

Wells and Pynchon, Men of Science

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H. G. Wells and Thomas Pynchon were both educated in science,¹ but subsequently followed careers in creative writing. However, science, and particularly the impact on society of developments in science and technology, remained a major concern to both writers. There are, though, profound differences between these two fictionists' approaches to their subject matter. Wells, who became the prophet for the anxious generations of late Victorian and Edwardian Britain, looked to a rational society run by a Puritan élite.² Pynchon, on the other hand, exhibits a profound distrust of governing organizations and of the ubiquitous functionaries of the state apparatus of bureaucratic and military control. Consequently, he shows a reluctance to speak for anyone, seeking invisibility, disappearing into the structureless mass of society, allowing his fiction (albeit ambiguously) to suggest his allegiances.

I will discuss parallels between Wells and Pynchon, echoes of Wells in *Gravity's Rainbow*, Pynchon's exploitation of imagery borrowed from Wells's books, and will suggest how the intertextual relation between Wells and Pynchon extracts and interrogates their different ideological stances. Wells was a scientist himself, and continued this interest alongside his writing, maintaining a consistent worldview that his books dramatized. Pynchon takes on the influence of Wells and restages the Wellsian scenario of Armageddon and reconstruction, using twentieth-century history to disclose the horror of this solution to a world crisis.

Focusing on the overall design of *Gravity's Rainbow*, I suggest that several aspects of Pynchon's novel closely resemble their counterparts in *The World Set Free* (1914). It appears likely that Pynchon knew of this book, in which the term "atom bomb" was coined, and that he was drawn to the sections where Europe is seen falling into a state of anarchy, saved only by the enforcement of order upon the masses by a puritan élite. Wells's book is also marked by sudden changes of register, shifting, for example, from the tone of a history book to the fragmentary journal of its main character (purporting to come from an autobiographical novel published in 1970). Written as if from a vantage point in the far future, Wells's novel claims to be the work of a

sociologist drawing together documents to show how events in the twentieth century led to a new utopia.

Besides the structure of *The World Set Free*, allusions to Wells and Wellsian concepts can be seen both dramatized and criticized in Pynchon's novel. Steven Weisenburger has claimed that "we have simply lacked any model for the order Pynchon gives to his 73 episodes" (CE 50).³ I argue that Pynchon has used Wells in shaping his book, and that appreciating this linkage provides us with a precursor for *Gravity's Rainbow*, a candidate for the model of which Weisenburger writes. The novel Pynchon so brilliantly constructed on this framework, however, is firmly his own, not Wells's attempt to convince the world that only through control can civilization be maintained, but a book that rejects the notion of a society under Puritan-like hegemony and champions "loveable but scatterbrained Mother Nature" (GR 324).

Wells was the finest example of the many writers of "imaginary wars" who dramatized a vision of the world going out of control, caught up in a catastrophic Final Battle. Marcus Cunliffe discusses the apocalyptic strain in the work of speculative writers from the late nineteenth century onward. To many, society seemed to require a means of salvation, and they located it in Cromwell's England, in the Protestant way of thought.⁴ The rapidity of change in the Victorian era, particularly the growing unpopularity of the Church in the face of Darwinian theory, however, meant that those who pursued the Protestant ethic—the "sense of vocation, of being one of the elect laboring against the powers of darkness"—into a secular society had switched allegiances from the "Word of God" to the "Idea of Science" (Mackenzie 55). The message was clear: science held the key to a realizable utopia. But if it could not be brought under control, science had the potential to wipe out the world.

Pynchon demonstrated his interest in nineteenth-century culture in his novel *V*.⁵ *Gravity's Rainbow* moves beyond that generalized portrait of fin-de-siècle anxiety, which in *V*. is used to interrogate the 1950s. Here Pynchon focuses on Victorian speculative fiction and its warnings of the consequences of mad or corrupt power barons' gaining the new machinery of war and imposing their will on the world. Rather than aiming at a coterie literary audience, these precursors of twentieth-century science fiction had enormous popularity. Alluding to such stories of invasion, of threat from the air, of racial and class conflict, Pynchon enlists this strand of Victorian popular culture. Wells is especially pertinent, as the routinization of society into a world state that he saw as the answer to social decline into anarchy and Armageddon is, in Pynchon's eyes, the very heart of the threat that now faces humanity.⁶ After the Second World War, a Wellsian

approach to world politics remained strongly evident in the “containment narrative” of science fiction movies, which, through the conflict between humanity and evil aliens, enacted the biases and fears of the Cold War threat.⁷

Gravity's Rainbow begins with a “bloody awful” (5) nightmare.⁸ Critics have linked the nightmare to Fritz Lang's *Metropolis* (see Grace); another candidate, however, is the film *Things to Come* (1936). In the climax of the film, the scientific élite race to the rocket, before the collapse of the city, to offer a doomed humanity another chance in space. In Pynchon's “oneiric transfiguration” (Dugdale 42) of the scenario, the astronauts become the “detritus of an order” (GR 551) taking the train to hell. Thus Pynchon effectively reverses a Wellsian confidence in Puritan élitism. Enhancing the link to Wells, other embedded allusions embellish the main reference: for example, the “glass somewhere far above that would let the light of day through” (GR 3) is reminiscent of London in *When the Sleeper Wakes* (1899), a futuristic capital city of towering buildings covered by a giant glass dome; and the general atmosphere of siege echoes the crisis scene of *The War in the Air* (1908), in which is staged a terrifying air raid on New York that initiates social collapse.

Wells followed in the footsteps of his teacher T. H. Huxley, believing that humanity was regressing to brutishness. To forestall this submersion into chaos, a particularly strong and effective ideological control would be required. Pynchon dramatizes this argument in the contrast between Edward Pointsman and Roger Mexico, and we may note similarities to Wells's novel *The Invisible Man* (1897), where Griffin, the mad scientist/doctor out of control, is betrayed by Kemp, the scientist who values social conformity. Roger Mexico laments that, according to a civil service organized on Wellsian principles, “we are meant for work and government, for austerity: and these shall take priority over love, dreams, the spirit, the senses and the other second-class trivia that are found among the idle and mindless hours of the day” (177). For it can be argued that this routinization of human nature is the road to Nazi Germany, to a machine consciousness that allows for racialist policies that result in mass exterminations, to the historical analogues of the “vast, very old and dark hotel” (4) where the refugees finally disembark. In a cynical view, if men like Kemp take command, the remaining preterite would amount to no more than human robots filling slots in the technological hierarchies. Although Wells himself, reviewing the first translation of Nietzsche's works into English, rejected their central ideas as “rampant egoism,” he seemed, later in his life, to welcome the prospect of humanity's giving way to a Nietzschean superman, the “next Lord of Creation” (qtd. in Mackenzie

445), come to make us all into redundant preterite. Pynchon sees how such Wellsian ideas deform into Hitler's mad interpretation of Nietzschean principles and Joseph McCarthy's witch-hunt mentality, while the world state and the growth of vast capital resources outside the reach of the democratic process which was proposed as the solution to the twin fears of invasion and revolution support a vast military-industrial complex.

2

Leadership, in Wells's future, would emerge from the ranks of the experts in the person of a Puritan dedicated to do his duty. Rather than a product of democracy, reflecting and proliferating the prejudices of the degenerate masses Wells saw as blocking the progress of humanity, the leader would be detached and rational. Wells's model for this leader was his friend John W. Dunne, an innovative aircraft designer.⁹ Dunne appears in fictional form in many of Wells's novels as the technician-hero who saves mankind after a terrible catastrophe. Pynchon critically exposes this figure in the shapes of Pointsman and Major Weissmann.

Pointsman is a scientist, a rational man, but below the surface he has all the egomaniacal qualities Wells loathed and feared. Increasingly, by way of glimpses into his psychological meandering, we see Pointsman as a power-hungry paranoiac obsessed with control (his nightmare battles with the Minotaur), desperately willing to grasp at any straw to further his career. An isolate, he enjoys the "solitude of a Führer" (GR 272). Rather than maintaining his rational, dutiful role in the bigger picture, Pointsman—the man who "throws the lever that changes the points" (644)—needs his "Damned funding" (270); "Cause and Effect" (56, 89–90, 144, 752) may not be as important as getting the answers They want and being given a Nobel Prize for his efforts. This indecision between a search for the truth and career success is satirized (see Weisenburger, HP; Seidel) in Pointsman's extended and contradictory investigation/observation of Tyrone Slothrop, in which his nineteenth-century, Wellsian mind-set is stretched to the breaking point by conflicting evidence.

Pointsman's megalomania (exemplifying "the Führer-principle" [81]), repressed below a controlled exterior, emerges as Wellsian fantasies of Armageddon, in which the "sky over New York glow[s] purple with the new all-sovereign death-ray" (143), an image of futuristic weaponry surely drawn from Wells's *War of the Worlds* (1898) and made all the more terrible by the news of an IG Farben subsidiary's "proposal for a new airborne ray" (163). Wells himself, as Hitler came to power, recognized the potential for corruption in his projected world state, and

dramatized that potential in his novel *The Holy Terror* (1939), portraying a shadow of himself, a *doppelgänger* “endowed with much of [Wells’s] own childhood and many of his own ideas” (Mackenzie 418). Rud Whitlow is, in fact, a “fallen angel” (419), an unpleasant character with “fantasies of victories over imaginary enemies” (417), who “can find relief from his paranoia only by beginning to destroy the new world order he has made and by killing the men who took his vision seriously” (418).

Major Weissmann, as Dominus Blicero, Dracula-like, forces his victims to participate in a sadistic and pornographic enactment of his vision of a death-world. A mixture of poet and scientist,¹⁰ Blicero dreams of a new colony on the moon. His vision is a white reversal of Wells’s dark underground moon-colony in *The First Men in the Moon* (1901). Nonetheless, the descriptions echo the futuristic technoscapes in Wells’s books. For example, “a great glass sphere, hollow and very high” (GR 723), is reminiscent of the glass cover over London in *When the Sleeper Wakes* and of its recreation in Pirate Prentice’s nightmare of an imminent “fall of a crystal palace” (3). Blicero is the corruption of a Wellsian technician-leader into a contemporary devil, who may be found, successfully contained, “among the successful academics, the Presidential advisors, the token intellectuals who sit on boards of directors” (749).

Analogously, underground journeys throughout Pynchon’s novel link ideas of waste and evacuation to the subterranean world of Wells’s moon people and to the image of the Morlocks in *The Time Machine* (1895), with that novel’s early dramatization of the effects of entropy. Repeatedly, Pynchon clothes the locations of the preterite, under the thumb of the faceless élite, in the paraphernalia of infernal imagery with which Wells portrayed a devolved and corrupted humanity. The Mittelwerke, the rocket factory under the Harz mountains, is the historical-Pynchonesque epitome of these images of the underworld.

The Führer mind-set also characterizes, to some degree, Enzian and Pökler, among still others, in line with Pynchon’s method of “scatter[ing] recollections of a work or artist through the text” (Dugdale 84). As in a dream, the world is broken and then refashioned, a single waking image showing up in several, apparently unrelated places. Suggesting that *Gravity’s Rainbow* is, in part, a *roman à clef*, a Führer image tracks through the narrative, showing up in the dance of the giant rats scene (229–30), with Webley Silvernail playing both the Hitler of Leni Riefenstahl’s *Triumph of the Will* (which the scene unmistakably resembles) and Nixon (as he “poses with a smile, arms up in a V” [230]—a signature Nixon gesture). Then the Nixon image returns, late in *Gravity’s Rainbow*, in the person of Richard M. Zhubb

(oaf)—the “night manager of the Orpheus Theatre” (754) with “a habit of throwing his arms up into an inverted ‘peace sign’” (755). The chain of associations from this point links back to the Silvernail scene, linking in turn to the solitary figure of the power-hungry Pointsman, while echoing the Führer-like figure of Rud Whitlow. The chain also loops back to Pirate, in the tale of Lord Blatherard (“Blather” meaning to talk garrulous nonsense) Osmo and the giant Adenoid (14), which suggests both the Nixon-figure Zhubb and the film *The Great Dictator*, in which the Hitler stand-in is named Adenoid Hynkel. Zhubb’s comedic, displaced Stalinism—the case against Steve Edelman (“Kabbalist spokesman” [753] and counterforce figure) for, in an “unauthorized state of mind, attempt[ing] to play a chord progression on the Department of Justice list, out in the street and in the presence of a whole movie-queue of witnesses” (755)—is a ridiculously comic version of the all too real, violent attempts to suppress the counterculture in the late ‘60s/early ‘70s.¹¹

3

A significant parallel between Pynchon and Wells occurs in the sections of *Gravity’s Rainbow* that dramatize (in a displaced form) the experimental use of human guinea pigs. The complex plot based around Slothrop contains distinct echoes of Wellsian themes. The mastery of Nature by scientific means requires its human test specimen. Slothrop is the scion of an old American family in decline; to pay for his education, his family has allowed him to be used in secret experiments by a business-technology coalition. The details of the experiments are secret, but appear to involve a new plastic, Imipolex G, and its erectile properties. Behind the operation are Lyle Bland, a powerful magnate having much in common with Ostrog in *When the Sleeper Wakes*, and Laszlo Jamf, a researcher having much in common with Wells’s sinister Dr. Moreau. Pynchon’s most important sources are, however, *Anticipations* (1901) and *The World Set Free*.¹² Through a combination of allusions to these books, Pynchon’s discourse on the development and use of plastics segues into the iconography of nuclear technology. Viewed with a knowledge of the lengths to which scientists, transformed into powerful technocrats, and their political masters have gone to test their discoveries in total secrecy, the case of Slothrop suggests the plight of the victims of radiation experiments (covertly undertaken by both sides in the cold war). Slothrop’s sterility, his metaphoric link to the rocket, his victimization by a business-technology cartel are, in turn, the tragic consequences of submission to the kind of control by scientific rationality Wells prescribed (see Maltby 156–60).¹³

In the non-fictional *Anticipations*, a book central to the claim by Wells's defenders that he invented the future, Wells attempted to predict what would happen in the twentieth century. (Pynchon pays [ironic] heed to Wellsian projections of science into a future utopia in his various Raketten-Stadts.) Beyond futurist portrayals of towering buildings and complex road networks, however, *Anticipations* had a covert agenda: it showed what could happen if a Wellsian scientific world was, or was not, instigated. In a style that mixed the flat tone of sociology with the urgency of a Puritan sermon, *Anticipations* described the miracles science could provide. It also warned of a humanity allowed to proceed unchecked. The scenario copied the route from decadence to war that marked the plots of Wells's previous best-selling scientific romances, transferred to the real world. Shockingly, Wells proposed that war could have a beneficial, utilitarian purpose: to clear the path for the creation of a world state. To demonstrate the wisdom and efficacy of his predictions/proposals, Wells "synthesize[d] human knowledge into a scenario of the years ahead, basing prophesy upon an analysis of social forces unleashed by modern technology and communications" (Mackenzie 164). The new society he foresaw was run by a scientifically educated élite (albeit as a transition stage to the erection of a utopia). But as Mackenzie and Mackenzie argue, these scientists were thinly disguised "Puritans—men with a 'strong imperative to duty,' a will to subordinate their appetites to the service of the state" (Mackenzie 164). In Pynchon, the élite, having taken on a quasi-religious role, become the cold, ubiquitous They, forever implicated in everything that happens, yet beyond ever being brought out of the uncertain shadows. With seemingly absolute control over the fate of humanity now in Their hands, organized to protect Their secrets as a priority, the rationalized state leadership breed unending paranoia in a society of threat.¹⁴

Regardless of Wells's enormous readership, his pronouncements in *Anticipations* made little impact on world politics. Consequently, with the world on the brink of the First World War, he wrote *The World Set Free*, a history of the twentieth century which makes use of fragments from the imaginary autobiographical novel *Frederick Barnet's Wanderjahre*, an "Account of the experiences of a common man during the war time" (WSF 105–06; ch. 2, sec. 6). Episodic, fragmented, with many uneven sections ending in ellipses, Wells's novel portrays a nuclear war and its aftermath. Beginning with a potted history of humanity's use of power sources, the "latent energy of coal and the power of steam" (34; Prelude, sec. 4), the book postulates the use of nuclear energy. Its central episodes, however, concern Barnet's wanderings through war and postwar.

Following the model of history set out in *Anticipations, The World Set Free* depicts war as the inevitable consequence of nationalistic fervor bolstered by new technology into a “plutocratic age of being.” The poor and disenfranchised are made outlanders as roads are “fenced with barbed wire against unpropertied people,” while the wealthy fear the poor in a society where “men use science and every new thing that science gives and all their available intelligence and energy to manufacture wealth and appliances” (80–81; 1.8). For many, helplessly watching from the “underside of civilization” (82; 1.8) the powerful leaders of society, that society is an imprisonment in poverty.

As the World slides into war, Wells describes the misuse of technology and scientific rigor by those conducting the conflict. On “big-scale relief maps,” Generals “play the great game for world supremacy,” playing “upon these maps as upon chessboards” (87; 2.2).¹⁵ This play is anathema to Wells’s Puritan spirit. (Katje Borgesius dramatizes Pynchon’s opposition to the notion that the war is “really play” by “quit[ting] the game” [GR 107].¹⁶) The tactical-technological “Victorian kind of Brain War” (GR 726) that ensues involves a “new strategy of aviation” and the “possibilities of atomic energy” (WSF 87; 2.2), but has the flavor of a Last Battle. The falling of a nuclear bomb is given pseudo-religious significance, as the shock of the devastation is described as a break in the continuity of experience such that a survivor “could not join on what she saw to any previous experience. She seemed to be in a strange world, a soundless, ruinous world, a world of heaped broken images” (93; 2.2).¹⁷

The ultimate weapon leads to the ultimate, or near-ultimate, crisis. Although the human race survives, nations collapse into chaos. Barnet is on the European battlefield, initially following orders; increasing disorder, however, alienates the front line from the leadership back home:

From first to last these directing intelligences remained mysterious to the body of the army, veiled under the name of “Orders.” There was no Napoleon, no Caesar to embody enthusiasm. Barnet says, “We talked of Them. *They* are sending us up into Luxembourg. *They* are going to turn the Central European right.” (86; 2.2)

Inevitably, “‘Orders,’ that mysterious direction, had at last altogether disappeared.” Free, Barnet “perceived he had now to act upon his own responsibility” (124; 2.9). In the chaos, Europe turns into a disconnected battle zone where Barnet and his comrades forget the war as the battle of ideologies it was and reconfigure it as a “huge natural catastrophe [in which] the atomic bombs had dwarfed the international

issues to complete insignificance" (125–26; 2.9). Barnet focuses on "immediate needs" (126; 2.9), his experience dismantling into a "series of vignettes of civilization shattered, it seemed, almost irrevocably" (127; 2.10) in a provisional land populated by a desperate, crumbling humanity. As the war accelerates, atomic bombs reduce every city to ruins, industry and commerce becoming disorganized and useless, while poverty and sudden death rule the world. As Wells puts it, "Humanity has been compared by one contemporary writer to a sleeper who handles matches in his sleep and wakes to find himself in flames" (131–32; 3.1).

In the conclusion of Wells's earlier *War in the Air*, the airmen, previously responsible for much of the slaughter, now "become the instruments of salvation, banding themselves together in an élite which begins to impose order on mankind" (Mackenzie 377). Similarly, in *The World Set Free*:

The apocalypse has been followed by the Rule of the Saints, which begins in the high places of the Himalayas and spreads over the globe. It is these superior beings who have enabled humanity to escape the fate facing all those who surrender to atavistic interests. Under their enlightened control, mankind can at last realize "the great conceptions of universal rule" and then begin to reach out hopefully into the vast darkness of the heavens. (Mackenzie 199)

The (actually disenfranchised, contained) populations of the world are portrayed, not as robots of their quasi-divine rulers, but as enjoying a middle ground where "associations of men and women . . . take over areas of arable or pasture land" and take advantage, for example, of "the ease and the costlessness of modern locomotion" (WSF 194; 4.6). With technology comes less need to work, but rather than creating unemployment, the consequence of automation under the old leadership, this progress releases people for more leisure, to enjoy the "garden side of life" (199; 4.8).

4

Gravity's Rainbow restages the end of the Second World War and the first few months of peace. In imitation of *The World Set Free*, Pynchon's narrative is built from fragments, and moves from a London under aerial siege to a Europe falling into chaos, tracing the wandering of a single man, Slothrop, around the war zone. Investigators determine that Slothrop's map of his romantic liaisons and Roger Mexico's map of V-2 strikes match up exactly.¹⁸ A possible explanation is that

Slothrop chooses locations where rockets fall, sites it is his job to investigate, as sites for his sexual fantasies, the lonely American, far from home, thus reconfiguring (canceling symbolically) the shape of death with the shape of love. Pointsman, however, to boost his flagging career, needs there to be more to it. The love-stars are dated, and their dates precede those of the corresponding rocket strikes.

In addition to *Gravity's Rainbow's* overall similarities to *The World Set Free*, elements of the plot concerning the exploitation of Slothrop echo several of Wells's works. As an infant, Slothrop was shanghaied into a project run by the legendary Laszlo Jamf, a dream-collapsed composite of Dr. Frankenstein, the mad scientist from Wells's satiric romance *The Island of Dr. Moreau* (1896), and Werner Heisenberg. There are also hints of *Star Begotten* (1937), the tale of a miraculous child, the result of covert Martian involvement, who is the progenitor of a new race to replace *Homo sapiens*. In Pynchon's associative world, "everything is connected" (GR 703); consequently, Jamf is connected to the shadowy financier Lyle Bland, who, "[b]y way of the Bland Institute and the Bland Foundation . . . has had his meathooks well into the American day-to-day since 1919" (581). Bland's business interests, modeled on the real-world IG Farben, can be likened to the super-corporation in *When the Sleeper Wakes*.

Slothrop has a "Puritan reflex of seeking other orders behind the visible, also known as paranoia" (188). Illustrating Thanatz's remark that "'the Structure . . . needs our lusts after dominance so that it can co-opt us into its own power game'" (737), Slothrop's sexual desires seem, somehow, wired into a massive conspiracy involving the V-2. Postwar was the growth time of the military-industrial complex, and this is what has its claws into Slothrop.

As Slothrop wanders into the Zone, he may escape the control of Pointsman and "The White Visitation," but freedom does not bring him meaning. Lost, like Wells's Barnet, he stumbles around, unable to draw much sense from his adventures. Tony Tanner describes the Zone as "the carnival of modern consciousness that the book itself portrays" (81), which is particularly pertinent to its circus-like ambience. "Last of his line, and how far-fallen" (GR 569), Slothrop may still be a token elect, but this is of no value to him, wandering "down among the Preterite" (544), the performers and the audience alike among the Zone's stateless inhabitants. The Zone, a vast plastic heterotopia, appears to draw on characters' fantasies and (much like Pirate's talent writ large) fashion a temporary landscape on that basis: the world as both a giant movie and a "dingy yellow amphitheatre" (679) in which we watch one another. We are together but apart, as "strangers at the films, condemned to separate rows, aisles, exits, homegoings" (663).¹⁹

The Zone may amount to a deliberately manufactured reality, a site of “endless simulation” (GR 489; also see Berressem) where anything can happen. Thus Pynchon relates experiences in the Zone to the insidiousness of popular culture. Alongside developments in plastics, the exploitation of nuclear power, and the increased interest in psychology caused by the impact of Freudian analysis, the mass-entertainment culture behind the “theatre and festivity” (GR 743) can be traced back to origins in the nineteenth century, from which it has expanded into an integral part of contemporary experience. It is also another disguise for the ideological power wielded by twentieth-century consumer culture. For Pynchon, popular culture is a containment narrative, a Puritan rationalization of experience into the robotic enactment of the self for the cameras.²⁰ But, where uncertainty haunts many everyday experiences, films and theatre are, paradoxically, both explicable and substantial conduits for the individual, and open to subversion. Whatever the implications for individual autonomy, life in the Zone is a vast scenario that appears to have cancelled quotidian history with endless performance, described both as “the Night’s Mad Carnival” (133) and as the “nonstop revue” (681). Wells, deciding to stay in a V-2–besieged London, seemed to see humanity’s fate in similar terms, as an emptied film enactment of life, a bidding of time till the end. As he wrote in *Mind at the End of Its Tether* (1945): “The cinema sheet stares us in the face. . . . Our loves, our hates, our wars and battles are no more than a phantasmagoria dancing on the fabric, themselves as insubstantial as a dream” (71). A character in *Gravity’s Rainbow* senses, correspondingly, “a familiar unreality, that warns This Is All Being Staged” (350–51). The theatricality of the world in Pynchon’s novel is asserted on the first page, repeated throughout the text, and finally underlined on the last page, where the reader is invited to join the audience in a rocket-threatened cinema.

5

Wells supported the view that a temporary breakdown in social order was a necessary step toward the creation of a utopia. What is, in *The World Set Free*, an acceptable cost, the creation of victims in the vacuum of battlefield confusion, becomes, in Pynchon, the backdrop for the tragedy of Slothrop’s road to freedom. Pynchon tracks both the evolution of Slothrop into a wandering-questing figure and the transformation of Europe into a postwar Zone by mapping Wells’s imaginary scenario onto the actual chaos at the close of the Second World War, thereby continuing and extending his practice, begun in *V.*, of “locating precursors of the post-war mentality in earlier periods”

(Dugdale 93). The eventual fate of Slothrop may even have sprung from a discussion in Wells of "'old Frazer's *Golden Bough*'" and the rituals of sacrifice in which kings are "'cut up and a bit given to everybody'" (WSF 143; 3.2).

Noting the link between fin-de-siècle anxiety and modernist pessimism, Pynchon again exploits Wells's *World Set Free* (among many other sources) as a way of merging Romantic/Gothic warnings of violent collapse and modernist elegies on a crumbling, Godless world, opening up the single dreams of characters into the wider unconscious of the culture represented as a journey back to ritual and myth. Wells discusses kingship in relation to Frazer and the rituals of sacrifice; Pynchon, in turn, kits out Slothrop with all the paraphernalia of a doomed Fisher King (albeit greatly displaced, trivialized and, to a degree, randomly fragmented).²¹ Chosen to perform the knightly function of questing for the Grail, the Schwarzgerät, he ends up stumbling through postwar Europe with only a series of vague plans. A counterfeit of his legendary prototype, he has an injury to his procreative mechanisms. He is sterile, his "unflowering cock," like the barren "Pope's staff" (470)—a symbol of both sexual and religious/political potency—rendered powerless. He wanders through the Zone, an obvious metonymy for a wasteland (as well as a "zone of fantasy and play" [Dugdale 49]), growing increasingly vacuous, until he "stands crying, not a thing in his head" (626). The associative structure of *Gravity's Rainbow* has looped right back to Pirate "pissing, without a thought in his head" (6); from urine to tears, the looking-glass reflections form a ricocheting "scatter" (Dugdale 84) that suggests a nuclear chain reaction leading to a powerful explosion. Finally, Slothrop pays the price for freedom and, like the sacrificed king in Frazer mentioned by Wells and used by Eliot, is "[P]lucked, hell—*stripped*. Scattered all over the Zone" (712).

6

Pynchon's long sequences of chained images flow or spill impressionistically over many pages of *Gravity's Rainbow*. The means by which these data are ordered remain cloaked in ambiguity; but possibly Pynchon is guided by the notion of a (Freudian) agency of dream formation, along with concepts from the new physics that break the cause-effect link,²² replacing it with complex links to the Bomb, to business hierarchies (particularly as these are seen through the work of Max Weber [see Ralph Schroeder on the links to Puritan thought]), to the military "Chain of Command," and to a neoclassical view of cosmic order: the "[Great] Chain of Being" (77). The chain structure is

replicated at all levels, suggesting a fractal or *mise-en-abyme* complex²³ that points to a breakdown of unity and its replacement with “[t]emporary alliances, knit and undone” (291).

The later sections of *Gravity's Rainbow* are particularly complex. Consequently, extending the search for traces of a Wellsian subtext into this near-chaotic clutter demands a confrontation with Pynchon's degenerative style. Wells firmly believed that technology, in the right hands, would bring order and lasting peace to the world; Pynchon inverts this relation. In *Gravity's Rainbow*, technology is an interloper, increasing the complexity and speed of life such that people lose control over progress, which itself moves independently to fulfill the “needs of technology” (521). Allusions to technology, especially nuclear technology, are deeply encoded in the text.

Pynchon grew up during a time when secrecy, misinformation and the use of euphemism to contain the truth were common, when the Cold War moved certain kinds of narrative out of bounds, when the fear that a Dr. Strangelove power-monger might tip the world into thermonuclear oblivion was widespread. In *Gravity's Rainbow*, the history of the nuclear bomb is treated as almost unutterable (even the newspaper report of the Hiroshima bomb is edited into a virtually abstract form [GR 693], while the blast is shrouded in poetic language [694]), almost completely occluded behind the oddly conjoined histories of rocketry and organic chemistry.²⁴ At the end of the process is Imipolex G—the erectile plastic of which Slothrop's penis may be manufactured—connected to the chain of breakthroughs in the petrochemical industries, a de-centered dream-substitution for “our common nightmare The Bomb” (SL 18). Several scenes of *Gravity's Rainbow* may, when unpacked, reveal allusions to the atom bomb.

August Kekulé's dream, Pynchon suggests, led to an understanding of hydrocarbon molecules and thence to the creation of synthetic polymers so humanity might be “no longer . . . at the mercy of Nature” (GR 249), a phrase which echoes the nuclear scientist Frederick Soddy on the potential of atomic energy (see note 12 above). This relation is implied in a passage that ties Kekulé's work to exhaustion of the world's resources, the “System removing from the rest of the World these vast quantities of energy,” while the rest of us are “laid waste in the process” (412)—a hint of Wells's *World Set Free*, in which such a process leads to the development of nuclear energy. A literal chain reaction, a passage foretelling destruction of the “chain of life” (412), immediately follows. Like the discovery of petrochemical synthesis, the research into radioactivity meant that nature could be changed. It also promised an answer to the world's energy problems, the gift of cheap, clean power. However, Wells showed in fiction (with history not too far

behind) how nuclear energy could bring the world to the brink of terminal catastrophe. Pynchon, for his part, does not show a world destroyed; rather, he criticizes a culture that creates the means to enact, and then makes provision for, Armageddon.

The story of the Castle (486–88), recounted by porno actress and sado-masochist Margherita (“Greta”) Erdmann, offers one reading of the meaning of Imipolex. In that story, with its trappings of Gothic horror (but more explicitly sexual), Imipolex is necessary to empower participants in the erotic experience. Both plastic and nuclear energy show the dominance over nature of technology’s impersonation. The Slothrop-Bianca scene (468–70) also turns on the presence of the inanimate, the shadow of the rocket remaking the experience of sex into a simulation of launch. Here Imipolex G, in a much more literal way, mirrors atomic energy, the nuclear reactors and missiles that represent power as a resource and power as a means to dominance. Then, almost at the end of the novel, a crucial human/machine marriage—Gottfried and the rocket—occurs.²⁵ The contemporary culture glimpsed through the layered mediation of the novel is one obsessed with the book’s most overreaching object, the Rocket.

The Rocket is Pynchon’s clearest, and (paradoxically) most ambiguous, symbol of a Wellsian “Rocket state” (GR 726). Its twin aspects—“a good Rocket to take us to the stars,” an echo of *Things to Come*, a Puritan escape; and “an evil Rocket for the World’s suicide” (727), which repeats the scenario of *The War in the Air* and *The World Set Free*, the Puritan Last Battle—both leave the Preterite doomed, either abandoned or destroyed. For the élite, however, “the Rocket has to be many things, it must answer to a number of different shapes in the dreams of those who touch it” (727). The Rocket (a capitalized ideal rather than any single example) links to Slothrop, a scientifically created übermensch, in whom “different people thought they’d discovered different things” (85). The Rocket, in its dual forms as 00000 and 000001 (and their real-world counterparts), ultimately exemplifies both real cutting-edge technology and the “uncanny [as] something which is *as if projected*, whether it is a projection or an objective phenomenon which has the quality of a mental product” (Dugdale 27). In other words, the Rocket occupies the space between the 0 and the 1, that transcendent middle which the scientific mind excludes. With its doomed path, however, reflecting Wells’s final view of both humanity and his own life (see *Mind at the End of Its Tether*), the V-2 is merely a decadent parody of transcendence.

Khachig Tölölyan has said that “‘Reading the Rocket’ is a major part of the effort to understand War in *Gravity’s Rainbow*” (52). The problem is that, as with reading Slothrop, the Rocket means different

things to different characters and different readers. The Rocket seems, in this fashion, to draw out its observers' unconscious wishes.²⁶ While the Rocket is conceptual, actual rockets—the 00000 and the 00001—are only marginally more present in the narrative (and then only through Blicero, himself a fantasy construct, and Enzian, a suspect film/reality projection). The Rocket may be the final bearer of charisma (GR 464). Excluded from humanity, this quality becomes invested in the machine as a form of angry God, the resurrection of Puritanism in a secular world where “salesmen . . . are knights” (349) and the world waits, even wishes, for the final bang.

7

Pynchon may have become aware of the links between his own time and the Victorian period through his old professor Meyer Abrams. For example, Abrams has written: “The emphasis of the Decadence [in the late 1800s] on drugged perception, sexual experimentation, and the deliberate inversion of conventional moral, social and artistic norms reappeared, with modern variations, in the Beat poets and novelists of the 1950s and in the counterculture of the next two decades” (43). Perhaps more important to Pynchon, however, is a comparison of the mainstream society of both times, with their distinct policies of xenophobia and social division, of fear and hatred, leading to an apocalyptic mood that, in the early 1960s, seemed to be realized in the Cuban missile crisis.

For all his utopian ideals, Wells was entrapped, equivocating between his socialist beliefs and his growing lack of faith in humanity. Sometimes this fired in him a “bourgeois fear of the working class” (Bergonzi, TM 51), while at other times he felt profoundly dismissive: as Joseph Davis in *Star Begotten* says, “This oafish crowd . . . gaping, stinking, bombing, shooting, throat-slitting, cringing brawl of gawky under-nourished riff-raff. Clear the earth of them” (184). Pynchon, on the other hand, evokes the fate of the downtrodden through Brechtian drama (Slade 167; Leclair 46), Busby Berkeley dance routines and Jimmy Cagney movies, and echoes of the Rolling Stones' album *Beggar's Banquet* (Weisenburger, GRC 235). In each reference or allusion, the preterite's escape from a containment straitjacket is foregrounded. Such a scene, *par excellence*, comes at the end of Pirate's “tour” (GR 537), in the dance of the common people:

And they do dance: though Pirate never could before, very well . . . they feel quite in touch with all the others as they move, and if they are

never to be at full ease, still it's not parade rest any longer . . . so they dissolve now, into the race and swarm of this dancing Preterition, and their faces, the dear, comical faces they have put on for this ball, fade, as innocence fades, grimly flirtatious, and striving to be kind. (548)

Pynchon's marvelous choreography is the music of the spheres brought to earth, in a cosmic interlude, in a glimpse beyond the structures a rational élite would map upon nature. In the end, both Wells and Pynchon share a fear of powerful lunatics armed with weapons of mass destruction. The difference between these writers is not in the signs and symptoms of the disease, but in the method of cure. The Puritan Tyranny who, in a Wellsian future, rule the earth, redirect humankind from its baser instincts and set its feet firmly on the road to utopia have, in Pynchon's postwar and ours, overseen a nightmare arms race that pushed the world to the very brink of nuclear Armageddon.

—*Sheffield*

Notes

¹Wells was the son of an estate gardener and a lady's maid, while Pynchon's family have, repeatedly, won and lost their place in the élite of American society. Wells was, arguably, the first scholarship boy (Bergonzi, 13) to be educated by the then-fledgling science course at Normal School, Kensington (which became the Royal College of Science). Pynchon won a scholarship to Cornell University to study Engineering Physics. However, it appears that Pynchon's stint in the navy and Wells's time in the family draper's shop gave each man a particular perspective on society. Pynchon's experience fed into the novel *V.*, while Wells's need to escape from his past fed into the novel *The History of Mr. Polly* (1910). Patrick Parrinder observes that the "idea of release from a limited environment, or 'disentanglement' as Robert P. Weeks [and Wells himself] has called it, constantly recurs" (5) in Wells's works. And Michael Draper argues that "Breaking out of the prison of the mundane, Wells's characters can really only find themselves in a bigger, more imposing prison" (117). We may recall the fate awaiting Slothrop in the Zone, and Pynchon's "No, this is not a disentanglement from, but a progressive *knotting into*" (GR 3), and conclude that this is not *The World Set Free*.

²In that I am focusing only on the roots of Wells's ideology, I may be misreading and distorting his intentions, while underrating his masterly imagination and grasp of science and technology. Bernard Bergonzi argues, for example, that Wells's speculations were "all an exercise in the conditional mode"; and rather than a product of Wellsian élitism or a corruption of Wellsian beliefs, the horrors of the twentieth century—when those in power "adapted scientific resources and large-scale social engineering to new and unimagined

extremities of death and devastation”—amounted to a failure on our part to “live up to Wells’s hopes and expectations” (l 2). William J. Scheick argues that Wells’s late fiction displays a pessimistic, “de-constructive element” (118) that “anticipates the so-called literature of exhaustion movement, which includes, among others . . . Pynchon” (120). The massive scale of the structures Kathryn Hume identifies in *Gravity’s Rainbow* (PM, VAVB) may have been suggested by the cosmic scale of Wells’s scientific romances.

³Weisenburger has done extensive and groundbreaking work in uncovering textual evidence of Pynchon’s complex allusive structures. He concludes that *Gravity’s Rainbow* is structured in a “carefully drawn circular design” (GRC 9). This design, Weisenburger argues, forms a key image in support of Pynchon’s “radically degenerative satire” (HP 87). Central to Weisenburger’s analysis is an approach to Pynchon that uncovers a radical dismantling of “rationalist culture whose aim is nothing less than the immachination of all being” (88–89).

⁴Ralph Schroeder argues that Pynchon’s approach to Puritan thought is linked with that of Max Weber. I find Weber’s insistence that science is not a liberating influence on humanity, that, rather, it imprisons the individual in a series of roles in the greater society, enlarging the public sphere at the expense of the private, central to *Gravity’s Rainbow*. John M. Krafft focuses on Slothrop’s Puritanism, upheld even though he is “Far-Fallen” (GR 569). It is this ethos that separates Slothrop, finally, from becoming preterite, from evading his sense of victimization and surrendering to “mindless pleasures” (270, 681), until he concludes his *rite de passage* through the Zone.

⁵Pynchon may be referring to Wells, among others, when he says about writing “Under the Rose”: “My reading at the time also included many Victorians, allowing World War I in my imagination to assume the shape of that attractive nuisance so dear to adolescent [and Wells’s] minds, the apocalyptic showdown” (SL 18). In “Is It O.K. to be a Luddite?” Pynchon outlines a tradition of resistance to technology in literature, including science fiction—not, however, Wellsian fiction. More recently, in his introduction to Jim Dodge’s novel *Stone Junction*, Pynchon refers to manipulations like those used in *The Invisible Man* to explain invisibility as “secular Wellsian tricks with refractive indices and blood pigmentation” (xi). Wells explains in his preface to *Scientific Romances* (1933), a collection of his best early work, that before he began as a writer, the convention was to bring in “the fantastic element . . . by magic.” But since “it had become difficult to squeeze even a monetary belief out of magic any longer,” he substituted “an ingenious use of scientific patter” for “the usual interview with the devil or a magician. . . . That was no great discovery. I simply brought the fetish stuff up to date, and made it as near actual theory as possible” (viii). In praising *Stone Junction* for drawing instead on “the time-honored arts of ceasing to be material” (xi), Pynchon may be signaling that the methodology of *Gravity’s Rainbow*—which has much in common with the Wellsian synthesizing of fiction from, among other sources,

the world of science—is not continued in *Mason & Dixon*. Rather, that novel too leaves its mysteries unexplained, emancipated, bound only by the “rules of Magic” (I xii).

⁶Douglas Fowler takes too superficial a view of the Wells-Pynchon connection, arguing about *The War of the Worlds* that the “evocation of H. G. Wells’s famous science fiction novel is intentional, for it is helpful to think of Pynchon’s work as science fiction raised to art by the power of genius” (10). Cocks is much more sensitive to the strand of anti-élitism in *Gravity’s Rainbow*, a critique of Wells’s élitism as expressed in *Things to Come*, where an “angrily impassioned Cedric Hardwicke leads the masses in a futile assault on Raymond Massey’s rocket ship as it takes off to conquer the stars in the name of an aggressively reborn humanity” (374).

⁷Alan Nadel argues that “cold war America asserted the claim to global authority in a narrative that permeated most aspects of American culture.” What he calls “containment narrative” has the authority to “select events that will be represented as history, and to effect the repetition of privileged narratives” (4). While externally the “cold war was a global board game, with the object being a chronic mapping and remapping to be done in the absence of the overt conquests allowed under earlier versions of the game” (202), within the domestic society, the “narrative called *democracy* placed Americans in the roles of reader and viewer of a series of adventures in which the heroes and villains were clear, the desirable outcomes known, and the undesirable outcomes contextualized as episodes in a larger narrative that promised a happy ending” (277). My attention was first drawn to the link between Pynchon and the effects of ‘50s politics by Jacqueline Smetak (in a letter to me dated 11 Dec. 1991).

⁸John Dugdale shows how Pynchon has apparently used Freudian notions of dreamwork to embed latent meanings in his early fiction. *Gravity’s Rainbow*, however, uses elements drawn from Freud in a looser way, often mixing one use or structure with another, such that dreams are merged with notions of sexual repression (see Wolfley). Hanjo Berressem uses different conceptual apparatus, one of which centers on the Zone as a “landscape of multiple mental projections in which dreams, fears, and images of the repressed create a kaleidoscopic space” (132). In the world of *Gravity’s Rainbow*, there is also a suggestion of illness, as the signs and symbols of semiotics become the signs and symptoms of medical diagnosis.

⁹Dunne was well known not only for his engineering interests but also for his books which associated precognitive dreaming with a theory of time. He argued that, while sleeping, a person is able to extend (in Pynchon’s terminology) his “‘temporal bandwidth’ . . . the width of [his] present” (Gr 509) back into the past and forward into the future. Wells used Dunne in *The Shape of Things to Come* (1933) to explain how an official from the League of Nations could read a book written one hundred and fifty years in the future.

¹⁰Joel Black sees Blicero as attempting to synthesize scientific and romantic ways of understanding the world. See also Joseph Tabbi on Pynchon's engineers: he explains how the "concrete technological imagery that is so pervasive in Pynchon is made to suggest an almost ghostly presence" (WZ 71); and the "deeper we get into Pynchon's novel, the less we are likely to distinguish between 'scientific' and 'non-scientific' models of representation" (SAD 160).

¹¹Dugdale proposes that the "German Zone of the second half of the novel often lends itself to identification with the USA of the late 1960s" (187). Eric Meyer, Frederick Ashe and Jeffrey S. Baker have all followed this hypothesis, exposing many possible contemporary linkages.

¹²Pynchon may have come across a reference to *The World Set Free* in a memoir by Leo Szilard. Szilard writes that, in 1934, when he got the idea of a nuclear chain reaction, he had already read *The World Set Free*, so "Knowing what this would mean—and I knew it because I had read H. G. Wells[—]I did not want this patent to become public" (qtd. in Mackenzie 299). Or perhaps Pynchon noted how, in *Journalism and Prophecy*, a book reprinting some of Wells's long-out-of-print work, a section of *The World Set Free* is labeled "Atomic Bombs." Wells based his prophesy of atomic warfare on a book first published in 1909 by his friend Frederick Soddy, who argued, "We are no longer the inhabitants of a universe slowly dying from physical exhaustion of its energy, but of a universe which has in the internal energy of its material components the means to rejuvenate itself perennially" (248). *The World Set Free* is divided into a prelude—"The Sun Snarers"—and five chapters—"The New Source of Energy," "The Last War," "The Ending of War," "The New Phase" and "The Last Days of Marcus Karenin"—each subdivided into several short, episodic sections; so I have provided chapter and section along with page numbers.

¹³Judith Chambers discusses the effect of bomb culture on Pynchon, arguing that "both the V-2 Rocket and atomic bomb evolved from the disease that the world caught between 1859 and 1919" (134). Paul Celmer discusses V. as an "undermining of the Communist-plot genre" (28).

¹⁴Pynchon parodies the tone and intent of *Anticipations* in Ernest Pudding's *Things That Can Happen in European Politics*, in which Pudding is unable to track the discontinuous, complex dynamics of contemporary history: "it's changing out from under me. Oh, dodgy—very dodgy'" (GR 77).

¹⁵On the importance of maps and chess to an understanding of *Gravity's Rainbow*, see, for example, Bernard Duyfhuizen, for whom maps are among the potential "reader traps" prevalent in the novel, and Martin Rosenberg, in whose analyses the tropes of chess and mapping are central.

¹⁶Cf. Wells's short story "A Dream of Armageddon": "I had been playing that game for years, that big laborious game, that vague monstrous political game amidst intrigues and betrayals, speech and agitation" (550).

¹⁷Note the lines in “The Waste Land”: “You cannot say, or guess, for you know only / A heap of broken images” (21–22).

¹⁸For a discussion of how problematic that determination is, see Duyfhuizen, SES.

¹⁹Many of Pynchon’s early critics foregrounded his use of film and film techniques. *Gravity’s Rainbow* contains countless allusions to film and popular culture. See Weisenburger’s *Companion*, and, among others, Jonathan Eller & William McCarron, and Robert L. McLaughlin.

²⁰David Seed argues that “[c]haracters repeatedly act out cinematic roles so that their behavior ceases to be individually expressive and resembles a set of routines, of culturally determined patterns” (178).

²¹Pynchon’s exploitation of the wasteland motif collapses images of waste and devastation from both *The World Set Free* and “The Waste Land.” See Keith Booker, chapter 5, on castration and its links to Frazer, Eliot, Fisher Kings and Slothrop.

²²Wells tackled the new uncertainty early in his career, in his paper “The Rediscovery of the Unique” (1891). As Mackenzie and Mackenzie explain:

[W]as not science based on the belief that all phenomena were consistent and continuous, and therefore could be classified? Certainly that belief had permitted science to make great practical gains. . . . But what if all units of matter were unique, and if the deviations from standardised behaviour increased as the structures became more complicated, so that living organisms were more likely to behave in a unique fashion than aggregations of molecules in a chemical compound, and Nature—the ultimate in complexity—might be quivering with uncertainties at which men could only guess? (86–87).

²³Weisenburger (GRC) and Brian McHale (61–114) have discussed the repetition of structure in *Gravity’s Rainbow*.

²⁴“The Bomb, figured and prefigured in a variety of ways in *V.*, is a possible second referent for any description of the V-2 Rocket” (Dugdale 187). More explicit are “cosmic bomb” (GR 167, 539, 544), “Duane Marvy’s Atomic Chili (557, 559), and “Miss Enola Gay’s atomic clit” (588).

²⁵Note an inverse echo of the young boy and girl astronauts at the end of *Things to Come*.

²⁶Is the Rocket another reader trap?

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