## H. GEEK WELLS: EVOLVING THE ENGINEER FROM *THE WAR OF THE WORLDS* TO 'THE LAND OF THE IRONCLADS' Tim Cook

In the opening decades of the twentieth century, H. G. Wells was at the forefront of scientific prophecy, and the fruits of his foresight are a familiar litany to his followers: 'He foresaw future wars and anticipated the weapons of war, notably the aeroplane, the tank and the atomic bomb. He was a tireless campaigner for a new form of political organisation, the world state, to which the adjective "Wellsian" has frequently been attached." However, Wells also forecast the type of people who would realise these new ideas. This noble breed can be said to be the central, perhaps only, survivor of Wells's early scientific romances to his later, more politicised work. As befitting a student of zoology, Wells saw the development of the future engineer in evolutionary terms; they were 'early amphibians, so to speak, struggling out of the waters that have hitherto covered our kind, into the air, seeking to breathe in a new fashion and emancipate ourselves from long accepted and long unquestioned necessities.'<sup>2</sup> Of course, not all of Wells's predictions for the world came true, and his 'modern vision of the world,' would be only partially met by reality; 'the planned reconstruction of human relationships in the form of a world state,' that great 'frame and test of my activities' (505), went perhaps only as far as acceptance of the technician or engineer in constructing our present day world. For it is in this figure that the spirit of the Wellsian technician-philosopher lives on, in the men and women who write code for a living, designing and developing anything from apps and games to military defensive systems and space exploration programs. In a 2013 article, Guardian journalist Andrew Harris, in looking at the power and influence held by the likes of Steve Jobs and Bill Gates, noted how the everyday use of technological products had 'colonised what used to be the mental playground of the geek world, science-fiction. What used to take place in a Gollancz paperback now happens in the real world.'3 Once shunned as outsiders, those who would have been science-fiction fans and computer games buffs in the 1970s and 80s are the programmers and engineers of the present, trend-setters and industry leaders. It is these people, the so-called science geeks and nerds of the twentyfirst century, who have formed a world order of their own, and Wells foresaw their arrival in one of his notably prophetic short stories, 'The Land Ironclads'

September 2<sup>nd</sup> 2013, accessed 10th June 2014,

<sup>&</sup>lt;sup>1</sup> Patrick Parrinder, *Shadows of the Future: H. G. Wells, Science Fiction and Prophecy* (Syracuse, New York: Syracuse University Press, 1995), 18.

<sup>&</sup>lt;sup>2</sup> H. G. Wells, *Experiment in Autiobiography* (London: Gollancz, 1934), 17-8.

<sup>&</sup>lt;sup>3</sup> Andrew Harris, 'Rise of the New Geek: How the Outsiders Won,' *The Guardian*,

 $http://www.theguardian.com/fashion/2013/sep/02/rise-geeks-outsiders-superhero-movies-dork\ .$ 

(1903), famous for the first appearance in literature of the tank. The tank has often overshadowed its fictional creators; selecting this tale as the lead story for *The Oxford Book of Science Fiction Stories*, Tom Shippey comments 'There is no need for a hero [...] There is none in the Wells story, where the central interest, as the title indicates, is on a *thing*.'<sup>4</sup> However, the hero of 'The Land Ironclads' is not a thing, but the inventors of those 'things', the ancestors of software start-ups and technological entrepreneurism, who have overcome their outcast status to breach the trenches of the old order. Before we look at 'Ironclads' in more detail, we need to examine Wells's own background to see where the writer found inspiration, for Wells was something of a pioneer for the 'successful geek'.

If, when we think of the popular image of the geek or nerd, we might picture a young man who is 'considered to be different from others in a negative way or bizarre way, as a teenager being socially or physically awkward;' is fascinated by science and technology; is studious; enjoys science fiction; and is 'slavishly devoted to intellectual or academic pursuits'.<sup>5</sup> If we wished to place a date to the birth of this stereotype, we could do worse than the day in 1874 when Wells. 'between seven and eight' in age, had his leg accidentally broken by the grownup landlord's son of a local pub. This led the young Wells to experience the classic childhood escape from ill-health through books. 'Probably I am alive today,' wrote Wells in 1933, 'and writing this autobiography instead of being a worn-out, dismissed and probably dead shop assistant, because my leg was broken' (76). This new habit of 'leaving my body to sit impassive in a crumpled up attitude in a chair or sofa' (76-7) while discovering new lands and races fed Wells's imagination, to the concern of his family: 'Both my parents were doubtful to the healthiness of reading, and did their best to discourage this poring over books as soon as my leg was better' (77). How many budding bookworms have heard similar complaints from their mother and father? Wells took no heed of their concern, but by the time Wells attended private school in Bromley High Street, his convalescent pastime had marked him out from his schoolmates: 'None of these boys came from bookish homes so that I had from the outset a queer wideness of outlook' (81). Unlike many children in his position, Wells avoided being bullied and came to realise education could provide the longed-for escape from his humble, dreary surroundings. If, incidentally, if we wished to mark the happy occasion of conception of the geek, we could look to the passing of the Education Act of 1870, which 'had not only enlarged the reading public very greatly but [...] had stimulated the middle-class by a sense of possible competition from below' (507).

<sup>&</sup>lt;sup>4</sup> Tom Shippey, Introduction, *The Oxford Book of Science Fiction Stories* (Oxford: Oxford University Press, 2003), ix-xxvi (x).

<sup>&</sup>lt;sup>5</sup> <u>http://www.collinsdictionary.com/dictionary/american/geek?showCookiePolicy=true</u>, accessed 11 August 2014; <u>http://www.merriam-webster.com/dictionary/nerd</u> [accessed 11 August, 2014].

By 1884 this self-education had led Wells to Kensington Gardens and the Normal School of Science (later the Royal College of Science), where he studied Elementary Biology and Zoology under T. H. Huxley. Wells soon acquired a sharp focus and a stronger feeling of separation from the average man, who lacked 'that repugnancy from haphazard assumptions and arbitrary statements, which is the essential distinction of the educated from the uneducated mind' (201). An over-achieving science student with a disregard for those disinclined towards the intellect, Wells was as much the modern-day picture of a geek in bodily terms as well as mental: 'For a year I went shabby and grew shabbier, I was under-fed [...] it did not matter to me in the least because of the vision of life that was growing in my mind' (204). This devotion had consequences for Wells: 'I paid in health for South Kensington all my life' (237).

Wells was aware of his unprepossessing appearance, in the way a presentday youth, neglectful of diet and exercise through studying, might compare himself unfavourably to a film star or sports hero:

By 1887, it had become a scandalously skinny body. I was five foot five and always I weighed less than eight stone [...] generally nearer to seven, and that in my clothes. And they were exceedingly shabby clothes. [...] Most of my time I was so preoccupied with my studies and my intellectual interests that I did not observe what was happening to me. (280-1)

And as with countless such frail young men since, the cerebral Wells was concerned how this would affect his chances with women: 'Still more deeply exasperated was I at the nets of restraint about me that I would die a virgin' (300). As time passed, Wells did not perform as well academically as he had intended. As before however, the body came to the rescue of the mind by virtue of its vulnerability: 'I was guided to mental emancipation and real prosperity by a smashed kidney [and] a ruptured pulmonary blood vessel' (291). These afflictions were the result of a football injury sustained in 1887 during his time as a teacher at Holt Academy in Wales; if the idea of the slightly built scientist engaged in robust, competitive sport is an unlikely one, Wells agrees: 'The lean shockheaded intellectual doing his desperate tactless best in open-air games is never an attractive spectacle. I had a rough time on the field because that was where the bigger louts got back upon me for my [...] irritating assumption of superior erudition' (296). Once recovered, Wells lived for many years in fear of his health worsening; after the success of his early novels, Wells designed his new home at Sandgate in 1900 under the assumption he would one day be confined to a bathchair.

Taking all this into account, we can see the relevance to Wells of, for example, *The War of the Worlds* (1898). The Martian antagonists are asexual, non-verbal (the Narrator claims their mouths are redundant even for eating), are

awkward in their own bodies out of their home environment and are killed by their weakness to infections. In freeing themselves from their bodies, the thinblooded Martians left themselves exposed; to paraphrase the title of the famous Harlan Ellison short story, they have no nose, but they must sneeze. The similarities to the weakened Wells (who two years prior, took up residence in Arnold House in Sandgate for the purpose of 'gradually rebuilding my overstrained body and recovering resisting power to colds and suchlike infections' :Autobiography, 597) and others like him are self-explanatory, but it is the Martians' demise where there is hope for the geek; The War of the Worlds concludes with the reader learning of the remarkable advances made by mankind due to the study of Martian biology and technology: 'Examinations of the Martian mechanisms had yielded astonishing results. Among other things [...] the 'Secret of Flying' was discovered.<sup>6</sup> The quest for knowledge is a war in itself and there are casualties: 'The terrible disasters at the Ealing and South Kensington laboratories have disinclined further investigations upon [the Heat-Ray]' (177). The narrator ends on a hopeful note however, noting of the invasion: 'the gifts to human science it has brought is enormous and it has done much to promote the conception of the commonweal of mankind' (179). Science, and those studying the field, would thrive in the new post-war world. Even during the invasion, sitting upon the roof of a house in Primrose Hill, observing Mars in the night sky, the Narrator experiences an epiphany in optimism on realising the red planet as the origin of the Red Weed: 'With that realisation, my dormant sense of wonder, my sense of the proportion of things, awoke again' (161-2). Such level-headed reasoning would extend to 'the broadening of man's views that [...] can be scarcely exaggerated' (179).

The nearest we come in *The War of the Worlds* to Wells's future men is the crew of HMS *Thunder Child*, an ironclad of the original sea variety. The clash between *Thunder Child* and the Martian war-machines commences almost as a meeting of long-lost cousins, if not minds: 'It would seem they were regarding this new antagonist with astonishment. To their intelligence, it may be, the giant was another such as themselves [...] They did not know what to make of her' (110). The very name '*Thunder Child*' suggests the cataclysmic birth of some new being, and at the end of their battle, Man and Martian merge in mutual destruction and disappear with a flash into the future. Wells gave man's greatest victory against the Martians to the navy, for he saw within their ranks the type of man needed for the future. In his *Anticipations* (1902), Wells describes his ideal men for the coming war in naval terms: 'and the captain, and the engineer, and the gunner will have to be the same sort of men: capable, headlong men, with

<sup>&</sup>lt;sup>6</sup> H. G. Wells, *The War of the Worlds* (London: Penguin, 2005), 174.

brains and no ascertainable social position.<sup>7</sup> (Such was the nature of those times that Wells could only see a new order emerging in the aftermath of war, explaining 'war comes to simplify the issue and line out the thing with knife-like cuts': *Anticipations*, 211) The classless nature of Wells's navy foreshadows the personnel of 'The Land Ironclads,' where the engineers possess a 'type of feature and expression that prevails in His Majesty's Navy: alert, intelligent, quiet,' while *Anticipations* dismisses the mental aptitude of the more old-fashioned British Army for battle between 'properly manned and equipped ironclads at sea' as 'no more good at this sort of thing than they are at...anything else that demands a well-exercised brain' (195).<sup>8</sup>

During chapter six of Anticipations, 'War in the Twentieth Century,' Wells stresses the importance of education to incubate men fit for the future: 'The war of the coming time will be won in schools and colleges and universities, wherever men write and read and talk together,' and the nation that produces such men 'will certainly be the nation that will be most powerful in warfare as in peace' (212). From then on, the world will belong to these new men of technology: 'the power of the scientifically educated, disciplined specialist and that finally is the power of saints' (213). As for the old order, with its emphasis on patriotism, class, brawn and heroic individualism, it will suffer the same fate as the hussars and Cardigan men who attempted to charge the Martians, swept away by their own obsolescence, believing in tradition for its own sake, and things being done, and wars being fought, in a certain way for that is how they have always been done. But what method of attack could the less physical men of intellect use against the regimented powers of the past-regarding mind? 'To such possibilities, to possibilities even of a sort of land ironclad, my inductive reason inclines [...] but my imagination proffers nothing but a vision of wheels smashed by shells, iron tortoises gallantly rushed by hidden men [...] The fact of it is, I detest and fear these thick, slow, essentially defensive methods, either for land or sea fighting' (Anticipations, n. 40).

Wells must have reconsidered, for these ironclads roared – or at least tooted – into action the following year, in the *Strand Magazine* of December 1903. As Roslynn D. Haynes puts it, the ironclad crews are 'the first fictional examples of Wells's fully endorsed scientific men [...] a recognisable development from the soldiers of *Anticipations*.'<sup>9</sup>

In discussing the conflict between the defending rustics and the urbanised engineers in 'Ironclads,' we must dismiss the long-held opinion that there exists an impasse at the beginning of the story. There is no more an impasse between

<sup>&</sup>lt;sup>7</sup> H. G. Wells, *Anticipations of the Reaction of Mechanical and Scientific Progress Upon Human Life and Thought, Second Edition* (London: Chapman & Hall Ltd, 1902), 201, accessed June 2<sup>nd</sup> 2014: http://www.gutenberg.org/files/19229/h/19229-h/19229-h.htm .

<sup>&</sup>lt;sup>8</sup> H. G. Wells, 'The Land Ironclads,' in *The Complete Short Stories of H. G. Wells*, ed. John Hammond (London: J M Dent, 1998), 603-20 (616).

<sup>&</sup>lt;sup>9</sup> Roslynn D. Haynes, H. G. Wells: Discoverer of the Future (London: Macmillan, 1980), 76.

the two sides as they spy at each other through their field-glasses than when the curious crowds gather around the unscrewing cylinder on Horsell Common. Wells signifies this by having a lone attacker take an unreturned pot-shot at the defenders who are offended by this affront to traditional fair play. Wells had predicted this imbalance in Anticipations: 'The fight will never be in practice between equal sides, never be that theoretical deadlock we have sketched, but a fight between the more efficient and the less efficient between the more inventive and the less traditional' (205). Even as the reader joins the story, the attackers may be preparing their final, devastating advance; the young lieutenant's exclamation as he sees something across no-man's-land, perhaps indicates a final test run of the land ironclads. 'The whole machine of events,' (603) far from running down, is actually accelerating and the young lieutenant's gloomy prognosis of societal inertia is evidence of the old order's ignorance of the potential for progress amongst a different race of people. The defenders trust that the comparative physical weakness of the attackers will prove their downfall, with the 'slender young men' suffering a similar fate to the Martians: 'They may get their stomachs wrong, or something – living without proper drains' (605). The defenders mistakenly believe the attackers will try to match them in their own methods of combat, but evolution, through technology, can adapt and turn weaknesses into strengths; if the attackers cannot win a battle one way, they are capable of devising another. To do this, they turn to the machine and away from human emotion.

John Huntington, discussing the passage of 'Ironclads' in which the attackers express their 'unqualified contempt' for the defenders, believes they 'sound much like what one imagines an insensitive Martian might have thought'. Huntington describes this as 'the voice of pure evolutionary competition,' and goes on to comment 'the tank is in many respects very much like the Martian warmachines [...] The cold-hearted efficiency of the operators resembles the Martians.<sup>10</sup> A link backwards can be made, I believe, from the land ironclads to *Thunder Child*. Discussing the land ironclads, Istvan Csicsery-Ronan Jnr remarks it is 'a term that gives the new war-machine a simultaneous aura of quiet naturalness and grotesque momentousness, evoking the evolutionary more of the lungfish onto the original beach, of which this weapon is the demonic inversion.'<sup>11</sup> Land-dwelling species, such as humans, so the theory of evolution tells us, began in the sea before adapting to life on land. Therefore, one only has to imagine not a lungfish making its seismic first steps onto the shore, but a torpedo-ram developing a 'pedorail' to enable it to make the transition from land to sea. Wells hints the ironclads are another step along an evolutionary chain that

<sup>&</sup>lt;sup>10</sup> John Huntington, *The Logic of Fantasy: H. G. Wells and Science Fiction* (New York: Columbia University Press, 1982), 137.

<sup>&</sup>lt;sup>11</sup> Istvan Csicsery-Roney Jnr., *The Seven Beauties of Science Fiction* (Middleton, Connecticut: Wesleyan University Press, 2008), 23-4.

may lead to Mars; the young lieutenant's claim of 'no troops on Earth could do it' (606), on discussing their chances of breaching the rustics' trenches for example, while the narrator's proposition of depositing the War Correspondent into an ironclad, would lead the journalist to think 'he would have thought himself fallen into another world' (616).

We see the first appearance of the land ironclads not through the eyes of the young Lieutenant (too immersed in the old ways to recognise the new), but the War Correspondent who, like the Narrator in *The War of the Worlds*, occupies a space in the text which allows him freedom of intellectual movement (though in this case, the movement is more limited and becomes encircled). To achieve victory, the engineers must evolve a form of defence that also allows them to attack and their emergence, within the land ironclads, suggests a world in elemental turmoil: 'at first chaotic and monstrous, and then, eked out by little flashes and gleams and suggestions taking the beginning of a shape' (607). In this tumult of darkness and sound, the Correspondent detects a rhythm; the rhythm is evolution in action, the cycle creating this new race of shielded engineers and like the lungfish crawling onto the shore, the ironclads 'had scored the grass [...] like the dotted tracings sea-things leave in the sand' (610). At one point, the ironclad appears to evolve before the War Correspondent's eyes, adjusting its mechanisms to reveal a row of 'feet' beneath its protective shell. This shocks the Correspondent into taking a step backwards along the scale, 'when it seemed madness not to be quadrupedal' (612). The rustics, their weapons useless and their defences overwhelmed, do not have the mental agility to respond to changing circumstances, as evidenced by the reaction, or lack of it, of the defender-general who is unable to formulate any response to this new form of attack. Wells does not specify whether the defender-general sought counsel from within his own ranks, but given Wells's distaste for the 'Great Man of History' idea, so beloved of the past-regarding military mind, it is doubtful the defender-general would do such a curious thing as to seek the opinions of others.

Bradley Deane highlights the newness of the engineers, not only due to their invention, but also of a different way of living; 'an unlikely group of soldiers drawn from a modern urban society,' these new men are 'more compatible with ideals of scientific and cultural progress,' their victory 'the triumph of education, training, and sober intellect.'<sup>12</sup> These quiet, solitary men will no longer live life 'according to the rules of unimaginative men' (617), with their bawled, sentimental songs of king and country. Wells has nailed his colours to the naval mast: 'Wells is ready to admire them, even prefer them to the sentimental, patriotic image of the well-meaning, if muddled English soldier.'<sup>13</sup>

 <sup>&</sup>lt;sup>12</sup> Bradley Deane, *Masculinity and the New Imperialism: Rewriting Manhood in British Popular Literature 1870-1914* (Cambridge: Cambridge University Press, 2014), 206-7.
<sup>13</sup> Haynes, 76.

The moral dilemma with the victory of the engineers involves the sheer number of dead they leave in their wake. John Huntington observes that the language Wells uses in discussing the engineers' method of killing 'sterilizes the ethical problem of such murderous efficiency'.<sup>14</sup> Deane agrees: 'Invulnerable within their machines, [the engineers] coldly calculate trajectories and tactics, waging war by twisting knobs and buttons.<sup>15</sup> How is it that the quiet coffeedrinkers are capable of committing such casual wholesale slaughter? We should recall that 'a geek is someone who is generally not athletic, and enjoys video games,' when we read Wells's description of their ability to kill: 'they had the most remarkable sights imaginable, sights which threw a bright little cameraobscura picture into the light-tight box in which the rifleman sat below. [...] The rifleman stood up in his pitch-dark chamber and watched the little picture before him.' <sup>16</sup> Wells describes how the cross-sights line up on this picture, enabling the rifleman to select his next kill (which he does not see 'in the flesh'), using a control we might recognise as a joystick or similar controller. 'As he pushed this knob about the rifle above swung to correspond, and the picture passed to and fro like an agitated panorama' (615). The enemy is then shot by pressing a button on the controller. To my mind, this sounds remarkably like someone playing a modern day games console, such as the Xbox or the PlayStation, and this enables the engineers to kill dispassionately; distanced from the act of killing by a screen of technology, the death becomes as inconsequential as a collection of pixels on a TV screen. What could come more easily to a so-called nerd than a kill made to look like that of a video game? A more militaristic comparison would be the use of drone technology, with a computer operator able to kill at the touch of a button while seated hundreds of miles from their target. This distancing effect is heightened by the lack of context in which Wells places 'the game of war' (606); 'his narrative remains unusually reluctant to offer other particulars [...] here Wells provides no contextualising details [...] The parties to this battle [...] are never named, nor is the reason for their conflict.<sup>17</sup> The combatants could be anybody; the attackers could as well be the fantasy fan reading at home. The comparison between the richly detailed geography of *The War of the Worlds*, and the sparser 'Ironclads' is stark and could represent Wells's attempt to desensitise the less pleasant aspects of his message, given that the Martian demolition of London has been described as his 'necessary prelude to the creation of a realistic utopia'.<sup>18</sup> Perhaps Wells intends the story as a mere parable, something to generate 'a mood of precipitancy' (611), and demonstrate, as a scientific experiment, how man must use technology to overcome the problems of the present (caused by the old 'legal-

<sup>&</sup>lt;sup>14</sup> Huntington, 137.

<sup>&</sup>lt;sup>15</sup> Deane, 207.

<sup>&</sup>lt;sup>16</sup> http://www.urbandictionary.com/define.php?term=geek, accessed August 11<sup>th</sup>, 2014.

<sup>&</sup>lt;sup>17</sup> Deane, 205.

<sup>&</sup>lt;sup>18</sup> David Y Hughes & Harry M Geduld, 'Introduction' *A Critical Edition of The War of the Worlds* (Bloomington: Indiana University Press, 1993), 30-1.

minded' way of thinking) and lead the way into the future. Wells was certainly frustrated by the way in which his message was ignored by 'the rigid intelligence of the professional soldiers' (Autobiography, 684), and when the tank was eventually deployed as a method of breaking the deadlock of the Great War, Wells felt it 'absurd that my imagination was not mobilised in scheming the structure and use of these contrivances' (683). This unwillingness to learn from a superior and somehow un-British source is evident in 'Ironclads.' The early conversation between the Young Lieutenant and the War Correspondent indicates the former's stunted view of science; it is the Correspondent who has to point out to the Lieutenant that their own civilisation has developed guns and rifles, only for the Lieutenant to blithely respond that their side can better use such weapons better than their opponents, without regard to any further advances in the field. Nor does there seem any desire to learn from the attackers; the 'lean and sallow soldier' (609), who might seem a natural engineer type, wants only to destroy: "Our guns will smash 'em up. Smash 'em right up, see?' A brightness came into his eyes. 'Then we'll have a go at the beggars inside''' (610). The only future hope for the defenders comes from the unnamed soldier who converses with the colonel after their surrender:

'You might make more things like 'em.'

'What? More ironmongery? Us? ... '

'I'll call my article,' mediated the Correspondent, '"Mankind versus Ironmongery," and quote the old boy at the beginning.' (620)

Whether the defenders' society could generate enough engineers in a fast enough time to draw level with the technology of the attackers is dubious; if so, the attackers may already have invented a new form of weapon and at best, the defenders would be returned to a delusional deadlock. Even the War Correspondent, mindful perhaps of his editor or readership, changes his headline to continue the lie, from 'Manhood vs. Machinery' (myth vs. Reality) to 'Mankind vs. Ironmongery' (619-20), a mockery of the more pertinent sentiment behind the original headline. The Correspondent shows his true colours in the story's conclusion, where he is unhappy that the attackers have won by means that he, as a writer and thinker of sorts, could have used his position to promote. In the end, his imagination falls short: 'The War Correspondent thought for a moment trying to realise the idea. Then he set himself to recover his field-glasses' (610). If the battle was 'atrociously unfair,' (619) then doubtless the first Stone Age man killed by a flint axe likewise considered his adversary as possessing an unwarranted advantage. The Correspondent can only echo the Lieutenant's degrading comments on the physical nature of the attackers, labelling them 'smart degenerates...anaemic cockneydom' (619), the latter remark invoking the 'feeble' Martians. Despite this, Wells ends his evolutionary fable with the engineers ascendant: 'The ironsides were shining golden in the light of the rising sun' (620),

indicates a new dawn, the age of the 'alert, intelligent, quiet' (616), engineer and of scientific enlightenment. This, Wells suggests, is all part of man's story towards the present, of technology as part of man's nature: 'although there is a sentimental bias against machines and the users of machines [...] making machines for a particular purpose is nevertheless a fully human activity.'<sup>19</sup>

Criticism has been levelled at Wells for favouring the attackers too blatantly for the story to contain any symbolic resonance; Hughes & Geduld label 'Ironclads' as no more than 'a straightforward fantasy,' with 'Wells's viewpoint is that of the young technicians whose weapons "Martianize" the rustics.<sup>20</sup> Huntington finds Wells 'ethically offensive,' and the land ironclads fail 'to function symbolically'.<sup>21</sup> However, it can be argued that the ironclads symbolise the idea of man over outdated ways of thinking, just as Man as a species has prevailed over the natural world; to oppose the ironclads and their creators is to oppose the concept of man as a tool-making species. They are Wellsian abstracts cast in iron, thoughts brought to life, and to attempt to hold them back is as futile as resisting the very idea of ideas. The ironclads carry their originators, and their conquered, along into their future. As Haynes puts it, 'In "The Land Ironclads," as in Anticipations, technological progress is shown as being inevitable and Wells's contemporaries are there counselled to accept it out of necessity.<sup>22</sup> The future of man will happen because the future men will happen, and so it has proved.

That future, be it battleground or playground, will also take place beyond geography, where groups of the like-minded can operate together over great distance, away from the elements of life which still demand physicality and verbal dexterity: 'The 'spiritual' goal of the evolutionary process, according to Wells and his successors, is some sort of collective mind or intelligence incorporating the whole human race [...] Wells gave to a book arguing for an integrated, worldwide information service the title *World Brain* (1938), and the contemporary form of a world brain is the [...] Internet.'<sup>23</sup> Rather like the ironclads, the Internet, at least before corporatism took a greater hold, was a place where the like-minded could, as with one dictionary's definition of the geek, 'engage in or discuss computer-related tasks obsessively,' and co-operate as a group: 'The early Web was a medium that enable bands of often introverted individuals [...] to come together to subvert and transcend the usual ways of problem-solving.'<sup>24</sup> This is, perhaps, as close as we have to Wells's united world and 'The Land Ironclads',

<sup>&</sup>lt;sup>19</sup> Shippey, ix.

<sup>&</sup>lt;sup>20</sup> Hughes and Geduld, 17.

<sup>&</sup>lt;sup>21</sup> Huntington, 137.

<sup>&</sup>lt;sup>22</sup> Haynes, 76-7.

<sup>&</sup>lt;sup>23</sup> Parrinder, *Shadows of the Future*, 136.

<sup>&</sup>lt;sup>24</sup> http://www.oxforddictionaries.com/definition/english/geek, accessed August 11<sup>th</sup>, 2014; Susan Cain, *Quiet: The Power of Introverts in a World That Can't Stop Talking* (London: Penguin, 2012), 79.

more so than the nascent and sometimes diffuse figures of *The War of the Worlds*, can be seen as an early part of Wells's campaign to win people over: 'It is not by canvassing or committees, by tricks and violence, but by sheer power and naked reasonableness, by propaganda and open intention, by feats and devotion of the intelligence that [...] the world-state will come into being.<sup>25</sup>After the friendly warning of 'Ironclads,' Wells began to develop, in a less fantastical manner, his ideas for the World State and those who would establish and continue the state: 'Wells saw himself as the prophet of an 'Open Conspiracy' of scientists, technicians and industrialists who would take over world government.<sup>26</sup> Wells however, could not account for the rise of advertising and the influence of the visual media in extending the life of 'the Great Man.' The rise of the scientist was stymied by the rise of the salesman; Susan Cain gives the example of the life story of Dale Carnegie as the type of man who promoted the cult of the character in the early twentieth century, the type of individual (and the focus was on individuals) who, unlike those quiet technicians, promised a bright smile, a solid handshake and an agreeably swift profit<sup>27</sup> The 'open conspiracy' did not materialise as Wells hoped, but something like it did; those 'calm and reasonable men' (616), were forced into society's underground; that much the Artilleryman of *The War of the* Worlds got right. There, science buffs, computer experts and unorthodox thinkers continued to work, ostracised and marginalised, but helping into being the digital world we know today (Cain gives the example of Apple cofounder Steve Wozniak in this instance).<sup>28</sup> The geek, like his or her beloved science fiction, 'could find, or create, its own constituency, a process that has gone on with accelerating force through the century.<sup>29</sup> It is only the visibility and characteristics of its political influence that Wells did not predict with absolute accuracy, and the terms under which their victory would arrive, for victory would not be as painless as for the geek as it would be for the ironclads. Forced to the margins, mocked and derided, made to suffer for their differences from the 'norm,' the clear-minded and even-tempered ironclad crew member became the aggrieved and downtrodden nerd, evolving out of necessity of circumstance in a different way to how Wells had foreseen. Theirs was a covert triumph – we may dislike it, but we need the IT guy, the apps designer, the programmer; whether we are in Wall Street, Westminster or in our own homes, they are vital to our lives and the running of the modern world. Wells provided a blueprint for the future man, and a genre of fiction for them to enjoy and sustain themselves during the hard times, and in Wells's fiction, the final and bloodless victory of the geek

<sup>&</sup>lt;sup>25</sup> W. Warren Wagar, 'Science and the State: Education as Utopia in the Prophetic Vision of H. G. Wells,' in *H. G. Wells Under Revision*, ed. Patrick Parrinder & Christopher Rolfe

<sup>(</sup>London: Associated University Presses, 1990), 40-53 (42).

<sup>&</sup>lt;sup>26</sup> Parrinder, 130-1.

<sup>&</sup>lt;sup>27</sup> Cain, 20-21.

<sup>&</sup>lt;sup>28</sup> Cain, 72-3.

<sup>&</sup>lt;sup>29</sup> Shippey, x.

mind, 'these intellectuals, these contrivers, these experts,' would arrive with the World of the Airmen in *Things to Come* (1935) as they out-think and out-flank the brutish Boss of Everytown.<sup>30</sup> 'We originative intellectual workers are reconditioning human life' (*Autobiography*, 17), wrote Wells in 1933. The sadness for Wells would be that such engineers are only helping others to run the world and are not running the world themselves – at least not yet. The 'surprises of science' will continue: some of us may still view those 'distant novelties in mechanism with some distaste,' ('Land Ironclads', 619) but they and those within are not as distant as we may imagine.

<sup>&</sup>lt;sup>30</sup> H. G. Wells, *Things to Come* (Boston: Gregg Press, 1975), 88.