World-Building as Narrative in Scott Westerfeld's *Leviathan*

"To function as a rhetorical system in the richest sense of the term, steampunk must connect its surface system of style (its dirigibles, goggles, and clockwork aesthetic) to values, ideas, and beliefs." (Beard, xxiii)

Introduction

Scott Westerfeld's Leviathan trilogy (Leviathan, Behemoth, and Goliath) is an alternative history of the First World War written for a Young Adult audience. It is an example of steampunk fiction, and as such makes numerous changes to historical fact. Chief among these is the division of much of the world along two axes, namely those nations who have chosen to pursue progress through mechanical engineering—known in the novels as Clankers—and those nations who continue to build on Charles Darwin's discovery of genetic engineering to create new creatures that are employed in industrial and military capacities. Examples of Clanker nations are Germany and Austria, whilst Britain—thanks to Darwin's pioneering work—is the leading Darwinist nation. Some powers want the best of both worlds, and so Japan as well as the USA show evidence of using both Clanker inventions and Darwinist creatures. For the most part, therefore, this division allows Westerfeld to map his re-imagined world onto the genuine antagonisms of the period surrounding the First World War.

The narrative is based around the adventures of two young protagonists. His Serene Highness, Prince Aleksander of Hohenburg is the fictitious son of Archduke Franz Ferdinand, and is also a representative of the Clanker approach to progress. His counterpart representing the Darwinists is Deryn Sharp, who for much of the trilogy is disguised as a boy called Dylan, since this was the only way open to her to gain admittance into the Air Service. The changing relationship between Alek and Deryn—at first suspicious, then collegial, before transforming into love—is the backbone of the trilogy, allowing Westerfeld to weave numerous themes, such as gender and class differences, into his work. However, Westerfeld's major goal is to build a world that, whilst originally based on open hostility between the mechanical and the organic, realises that its only opportunity for peace and progress will lie in a deconstruction of this division. In keeping with the steampunk agenda, and echoing Donna Haraway's work on the cyborg, Westerfeld leads his readers to the point where a type of mechanical / organic hybridity is seen as the most desirable and optimistic solution not just for his fictional early 20th century world, but also for our own early 21st century.

World-Building in Steampunk

As Westerfeld makes clear in the *Afterword* to the first volume, his *Leviathan* trilogy is an example of steampunk fiction. Although mainly associated with the Victorian era, and therefore sometimes categorised as a sub-genre of neo-Victorian fiction, steampunk fiction visits other time periods, and indeed other parts of the globe, than those that a strict link to the Victorian period would necessitate. Here, Westerfeld's work goes beyond the end of the Victorian era since his story is set immediately before, and during, World War I. In order to make clear Westerfeld's priorities in his approaches to world-building, it will be worthwhile exploring several key features of steampunk writing in general, namely *speculation*, *divergence*, *creativity*, *technology*, and *hybridity*.

Speculation. Since steampunk fiction is an example of alternative history writing, there is firstly a desire to explore or re-explore a given epoch, secondly an interrogation of whether outcomes were inevitable or whether they could have been altered or even averted, and finally a linking of a particular past with today's reality. Thus, steampunk raises questions about the extent to which our present day is a result of past events, but also about whether the present is actually still prey to the same problems, injustices, and dilemmas of that past (see Hantke for a discussion of the relationship between steampunk's past and the world of today). Westerfeld locates his own work firmly within this endeavour, and one of his goals is to postulate a World War I that will result in a less damaged Europe, and consequently in a less catastrophic 20th century. Indeed, this should be seen in the light of Yaszek's characterisation of the steampunk agenda: "At its best, steampunk fiction promotes understanding of the roots of our current global scene, and offers lateral insights as to how we could improve retroactively on some of the choices we made, all unknowing, in the path of technological development" (Yaszek, 190).

An artistic re-casting of well-known historical events or periods unlocks the potential for speculation, since "steampunk fiction intervenes in literary history, but it also encourages readers to think more expansively about theories of history as such" (Jagoda, 63). As such, it is an excellent medium for Young Adult fiction, since it allows its readers to question received wisdom, theorise different ways of dealing with problems, and understand the pressures posed on an individual by a constellation of political, social, economic, and technological forces. As critics have pointed out, it is often this latter factor, the technological, that features most prominently in steampunk as a genre. Pike distinguishes between two different approaches: "Originating in British science fiction of the 1970s and 1980s, steampunk is a version of alternate history that posits in various ways what would have happened if twentieth-century technologies had appeared or been invented in the nineteenth century, or if technology had halted or taken a different path during the steam age—hence the first half of the appellation" (Pike, 264). Westerfeld employs a creative blend of both in his work, since the genetic engi-

neering of his Darwinist faction is clearly an example of the former, and his Clanker faction with its mechanical creations is an extrapolated continuation of steam-powered technology.

Divergence. History, as seen through the lens of steampunk fiction, is not fixed: "For steampunk the past is malleable and can be re-imagined at will, with anachronistic elements introduced to plots and glued onto contemporary objects" (Danahay, 44; McKenzie, 140). This malleability is, however, not random but the result of authors taking major events or discoveries and using them as turning points that will create different outcomes. In other words, it is divergence that is the key concept here. According to Hale, steampunk "consciously diverges from historical master narrative (Lyotard, 1979) as a means to explore how the contours of time, history, and culture(s), both past and present, might have been alternatively formed had certain historical events gone differently" (Hale, 11). In Westerfeld's work we are able to discern the full range of this divergence in his approach to world-building. As shall be discussed in greater detail below, the Leviathan trilogy uses moments of technological innovation as divergence points to establish an alternative reality that has been reshaped not just in technological inventions, but in much broader areas. The political map of the world is determined by allegiance to genetic engineering or mechanical engineering, and even more importantly, the citizens of these different countries have been influenced by their country's choices. Westerfeld's main characters react to these technological creations (whether mechanical or biological) in terms of moral outrage or physical disgust, revealing the deep-seated influence of technology. This steers Young Adult readers to a greater understanding of the contribution of social context to their own individual psychological make-up, since "steampunk, usually set in the past or in an alternative future based on different choices made in the past, makes strange aspects of society, history, and culture that are accepted as normal. It makes the familiar unfamiliar, and in doing so, offers worlds that empower young adult characters to discover themselves" (Mielke and LaHaie, 244). Indeed, it can go beyond self-discovery, and can lead to a determination to take more control of the direction of one's own person and life.

Creativity. By its very nature, any divergence from established fact can be regarded as a creative act. However, it is worth noting that the level of creativity employed within the steampunk genre goes far beyond the bare minimum, as Rose observes, "Moreover, the flamboyance with which these stories depart from factuality is in fact a celebration of the imaginative engagement with the past that is at the heart of all history" (Rose, 323, my emphasis). This essential contribution of imaginative input is emphasised by others, such as Jagoda: "[...] steampunk demonstrates, perhaps more effectively than any other literary genre, that history and imagination are not opposed terms" (Jagoda, 65). However, Bowser and Croxall's observations are most valuable here since they direct attention to the explicit link between a creative re-imagining of the past, and a desire to reconsider the journey that has led to the present day: "It is

important to remember in this context that steampunk is very much a *fantasy* about the past. Yet it is a fantasy that creates a 'useable past' (or 'useable *alternative* past') that proves potentially helpful in re-shaping the present" (Bowser and Croxall, 23). Young Adult readers, in particular, will be drawn into a dialogue with steampunk texts, in such a way that they are actively engaged participants, responding to characters, events, and situations with a critical sense of questioning whether those characters, events, and situations have to be the way they are, or whether they could or should be changed.

Technology. In general, it is possible to distinguish between two major trends in these creative explorations of technological divergence, based on optimistic and pessimistic views of the potentials of genetic engineering and information technology to impact on our lives. On the one hand, therefore, there is an opportunity to use world-building as a platform to critique and warn, often articulated through a narrative of fear "that in a post-industrial society essential human values are threatened by digital technologies and the intensification of commodification in all aspects of life thanks to computermediated networks and virtual worlds" (Danahay, 29). Looking beyond literature to the 'maker culture' of steampunk, we see practitioners and fans alike creating physical artefacts intended as a response to the highly machined technological products of today. On account of their seamlessly sealed casings and lack of user-serviceable parts, these devices can represent an unknowable and therefore threatening intrusion of technology into our lives: "When a device like the iPad has only one button and is a sealed slab of glass and metal, we face becoming alienated from our technology" (Bowser and Croxall, 16, my emphasis). Steampunk makers establish visual links in their products to a time when inner workings were visible and the traces of human artisanship were proudly evident in the objects that were used. They do this through using mechanical parts, such as wheels, springs, and the ubiquitous cogs, as decorative onlays and enhancements to examples of modern technology, such as PCs and laptops. For Danahay, this should be read as an act of rebellion: "Nonetheless, on a symbolic level, steampunk performs its resistance to contemporary industrial mass production by 'modding' its products and linking them to an earlier historical era, thus dramatising a protest against postindustrial technologies" (Danahay, 31). Indeed, it is in these acts of resistance that the 'punk' aspect of steampunk is explained: "steampunk, like punk rock before it, works to shock the mainstream into questioning its behaviours and values, specifically around the notions of technology" (Bowser and Croxall, 21). However, in spite of terms such as threat and alienation, there is also a strong sense of steampunk's love of technology.

Steampunk is emphatically not an attitude of rejection, the practitioners are not machine-wreckers or saboteurs, the devices that they modify, and the mock devices that they create are all mechanical—in other words technological—in nature. The fear is not fear of technology as such, it is more a fear of the Trojan Horse: if we are unable to see inside the devices of today, who knows what dangers they may harbour? For this reason, many commentators focus on steampunk's exploration of the nature of the

relationship between humans and technology: "Today's global citizens cannot escape the ubiquity of the cell phone, the computer, and the car, but they can pledge allegiance to these kinds of technologies and the ideology they manifest, or declare their citizenship to alternative states of mind through the public performance of alternative aesthetics" (Mara, 162¹). Within this spirit of reviewing our relationship to technology, the positive potentials of modern technology should not be overlooked, as Pike argues when he describes steampunk as "utopian literature, retrieving the technological and often subterranean utopian visions of the late Victorian period that lie at the foundation of much of the history of speculative fiction" (Pike, 265). Further below, there will be an analysis of the ways in which Westerfeld's work engages with this more optimistic agenda. For the contemporary Young Adult reader, whose future is very likely to be shaped by a use of, and a dependence on, information technology, this aspect of steampunk fiction is wholly appropriate and useful.

Hybridity. There is a strong predisposition in steampunk to create narratives of hybridisation and powerful images of hybridity. This is seen at its most fundamental in steampunk maker culture where the guiding principle is one of conjoining two incompatible worlds, of adding analogue clockwork parts to digital devices. Over and above any resulting aesthetic achievement, this strategy of embellishment can also be read as a narrative of rebellion (resisting the mass-produced technology of today) or of questioning (what have we lost if we can no longer understand or repair the tools that we use?). As Jagoda points out, this strategy can make present concerns less daunting to tackle: "Through techniques such as hybridisation, pastiche, and strategic anachronism, steampunk texts defamiliarise both the Victorian past and the globalising present, isolating facets of both eras to make them more susceptible to analysis" (Jagoda, 48). However, steampunk in general is regarded as a movement that is highly protechnology, and one that is frequently associated with an equally positive view of hybridity. A review of the secondary literature uncovers terms such as "the positivity of the cyborg" (Sussman, 17), "co-operation between the mechanical and the organic" (Weig, 143), "a techno-utopian world free of human/human and human/machine alienation" (Hall and Gunn, 5), and "hopefulness or perhaps even idealism in the idea of human technology and animals coexisting in such a harmonious fashion" (Vander-Meer, 120). As shall be discussed below, Westerfeld's work in this trilogy is also to be understood against this artistic background and needs to be read as a contribution to an agenda of marking the twenty-first century as the period in which the relationship between technology and biology is crucial. Westerfeld employs a multi-faceted approach to this mission here, using a combination of narrative, main characters and their relationship, and a set of powerful symbolic objects to build an alternative historical world in which the benefits of "human technology and animals coexisting in such a harmonious fashion" (VanderMeer, 120) are explicit, and in which the dangers of war and destruction are seen as the result should such co-existence, or integration, not be achieved.

¹ See also Esser or Bowser and Croxall for discussions of our relationship to technology.

Scott Westerfield's Leviathan Trilogy

Having now established this set of steampunk elements we can explore Westerfeld's use of them in the trilogy itself, in particular with reference to the major world-building task of redrawing the battle-lines of Europe before World War I in such a way that the divisions are between the Darwinist nations and the Clanker nations. Westerfeld employs his two main characters as the points of view that give the reader an intentionally biased account of the Darwinist and Clanker factions. Westerfeld creates a sense of an arms race between the two factions, but this military conflict is only one aspect of the division between these two opposing systems. For example, gender differences also play a significant part, in that the reader is invited to regard Clanker engineering as male technology, and Darwinist genetic engineering as female. This is made clear through the choice of one male and one female main character (Alek and Deryn), and also through the choice of secondary characters (Count Volger and Dr. Barlow). Westerfeld ensures that the reader will see this division between the Clanker and Darwinist philosophies as the single most important issue for the world as a whole. Stopping for a time in Mexico during a time of civil war, Deryn muses, "Alek was right about one thing: One way or another, the war had sunk its claws into every nation on earth. Even this distant conflict had been shaped by the war machines and fighting beasts of Europe" (Westerfeld, Goliath, 343). In this way, the reader is encouraged to regard this division in terms of a fundamental conflict, rather than one determined by local politics, making it simpler to then see the connections and similarities to today's real-life conflicts.

Through the early part of Deryn's side of the story the reader is invited to regard the development of fabricated beasts as a wholly positive endeavour, particularly since it also has the benefit of counteracting the fog and pollution that had been generated by traditional industry:

She remembered how Da had said London looked in the days before old Darwin had worked his magic. A pall of coal smoke had covered the entire city, along with a fog so thick that streetlamps were lit during the day. During the worst of the steam age so much soot and ash had decorated the nearby countryside that butterflies had evolved black splotches on their wings for camouflage. But before Deryn had been born, the great coal-fired engines had been overtaken by fabricated beasties, muscles and sinews replacing boilers and gears. (Westerfeld, Leviathan, 65-66)

There is also a strong impression in Westerfeld's descriptions of Darwinist Britain that the decision to pursue biological evolution—rather than technological innovation—has led to a greater understanding of what today would be called an eco-system: "If you remove one element—the cats, the mice, the bees, the flowers—the entire web is disrupted" (Westerfeld, *Leviathan*, 195). In this alternative history, Darwin's discoveries also allow for creatures to be fabricated that can have a military application, most significantly the eponymous Leviathan: "The Leviathan had been the first of the great

hydrogen breathers fabricated to rival the kaiser's zeppelins" (Westerfeld, *Leviathan*, 69). The Leviathan's symbolic functions shall be discussed further below.

Count Volger, Alek's mentor and protector, anticipates the developments across Europe, musing that somehow Britain will find a way to be involved in any future military conflict, concluding that it will be "Darwinists against Clankers" (Westerfeld, Leviathan, 88). Although Deryn's side of the narrative has presented the beneficial aspects of fabricated beasts, through Alek's eyes, however, the fabricated creatures of the Darwinists appear as blasphemous abominations: "He'd heard awful stories about the Darwinists' creations: half-breeds of tigers and wolves, mythological monsters brought to life, animals that spoke and even reasoned like humans, but had no souls. He'd been told that when godless beasts were created, the spirits of demons occupied them—pure evil given flesh" (Westerfeld, Leviathan, 230). In scenes such as these, the reader is able to see the advantages and disadvantages of both factions. The Darwinist creatures have indeed brought an end to industrial pollution and have led to a greater understanding of the interconnectedness of all species on earth, yet they can be regarded as a blasphemous intervention into the natural order of things. The Clanker machines may contribute to pollution levels, yet they provide power and invention, such as motion picture cameras.

Nevertheless, it is not the points of view of Deryn and Alek in isolation that are most important, it is their relationship to each other that provides the most telling commentary in the novels. In spite of the growing friendship between Deryn and Alek (and as the story progresses, this friendship will grow into love), their original backgrounds remain as barriers between them. It will take them some time, and a body of shared experiences, for them to overcome the lessons taught by the environment in which they have grown up. As Alek observes in the first volume, "He'd been such a fool this vast creature, these people were so alien. It was madness to try to cross the gulf between his world and theirs" (Westerfeld, Leviathan, 259). Even in the second volume, Behemoth, Deryn is still unable to feel at home in a Clanker city, "Aye, but that's my home up there. I can't live with ... your machines" (Westerfeld, Behemoth, 458). Westerfeld has created two main characters that are, at the commencement of the story, both entirely against the products of the opposing faction, and the narrative is full of examples of their revulsion whenever they encounter either Clanker machines or Darwinist beasts. Their role as points of view in the novels means that the reader will share their initial antipathy, yet follow them on a journey that will take them to a point of understanding, reconciliation, and eventually love.

One of the most important aspects of Westerfeld's approach to world-building in this trilogy is his use of objects. Whilst they assist in the depiction of the two factions, they are also key to his ultimate aim of creating a story in which his two main characters will be instrumental in bringing peace to Europe one step closer, and also a rapprochement between the two factions. In some special cases they also help to articulate the theme of hybridity that underpins the coming together of the two previously oppos-

ing worlds of the mechanical and the organic. A detailed examination of some key examples will show how this principle functions in practice. Starting with the Leviathan itself a creature is revealed that is about the size of, and with a similar set of functions to, a mechanical airship or zeppelin. Freedman has studied the images of real zeppelins in contemporary historical documents and fictional accounts, focussing on their impact and interpretations as the carrier of a military threat, "[...] The first Zeppelin raid on England was carried out on May 31, 1915" (Freedman, 49). What is most interesting to note is the early responses to these craft as blends of the mechanical and the organic. Freedman cites both Katherine Mansfield who referred to the zeppelin as "the ultimate fish" (Freedman, 50) as well as H. D. (Hilda Doolittle) who called it Leviathan, a whale swimming "in city dusk, above suburban forests" (Freedman, 59). This study of the literature of the time leads Freedman to define the zeppelin as follows: "An uncanny mix of machine and natural entity, bridging the sublime and the grotesque, the aweinspiring and the monstrous, the Zeppelins detach themselves from their ostensible purpose and ownership and appear to possess their own will-to-power" (Freedman, 51). Westerfeld's creation of his own Leviathan, with its mix of machine and natural entity, must therefore be seen as the logical extrapolation of these early first-hand responses to the zeppelins.

The Leviathan starts its journey though the novels as the major representative of the Darwinist ethos. It is a fabricated beast, with no counterpart in a naturally occurring species, that owes its existence to Westerfeld's version of Charles Darwin and his discovery of the genetic code. Additionally, the Leviathan is home to an extended ecosystem of other creatures that contribute to and interdepend on each other's lives. As well as the humans who serve on board, there are numerous beasts with different tasks, such as the bees that make honey, the lizards that carry messages, the bats that carry out strafing attacks on enemies, etc. These descriptions of a zoo-like setting, or perhaps more appropriately of an ark, are enhanced by Keith Thompson's illustrations, that frequently depict the human crew of the Leviathan acting in tandem with various creatures. Key examples here are Dr. Barlow, often accompanied by her pet thylacine, and then—once it has hatched from its egg—the perspicacious loris that drapes itself over both Deryn's and Alek's shoulders. The creation of this richly detailed menagerie with its idyllic depiction of humans and beasts working in harmony to achieve their goals might lead one to suspect that Westerfeld's own aim is to produce a story that is whole-heartedly in favour of the organic and against the mechanical. However, this is not the case.

After the crash in the Alps in the first volume, the Leviathan is unable to take off again under its own power. It needs Clanker engines, and once they have been successfully mounted on the great creature's back, they become a permanent feature and for the rest of the trilogy the Leviathan will act as a fusion or hybrid of the mechanical and the organic. Given the key role of the Leviathan in various missions during the narrative, its importance is unquestionable. However, since most of these missions are of a pro-

tective, peacekeeping, or rescue nature, then the reader's attitude to this creature, and to its hybrid nature, is being carefully directed to a positive view. Indeed, a deconstruction of the divisions between the mechanical and the organic, in favour of hybridity, is therefore presented as the most logical and ultimately reconciliatory outcome that is possible from a starting point of war between the Clanker and Darwinist countries and philosophies. If we now map this fictional trajectory onto the reality of our own times—which, as shown earlier, the steampunk genre is all about—then we must assume that a rapprochement between the divisions of the organic and the technological must be part of Westerfeld's message in this trilogy. As he says in the *Afterword* to the first volume, "[the book] looks ahead to when machines will look like living creatures, and living creatures can be fabricated like machines" (Westerfield, *Leviathan*, 439).

An analysis of other key symbolic objects in the novels provides further evidence. In addition to the large-scale symbolic entity of the Leviathan, Westerfeld employs numerous smaller objects as embodiments of the machine / organic dualism that underpins the world-building strategy in this trilogy. For example, there is Alek's Habsburg family crest, described as a "double-headed eagle devised of mechanikal parts" (Westerfeld, Leviathan, 218), giving the reader an image of the natural (the eagle) and the mechanical being joined together. Interestingly, in the third volume, Goliath, there is a real double-headed eagle—this time created by Darwinist fabrication—which contributes to the trilogy's aims in several ways. Firstly, it provides a powerful mirror image to the Habsburg crest. Secondly, it serves as a link between the two factions, in that both have created an eagle according to their own style. Thirdly, it is a part of Alek's identity, and this close symbolic association prepares the reader for Alek's eventual transformation into a representative of both factions. Finally, its nature as a doubleheaded eagle—with its two long necks intertwined—must be seen as a potent image of the gradual coming together of the Clanker and Darwinist factions by the conclusion of the trilogy.

Turning away from massive fabricated airships and fabulous creatures like the double-headed eagle to more mundane objects, reveals a continuation of Westerfeld's approach to world-building. This extension into the mundane is seen most clearly when Volger and Deryn share a pot of tea. Deryn drinks her tea from a Clanker cup, "It was fine porcelain, as light as a hummingbird, with Alek's mechanical eagle crest inlaid in gold" (Westerfeld, *Behemoth*, 158), whilst Volger drinks his from a cup with "the *Leviathan*'s silhouette and nautilus spirals stamped on its side in black" (Westerfeld, *Behemoth*, 159). This is a subtle indication to the reader of the journey that the two factions are undertaking to reach a point of greater understanding and cooperation. However, it is not just within the confines of the text that this message is relayed to the reader. The numerous illustrations in the novels also have their part to play. Westerfeld reveals how integral these illustrations are to his own work in an interview with Jeff

VanderMeer. When asked which steampunk works influenced the writing of *Leviathan*, Westerfeld replies:

In a strange way, the biggest influence on the text was Keith's illustrations in the book itself. Because there are fifty of them per book, we didn't follow the usual strategy of finishing the text and then producing illustrations. He was working alongside me, only a few chapters behind (or ahead at one point!), and whenever I got to a sticky place I would have his images to contemplate. It was a positive feedback loop. (VanderMeer, 68)

As an example of how seamlessly text and illustration are joined in a common goal, there is an image on page 165, in which Thompson provides an illustration of these two tea-cups with the steam rising from them both and then entwining. The trilogy's narrative of how these two opposing worldviews—of the mechanical and the biological—must overcome their differences and unite in order to overcome military conflict, in the short term, and in order to lay the foundations of a stable future, in the long term, is thus also embedded within the accompanying illustrations.

In order to create a suspenseful and exciting narrative, this journey to reconciliation cannot run entirely without obstacles and setbacks. In the final volume, it is the eponymous Goliath device that functions most clearly in this respect. Invented in this alternative history by Westerfeld's version of Nikola Tesla, the Goliath is a technological weapon that the world is led to believe can destroy entire cities from a safely remote distance with only the touch of a button. It is Tesla's aim to forcibly impose peace on the world through the deadly threat of his machine. Whilst his intentions are therefore seen as noble, his means are regarded as more than questionable when he proposes to demonstrate the efficacy of his weapon by testing it on Berlin: "This is the power of Goliath, that no one on earth, Clanker or Darwinist, can escape. So we must all learn to share the globe, or perish together!" (Westerfeld, Goliath, 234). It becomes Alek's task, assisted by his friends, to prevent this from happening. Nevertheless, until this moment of crisis, Tesla has also embodied the trilogy's hope for a union between the two factions: "He was a Clanker boffin, a maker of German secret weapons, and yet the czar had given him free run of Darwinist Russia" (Westerfeld, Goliath, 79). This is, however, a false hope based on a misuse of power and a desire to coerce rather than lead. The reader will see Tesla's Goliath weapon as the wrong sort of hybrid, designed solely for destruction, and compare it to the Leviathan, a hybrid designed as a living ecosystem, as accommodation, as a vessel of exploration. Indeed, for Perschon the Leviathan airship functions as a "visual representation of social contract theory or perhaps even environmental concerns, wherein the lives of everyone and everything on board are interconnected" (Perschon, 142). It could also be argued that Tesla, as a man, is the wrong sort of scientist for a mission of progress and peace. His counterpart is obviously Dr. Barlow, analysed by Mielke and LaHaie as follows: "Dr. Barlow's research forms a significant aspect of the series, one that might be considered essentially female; she creates life to do the work of machines, and these living tools do not cause the pollution and the problems of the historical Industrial Revolution" (Mielke and LaHaie, 255). As such, the figure of Dr. Barlow embodies Weig's comments about steampunk in general when it "envisions a future [...] where a kind of harmony with the material reality of both technology and the natural world is realized" (Weig, 144).

It is not just the objects, small and large, that carry this theme of reconciliation. There are also significant locations that will act as potential blueprints for a reconciled Europe after this version of the Great War. The first of these is Tokyo, a city which is home to both Clanker and Darwinist products, and which-through Alek's eyes-is seen as follows: "The two technologies mixed more elegantly than he'd expected. Streetcars huffed out clouds of steam, but the most crowded were yoked to oxenesques for extra power. A few rickshaws putted along behind diesel two-legged walkers; the rest were pulled by squat scaly creatures" (Westerfeld, Goliath, 209). The citizens of Japan share this desire to make the best use of both worlds, as the reader learns when Dr. Barlow points out two prominent Japanese scientists to Dervn: "There is Sakichi Toyoda, the father of Japanese mechanics. And, beside him, Kokichi Mikimoto, the first fabricator of shaped pearls. Clankers and Darwinists, working together" (Westerfeld, Goliath, 226). It is not just Tokyo and Japan that provide positive examples of working together. Although Westerfeld's version of the USA is of a nation divided between a North committed to the mechanical and a South committed to the biological, it also contains one of the most powerful images of hybridity in the novel. In this version of reality, the Statue of Liberty also functions as one of the objects symbolising a happy hybridity: "In the distance a towering human form was coming into view. She was as tall as the *Leviathan*, and her upheld torch glowed with both soft bioluminescence and a shimmering electrikal coil" (Westerfeld, Goliath, 402). Tellingly, the source of light here is a product of both mechanical and genetic engineering, and the direct reference to the Leviathan ensures the reader's positive reception of this image.

Continuing this exploration of hybridity in the trilogy, it is worthwhile tracing this theme through the main characters. Towards the end of the first volume, Deryn refers to the Leviathan as follows: "We're something different now [...] A little of us and a little of them" (Westerfeld, *Leviathan*, 416). Although the first volume has this positive note, much of the second volume, *Behemoth*, is devoted to making it clear to the reader how difficult it will be for these two characters, both products of their different factions and belief-systems, to reach common ground. In *Behemoth*, Deryn has left the Leviathan to join Alek in the Clanker city of Constantinople, and the absence of the familiar coupled with the presence of the numerous mechanical devices is having a double effect on her. On the one hand, it is affecting her state of mind, "She often talked to herself these days—living among Clankers was driving her mad. Instead of the murmurs of beasties and the steady hum of airflow, Deryn spent her days surrounded by the rattle of gears and pistons" (Westerfeld, *Behemoth*, 373). On the other hand, it is affecting her physically as well: "Her skin smelled of engine grease" (Westerfeld, *Behemoth*, 373). Nevertheless, this is the volume in which we see the per-

spicacious loris bond with both Alek and Deryn, introducing yet another image of two worlds meshing: "Dr. Barlow sat down at the map table, shaking her head. 'It wasn't designed to bond with two people! Not unless they're ...' She narrowed her eyes. 'I suppose you and Alek have rather a close friendship, haven't you, Mr. Sharp?" (Westerfeld, *Behemoth*, 466). However, the reader must wait until the third volume, *Goliath*, to witness the complete a rapprochement between Deryn and Alek, and more widely, with the two factions that have split the world.

In the final volume, Goliath, Westerfeld once again employs a series of telling objects to assist with his world-building. Now, it is less a case of using these symbols to anticipate the direction of the narrative, it is more a case of using them to enrich the reader's sense of two worlds coming together. In the case of Deryn, for example, after her injury in Mexico, she must exercise her leg as part of the recovery process, using "the cane that lovely old Klopp had made for her. It was lathed from fabricated wood, but topped with a heavy Clankerish brass handle" (Westerfeld, Goliath, 391-392). In the case of Alek, he receives a medal from the British for his contribution in the mission against Tesla's weapon: "He had been awarded the Air Gallantry Cross, the highest honor the British armed services could give a civilian, and right there on its face was a portrait of old Charles Darwin himself" (Westerfeld, Goliath, 520). Additionally, in narrative terms, some of the animosities of the old world order are also showing signs of dissolving. As the captain of the Leviathan says, "If you'll excuse me, I must attend to our American guests. Their Clanker airships will be joining us on our way back to Europe. Most extraordinary" (Westerfeld, Goliath, 520). In terms of character, both Deryn and Alek have now adopted features of the opposing faction, and perhaps more importantly for a Young Adult readership, have fallen in love with each other. The Leviathan itself remains the single most significant symbolic object. By the end of the story it has demonstrated its vital contribution to any potential for world peace, but only after it has incorporated the mechanical elements donated by Alek and his group of Clanker friends. Since steampunk should be regarded as a form of alternative history intended to illuminate the most pressing issues of the present, then it is in this powerful image of hybridity that Westerfeld's message is strongest: our future, and in particular the future of his Young Adult readers, will be one in which we must expand our expertise in technological invention but also in our understanding of ourselves as biological creatures within a given eco-system.

Conclusion

The use of a steampunk setting lends itself very well to Young Adult fiction, as seen in the *Leviathan* trilogy. Westerfeld's world-building draws on the key features of steampunk, *speculation*, *divergence*, *creativity*, *technology*, and *hybridity*, in order to create an alternative history that encourages readers to see the consequences of past decisions and apply them to the dilemmas of today. The trilogy presents a re-imagined world in

which the divisions between mechanical engineering and genetic engineering are the key cause of military conflict. As well as the battle-lines on a map, these divisions permeate the characters, the numerous symbols, and the illustrations. This in-depth approach to world-building means that much of the narrative is seen as an inevitable consequence: how could these two opposing worldviews not end in conflict? Within this framework of inevitability, it is up to the two main characters to struggle to overcome their prejudices in order to change themselves for the better, thereby also helping the world to change. For a Young Adult readership this is a valuable approach in a number of ways. On the one hand, it underlines not just the importance of the decisions we take, but also their far-reaching consequences. On the other hand, we also see that those decisions are not taken in abstract isolation, but are taken within the context of a given set of factors such as the political, social, economic, and scientific. Finally, the narrative of the novels shows the enormous contribution that an individual can make to the world. This is not restricted to the ground-breaking work of a scientist such as Darwin; the actions of the two main characters, Deryn and Alek, also have a huge impact. By the end of the story they may not have managed to stop a World War, but as Westerfeld says in his Afterword to the third volume: "Europe may well emerge from this war less devastated than in our world, and therefore less vulnerable to worse tragedies to come" (Westerfeld, Goliath, 542-3).

List of References

- Beard, David. "Introduction: A Rhetoric of Steam." *Clockwork Rhetoric: The Language and Style of Steampunk*. Ed. Barry Brummett. Jackson: University Press of Mississippi, 2014. xiv-xxxii.
- Bowser, Rachel A., and Brian Croxall. "Introduction: Industrial Evolution." *Neo-Victorian Studies* 3.1 (2010): 1-45.
- Danahay, Martin. "Steampunk as a Postindustrial Aesthetic: 'All that is solid melts in air'." *Neo-Victorian Studies* 8.2 (2016): 28-56.
- Esser, Helena. "Yesterday's Tomorrows: Retrofuturist Visions of London's Alternative Pasts in Steampunk Fiction." *Literary London: Interdisciplinary Studies in the Representation of London* 11.2 (2014): 18-34.
- Freedman, Ariela. "Zeppelin Fictions and the British Home Front." *Journal of Modern Literature* 27.3 (2004): 47-62.
- Hale, Matthew. "Airship Captains, Pith Helmets, & Other Assorted Brassy Bits: Steampunk Personas and Material-Semiotic Production." New Directions in Folklore 11.1 (2013): 3-34.
- Hall, Mirko M., and Joshua Gunn. "There is Hope for the Future': The (Dis)Enchantment of the Technician-Hero in Steampunk." *Clockwork Rhetoric: The Language* and Style of Steampunk. Ed. Barry Brummett. Jackson: University Press of Mississippi, 2014. 3-18.

- Hantke, Steffen. "Difference Engines and Other Infernal Devices: History According to Steampunk." *Extrapolation: A Journal of Science Fiction and Fantasy* 40.3 (1999): 244-254.
- Jagoda, Patrick. "Clacking Control Societies: Steampunk, History, and the Difference Engine of Escape." *Neo-Victorian Studies* 3.1 (2010): 46-71.
- Mara, Andrew. "Steampunk's Identity Horizon and Contested Memory." *Clockwork Rhetoric: The Language and Style of Steampunk*. Ed. Barry Brummett. Jackson: University Press of Mississippi, 2014. 159-176.
- McKenzie, John M. "Clockwork Counterfactuals: Allohistory and the Steampunk Rhetoric of Inquiry." *Clockwork Rhetoric: The Language and Style of Steampunk*. Ed. Barry Brummett. Jackson: University Press of Mississippi, 2014. 135-158.
- Mielke, Tammy L., and Jeanne M. LaHaie. "Theorizing Steampunk in Scott Westerfeld's YA Series Leviathan." *Children's Literature in Education* 46 (2015): 242-256.
- Perschon, Mike. "Steam Wars." Neo-Victorian Studies 3.1 (2010): 127-166.
- Pike, David L. "Afterimages of the Victorian City." *Journal of Victorian Culture* 15.2 (2010): 254-267.
- Rose, Margaret. "Extraordinary Pasts: Steampunk as a Mode of Historical Representation." *Journal of the Fantastic in the Arts* 20.3 (2009): 319-333.
- Sussman, Herbert. "Cyberpunk Meets Charles Babbage: 'The Difference Engine' as Alternative Victorian History." *Victorian Studies* 38.1 (1994): 1-23.
- VanderMeer, Jeff. The Steampunk Bible. New York: Abrams Image, 2011.
- Weig, Heidi. "Rebuilding Yesterday to Ensure our Tomorrow." *Inklings: Jahrbuch für Literatur und Ästhetik* 30 (2012): 135-150.
- Westerfeld, Scott. Leviathan. New York: Simon Pulse, 2010.
- ---. Behemoth. New York: Simon Pulse, 2011.
- ---. Goliath. New York: Simon Pulse, 2012.
- Yaszek, Lisa. "Democratising the Past to Improve the Future: An Interview with Steampunk Godfather Paul Di Filippo." *Neo-Victorian Studies* 3.1 (2010): 189-195.