyclopaedia of Science Fiction and Fantasy*, Vol. 2 (Westport, CT; London: Greenwood Press, 2005)