

## Introduction to Newer SF History

I was thinking this globe enough till there sprang out so noiseless around me myriads of other globes.

WALT WHITMAN

*This survey stops at the threshold of contemporary SF, which can be said to arise between the World Wars, after the October Revolution and before the atomic bomb, with the modern “mass culture” of movies, radio, and specialized magazines and paperback book-lines for commercial literary “genres” – one of the most prominent of which SF has become. The period marked by E.R. Burroughs and Hugo Gernsback in the United States (and some parallel developments in Germany, cut short by Nazism) and by the influence this country has exerted, beginning in the 1930s, on the rest of the world, was to be one not only of a huge quantitative explosion of SF publication, distribution, and popularity – which alone would be sufficient reason for a separate book to describe it – but also, even more significantly, of qualitative complications in the status of “paraliterature” which have so far not been adequately dealt with in literary history and theory. What makes contemporary paraliterature, and especially SF, so complicated is the sea-change it suffered in the last couple of generations. In almost all the earlier epochs, as I have tried to point out in my introduction to the first part of this historical overview, there was a profound difference between the unofficial, popular or plebeian (largely oral), culture and the official, dominant or upper-class (usually written), culture. The cultures of these “two nations” within each linguistico-ethnic domain have, no doubt, always been connected in various ways, from antagonistic suppression to partial permeation, but as a rule they have been – except for such exceptional moments of cohesion as a portion of the Elizabethan Age – sufficiently separate to preserve distinct identities. A renewal of given official, higher, or canonic Literature and Culture came about by the ascent of earlier noncanonic forms to canonic status together with the social class or group that was the “ideal reader” of those forms or genres (for example, the psychological*

novel and the bourgeoisie). But the complication with twentieth-century paraliterature – and especially SF – is, to put it baldly, briefly, and without any mediation, that neither the Jacobin nor the Bolshevik revolutions have accomplished their objectives, so that radically enlarged literacy and economic welfare in the “North” of our planet (Europe, North America, Japan) have coincided with and become enmeshed in the rise of imperialism and the welfare-warfare state. The ensuing very complicated amalgam of suppression and permeation – occurring at different rates and in somewhat different forms in diverse geopolitical areas – has just begun to be identified but has not yet been properly studied.<sup>1</sup> One might hazard the hypothesis that in this period the domination or hegemony of the bourgeois ideology and taste has been challenged but on the whole not overthrown: new forms and genres rise into official culture largely at the expense of their pristine plebeian horizons, from the ranks, not with the ranks, of its social originators, and at the price of containment and cooption. However this might be, it is clearly afield for different methodological approaches than the ones used in this book, though one of the major aims of this book is to reach the threshold not only of contemporary SF history but also of a methodology that would render it justice.

It could be argued that both the proliferation and the changed status of SF begin with and at the time of H.G. Wells. I am not sure whether this is in fact so, and at any rate new cultural epochs do not begin on a given New Year's Day. What is certain is that Wells's opus could both intrinsically and in its interrelations with the popular media of his time be a promising starting point for a simultaneously extensive and intensive investigation. But this too

1 The fundamentals for such a study have been laid in the notes of Antonio Gramsci available only since the war, for example, *Il materialismo storico e la filosofia di Benedetto Croce* (Torino, 1948) or the useful compilation *Letteratura e vita nazionale* (Torino, 1966); in English partly available in *The Modern Prince and Other Writings* (New York, 1972) and *Selections From the Prison Notebooks* (New York, 1975). An excellent first systematization of theoretical achievements and problems so far can be found in the relevant chapters of Raymond Williams's *Marxism and Literature* (London, 1977). Not only for SF, see also the “Sociology of SF” issue of *Science-Fiction Studies* 4 (November 1977), with Marc Angenot's annotated bibliography of the sociology of literature and some introductory comments of mine enlarging on the problems touched upon in this introduction.

would certainly demand a book unto itself. I have compromised with such an ideal by aiming in this section for a kind of stereoscopic effect, which might, I hope, arise from the reader's benevolent superposition of a broad overview of Wells's opus (attempted in chapter 9) on a depth probe of his model for SF as found in the paradigmatic "Time Machine" (attempted in chapter 10 in brief comparison to the Morean model of earlier SF history). Since world cultures are not synchronic, I have concluded my historical survey with two European probes, one of a national tradition and one of an important single writer, but both leading in their own context again to the historical and methodological thresholds for understanding contemporary SF. No doubt, even within the period or periods chosen, it might have been possible to deal with some more works by prominent writers – Jack London, Rosny Aîné, or Paul Scheerbart – or with more national traditions – such as the French one from 1900 to 1940.<sup>2</sup> However, since this book opts for representativeness suggesting a tradition rather than for the inclusiveness of a formal literary history, I have remained consistent to this option.

- 2 I might perhaps be the more readily excused since I have contributed to some spadework for a better understanding of Wells and London elsewhere: Darko Suvin, with Robert M. Philmus, eds., *H.G. Wells and Modern Science Fiction* (Bibliography V); Darko Suvin and David Douglas, "Jack London and His Science Fiction: A Select Bibliography," *Science-Fiction Studies* 3 (July 1976): 181–87.



## 9. Wells as the Turning Point of the SF Tradition

H.G. Wells's first and most significant SF cycle (roughly to 1904) is based on the vision of a horrible novum as the evolutionary sociobiological prospect for mankind. His basic situation is that of a destructive newness encroaching upon the tranquillity of the Victorian environment. Often this is managed as a contrast between an outer framework and a story within the story. The framework is set in surroundings as staid and familiarly Dickensian as possible, such as the cozy study of *The Time Machine*, the old antiquity shop of "The Crystal Egg," or the small towns and villages of southern England in *The War of the Worlds* and *The First Men in the Moon*. With the exception of the protagonist, who also participates in the inner story, the characters in the outer frame, representing the almost invincible inertia and banality of prosperous bourgeois England, are reluctant to credit the strange newness. By contrast, the inner story details the observation of the gradual, hesitant coming to grips with an alien superindividual force that menaces such life and its certainties by behaving exactly as the bourgeois progress did in world history – as a quite ruthless but technologically superior mode of life. This Wellsian inversion exploits the uneasy conscience of an imperial civilization that did not wipe out only the bison and the dodo: "The Tasmanians, in spite of their human likeness, were entirely swept out of existence in a war of extermination waged by European immigrants. Are we such apostles of mercy as to complain if the Martians warred in the same spirit?" (*The War of the Worlds*, book 1, chap. 1).

As Wells observed, the "fantastic element" or novum is "the strange property or the strange world."<sup>1</sup> The strange property can be the invention that renders Griffin invisible, or, obversely, a new way of seeing – literally, as in "The Crystal Egg," "The Remarkable Case of Davidson's Eyes," and "The New Accelerator," or indirectly, as the Time Machine or the Cavorite

1 "Preface" to *Seven Famous Novels by H.G. Wells* (Garden City, NY, 1934), p. vii.

sphere. It is always cloaked in a pseudo-scientific explanation, the possibility of which turns out, upon closer inspection, to be no more than a conjuring trick by the deft writer, with “precision in the unessential and vagueness in the essential”<sup>2</sup> – the best example being the Time Machine itself. The strange world is elsewhere or elsewhen. It is reached by means of a strange invention or it irrupts directly into the Victorian world in the guise of the invading Martians or the Invisible Man. But even when Wells’s own bourgeois world is not so explicitly assaulted, the strange novelty always reflects back on its illusions; an SF story by Wells is intended to be “the valid realization of some disregarded possibility in such a way as to comment on the false securities and fatuous self-satisfaction of everyday life.”<sup>3</sup>

The strange is menacing because it looms in the future of man. Wells masterfully translates some of man’s oldest terrors – the fear of darkness, monstrous beasts, giants and ogres, creepy crawly insects, and Things outside the light of his campfire, outside tamed nature – into an evolutionary perspective that is supposed to be validated by Darwinian biology, evolutionary cosmology, and the fin-de-siècle sense of a historical epoch ending. Wells, a student of T. H. Huxley, eagerly used alien and powerful biological species as a rod to chastize Victorian man, thus setting up the model for all the Bug-Eyed Monsters of later chauvinistic SF. But the most memorable of those aliens, the octopuslike Martians and the antlike Selenites, are identical to “The Man of the Year Million” in one of Wells’s early articles (alluded to in *The War of the Worlds*): they are emotionless higher products of evolution judging us as we would judge insects. In the final analysis, since the aliens are a scary, alternative human future, Wellsian space travel is an optical illusion, a variation on his seminal model of *The Time Machine*. The function of his interplanetary contacts is quite different from Verne’s liberal interest in the mechanics of locomotion within a safely homogeneous space. Wells is interested exclusively in the opposition

2 Unsigned review (by Basil Williams) in *Athenaeum*, 26 June 1897, reprinted in Patrick Parrinder, ed. (Bibliography V), p. 57.

3 H.G. Wells, “An Experiment in Illustration,” *Strand Magazine*, February 1920, quoted in Geoffroy West (Bibliography V), p. 112.

between the bourgeois reader's expectations and the strange relationships found at the other end: that is why his men do land on the Moon and his Martians on Earth.

Science is the true, demonic master of all the sorcerer's apprentices in Wells, who have – like Frankenstein or certain folktale characters – revealed and brought about destructive powers and monsters. From the Time Traveller through Moreau and Griffin to Cavor, the prime character of his SF is the scientist-adventurer as searcher for the New, disregarding common sense and received opinion. Though powerful, since it brings about the future, science is a hard master. Like Moreau, it is indifferent to human suffering; like the Martians, it explodes the nineteenth-century optimistic pretensions, liberal or socialist, of lording it over the universe:

Science is a match that man has just got alight. He thought he was in a room – in moments of devotion, a temple – and that his light would be reflected from and display walls inscribed with wonderful secrets and pillars carved with philosophical systems wrought into harmony. It is a curious sensation, now that the preliminary splutter is over and the flame burns up clear, to see his hands and just a glimpse of himself and the patch he stands on visible, and around him, in place of all that human comfort and beauty he anticipated – darkness still.<sup>4</sup>

This science is no longer, as it was for Verne, the bright noonday certainty of Newtonian physics. Verne protested after *The First Men in the Moon*: “I make use of physics. He invents ... he constructs ... a metal which does away with the law of gravitation [...] but show me this metal.” For Wells human evolution is an open question with two possible answers, bright and dark; and in his first cycle darkness is the basic tonality. The cognitive “match” by whose small light he determines his stance is Darwinian evolution, a flame which fitfully illumines man, his hands (by interaction of which with the brain and the eye he evolved from ape), and the “patch he stands on.” Therefore Wells could much later even the score by talking about “the anticipatory inventions of the great Frenchman” who “told that this and that thing could be done, which was not at that time done” – in

4 Wells, “The Rediscovery of the Unique,” *The Fortnightly Review*, N.S. 50 (July 1891), reprinted in Robert Philmus and David Y. Hughes, eds. (Bibliography V), pp. 30–31.

fact, by denning Verne as a short-term technological popularizer.<sup>5</sup> From the point of view of a votary of physics, Wells “invents” in the sense of inventing objective untruths. From the point of view of the evolutionist, who does not believe in objects but in processes – which we have only begun to elucidate – Verne is the one who “invents” in the sense of inventing banal gadgets. For the evolutionist, Nemo’s submarine is in itself of no importance; what matters is whether intelligent life exists on the ocean floor (as in “In the Abyss” and “The Sea Raiders”). Accordingly, Wells’s physical and technical motivations can and do remain quite superficial where not faked. Reacting against a mechanical view of the world, he is ready to approach again the imaginative, analogic veracity of Lucian’s and Swift’s story-telling centered on strange creatures, and to call his works “romances.” *Cavorite* or the *Invisible Man* partake more of the flying carpet and the magic invisibility hood than of metallurgy or optics. The various aliens represent a vigorous refashioning of the talking and symbolic animals of folktale, bestiary, and fable lore into Swiftian grotesque mirrors to man, but with the crowning collocation within an evolutionary prospect. Since this prospect is temporal rather than spatial, it is also much more urgent and immediate than Swift’s controlled disgust, and a note of fairly malicious hysteria is not absent from the ever-present violence – fires, explosions, fights, killings, and large-scale devastations – in Wells’s SF.

*The Time Machine* (1895), Wells’s programmatic and (but for the mawkish character of Weena) most consistent work, shows his way of proceeding and his ultimate horizon. The horizon of sociobiological regression leading to cosmic extinction, simplified from Darwinism into a series of vivid pictures in the Eloi, the giant crabs, and the eclipse episodes, is established by the Time Traveller’s narration as a stark contrast to the Victorian after-dinner discussions in his comfortable residence. The *Time Machine* itself is validated by an efficient forestalling of possible objections, put into the mouth of schematic, none too bright, and reluctantly persuaded listeners, rather than by the bogus theory of the fourth dimension or any

5 Jules Verne’s interview is from *T. P.’s Weekly*, 9 October 1903, reprinted in Parrinder, ed., pp. 101–02; Wells’s rejoinder is from the “Preface” cited in note 1 above, p. vii.

explanation of the gleaming bars glimpsed in the machine. Similarly, the sequence of narrated episodes gains much of its impact from the careful foreshortening of ever larger perspectives in an ever more breathless rhythm (discussed at length in the following chapter). Also, the narrator-observer's gradually deepening involvement in the Eloi episode is marked by cognitive hypotheses that run the whole logical gamut of sociological SF. From a parodied Morrisite model ("Communism," says the Time Traveller at first sight) through the discovery of degeneration and of persistence of class divisions, he arrives at the anti-utopian form most horrifying to the Victorians – a run-down class society ruled by a grotesque equivalent of the nineteenth-century industrial proletariat. Characteristically, the sociological perspective then blends into biology. The laboring and upper classes are envisioned as having developed into different races or indeed species, with the Morlocks raising the Eloi as cattle to be eaten. In spite of a certain contempt for their effete-ness, the Time Traveller quickly identifies with the butterfly-like upper-class Eloi and so far forsakes his position as neutral observer as to engage in bloody and fiery carnage of the repugnant spider-monkey-like Morlocks, on the model of the most sensationalist exotic adventure stories. His commitment is never logically argued, and there is a strong suggestion that it flows from the social consciousness of Wells himself, who came from the lower middle class, which lives on the edge of the "proletarian abyss" and thus "looks upon the proletariat as being something disgusting and evil and dangerous."<sup>6</sup> Instead, the Time Traveller's attitude is powerfully supported by the prevailing imagery – both by animal parallels, and by the pervasive open-air green and bright colors of the almost Edenic garden (associated with the Eloi) opposed to the subterranean blackness and the dim reddish glow (associated with the Morlocks and the struggle against them). Later in the story these menacing, untamed colors lead to the reddish-black eclipse, symbolizing the end of the Earth and of the solar system. The bright pastoral of the Eloi is gradually submerged by the encroaching night of the Morlocks, and the Time Traveller's matches sputter out in their oppressive abyss. At the end, the

6 Christopher Caudwell (Bibliography V), pp. 76 and 93.

unforgettable picture of the dead world is validated by the disappearance of the Time Traveller in the opaque depths of time.

Many of these devices reappear in Wells's other major works. The technique of domesticating the improbable by previews on a smaller scale, employed in the vivid vanishing of the model machine, is repeated in the introduction to the Grand Lunar through a series of other Selenites up to Phi-oo, or to Moreau's bestial people through the brutal struggles in the boat and through the ship captain, or to the Cavorite sphere's flight through the experimental explosion raising the roof. The loss of the narrator's vehicle and the ensuing panic of being a castaway under alien rule (in *The War of the Worlds* this is inverted as hiding in a trap with dwindling supplies) recurs time and again as an effective cliff-hanger. Above all, as we will see in the next chapter, Wells's whole first cycle is a reversal of the popular concept by which the lower social and biological classes were considered as "natural" prey in the struggle for survival. In their turn they become the predators: as laborers turn into Morlocks, so insects, arthropods, or colonial peoples turn into Martians, Selenites, and the like. This exalting of the humble into horrible masters supplies a subversive shock to the bourgeois believer in Social Darwinism; at the same time, Wells vividly testifies that a predatory state of affairs is the only even fantastically imaginable alternative. The world upside-down – where strange animals hunt Man, and the subterranean lower class devours the upper class – recurs in Wells, as in Thomas More. But whereas More's sheep were rendered unnatural by political economics, Wells's Morlocks, Beast People, and so forth, are the result of a "natural" evolution from the author's present. Nature has become not only malleable – it was already becoming such in More and particularly in Swift – but also a practically value-free category, as in bourgeois scientism. At the end, the bourgeois framework is shaken, but neither destroyed nor replaced by any livable alternative. What remains is a very ambiguous attack on liberalism from the position of "the petty bourgeois which will either turn towards socialism or towards fascism."<sup>7</sup>

7 V. S. Pritchett (Bibliography V), p. 128.

The human/animal inversion comes openly to the fore in *The Island of Dr. Moreau* (1896) with admirable Swiftian stringency. Dr. Moreau's fashioning of humans out of beasts is clearly analogous to the pitiless procedures of Nature and its evolutionary creation. He is not only a latter-day Dr. Frankenstein but also a demonically inverted God of Genesis, and his surgically humanized Beast Folk are a counterpart of ourselves, semibestial humans. Wells's calling their attempts to mimic the Decalogue in the litanies of "The Saying of the Law" and their collapse back into bestiality a "theological grotesque" indicates that this view of mankind's future reversed Christian as well as socialist millennialism into the bleak vistas of an evolution liable to regression. *The Island of Dr. Moreau* turns the imperial order of Kipling's *Jungle Book* into a degenerative slaughterhouse, where the law loses out to bestiality.

Wells's next two famous SF novels, though full of vivid local color, seem today less felicitous. Both have problems of focusing. In *The Invisible Man* (1897) the delineation of Griffin hesitates between a man in advance of his time within an indifferent society and the symbol of a humanity that does not know how to use science. This makes of him almost an old-fashioned "mad scientist," and yet he is too important and too sinned against to be comic relief. The vigor of the narration, which unfolds in the form of a hunt, and the strengths of an inverted fairy tale cannot compensate for the failure of the supposedly omniscient author to explain why Griffin had got into the position of being his own Frankenstein and Monster at the same time. In this context, the dubious scientific premises (an invisible eye cannot see, and so forth) become distressing and tend to deprive the story of the needed suspension of disbelief. *The War of the Worlds* (1898), which extrapolates into xenobiology the catastrophic stories of the "future wars" subgenre discussed in chapter 7, descends in places to a gleeful sensationalism difficult to stomach, especially in its horror-fantasy portraiture of the Martians. The immediate serialization in the US yellow press, which simply suppressed the parts without action, made this portraiture the most influential model for countless later Things from Outer Space, extendable to any foreign group that the public was at that moment supposed to hate, and a prototype of mass-media use of SF for mindless scare-mongering (inaugurated by Orson Welles's famous 1938 broadcast).

The novel's composition is marred by the clumsy system of two eyewitness narrators, improvised in order to reconcile the sensational immediacy and the necessary overview. Of course, *The War of the Worlds* also contains striking and indeed prophetic insights such as the picture of modern total warfare, with its panics, refugees, quislings, underground hidings, and an envisaged Resistance movement, as well as race-theory justifications, poison gas, and a "spontaneous" bacteriological weapon. (In other tales, Wells – a lifelong lover of war games – added air warfare, tanks, atom bombing of a major city, and other bellicose devices.)

Except for the superb late parable "The Country of the Blind" (bp. 1911), Wells's sociobiological and cosmological SF cycle culminated in *The First Men in the Moon* (1901). It has the merit of summarizing and explicating openly his main motifs and devices. The usual two narrators have grown into the contrasting characters of Bedford, the Social-Darwinist speculator-adventurer, and Cavor, the selfless scientist in whom Wells manages for once to fuse the cliché of absent-mindedness with open-mindedness and a final suffering rendered irremediable by the cosmic vistas involved. The sharply focused lens of spatial pinpointing and temporal acceleration through which the travelers perceive the miraculous growth of Lunar vegetation is the most striking rendering of the precise yet wondering scientific regard often associated with the observatories and observation posts of Wells's stories. The Selenites not only possess the Aesopian fable background and an endearing grotesqueness worthy of Edward Lear's creatures, they are also a profound image of sociopolitical functional overspecialization and of an absolute caste or race State, readily translatable from insect biology back into some of the most menacing tendencies of modern power concentration. Most Swiftian among Wells's aliens, they serve a double-edged satire, in the authentic tone of savage and cognitive indignation:

...I came upon a number of young Selenites, confined in jars from which only the fore limbs protruded, who were being compressed to become machine-minders of a special sort. [...] these glimpses of the educational methods of these beings have affected me disagreeably. I hope, however, that may pass off and I may be able to see more of this aspect of this wonderful social order. That wretched-looking hand sticking out of its jar seemed to appeal for lost possibilities; it haunts me still, although, of course, it is really in the end a far more humane proceeding

than our earthly method of leaving children to grow into human beings, and then making machines of them. [chap. 23]

The usual final estrangement fuses biological and social disgust into Bedford's schizophrenic cosmic vision of himself "not only as an ass, but as the son of many generations of asses" (chap. 19). Parallel to that, Cavor formulates most clearly the uselessness of cosmic as well as earthly imperialism, and articulates a refusal to let science go on serving them (had this been heeded, we would have been spared the Galactic Empire politics and swashbuckling of later SF). Finally, Bedford's narration in guise of a literary manuscript with pretenses to scientific veracity, combined with Cavor's narration in guise of interplanetary telegraphic reports, exhibit openly Wells's ubiquitous mimicry of the journalistic style from that heyday of early "mass communications" – the style of "an Associated Press dispatch, describing a universal nightmare."<sup>8</sup>

Yet such virtuosity cannot mask the fundamental ambiguity that constitutes both the richness and the weakness of Wells. Is he horrified or grimly elated by the high price of evolution (*The Island of Dr. Moreau*)? Does he condemn class divisions or simply the existence of a menacing lower class (*The Time Machine*)? Does he condemn imperialism (*The First Men in the Moon*) or only dislike being at the receiving end of it (*The War of the Worlds*)? In brief, are his preoccupations with violence and alienation those of a diagnostician or of a fan? Both of these stances coexist in his works in a shifting and often unclear balance. For example, – to translate such alternatives into an immediate determinant of narration – Wells's central morphological dilemma in the years of his first and best SF cycle was: which is the privileged way of understanding the world, the scientifically systematic one or the artistically vivid one? Faced with the tension between "scientific" classification and "artistic" individuation, a tension that remained constant (albeit with different outcomes) throughout his life, Wells had already in 1891 satirized the deterministic rigidity in his essay "The Universe Rigid" and gone on to find a first compromise in his

8 Unsigned review in *Critic*, 23 April 1898, reprinted in Parrinder, ed., p. 69.

“The Rediscovery of the Unique” and its successive avatars in “The Cyclic Delusion,” “Scepticism of the Instrument,” and *First and Last Things* (1908). These articles attempt to formulate the deep though unclear pulls which Wells at his best reconciled by opting for representativeness, for fusing individuum and species into socially *and* biologically typical figures like the Time Traveller, but which he often left unreconciled.

Wells’s SF makes thus an aesthetic form of hesitations, intimations, and glimpses of an ambiguously disquieting strangeness. The strange novum is gleefully wielded as a sensational scare thrown into the bourgeois reader, but its values are finally held at arm’s length. In admitting and using their possibility he went decisively beyond Verne, in identifying them as horrible he decisively opposed Morris. Wells’s SF works are clearly “ideological fables,” yet he is a virtuoso in having it ideologically both ways. His satisfaction at the destruction of the false bourgeois idyll is matched by his horror at the alien forces destroying it. He resolutely clung to his insight that such forces must be portrayed, but he portrayed them within a sensationalism that neutralizes most of the genuine newness. Except in his matures! moments, the conflicts in his SF are therefore transferred – following the Social-Darwinist model – from society to biology. This is a risky proceeding which can lead to some striking analogies but – as was discussed in chapter 6 à propos of *Frankenstein* – as a rule indicates a return to quasi-religious eschatology and fatal absolutes. Wells expressed this, no doubt, in sincerely Darwinist terms, but his approach is in fact marked by a contamination of echoes from a culturally sunken medieval bestiary and a Miltonic or Bunyanesque color scheme (dark and red, for example, as satanic) with the new possibilities of scientific dooms (compare the Ruskinian Angel of *The Wonderful Visit* [1895], presented as an alien from a parallel world). The annihilation of this world is the only future alternative to its present state; the present bourgeois way of life is with scientific certainty leading the Individualist *homme moyen sensuel* toward the hell of physical indignity and psychic terror, yet this *is* still the only way of life he can return to and rely on, the best of all the bad possible worlds. Thus Wells’s central anxious

question about the future in store for his Everyman – who is, characteristically, a bright, aggressive, White, middle-class male – cannot be resolved as posed. His early SF can present the future only as a highly menacing yet finally inoperative novum, the connection with its bearers (Time Traveller, Moreau, Griffin, Martians, Selenites, or Cavor) being always broken off. Formally, this impasse explains his troubles with works of novel length: his most successful form is either the short story or the novelette, which lend themselves to ingenious balancings on the razor's edge between shock and cognitive development. In them he set the pace for the commercial norms of most later SF (which adds insult to injury by calling such works novels).

Wells's later SF abandoned such fragile but rich ambiguity in favor of short-range extrapolations. His first attempt in that direction, *When the Sleeper Wakes* (1899), was the most interesting. Its picture of a futuristic megalopolis with mass social struggles led by demagogic leaders was "a nightmare of Capitalism triumphant" and an explicit polemic against Bellamy's complacent optimism about taming the organizing urge and the jungle of the cities. In Wells's complex corporate capitalism "everything was bigger, quicker and more crowded; there was more and more flying and the wildest financial speculation."<sup>10</sup> Since Wells's sketch of the future was full of brilliant and detailed insights (as, for example, those about competing police forces and stultifying mass media) that turned out to be close to actual developments in the twentieth century, this novel became the model for anti-utopian anticipation from Zamyatin and von Harbou to Heinlein and Pohl. But Wells's imaginative energy flagged here at the crucial narrative level: the observer-hero waking after two centuries behaves alternatively like a savior (suffering his final passion on an airplane instead of a cross) and vacillating liberal intellectual. The jerky plot concerns itself primarily with the adventure of a beautiful soul in the future, and is thus coresponsible for a spate of similar inferior SF with more rugged heroes who are given wonderful powers and who experience sentimental entanglements. "A Story of

10 Wells, first quotation from his "Author's Preface" to *The Sleeper Awakes* (London, 1921), second quotation from his *Experiment in Autobiography* (New York, 1934), p. 551.

Days To Come" (1899) and "A Dream of Armageddon" (1903), told wholly from inside the same future, are not much more than an exploitation of that interesting locale for sentimental tales seen from the bottom, respectively the top, of society. Wells's later SF novels – though even at their worst never lacking flashes of genuine insight or redeeming provocation – do not attain the imaginative consistency of his first cycle. In *The Food of the Gods* (1904) the fundamental equation of material and moral greatness is never worked out. His series of programmatic utopias, from *A Modern Utopia* (1905) to *The Holy Terror* (1939), has interesting moments, especially when he is describing a new psychology of power and responsibility such as that of the "Samurai" or the "holy terror" dictator. However, its central search for a caste of technocratic managers as "competent receivers"<sup>11</sup> for a bankrupt capitalist society oscillates wildly from enlightened monarchs or dictators, through Fabian-like artists and engineers, to airmen and Keynesians (in *The Shape of Things to Come*, 1933): millennium has always been the most colorless part of Christian apocalypse. What is worst, Wells's fascinated sensitivity to the uncertain horizons of humanity gives only too often way to impatient discursive scolding, often correct but rarely memorable. A visit to young Soviet Russia (where his meeting with Lenin provided an almost textbook example of contrasts between abstract and concrete utopianism) resulted in the perhaps most interesting work in that series, *Men Like Gods* (1923), where Wells gave a transient and somewhat etiolated glimpse of a Morris-like brightness. But his work after the first World War vacillated, not illogically for an apocalyptic writer, between equally superficial optimism and despair. His position in the middle, wishing a plague on both the upper and the working classes, proved singularly fruitless in creative terms – though extremely influential and bearing strange fruit in subsequent SF, the writers and readers of which mostly come from precisely those "new middle classes" that Wells advanced as the hope of the future.

With all his strengths and weaknesses Wells remains the central writer in the tradition of SF. His ideological impasses are fought out as memorable and rich contradictions tied to an inexorably developing future. He

11 Wells, *Experiment in Autobiography*, p. 206.

collected, as it were, all the main influences of earlier writers – from Lucian and Swift to Kepler, Verne, and Flammarion, from Plato and Morris to Mary Shelley, Poe, Bulwer, and the subliterate of planetary and subterranean voyages, future wars, and the like – and transformed them in his own image, whence they entered the treasury of subsequent SF. He invented a new thing under the sun in the time-travel story made plausible or verisimilar by physics. He codified, for better or worse, the notions of invasion from space and cosmic catastrophe (as in his story “The Star,” 1899), of social and biological degeneration, of fourth dimension, of future megalopolis, of biological plasticity. Together with Verne’s *roman scientifique*, Wells’s “scientific romances” and short stories became the privileged form in which SF was admitted into an official culture that rejected socialist utopianism. True, of his twenty-odd books that can be considered SF, only perhaps eight or nine are still of living interest, but those contain unforgettable visions (all in the five “romances” and the short stories of the early sociobiological-cum-cosmic cycle): the solar eclipse at the end of time, the faded flowers from the future, the invincible obtuseness of southern England and the Country of the Blind confronted with the New, the Saying of the Law on Moreau’s island, the wildfire spread of the red Martian weed and invasion panic toward London, the last Martian’s lugubrious ululations in Regent’s Park, the frozen world of “The New Accelerator,” the springing to life of the Moon vegetation, the lunar society. These summits of Wells’s are a demonstration of what is possible in SF, of the cognitive shudder peculiar to it. Their poetry is based on a shocking transmutation of scientific into aesthetic cognition, and poets from Eliot to Borges have paid tribute to it. More harrowing than in the socialist utopians, more sustained than in Twain, embracing a whole dimension of radical doubt and questioning that makes Verne look bland, it is a grim caricature of bestial bondage and an explosive liberation achieved by means of knowledge. Wells was the first significant writer who started to write SF from within the world of science, and not merely facing it. Though his catastrophes are a retraction of Bellamy’s and Morris’s utopian optimism, even in the spatial disguises of a parallel present on Moreau’s island or in southern England it is always a possible future evolving from the neglected horrors of today that is analyzed in its (as a rule) maleficent consequences, and his hero has “an epic

and public [...] mission” intimately bound up with “the major cognitive challenge of the Darwinist age.”<sup>12</sup> For all his vacillations, Wells’s basic historical lesson is that the stifling bourgeois society is but a short moment in an unpredictable, menacing, but at least theoretically open-ended human evolution under the stars. He endowed later SF with a basically materialist look back at human life and a rebelliousness against its entropic closure. For such reasons, all subsequent significant SF can be said to have sprung from Wells’s *Time Machine*, which will be examined next.

12 Parrinder (Bibliography IV C), p. 273.

## 10. *The Time Machine* versus *Utopia* as Structural Models for SF

In this chapter I shall try to show that Wells's *The Time Machine* is (to put it prudently in the absence of further evidence) at least one, and that More's *Utopia* was another, among the basic historical models for the structuring of subsequent SF. One does not need to be a structuralist in the sectarian sense of opposing synchronic analysis to cultural genetics or taking myth as synonymous with literature to use some of the methods which structuralism shares with a whole exegetic tradition extending from, say, medieval discussions to some of Lukács's analyses or Kuhn's *Structure of Scientific Revolutions*. A student of Wells is emboldened in such an approach by the fact that comparative morphology was in Wells's student days one of the first great modern breakthroughs of the structural method. As he himself noted, biology was in T. H. Huxley's days establishing the phylogenetic tree, or "family tree of life": "Our chief discipline was a rigorous analysis of vertebrate structure, vertebrate embryology, and *the succession of vertebrate forms in time. We felt our particular task was the determination of the relationships of groups by the acutest possible criticism of structure.*"<sup>1</sup> Wells left no doubt of the indelible vistas the "sweepingly magnificent series" of zoological exercises imprinted on his eager imagination, leaving him with an urgency for "coherence and consistency": "*It was a grammar of form and a criticism of fact.* That year I spent in Huxley's class was, beyond all question, the most educational year of my life."<sup>2</sup>

- 1 H.G. Wells, *Experiment in Autobiography* (New York, 1934), p. 160, italics added. Students of Wells will recognize my large debts toward the critics and scholars, from Brooks and West to Bergonzi and Hillegas, Parrinder and Philmus, listed in Bibliography V, which will as a rule be acknowledged only in cases of direct mention or quote.
- 2 Wells, pp. 160–61, italics added. Compare also Wells's explicit preoccupation with biological "degradation" inherent in evolution under capitalism in the articles

It should not, thus, be too surprising to find in *The Time Machine* – which has much to say about succession of zoological forms in time – an attempt at coherence and consistency, “a grammar of form and criticism of fact.” Of course, this does not prejudice the particular grammar or criticism, the type of coherence and consistency that might be found in it.

I am proceeding on the hypothesis that the basic device of *The Time Machine* is an opposition of the Time Traveller’s visions of the future to the ideal reader’s norm of a complacent bourgeois class consciousness with its belief in linear progress, Spencerian “Social Darwinism,” and the like. The Victorian norm is set up in the framework of *The Time Machine* and supplemented by the Time Traveller’s reactions. His visions are shaped by means of two basic and interlocking symbolic systems: that of biological regression, and that of a color imagery polarized between light and darkness – both systems being allied with violence, pain, and the basic confrontation between Man and Death.

## 1. The Converging Biological Series

The one thing earlier drafts of *The Time Machine* have in common with the vastly different and superior final version is an opposition between the present and a different future.<sup>3</sup> However, the narrative organization of the final version manifestly took its cue from Darwinism as expounded

---

“Zoological Retrogression,” *The Gentleman’s Magazine*, 7 September 1891; “On Extinction,” *Chambers’s Journal*, 30 September 1893; “The Man of the Year Million,” *Pall Mall Gazette*, 9 November 1893; and “The Extinction of Man,” *Pall Mall Gazette*, 23 September 1894 – the first two reprinted in Philmus and Hughes, ed. (Bibliography V) and the last two in H.G. Wells, *Certain Personal Matters* (London, 1898 [1897]); also Wells’s comment in ‘42 to ‘44 (London, 1944), p. 9.

3 See Bernard Bergonzi, “The Publication of *The Time Machine*, 1894–1895,” *Review of English Studies*, N.S. 11 (1960): 42–51; also Bergonzi, *The Early H.G. Wells* (Bibliography V), and Philmus and Hughes, ed.

by Wells's teacher Huxley from 1860 on, and applied to "Evolution and Ethics" by Huxley's homonymous Romanes Lecture and the subsequent "Prolegomena" in the year preceding Wells's writing of the final version (1893–1894).

In the "Prolegomena," Huxley tried to face the implications of evolution applying not only to "progressive development" but also to "retrogressive modification," not only to "gradual change from a condition of relative uniformity to one of relative complexity" but also to "the phenomena of retrogressive metamorphosis, that is, of progress from a condition of relative complexity to one of relative uniformity."<sup>4</sup> Evidently the connotations of progress in the bourgeois liberal sense were being challenged by connotations that made it synonymous with any evolutionary change, for better or for worse; progress was being expanded to encompass the antonymic possibility of "retrogressive metamorphosis." Another variation of this ambiguity is the possibility of envisaging evolution in terms of devolution. Again in the "Prolegomena," setting up his basic exemplum or parable of English vegetation that might evolve from a primitive state of nature into a garden under purposeful (that is, ethical) human intervention, Huxley mused that "if every link in the ancestry of these humble indigenous plants had been preserved and were accessible to us, the whole would present *a converging series of forms of gradually diminishing complexity*, until, at some period in the history of the earth [...] they would merge in those low groups among which the boundaries between animal and vegetable life become effaced."<sup>5</sup>

Huxley was, of course, only indulging in the common evolutionist device of exalting even the humblest "indigenous plants" as wonderful products of an evolutionary chain.<sup>6</sup> This chain is here traversed backward

4 T. H. Huxley, "Evolution and Ethics – Prolegomena," in his *Evolution and Ethics. Collected Essays*, 9 (London, 1903), note 1 on p. 4, and p. 6.

5 Huxley, p. 5, italics added.

6 See, as outstanding examples, the final paragraph of chapter 6 and also chapter 21, in Darwin's *The Descent of Man* (London, 1874) – not to mention the famous parable of the tangled bank that concludes *The Origin of Species*. T. H. Huxley uses the same device, for example, at the end of chap. 2 ("On the Relations of Man to the Lower Animals") of *Man's Place in Nature* (London, 1863). The collocations of such

into the past and functioning as a kind of double negation – since the reader is tacitly invited to reascend the evolutionary ladder from the Protistae to the “humble” (now not so humble) indigenous plant in the direction of a diverging series of increasing complexity. But what if one were to take this formal exercise of Huxley’s literally, and his sense of uneasiness about evolution and progress versus devolution and regress seriously – that is, refusing a rhetoric that descends into the depths of the problem and of time in order to end with an upward flourish? All that would be needed is to suppress Huxley’s second negation by inverting his vision from past to future, and to imagine a canonic sociobiological “converging series of forms of gradually diminishing complexity” unfolding as a *devolution* that retraverses the path of evolution backward to a *fin du globe*. That is what Huxley’s heretical student did in *The Time Machine*: a slip under the time telescope, to use a Wellsian phrase.<sup>7</sup> “Canonic series,” of course, begs the

---

passages at the climaxes of books or book sections testifies both to the rhetorical effectiveness of the parable and to the Darwinist sense of its importance as ethico-aesthetical justification of evolution. The upward, *excelsior* course of the arrow of time provided a new type of dynamic sublimity analogical to the *per aspera ad astra* (*per evolutionem ad hominem?*) rise of the Victorian “self-made man.” For an approach to Darwin’s aesthetics and rhetoric see Stanley Edgar Hyman, *The Tangled Bank* (New York, 1962), and Walter F. Cannon, “Darwin’s Vision in *On the Origin of Species*,” in George Levine and William Madden, eds., *The Art of Victorian Prose* (New York, 1968), pp. 154–76, who situate them convincingly in ideological time and place. On Darwin’s concept of the sublime see Donald Fleming’s “Charles Darwin, the Anaesthetic Man,” in Philip Appleman, ed., *Darwin* (New York, 1970), pp. 573–89; Fleming speaks of Darwin’s hidden “Carlylean self,” p. 583, but for differences between them see Theodore Baird, “Darwin and the Tangled Bank,” *American Scholar* 15 (Autumn 1946).

- 7 This inversion of the Darwinian time-arrow seems to have been one of Wells’s basic intellectual, morphological, and visionary discoveries. His first work that transcends adolescent doodling (a student debating address in 1885) was entitled *The Past and Future of the Human Race*, the title of a key book in 1902 is *The Discovery of the Future*, and in 1936 it is (characteristically) the archaeologist in his *The Croquet Player* who speaks of the abyss of the future bringing the ancestral savage beast back (chapter 3). In *The Future in America* (London, 1906), p. 10, Wells explicitly connects monstrous science-fictional projections with such Darwinian anticipations.

question “according to what type of canon?” An answer is to be found by comparing the orthodox Darwinist and Huxleyan canon with the one actually used in *The Time Machine*. The orthodox seriation would, in simplified outline, look as follows:<sup>8</sup>

---

Strictly speaking, Darwin’s theory is neutral as far as prospects or the present state of mankind are concerned. He himself, although quite aware of biological retrogression, extinction, and such, assumed that biological groups “which are now large and triumphant [...] will for a long period continue to increase,” and stressed the ennobling aspects of evolution – see note 6, and *On the Origin of Species* (Cambridge, MA, 1964), pp. 126 and 488–90. For philosophical implications of the Darwinian time-arrow see, e.g., Loren Eiseley, *Darwin’s Century* (New York, 1958), pp. 330–31; for literary ones, the stimulating essay by A. Dwight Culler, “The Darwinian Revolution and Literary Form,” in Levine and Madden, eds., pp. 224–46. It was the opponents of Darwin’s theory who first seized upon its malevolent aspect – see chapters 12–14 of Leo J. Henkin, *Darwinism in the English Novel 1860–1910* (New York, 1940). On the other extreme, Spencer’s contention that evolution through struggle for life “can end only in the establishment of the greatest perfection and the most complete happiness” – *First Principles* (New York, 1900), p. 530 – is the real villain of this ideological drama or *piece a these*. The naive capitalist Spencerians or Social Darwinists (in the United States, e.g., Rockefeller or Carnegie) wholeheartedly embraced trampling the “less fit” multitude; John D. Rockefeller’s parable of the American Beauty rose, “produced [...] only by sacrificing the early buds,” deserves to be as famous as Darwin’s tangled bank or Menenius Agrippa’s fable of the belly and the members; see Richard Hofstadter, *Social Darwinism in American Thought* (Bibliography IV C), especially chapter 2.

8 Adapted from J. B. S. Haldane and Julian Huxley, *Animal Biology* (Oxford, 1927), fig. 81 on pp. 258–59.

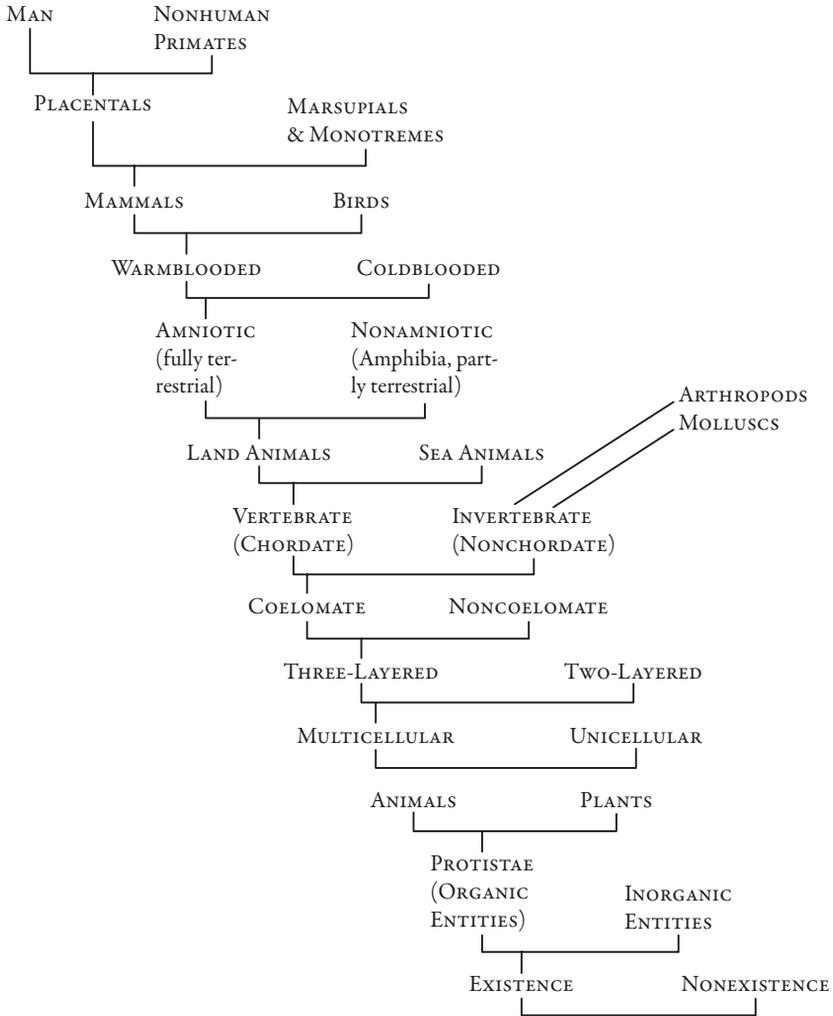


Figure 1.

The final two levels are an extrapolation going beyond biology but present in Lyell, Darwin, and T. H. Huxley.

As differing from this converging series, Wells not only used the symmetrically inverse time direction, changing the sign from plus to minus,

but also considerably foreshortened and regrouped the series (see figure 2). Comparing the two series, a number of significant divergencies obtrude:

(1) Even the simplified Darwinian seriation (omitting the level of chordates versus nonchordates, the distinctions between bony fish, cartilaginous fish, and cyclostomes, and so on) contains 12 levels beginning with placentals versus marsupials, whereas the corresponding Wellsian seriation contains six levels beginning with placentals versus marsupials, or five without this level, which is omitted in Wells's final version. The levels Wells retained are those that can be vividly represented by striking images. The differences between existence and eclipse, plant and animal, sea and land animal, "amphibian" crab and mammal are readily understood without the Darwinian schematism. They are based on a "self-evident" or commonsensical topical bestiary antedating Linnaeus, indeed, harking back to the dawn of human imagination. Therefore, they were eminently usable for producing in the average nonscientific but science-believing reader effects of stark opposition, such as the revulsion felt by the Time Traveller when faced with the giant crabs or with the unnamed archetypal "thing" from the sea. Though Wells's task as far as lower rungs of the phylogenetic series are concerned was facilitated by the unsettled state of invertebrate phylogeny at the time,<sup>9</sup> there is little reason to suppose scientific scruples carried significant weight with him. Indeed, when Wells had to choose between the ABC of Darwinian classification and a kind of folk biology, he unhesitatingly chose the latter, inventing – like the hero of his parable "The Triumphs of a Taxidermist" – new taxonomic positions: the triumph of a quasi-taxonomist, indeed.<sup>10</sup> This is evident in the third episode of *The Time Machine* where the crabs are – against all biological taxonomy – situated between the opposition placental versus marsupial (in the omitted "kangaroo" episode) and land animal versus sea animal, that is, in the false, "folk taxonomic" position of amphibian creature because of their location

9 See Wells, *Experiment*, p. 160.

10 See Wells, *Experiment*, for his references to "de-individualizing" and perceiving individuals in relation to a story and a thesis, on p. 175, p. 520, and particularly the "seriational" account of his creative imagination in the dispute with Conrad on p. 528.

or ecological niche. That ecological niche – the line where sea meets land – is easily represented and possesses rich literary overtones; the representation of a true, taxonomic amphibian (say Čapek’s giant salamanders) would lack the element of menace present in the insectoid antennae and claws, the alienness of eyes wriggling on stalks, and so on. Wells was to use this biologically collateral branch of arthropods for similar “creepy crawly” effects in “The Empire of the Ants” and “The Valley of Spiders,” just as he was to do with the taxonomically isotopic molluscs in “The Sea Raiders.” Incidentally, through the octopoid Martians from *The War of the Worlds*, the insectoid Selenites from *The First Men in the Moon*, and perhaps the vaguely reptilian bipeds of “In the Abyss,” Wells set the xenobiological paradigm for SF’s Bug-Eyed Monsters and Menaces from Outer Space right down to the supremely unscientific appellative “the thing.”

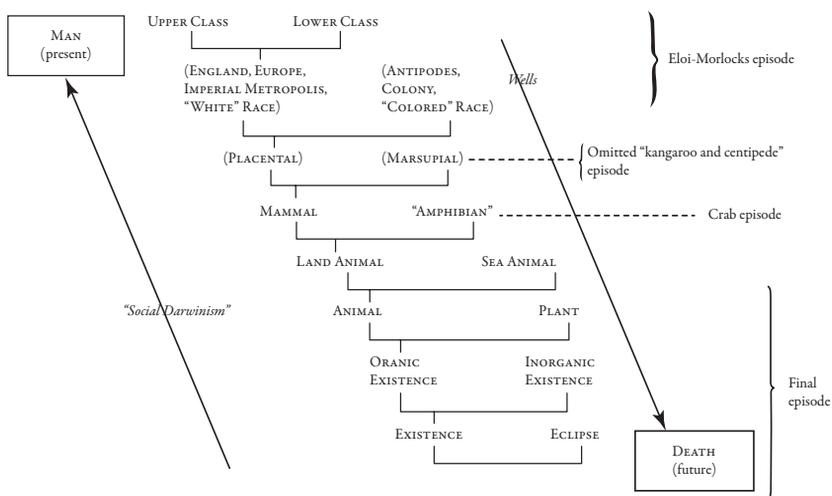


Figure 2.

(2) The beginning or top of Wells’s devolutionary series stems from a curious hybrid of deterministic or Malthusian pseudo-Darwinism and bourgeois, or indeed imperialist, social theory (and practice). That hybrid was represented not only by the “Social Darwinism” of Spencer but also, later, by Carnegie, Rockefeller, Nietzsche, and fascists of various stripes, all of whom translated

differences in socioeconomic position into a biological terminology and stressed the “survival of the fittest.” T.H. Huxley’s concern with the relationships of evolution and ethics is due precisely to an uneasiness about such uses of Darwinism. However, the usual strategy of the Social Darwinists was to use the more convenient and mystified vocabulary of racism, preaching social peace in the imperial metropolis and among “Whites” at the expense of colonial peoples or “lower races.”<sup>11</sup> Wells’s personal class experiences and conversance with Plato, Blake, Shelley, Morris, and Marx precluded at the moment of writing *The Time Machine* such a mystification and induced him to put the problem in its basic terms of social class rather than in pseudobiological ones. He was to be followed on that level by some of the best social criticism in SF, from Jack London’s fusion of Wells and utopianism in *The Iron Heel* to the anti-utopia of Zamyatin, the political “new maps of hell” of American SF in the 1940s and 1950s, and the satirical SF from the Warsaw Pact countries (Lem, Dneprov, the Strugatskys).<sup>12</sup> Indeed, the sequence of the Time Traveller’s hypotheses about the “Eloi episode” – (a) Communist classless society; (b) degenerated classless society; (c) degenerated class society; (d) degenerated inverted class society – comprises the whole logical gamut of sociopolitical SF, or of utopian and antiutopian fiction as the ideal poles of sociological SF, from More and Plato to the present day. Finally, with the Time Traveller’s realization that the capitalists and workers have not only degenerated and inverted their power roles but have also differentiated into separate biological species, one of which is the “cattle” of the other,<sup>13</sup> Huxley’s evolution that encompasses devolution comes true with a vengeance, even as the ideological basis of such speculations in real class fears and hopes is uncovered. The resulting “race” level of oppositions was

- 11 See, e.g., Wells’s explicit comment on such an attitude, which fused scientific progress and a sense of imperial mission in fin-de-siècle Britain, in *Joan and Peter* (London, 1918), book 1, chap. 3. In his admiration of Malthus, however, Wells himself was not always immune from it – say in *Anticipations* (New York and London, 1902), pp. 313–14 and the last three chapters generally. Such instances could be multiplied.
- 12 See some of their stories in (and also the preface to) D. Suvin, ed., *Other Worlds, Other Seas* (New York, 1972).
- 13 See the identical and no doubt seminal metaphor in Huxley, *Evolution*, p. 17.

to be used by Wells, again inverted, in *The War of the Worlds* or stories such as “Lord of the Dynamos.” Reverting to crude xenophobia and losing Wells’s ambiguities, this became the model for a whole group of subsequent and inferior SF narratives exporting social and national conflicts into outer space.

(3) It also becomes clear why Wells felt he had to delete the “kangaroo and centipede” episode. Not only did it completely break up the narrative rhythm by introducing at a still leisurely stage of narration two new phylogenetic levels in a single episode – marsupial and arthropod, of which, furthermore, the arthropod level is used again in the following “crab episode” – it added little to the basic opposition of the Time Traveller as mammal, land animal, and so forth, to non-mammals, sea animals, and so forth. On the contrary, it logically raised the dissonant question of using a full Darwino-Huxleyan converging series, beginning with the opposition of man (Time Traveller) to primates. With commendable tact, Wells was unwilling to venture onto grounds later annexed by Tarzan of the Apes, although he subsequently compromised under Kipling’s influence to the point of exploring the opposition Man versus (mammalian) Beast in *The Island of Dr. Moreau* (where Kipling’s serpent is needs omitted).

(4) Finally, if one looks at the distribution of the seriation levels in the episodes of *The Time Machine*, it is possible to gain further insight about its basic narrative rhythm, also characterized by growing pace and compression as the reader is swept into the story, the motivations and justifications gradually dispensed with, and the levels cumulated in an exponential progression. *The Time Machine* consists of a framework and the three phantasmagoric evolutionary futures I have called the “Eloi,” the “crab,” and the “eclipse” episodes. In the first British edition, their quantitative relationships are as follows:

Framework established, chapters 1–3, pp. 1–26

Eloi episode, chapters 4–13, pp. 27–133

Crab episode, first half of chapter 14, pp. 134–39

Eclipse episode, second half of chapter 14, pp. 139–41

Framework reestablished, chapters 15–16 and Epilogue, pp. 142–52

Or, taking into account only the inner narration of the Time Traveller’s experiences:

Eloi episode, year 802,701 – one seriation level (or two), 107 pages (Omitted “kangaroo and centipede” episode, year? – two seriation levels, ca. 4 pages)

Crab episode, several million years hence – one seriation level, 5 pages Eclipse episode, 30 million years hence – four seriation levels, 3 pages

Taking the Eloi episode as two levels (first a class and then a “race” or species one<sup>14</sup>), there is in the above four future episodes:

1. one level per 54 pages
2. (one level per ca. 2 pages – omitted)
3. one level per 5 pages
4. one level per 0.7 pages

One could venture further into a discussion of such an exponentially regressing rhythm – which is certainly analogous on its own structural level to the whole regressive structure of *The Time Machine* – but I shall confine myself to one general observation. The rhythm starts as *lento*, with two sociobiological levels envisioned for 107 pages. It continues as *presto*, with one biological level (mammal versus “amphibian”) for five pages, and ends in an abrupt *prestissimo* with four existential levels (land versus sea animal; animal versus plant – lowest plant forms at that; organic existence versus sand, snow, rocks, and sea; and existence of Earth versus eclipse) all present pell-mell, outside of their proper taxonomic order, within about three pages. This telescoping and foreshortening powerfully contributes to and indeed shapes the effect of the logical or biological series. Also, this asymptotic series makes it imperative that the Traveller finally vanish: its final and validating member can only be zero or nonexistence, extinction.<sup>15</sup>

14 Some evidence that Wells associated class and race as isomorphic antagonistic oppositions in conflicts between oppressors and oppressed, such as those that presumably led to the development of the Eloi and Morlocks, can be found in statements like the following: “the driving discontent has often appeared as a conflict between oppressors and oppressed, either as a class or as a race conflict [...]” (*Experiment*, p. 626).

15 See Robert M. Philmus, “The Logic of ‘Prophecy’ in *The Time Machine*,” in Bergonzi, ed. (Bibliography V), for effects of this structural device.

Thus, Wells's *Time Machine* has in the organization of its cognitive thematic material hit upon the law – inherited, as much else was, from *Gulliver's Travels*, and apparently unshaken in subsequent significant SF – that the cognitive nucleus of narration, or theme, can become a principle of narrative organization only by fitting into the storytelling parameters of pace, sequence, symbolic systematization, and so on. Wells knew of Haeckel's law that ontogenesis (development of any species' embryo) is a foreshortened recapitulation of phylogenesis (that species' evolution); in other words, that the new environment of individual embryonic gestation inflects and modifies – though it does not change the general outline of – the evolutionary sequence. Consciously or not, he applied the same principle to the new narrative and aesthetic environment – an environment to which the cognitive evolutionary sequence of Darwinian seriation had to adapt by evolving or indeed mutating. *The principle of a Wellsian structure of science fiction is mutation of scientific into aesthetic cognition.* A Wellsian narration is oriented toward cognitive horizons that it shares with any good handbook of sociology, biology, or philosophy of science. But the orientation is achieved in its own way, following the autonomy of a narrative, fictional aesthetic mode.

## 2. The Synoptic Paradigm

Obviously, in order to account for Wellsian narrative strategies paradigmatic of later SF, one would have to analyze the symbolic system that is intertwined with this regressive biological seriation inflected toward “folk taxonomy.” As a number of critics have noted, this symbolic system is based on violent oppositions of color, polarized between the Doomsday connotations of “eclipse black” and “fiery red” on one hand, and the green and bright colors of the utopian garden and sunlit landscaped vegetation on the other. It is not too difficult to see in these poles a coloristic translation of the opposition between tamed and untamed, safe and menacing, evolutive and devolutive nature. Huxley's parable of the cultivated garden or evolutionary Eden is thus

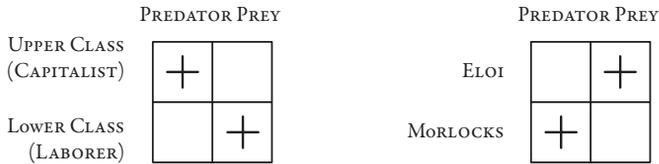
supplied with the missing black hues.<sup>16</sup> Moreover, the analysis of this aspect would entail a full and lengthy exploration of Wells’s particular anthropology and cosmology. Instead, I would like to further examine the temporal orientation of *The Time Machine* and the basic oppositions implicit in the announcement of the bad, devolutionary, or black future in store for the bourgeois reader as a sociobiological entity, or for any reader as a cosmological entity, and compare this to the utopian alternative.

The Time Traveller’s futures are a geometrically progressive series of devolutions, which can, by explicating the implicit opposition between (1) Social-Darwinist Britain and (2) the particular future vision, be tabulated using a Lévi-Straussian schematism. This would play upon the Social-Darwinist preconceptions of a “natural” order of power and of a safe evolutionary progress keeping each “lower” evolutionary rung in its place as prey of the “higher” predator; Wells takes these preconceptions over wholesale and simply inverts them. What results is an inverse and symmetrical structure, which can be finally reduced to a general abstract scheme or paradigm:

(1) SOCIAL-DARWINIST BRITAIN

(2) THE FUTURE

a. Eloi episode



b. Crabs episode

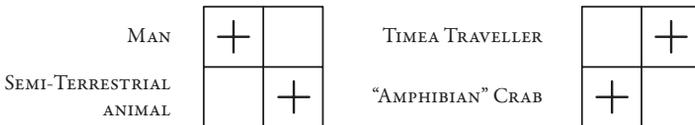


Figure 3.

16 But see *Evolution*, pp. 17 ff., for Huxley’s Malthusian “serpent within the garden.”

This cumulates the logical profession of man/mammal and land animal/sea animal – compare the “kangaroo” episode left out.<sup>17</sup> (Clearly, the missing link in and paradigm behind *The Time Machine*, that is, the opposition between man and land animal, is to be found – as are many other aspects – in *Gulliver’s Travels*.)

*c. Eclipse episode*

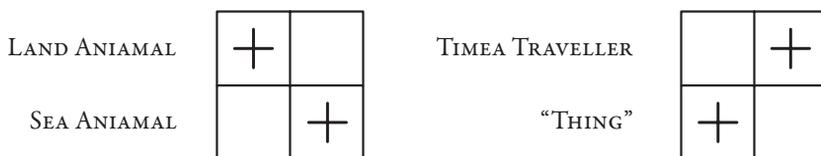


Figure 4.

In the last episode, the tentacled “thing” does not attack the Time Traveller because he flees in time, but it is clearly the master of that situation. It is reinforced by the additional presence of liverwort and lichen, the only land survivors; of the desolate inorganic landscape; and of the blood-red Sun in eclipse, which suggests the nearing end of Earth and the whole solar system. The episode, as has been explained, telescopes the taxonomic progression of land animal/sea animal, animals/plants, organic/inorganic, existence of the Earth and the solar system/destruction of same – the last being left to the by-now-conditioned extrapolative mechanism of the reader.

The progression is a “black” progression, or regression, also insofar as both parties of any preceding paradigm are subsumed as prey in the succeeding one. All classes of mammals are (symbolically, by way of the Time Traveller as Everyman) the prey of crabs in (b); all land animals, even the

17 Wells’s 1894 essay “The Extinction of Man” (see note 2) discusses this inversion of power roles with man succumbing – among other possibilities, all later used in his SF – to huge land-crabs or unknown sea monsters: “In the case of every other predominant animal the world has ever seen, I repeat, the hour of its complete ascendancy has been the eve of its complete overthrow,” he concluded in the hyperbolic night-and-day imagery he was to use in his SF too.

“amphibious” crabs, have by (c) succumbed to more vital and primitive sea animals, mosses, and lichens; and in the suggested extrapolation of a destruction of Earth and/or the solar system, all life would succumb or “become prey” to inorganic being, cosmic processes, or just entropy.

The general scheme of Wellsian SF, true of his whole early period of SF novels and stories, is thus:

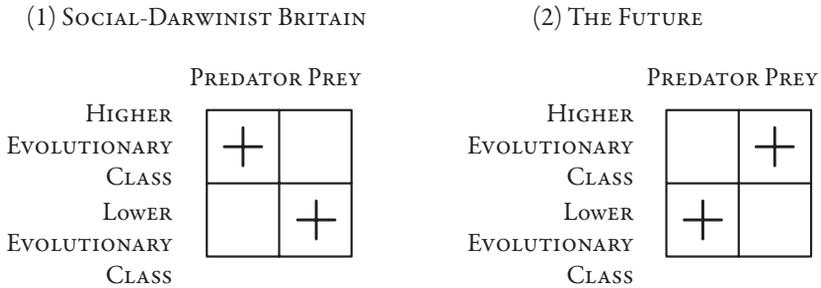


Figure 5.

It is logically, genetically, and genologically relevant to compare this scheme to the basic opposition in More’s *Utopia* and Morris’s *News From Nowhere*<sup>18</sup> – it should be remembered the first reaction of the Time Traveller was to suppose he had found a pastoral communism. The relevant oppositions here are: England is empirically present, but axiologically empty or bad; utopia is empirically absent (*ou-topos*, nowhere) but its values are axiologically affirmed (*eu-topos*) or present. The oppositions Locus/Value

18 In *News From Nowhere* the formally identical opposition is no more spatial (as with More) but temporal, an opposition between present and future but a hopeful rather than a black one (as with Wells). Morris’s norm of a utopian future is historically, in fact, the hinge between the norms of Renaissance utopia (spatial and optimistic) and Wellsian SF. Together with the liberal optimism of, say, a Verne, Morris’s norm was thus what Wells was reacting against by returning to Swift’s horizon. See more about this at the end of this chapter as well as in the preceding historical chapters. However, it should already be clear that the two main influences on modern SF are sociological optimism and anthropological pessimism. Wells’s career oscillates between these two.

and Present/Absent give rise to the following scheme, and it should be no surprise that it shows Utopia or Nowhere as (inverted) mirror images of England in Wells's here-and-now:

(1) BRITAIN	(2) UTOPIA				
PRESENT    ABSENT	PRESENT    ABSENT				
LOCUS	<table style="border-collapse: collapse; width: 100%; height: 100%;"> <tr> <td style="width: 50%; text-align: center;">+</td> <td style="width: 50%;"></td> </tr> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">+</td> </tr> </table>	+			+
+					
	+				
VALUE	<table style="border-collapse: collapse; width: 100%; height: 100%;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">+</td> </tr> <tr> <td style="width: 50%; text-align: center;">+</td> <td style="width: 50%;"></td> </tr> </table>		+	+	
	+				
+					

Figure 6.

Utopia as a literary genre is defined by a radically different location and a radically more perfect community, by an *alternative formal framework* functioning by reference to the author's empirical environment. As it is argued in chapter 3, No-place is defined by both not being and yet being like Place, by being the opposite and more perfect version of Place. It stands on its head an already topsy-turvy or alienated world, which thus becomes dealienated or truly normal when measured not by ephemeral historical norms of a particular civilization but by "species-specific" human norms. Utopia is thus – like *The Time Machine* but also quite unlike it – always predicated on a certain theory of human nature. It takes up and refuncions the ancient topos of *mundus inversus*: utopia is a formal inversion of significant and salient aspects of the author's world, an inversion which has as its ultimate purpose the recognition that the author (and reader) truly live in an axiologically inverted world.

In More's *Utopia* the analysis of space without value in book 1 (England; "here") is opposed to an axiologically "full" space presented in book 2 as Hythloday's revelation (Utopia; "out there," isomorphic with folktales of a just and abundant place beyond seven seas). This induces the logical and magical possibility of arriving at that utopia in space or time, of finding or constructing a sociopolitical Earthly Paradise. On the contrary, the general predatory paradigm of Wellsian SF is finally ambiguous. In its *inversion* of

Social Darwinism, it supplies a subversive shock to the bourgeois reader; in its *use* of the parameters of Social Darwinism, however inverted – that is, of the anthropological vision dividing all life, including man, into predator and prey – it supplies a subversive shock to the humanist and socialist reader, it is anti-utopian or black. Wells’s seriation converges upon absence of value and existence, a lay hell:

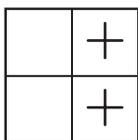


Figure 7.

as opposed to the utopian terrestrial paradise of More and Morris:

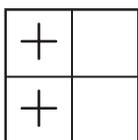


Figure 8.

### 3. The Proportions of Power, and A Return into History

One final aspect of *The Time Machine’s* structure, which is again a methodological key for much SF, is the use of *proportion* or *rule of three* (A is to B as B is to C). Wells himself admitted he used this extrapolative method – arriving at C given the known increase from A to B – to depict the megalopolis in *When the Sleeper Wakes*, but lamented its arithmetic linearity and obviousness as “thoroughly wrong.”<sup>19</sup> As often, he was right

19 Wells, *The Future in America*, pp. 11–12.

in the particular and wrong in the general, for proportion does not have to be used as a simple arithmetic rule of three or linear extrapolation: that is merely its more primitive variant (see chapter 4, section 2.5.). Indeed, proportion as a specific method for formalizing classification and seriation seems to be one of the basic approaches and inescapable epistemological tools of SF, if this literary genre is based upon the cognitive estrangement induced by a significantly different novum (figures and/or loci) of narration. For “significantly different” means also “belonging to another classifying category” (sociological, biological, anthropological, cosmological, and so on).

In both the Darwino-Huxleyan and the Wellsian biological series from section 1 of this chapter, each subsequent term cumulates, as was noted in section 2, the two preceding terms, thus setting up a new opposition on a more primitive evolutionary level. Thus in the Darwinian series placentals embraces both man and nonhuman primates in opposition to marsupials, warmblooded subsumes mammals and birds in opposition to coldblooded, and so forth. The peculiarity of this seriation, Wells saw, is that its two extremes, Man and Nonexistence, are privileged members. In both series, Man is the highest evolutionary category, and he is contained in all the left-hand members of both Huxley’s and Wells’s series. In the Darwino-Huxleyan series, Man is placental, mammal, warm-blooded, amniotic, land animal, vertebrate, and so on down to organic being. In the Wellsian series, Man is mammal, land animal, animal, organic being, and existing entity as against the respective negations. Any negation can come into play only when opposed to Man, that is, when the Time Traveller in the last two episodes beholds for himself, and for the human readers, the crabs, the “thing” from the sea, the lichen and liverwort, the desolate rocks and sea, and the eclipse. At those points, the Time Traveller is a generic representative of *Homo sapiens*, an Everyman defined in terms of biological rather than theological classification, as a species-creature and not a temporarily embodied soul. The medieval Everyman was an immortal soul in a mortal body; the principle of individuation was saved. Symmetrically but inversely the Darwinist Everyman is a quasi-immortal species (germ-plasm) in a mortal body; the principle of individuation is lost. But quasi-immortal is

not immortal:<sup>20</sup> even the generic principle could get lost, and biology is full of cautionary tales about dominant species or whole orders (such as the giant reptiles, significantly absent in *The Time Machine* though a staple of much SF since Jules Verne's *Journey to the Centre of the Earth*) that disappeared in the depths of geological time. The mighty are humbled indeed in such perspectives, which Wells turned against Victorian complacency with zest and relish.

In the Eloi-Morlocks episode, however, the Time Traveller cannot be simply a representative Man, since he is faced with creatures that are maybe no longer *Homo sapiens*, but are certainly other races or species of the genus *Homo* (say *Homo eloi* and *Homo morlockius*).<sup>21</sup> What he can be, as against the unifunctional Hominidae of year 802,701, is a complex Victorian gentleman-inventor who displays various fin-de-siecle attitudes when faced with shifting

20 See, e.g., Wells's anonymous article "Death" in 1895, reprinted in Philmus and Hughes, eds., which makes exactly this point.

21 Tangentially be it remarked that T.H. Huxley explained at length in his works – and no doubt in his lectures – the difference between physiological and morphological species, which is intricate and mainly resolvable by experimental crossbreeding. In Weena, the mawkish avatar of Dickens's Little Nell and similar Victorian girlish heroines, Wells supplied the Time Traveller with a somewhat imperfect subject for such experimentation. Wells's private and later literary efforts at sexual liberation prove, I think, that he passed up the clearly present sexual considerations only out of reference to very strong social taboos. One has to regret this, though one can blame him the less, considering that the taboo has been prudently respected in SF until the end of the 1960s in the most ludicrous ways (see for the example of the Tarzan-Jane relationship Richard D. Mullen, "E.R. Burroughs and the Fate Worse than Death," *Riverside Quarterly* 4 [June 1970]: 186–91); and in the last decade this sex taboo has often been as ludicrously and immaturely infringed. It almost goes without saying that French SF was different, from *L'Ève future* by Villiers de l'Isle Adam to Vercors's *Murder of the Missing Like* (*Les Animaux dénaturés*), which has exactly this experiment in miscegenation – performed by a Daniel Ellsberg among zoologists to force a test-trial for antigenocidal purposes – for its theme. Still, it is a loss that Wells never really fused his sexual liberation novels and his scientific romances into xenoerotics of the Rosny Aîné, Dorémieux, or Farmer type; but here, too, he provided at least an "empty" model.

situations and interpretations of the Eloi and the Eloi-Morlocks relationship. Christopher Caudwell's critique implying that the Time Traveller occupies an intermediate position between the two new species, a position isotopic with the position of the petty bourgeois Wells disdainful of a decadent upper class but horrified and repelled by a crude lower class, seems to me, for all the nuances and elaborations it needs, to remain a key for interpreting the topographic and the color symbolism of that episode.<sup>22</sup> In the later episodes the Time Traveller is placed in an ever widening temporal perspective that corresponds to the descent down the phylogenetic series.

Returning to the proportions inherent in *The Time Machine*, it becomes clear that section 2 of this chapter is a synchronic presentation of the devolutionary diachrony discussed in section 1. On each devolutionary level in Wells's narration there is a symmetrically inverted situation usually mediated by the Time Traveller, as:

- (a) Victorian upper class dominates over the Victorian working class, which is the inverse of the Eloi's position in respect to Morlocks; or VUG: VWC = [E: M]<sup>-1</sup>.
- (b) In the present geological epoch, Mammals are more powerful than "Amphibians," which is the inverse of what the Crabs are to the Time Traveller; or M: A = [TT: C]<sup>-1</sup>.
- (c) In the present geological epoch, Land Animals prevail in the mastery of the globe, which is the inverse of the panic flight the "thing" from

22 See Caudwell (Bibliography V). For Wells's view of any historical "social edifice" as divided into a basic "labouring class" and a "superior class" – a view clearly echoing *The Communist Manifesto*, probably by way of Morris – see his *Anticipations*, pp. 75–83; that passage leads into a discussion on pp. 83–91 of the parasitic decadence of both the fin-de-siecle upper and lower classes, the "shareholders" and the "abyss" (the latter a metaphor that Jack London was to pick up in *The People of the Abyss* and *The Iron Heel*). That such a "future decadence" is the source of the Eloi-Morlocks episode is explicitly brought out in the conversation with Theodore Roosevelt at the end of *The Future in America*. However, the *Anticipations* passage continues with a long discussion, pp. 92 ff., of the rise of a new middle class of educated engineers and scientific managers that holds the only hope for the future. Wells's subsequent ideological career is, as Caudwell rightly remarked, a search for this third social force.

the sea puts the Time Traveller to; or LA: SA = [TT: Th]<sup>-1</sup>. The “normal” hierarchical relation Animals: Plants is inverted in the survival of hardy lichen and liverwort after animals have died out (though there is a sleight-of-hand here since the sea “thing” has not died out, thence its first inanimate appearance), thus A: P = [TT: L&L]<sup>-1</sup>. The same holds true for the relations Organic: Inorganic Existence, and finally for Existence: Entropy.

The unity of this series of proportions and of *The Time Machine’s* composition hinges on the full – though somewhat unmotivated because ideologically mystified – sympathy the Time Traveller must, for all his cavils, feel for the Eloi. They occupy the same position, which is simultaneously characterized by functionally appertaining to the upper class and yet being powerless in relation to the “lower” Social-Darwinist class of Morlock, Crab, “Thing,” and so further into cosmological entropy. The series of proportions can be recapitulated as:

$$\begin{aligned} \text{VUG: VWC} &= [\text{E: M}]^{-1} \\ \text{M: A} &= [\text{TT: C}]^{-1} \\ \text{LA: SA} &= [\text{TT: Th}]^{-1} \\ \text{A: P} &= [\text{TT: L\&L}]^{-1} \end{aligned}$$

One notices the isotopism of the Eloi and the Time Traveller. It springs from the fact that the horror of this inversion of basic *power norms* is predicated upon the Time Traveller’s being also a mammal, a land animal, an animal, an organic being, and finally an existing entity; this is a continuation and validation of the Eloi and Morlocks being descended from, apparently corresponding to, and certainly being magically associated with the Victorian upper and lower class. The different sociological, biological, and cosmological oppositions in the Wellsian series have the final common denominator of dominant existence or power. *Power is the arbiter, fate, or nemesis in SF* – and in utopias as social-science fiction.

As was suggested in section 2, the paradigm for these proportions is undoubtedly supplied by the relationships in *Gulliver’s Travels*, in particular the black Swiftian variant of book 4: Horse: Houynhnhm = Man: X. “X” is the *animal rationale* Swift believed might perhaps

be found in some individuals but not in mankind as a whole. Though there might be a few noble men *rationis capax*, such as Captain Mendez or Lord Munodi, there was no rational Noble Man corresponding *sub specie humanitatis* to the Noble Horse, and the only fully consistent categorical alternative was that mankind is Yahookind, *animal implume bipes*.<sup>23</sup> Beyond that, section 2 tried to show how Wells's paradigm leads back to More's *Utopia*. Between More's inversion from axiologically bad to good, and Wells's inversion of biologically dominant to dominated, Swift's absence of the Noble Man (synthesizing axiology and biology) provides the middle term. This section on proportion might fittingly conclude with noting the secular proportion:

*Utopia: Gulliver's Travels = Gulliver's Travels: The Time Machine.*

In terms of ideological vision – though perhaps not in terms of formal accomplishment – this is also a devolutionary series. Beside Man, Nonexistence or Death is the second privileged member of Wells's scale. Finally, as in the magnificent eclipse description, the two allegorical protagonists Everyman and Death meet again: and it is not Everyman who wins. Having adopted such horizons, modern Anglophone SF from Stapledon to Heinlein or Orwell, Pohl or Aldiss, Vonnegut or Ballard had to concentrate on filling in Wells's paradigm and varying its surface. The only

23 For a first approach to the complicated categories and proportions in book 4 of *Gulliver's Travels*, see Elliott (Bibliography II), Brady, ed., Greenberg, ed., and Tuveson, ed. (all in Bibliography III E), especially the essays by R. S. Crane in the Brady volume and Joseph Horrell in the Tuveson volume. See for these categories, as well as the evident connections between Swift and More, also my chapter 5. Aristotle points out in *Poetics* 1457b that any metaphor is either (1) a relation of species to or within genus, or (2) an analogy that always presupposes the  $A : B = C : D$  proportion. In the theoretical chapters of this book I attempted to demonstrate that significant SF operates on the analogical model. It is thus understandable that the clearest paradigm of SF is to be found in *Gulliver's Travels*, and that Wells closely followed it. He revived the paradigm by substituting Darwinist evolution for Swiftian or Christian-humanist ethics, and the classification methods of *arbor buxleiana* for those of *arbor porphyriana* – Huxley being to Darwin what Porphyrius was to Aristotle (on the Porphyrian tree see Walter J. Ong, S. J., *Ramus, Method, and the Decay of Dialogue* [Cambridge, MA, 1958], pp. 78–79 and passim).

other course would have been to return, on a higher bend of the spiral, to the original Morean paradigm: a turn that it has so far been either unwilling or unable to take. For better or for worse (as Russian literature is said to have sprung from Gogol's *Overcoat*), all of this SF has sprung from *The Time Machine*. Furthermore, even the temporary or final abandoning of SF in favor of futurology, popular punditry, and more prestigious literary genres is another case of Wells's paradigmatic position in relation to the sociology of SF (from Asimov and Pohl to Vonnegut and Ballard). And in Wells's concomitant utopian speculations (so much more muddled and less cognitive than his early SF) there can be found the reasons for and social roots of such unwillingness, inability, and abandonings.

