18 See the remarks on Walther in Fisher, "Walther von der Vogelweide." In his interpretation of this song, Gutenbrunner mentions in passing the possibility of using "begleitende Seufzer" in performance to bring out an element of parody, specifically parody of Walther (252). There would seem to me to be no good reason why any performance, whether parody or not, could not be accompanied by gestures, sighs, changes of voice and so on to add to the dramatic effect.

TECHNOLOGY AND PROGRESS IN JULES VERNE, OR ANTICIPATION IN REVERSE

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In 1994 a long lost Jules Verne manuscript re-emerged after an absence of no less than one hundred and thirty-one years. Its publication was an immediate *cause célèbre*, both in the world of literary scholarship and among the wider reading public. This novel would, we were told, throw new light on the entire corpus of the *Voyages extraordinaires*, notwithstanding the fact that Verne's editor Hetzel had summarily rejected the manuscript and that Verne himself had subsequently lost interest in it. Clearly, the discovery of this text so long after the event was serendipitous, for, while there are explicit references to it in Verne's correspondence and elsewhere, its contents had remained a matter of pure speculation among scholars. By the 1990s, no one seriously expected that the collective curiosity would be so fully gratified. Even the manner of the manuscript's discovery–it was in an old family safe believed to be empty–seemed almost mythically appropriate to the situation. Like a message in a bottle from a castaway, miraculously reaching one continent from another, there was Verne's text bringing a vision of the twentieth century right out of the nineteenth. How Vernian!

The manuscript to which I refer is, of course, that of *Paris au XXe siècle*.[1] Verne's so-called "futuristic" novel about Paris, probably penned in 1863 after the success of *Cinq semaines en ballon*, was hailed upon its rediscovery as a prophetic text foreseeing many of the technological innovations of the twentieth century. It fuelled a

tenacious and hugely popular myth about Verne as a writer who foretold the future, "inventing" modern technology through the power of his imagination. *Paris au XXe siècle* was, if we were to believe the pundits, the quintessential Vernian text, and numerous excited articles appeared in newspapers and periodicals around the world proclaiming the importance of this *trouvaille*.[2] No doubt it would allow us to put the value of Verne's visions to the test, to gauge the accuracy of his predictions or the depth of his insights into the future—or rather, and more appropriately, *his future* and *our past*, since the novel is set in 1960. Here was Verne's very own postcard from Paris—not the Paris of yesteryear but the modern City of Light. How would it measure up?

Sadly, Jules Verne's work turns out to be little more than an interesting curiosity, albeit an important piece in the literary historian's jigsaw puzzle. It has neither the apocalyptic *frisson* of Huxley's *Brave New World* nor the political punch of Orwell's *1984*. *Paris au XXe siècle* is a poorly written novel with a weak plot and often reactionary or superficial ideas.[3] It evokes a dystopia that is more a projection of nineteenth-century disillusionment than a sign of technological vision, and ironically, it rather undermines that myth of Verne as prophet which its much-hyped publication was supposed to promote. Throughout, the text addresses a nineteenth-century readership, whose cultural or artistic values provide a framework within which evocation of the future can take place. The vision of the twentieth century, in so far as it exists, is dependent on explicit and frequent references to the nineteenth, seen as its originating moment.[4] The future is, for Verne, located in the past, although that past, it seems, was already in some sense an anticipation of the future—an empty chiasmic relationship between two temporal zones, in which each is the other and neither is quite itself. We shall return to this paradox, for with various changes of emphasis it runs throughout the *Voyages extraordinaires* and reveals an underlying tension in Verne's writing.

Hetzel, who had already published *Cinq semaines en ballon* and was now steering Verne towards a new form of scientific and educational fiction, immediately saw that *Paris au XXe siècle* was an inferior work and said so in emphatic terms to his new protégé. "Il n'y a pas là une seule question d'avenir sérieux [sic] résolue, pas une critique qui ne ressemble à une charge déjà faite et refaite," he wrote in his letter of rejection (*Paris au XXe siècle* 15-16.) Certainly, if we are tempted to find anything of our own world in Verne's vision of a soulless and materialistic society, we should remember that his story of a young poet living in a world where literature is a dirty word is one of the great clichés of his own age.[5] The novel is something of a disappointment, notwithstanding that most promising and seductive of titles. Even where Verne does appear to offer a real vision of technological progress, this is patchy and implausible, and there is little in it by way of an authentic futuristic intuition. Where he "invents," Verne is in truth using a method that will serve for nearly all of his best-known texts. He rewrites what is already known and documented—a technique that was to involve him in having to counter possible charges of plagiarism on more than one occasion in the course of his career[6]—and in an apparent demonstration of his good faith (or is it mere disingenuousness?) he even reveals his sources.

What may sometimes look like a daring imaginative leap into the future is, then, usually no more than the product of Verne's copious and compulsive note taking. As an avid reader of popular scientific, geographical or technological literature, he always had a ready store of recyclable information.[7] Whilst his depiction of a metro system with driverless trains (43-46), of automobiles propelled silently by gas (46-47), or more curiously of a kind of fax technology (69-70), might at first suggest a future foretold and foreseen through the magical power of the writer's mind, these ideas were all very much in the air at the time of writing. Far from setting himself up as an artistic visionary in the mode of Hugo or Baudelaire, "deciphering" the signs of the visible world for the sake of the common mortal, Verne is simply working available material into his fiction. His technological ideas had been consigned from other sources to his famously efficient index-card system, refined and perfected during a long period of literary apprenticeship.[8] The metro system is in fact based on a system proposed by the geographer Adolphe Joanne. (Mentioned by name in the text, Joanne was the founder of the *Guides Joanne*, prototype of the modern *Guides Bleus*.) It has an elevated railway in the American style rather than the underground one of the London

system—where, by an interesting coincidence, the first trains had run in 1862. The so-called "gaz-cabs" are, for their part, based on a gas motor invented in 1859 by Etienne Lenoir (also acknowledged in Verne's text), which became the blueprint for the modern internal combustion engine. As for the fax technology, which at first sight might seem like a technological bulls-eye on Verne's part, it too is a reference, as we are explicitly told, to a system which had been devised by the Italian inventor Giovanni Caselli in the late 1850s. Caselli's "pantélégraphe" had attracted very considerable attention and had been the subject of numerous newspaper articles. Napoleon III had even visited Caselli's workshop and allocated funds to the development of his system, which ultimately failed for commercial not technical reasons.[9] So if Verne is able to evoke the existence of a sophisticated telecommunications system, it is not that he himself invents it but rather that he refers in his fiction, through very available sources, to current knowledge and speculation. As has often been said, he rarely if ever goes beyond what is actually known and documented.[10]

Verne once said in an interview with a journalist that there was indeed nothing invented or imagined in his work, and that this was the fundamental difference between himself and H. G. Wells.[11] Where there is uncertainty he opts deliberately for imprecision and vagueness, as is the case in the description of the implausible electricity source which powers the *Nautilus* in *Vingt mille lieues sous les mers*. What is unknown is only briefly admitted in Verne's novels, and his world is largely one of unwieldy nineteenth-century contraptions put together with the incomplete means at the writer's disposal—more a manifestation of technological nostalgia, it would seem, indeed of a mythical fascination with the machine,[12] than an instance of technological prediction. In *Paris au XXe siècle* the vision of the future may include suggestions of electronic technology, but on the other hand it does not extend to the invention of steel-nibbed pens, and Verne has his hero Michel write with quaintly old-fashioned nineteenth-century quills. No suggestion here of the advent of the typewriter which, patented in the US in 1868, was on the point of transforming commercial life as Verne was writing his text. The calculating machines are, we are told, like "de vastes pianos" (68-69), improbable instruments when compared with our modern laptops or credit card calculators, though perhaps not so far from the computers of 1960 when Verne's story takes place.[13] Yet it is an uneven world that Verne presents—not that he can be blamed for that, since the real interest of his technique is the placing of fiction within a framework of contemporary scientific debate, but this emphatically gives the lie to the commonly held view of Verne as a kind of Nostradamus of the nineteenth century.

Indeed, as Vernian scholars unendingly proclaim, the *Voyages extraordinaires* are far from being the work of a technological prophet,[14] and it is sometimes easy for us to forget today that much of the technology in his novels was already in existence. That this simple truth should *need* to be underlined with such insistence and such regularity by critics is perhaps itself a sign of the gulf that separates popular and specialist perceptions of Verne—although the repeated assertion that Verne is *not* futuristic is now interestingly close to becoming a cliché in its own right, a kind of scholarly inversion of the popular image. Scholars and reading public seem to have locked horns on this point, but there is no simple way out, since there is a momentum of discourse which unfailingly sets the agenda of discussion. As one of the cultural icons of modernity, Verne has himself become a myth which itself produces new "fictions" of all kinds, so the scholar is obliged to contend with and constantly deconstruct this process even when such tactics carry with them the risk of repetition and cliché. Certainly, when one looks at the corpus of Verne's work, it is clear that only a very small number of his texts are, like *Paris au XXe siècle*, actually set in the future—the most notable being two which may not even have been penned by Verne himself, but by his son Michel: *La Journée d'un journaliste américan en 2889* and *L'Eternel Adam*. We shall be returning to these interesting and intensely problematic texts. For the moment, though, let us ask another, simpler question. Why *is* an author who wrote a relatively small amount about the future hailed almost universally as the founding father of science fiction? In other words, where does the view of Verne's writing as the fiction of the future come from?

One possible answer among many to this question might be that Verne's very obvious fascination with technological or scientific

progress in the present is already suggestive of a future, even as it evokes the here-and-now of human inventiveness. Perhaps it is important to remember that science and technology are, in the nineteenth century, still considered innovative and magical, for they suggest the dawn of a new civilization and a new mode of existing.[15] Verne's fascination with the machine is apparent throughout the *Voyages extraordinaires*, and almost unfailingly the machine is the symbol of the power of human progress. As steam replaces sail for long ocean voyages, ships become particular objects of admiration for Verne—be they new and powerful warships, as in for example *Les Forceurs de blocus* (1865), or majestic ocean-liners, such as the *Great Eastern* which Verne himself travelled on and which he describes fulsomely in *Une ville flottante* (1870). The future in Verne's work is rarely anything other than an extension or expansion of a cornucopian present which promises so many possibilities. His particular originality as a writer is to have introduced the mechanical or technological dimension into the literary text at a time when literature and science were still held to be puzzlingly incompatible (though that attitude was on the verge of change). Whatever image of the future there is in Verne's work, it almost always remains explicitly fixed in nineteenth-century realities and beliefs. This future has no future of its own towards which it boldly looks and, unlike the "progressive" nineteenth century, seems able only to look back to its own past for an identity.

As to the practical and ideological constituents of technological change in Verne's work, they are always firmly grounded in the documents and discourses of his own era. Nemo's fantastically efficient submarine is a literary construction based principally on records of developments that took place in the 1850s and 1860s.[16] It is symbolically appropriate—for this underlines the essential bookishness or textuality of Verne's world—that the submarine's most important room is the library where Aronnax finds all the canonical scientific works of his age. The *Nautilus* is less a feat of engineering than a collage of documents duly annotated by its author, who thus proceeds exactly as does the main character in his book, in a revealingly specular relationship. And like the missile that gets fired to the moon in the two lunar novels, Verne's machine would in reality be an impossible, implausible, impractical and probably thoroughly uncomfortable vehicle, even supposing it were capable of travelling an inch. In the later *Robur-le-conquérant* (1886), the flying machine that Robur constructs is a hybrid device, half-aeroplane, half-helicopter, based on contemporary debate about the possibility of heavier-than-air flight. Like so many of Verne's vehicles, it is "futuristic" only in so far as it proclaims a triumphant belief in the progress of nineteenth-century technology, as evidenced in available texts. That Verne should have envisaged a form of literature which achieves this fusion between the texts of technology and the constraints of fiction is itself of far more interest than the quality of the scientific vision he proposes. Yet that form of writing further anchors him as a man of his century—a true nineteenth-century believer in the role that science and technology must henceforth play in every aspect of life, and a firm advocate (or so it would seem until we read *L'Eternel Adam*) of the very ideology of progress. As a framework, then, nineteenth-century ideology wholly determines the construction of Verne's so-called futuristic visions—not only because his own century is held up as the birthplace of scientific and technological innovation, but also because his belief in that originating moment is itself a powerful manifestation of nineteenth-century positivistic beliefs on which the *Voyages extraordinaires* rest.

So in the very same gesture by which they suggest a vision of progress, appearing to point to the future, Verne's texts also return with what we shall call anticipated nostalgia to the nineteenth century itself, with its cranky but sometimes spectacular technologies and its dogmatic ideas. The future returns to the present, even as the present presupposes that future which will remain fixated on it. We have two temporal continents, and the only journey that can be made between them is that of words and texts which shuttle back and forth. Verne's subject may not even be the discovery of new worlds but the business of writing itself, where the fiction of the future enables him to revisit and make sense of the present, perhaps indeed to question its underlying ideologies. But in this two-way process we are, perhaps, beginning to get a glimpse both of why the reading public cling so tenaciously to the view of Verne as a futurist—because in a sense there *is* a fascination about what the future holds—and why the critics are

therefore condemned, because of the self-destructive logic of Verne's vision of the future, to reject such a notion as simplistic. Both of these views are true, and yet their coexistence is itself a fascinating contradiction. If the *Voyages extraordinaires* suggest progress towards the future, progress is also a turning back or, to use the expression that figures in the title of another recently published Verne manuscript, a "voyage à reculons."[17]

One striking instance in the Vernian corpus of a work which confronts present and future in this way is the short story *La Journée d'un journaliste américan en 2889*, included in the posthumous 1910 collection *Hier et demain*. It seems appropriate to use the words "the Vernian corpus" here, because it is certain that Verne's son Michel had a hand in this story, the original version of which was written in English and appeared in the American review *The Forum* in February 1889, under the title *In The Year 2889*.[18] Much has been written about Michel Verne's involvement in the later and the posthumous writings of his father, and this is not the place to reopen that discussion.[19] However, critical debate about Michel's interventions, while conceding that their precise nature and extent are matters of uncertainty, seems to be unanimous in asserting that they are particularly well attuned to the corpus and must be treated as integral to it.[20] *La Journée d'un journaliste américan en 2889* is, indeed, a paradigmatic illustration of the Vernian future-in-the-past, or past-in-the-future. Like *Paris au XXe siècle*, it is actually set at a future date but addresses itself very clearly to its present-day readership. The chosen year of its setting, 2889, is, of course, purely a function of the year of its initial composition and publication, 1889. More a commentary on contemporary ideologies and quests than an autonomous vision of some "other" future, the story has as its central metaphor the idea of expansion of the present. The ideologies, beliefs and practices of the nineteenth century have been subjected to a process of global expansion, and this brave new world of the twenty-ninth century represents the ultimate limit of the nineteenth century's dreams or nightmares. The story portrays a world in which the United States have become the universal political and commercial power, and—in a very nineteenth-century vision—the dominant colonizing nation. Francis Benett, owner of the New York-based *Earth Herald* (formerly the *New York Herald*), spends his day visiting his offices in various locations, video-conferencing with his wife who has gone shopping in Paris, and totting up the profits made by his enormously successful newspaper which has world-wide sales. It is a perfectly coherent vision of the capitalist's utopia—though perhaps Verne did not need to fast-forward by ten centuries to find it—a global village of which New York is the communications epicentre. Throughout, this representation is held up as a greatly exaggerated mirror of the nineteenth century, where the reader is constantly beckoned to find the seeds of the future world. Cities have expanded, businesses have expanded, profits have expanded, and the whole colonizing ideology of the nineteenth century has expanded, it would seem, to fill the universe. All technological innovation is the result of what came earlier (how positivistic!) but the nineteenth century is held up as the starting point, that vital first moment of progress. So if new inventions are to be admired because they surpass earlier ones, then, by the same logic, earlier progress has also to be admired for what it made possible. We read phrases such as: "A la fin du XIXe siècle, les savants n'affirmaient-ils pas déjà que...?" and so on (*2889* 188). The question underscores that progress is the prerogative of all ages, and certainly just as astonishing in the nineteenth as in the twenty-ninth century. The first paragraph of the story, looking forward to a new world, looks through it and back to its own time. It marvels at the progress made, even as it suggests that progress has no meaning unless it leads to a future which admires the present.

The virtual world in which Francis Benett lives in *La Journée d'un journaliste américain en 2889*, conducting his online, on-screen relationship with his absent wife, is nothing if not modern to a turn-of-the-millennium reader. Yet ultimately it is a sketchy vision, with little by way of technological explanation, and its real interest is in its comment on the idea of progress itself. Fascination with the future is held in check throughout by an obsession with the present. The future remains confined within the present, like the traveller who remains within the confined and comfortable spaces of Verne's vehicles even as he engages with the unknown and untamed expanses of new worlds through which he passes. The journey to an unknown future, just like the journey round the world in, say, *Le Tour du monde en quatre-*

vingts jours, leads out in a straight line and back to its starting point. New spaces, new places, new temporal dimensions open up, then return us inexorably to the old, and the idea of forward movement is itself an immense "voyage à reculons." The text is the journey, the journey is a text, and the fiction of the future shows up its own fictional quality, even as it returns to base and self-consciously enacts its own closure. How often Verne's travellers fail to reach their destination, merely returning to their starting point at the moment of textual completion. As Pierre Macherey pointed out in one of the most perceptive pieces ever written on Verne, the very impossibility of his characters' undertaking–to achieve mastery of nature and subject the universe to their colonizing ideology–is reflected self-consciously in the forms which his texts take on.[21]

The comforts and conveniences of Verne's travel machines were famously–and simplistically–derided by Barthes as a desire for closure, confinement and luxury, a wish to avoid real engagement with the world, and as the very image of the bourgeoisie's desire for self-preservation in an age of change.[22] The implication is that technological innovation in Verne is overrun by nostalgia, that there is no true vision of the future and that Verne's real dream is to remain cocooned within an eternally recurrent present. There is, it is true, an obsession throughout Verne's work with the present as a culminating moment, and this is, no doubt, why so many of his stories lead up to and end in the narrative present, which is usually also the moment of their real-life composition. The present is the pinnacle of human achievement. The future may build upon it, adding to its inventions or refining them, but it will be incapable of surpassing it since its own truths and possibilities have already been defined by it. Yet paradoxically, this does not always lead to enclosure within a time capsule of the present in Verne's work, nor even to a sense of finality and confinement. For if the present is so alluring, it is partly because it has the ability to appeal to the future as the guarantor of its own spectacular quality. As I have suggested, there is an excited sense of the future precisely as the remarkable technologies of nineteenth-century civilisation are admired. Verne is not locked within the present, but finds himself able or indeed obliged to step out of it in order to perceive it and admire it. He has to leave his travelling compartment–submarine, lunar

missile, train carriage or ship's cabin–and view it from some imagined future location in history in order the better to sense its extraordinary character. In so doing, he allows the fascination of that imagined other location to commingle with the present and cohabit with it.

The cohabitation is most famously expressed in the full title of Verne's series of novels–*Voyages extraordinaires dans les mondes connus et inconnus*–where known and unknown, present and future, stand foursquare alongside each other. Only by confronting present with future in this way can the Vernian narrator express the thrill of contemporary progress. Phileas Fogg may in his travels be closeted from the discomforts and frustrations that are the lot of less bourgeois figures than he. He may indeed enjoy splendid isolation in ships and trains, sending out his manservant from port cities to do his sightseeing as he plays his eternal games of whist,[23] but the enclosed spaces which he inhabits are the very means of reaching out to the unknown future. The American train in which Fogg travels epitomizes the magic of modern engineering (magic, indeed, because the train actually leaps across an open chasm at Medicine Creek where a bridge has collapsed). It represents the triumph of civilization over nature, the taming of wild expanses through the willpower of the engineer, that most revered of figures in the *Voyages extraordinaires* (most obviously the case with Cyrus Smith in *L'Ile mystérieuse*). This apotheosis of human ingenuity is itself a projection into the future, for the train is a place where everything can already be considered possible. Ordinary "wagons" are no longer mere "wagons" in this dawning technological utopia: "Les voyageurs pouvaient circuler d'une extrémité à l'autre du convoi, qui mettait à leur disposition des wagons-salons, des wagons-terrasses, des wagons-restaurants et des wagons à cafés. Il n'y manquait que des wagons-théâtres. Mais il y en aura un jour" (*Le Tour du monde* 198). Here is the predictive moment, the future tense located firmly within the admiration of a magical present. So too, for Michel Ardan in *De la terre à la lune*, present and future are united, cohabiting simply in the tenses of his speech at Tampa Town: "On va aller à la Lune, on ira aux planètes, on ira aux étoiles, comme on va aujourd'hui de Liverpool à New York, facilement, rapidement, sûrement."[24] The future is in the present, and the present is the future.[25] Small wonder that the reading public pick up on this

fascinated journey through the present and into the future and see Verne as a prophet of new technologies. Small wonder too, that the critics point out the future's inexorable return to the past, and Verne's backward-facing literary and technological itinerary. Verne is a futurist. Verne is not a futurist. Where do we go from here?

If the nineteenth century and its technological innovations were to remain uniformly the focus of fascination in the *Voyages extraordinaires*, then the discrepancy between these different perceptions of Verne would perhaps in the end be relatively easy to resolve. The futuristic Verne would in fact be none other than the Verne who gazes with admiration upon the scientific gains of his own age and sees in them the signs of renewal. The relative absence of real speculation about the future would itself be the guarantee of a progressive view of contemporary science. Yet such a view would depend for its validity on the strength and the consistency of Verne's belief in his century as the fount of progress, and whereas, as we have already suggested, many of his works do extol the achievements of his own age, this process is far from being regular. Rather there lurks within it a dark hint at the absurdity of all human progress. Verne is not the blandly optimistic author so often portrayed to us. The vision of the future, as in *Paris au XXe siècle* and, interestingly, in some of his later works, can also lay bare the meaninglessness or even the stupidity of the present. Present and future do more than merely stand alongside each other here: they stand face to face, reflecting and referring to each other in a potentially infinite vacuum. As we have seen in *La Journée d'un journaliste américain en 2889*, the future is an expansion of the present and has no existence or meaning without it. Yet the present itself is already the future and cannot stand alone either—for that backwards-looking future is written into it and underlines its meanings. This self-referring relationship between two tenses, present and future, will be exacerbated to the point of absurdity in one of the most curious works in the entire Vernian corpus, *L'Eternel Adam*.

Like *La Journée d'un journaliste américain*, *L'Eternel Adam* was included in the posthumous collection *Hier et demain*, though it had not benefited from prior publication during the author's lifetime. Commentators are aware that Michel Verne's role in this story was considerable. Yet its interest is precisely in the fact that it pushes the

Vernian structure of a future-in-the-past to its absolute limit, and to that extent it has been seen as continuous with, and deeply revealing of, one of the abiding problems of the *Voyages extraordinaires*.[26] In a footnote on the first page, Michel Verne as "editor" of his father's text writes that the story was written by Jules Verne in his final years, and that "cette nouvelle offre la particularité de tendre à des conclusions plutôt assez pessimistes, contraires au fier optimisme qui anime les *Voyages extraordinaires*" (213). Yet it could be said that the story does no more than lay bare that pessimism which was implicit in so many of Verne's novels, *Paris au XXe siècle* included. There was always the possibility, or the danger, of an infinitely recurring journey between the two temporal points, a meaningless shuttling back and forth, finding the justification for the present in the future, and the meaning of the future in the past.

The title of *L'Eternel Adam* is itself an ironic echo of the Nietzschean idea of eternal recurrence. The story projects us twenty thousand years into the future, where a scientist-philosopher, the "zartog" Sofr-Aï-Sr, reflects on his own period of history as the apotheosis of civilization. In his view, human knowledge, in very positivistic fashion, strides forward on the strength of previous discoveries and, as its insights accumulate, it is able to delve ever more deeply into the past where it finds the cause and the explanation of its own superiority. Although mysteries remain, the zartog believes in the possibility, one day, of total knowledge and revelation through the power of the human mind. He feels sure that such knowledge will justify his view of history as an ascending movement. But he knows that documents of previous cultures have been destroyed and that total knowledge will come only from delving back into the depths of earlier civilizations. Only out of the past does the future (now the present) emerge—a curious recognition of dependence in a system which asserts the supremacy of the present. And one day in his investigations the zartog by chance discovers a record of a previous civilization, one which, as it turns out, had acquired all the knowledge and ideological certainties of his own age. His belief in progress, his certainty that his own age is the culmination of man's struggle to dominate nature with knowledge and power, is completely shattered. He is now forced to recognise that, far from ascending progressively

to perfection, history is cyclical. A major part of this text includes, in an appropriately specular fashion, an earlier text that documents the end of a previous civilization. The text of the future now leads back to the text of the past, even as the text of the past had been considered the basis of the future, each reflecting the other in infinite self-reference. This is the void of eternal recurrence, the end-point of the Vernian journey, its final admission of absurdity, where text becomes the echo of all previous texts, the text-within-a-text, the endless repetition of a lost origin.

Whether written by Michel Verne or not, *L'Eternel Adam* underlines that lurking anxiety in the *Voyages extraordinaires*. If the explicit ideological project of Verne's writing was to stress the forward movement of history, then the method of asserting such an ideology ends up by inverting it. Like Axel and Lidenbrock, who delve into the "archive" of the past in the bowels of the earth whose centre they wish to reach, the Vernian explorer must always return to his origins as a precondition to finding the future.[27] And the forms which the text takes on mirror those of the adventures it recounts. Every text becomes a journey into its own past and its own intertexts, and it runs the constant risk of being overtaken by them. The massive borrowings from the *Grand Larousse* and elsewhere for the lists of marine life in *Vingt mille lieues sous les mers* are one sign among many that the extraordinary fictions Verne creates are at permanent risk from all manner of predators–not least the words they wrest free from other texts and other places, and which threaten to come back and gobble them up.

Through its vision of technological and ideological progress, Verne's work does suggest a powerful belief in the future. But, as we have seen, the very logic of his system is potentially self-destructive. It is precisely because the present is so magically anticipatory, so quintessentially forward-looking, that any future it suggests leads inexorably back to it. But the logic of this position is that the present too has a past towards which it must turn, and that in the end there may not anywhere be a locus of meaning or sense. All we have is perpetual displacement, the endless *différance* of the textual journey. Perhaps this is one reason why so many of Verne's journeys deviate from their quest. In *De la terre à la lune* the astronauts go round the

moon and back to the earth. In *Voyage au centre de la terre*, Axel and Lidenbrock are spewed out of the earth's crust as they delve deeper into its volcanic past and its immeasurable secrets. If, in Verne's system, only the past can explain the present or the future, then the future–indeed, time itself–must always look backwards. The journey forwards into new and unknown places is also the anticipation of a return, a nostalgic revisiting, via some speculative outside vantage-point, of distant pasts which will explain the mysteries of man's engagement with nature. In such circumstances, it is clearly simplistic to call Verne a futuristic author. But to assert, on the other hand, that his work is not the literature of anticipation would also be a simplistic response. Verne's future looks backwards, just as his past looks forwards. It is anticipation in reverse. Verne is both a visionary and a nostalgic, and the particular difficulty of his work is that he happens to be both of these at once.

NOTES

1 Jules Verne, *Paris au XXe siècle*, préface et établissement du texte par Piero Gondolo della Riva (Paris: le cherche midi éditeur, 1994). Unless otherwise indicated, references to novels and stories in the *Voyages extraordinaires* will be to the Editions Rencontre series (Lausanne: Rencontre, 1966-71). I should like to express thanks here to Arthur Evans and Stephen Michaluk for pointing out useful bibliographical material to me during the preparation of this article.

2 Apart from the supplement in *Le Monde* on 23 September 1994, special articles appeared for example in the *Chicago Tribune* (23 September 1994) and *The New York Times* (27 September 1994). An English version of the novel was then published as *Paris in the Twentieth Century*, trans. Richard Howard, introd. Eugen Weber (New York: Random House, 1996). This spawned a further series of articles, often hailing Verne as a techno-prophet. The following is a selection: Herbert Lottman, "Back to the Future," *Los Angeles Times* (15 December 1996), 10; Richard Bernstein, "New Jules Verne. A Sketchy Predecessor to *1984*," *New York Times* (27 December 1996), B22; Edward Rothstein, "All Hail Jules Verne, patron saint of cyberspace," *NewYork Times* (3 February 1997), D5.

3 See for example chapter 12, "Des opinions de Quinsonnas sur les femmes," 139-150, which is an entirely predictable lament on the perfidy of woman, with the obligatory reference to Adam and Eve. Added to this general lament is a further and more specific localisation of woman's fall from grace in the nineteenth century, seen as a catastrophic period of transition in social values (143). This is one instance among many of the way in which a text ostensibly about the twentieth century remains firmly anchored in a representation of the nineteenth.

4 The first two pages of the novel, typically, contain explicit reference to the nineteenth century on three occasions: "ce qui s'appelait le Progrès, il y a cent ans, avait pris d'immenses développements"; "ne soyons pas surpris de ce qui eût étonné un Parisien au dix-neuvième siècle"; "Au dix-neuvième siècle, n'avait-on pas inventé les sociétés immobilières, les comptoirs des entrepreneurs, le Crédit Foncier, quand on voulut refaire une nouvelle France et un nouveau Paris?" (*Paris au XXe siècle* 29-30).

5 Chapter 13, "Où il est traité de la facilité avec laquelle un artiste peut mourir de faim au XXe siècle," 151-66, is clearly Verne's own variation on the very nineteenth-century theme of the poet starving in his garret.

6 One interesting example ofVerne's concern about charges of plagiarism is recorded by Peter Costello. As Verne was writing *Vingt mille lieues sous les mers*, a fellow-member of the Amiens Academy, Jules Rengade, also published a novel about a submarine, entitled *L'Eclair* (serialised as *Les aventures extraordinaires du docteur Trinitus* in the *Petit Journal* from October 1867). Verne hastily moved to write to the editor of the *Petit Journal* pointing out that he was writing a novel on the same subject called *Voyage sous les eaux*: Peter Costello, *Jules Verne: Inventor of Science Fiction* (London: Hodder and Stoughton, 1978), 101-9.

7 For a detailed discussion ofVerne's methods of documentation and of his preferred reading sources, see Daniel Compère, *Jules Verne écrivain* (Geneva: Droz, 1991), 33-53.

8 In an interview given to the journalist Marie A. Belloc towards the end of his life Verne explains the basis of his system: "Even before I began writing stories, I always took numerous notes out of every book, newspaper, magazine, or scientific report that I came across. These notes were, and are, all classified according to the subject with which they dealt, and I need hardly point out to you how invaluable much of this material has been to me": Marie A. Belloc, "Jules Verne at Home," *The Strand Magazine* (February 1895).

9 For a full account of Caselli's "pantélégraphe," see Julien Feydy, "Le Pantélégraphe de Caselli," *Musée des arts et métiers, La revue* 11 (1995),

50-57. This item is also obtainable on-line at the following URL: http://www.cnam.fr/museum/revue/ref/r11a07.html

10 See for example Andrew Martin, *The Knowledge of Ignorance: From Genesis to Jules Verne* (Cambridge: Cambridge University Press, 1985), 152-59.

11 "I do not see the possibility of comparison between his work and mine. We do not proceed in the same manner. It occurs to me that his stories do not repose on very scientific bases. No, there is no *rapport* between his work and mine. I make use of physics. He invents. I go to the moon in a cannon-ball, discharged from a cannon. There is no invention. He goes to Mars in an airship, which he constructs of a metal which does away with the law of gravitation. '*Ça c'est très joli*,' cried Monsieur Verne in an animated way, 'but show me this metal. Let him produce it' ": Robert H. Sherard, "Jules Verne Re-visited," *T.P.'s Weekly* (9 October 1903).

12 The view of Verne's writing as the meeting point between ancient myth and modern technology is most fully explored by Simone Vierne in *Jules Verne. Mythe et modernité* (Paris: PUF, 1989).

13 Verne's calculating machine also has a number of well-known models, the inventors of which (Perrault, Stanhope, Colmar, Mauret and Jayet) are cited in the text. The model to which it appears to bear the closest resemblance is the "arithmomètre," devised by Thomas de Colmar (1785-1870) who has a well-established position in histories of computing as the inventor of the first commercially successful calculating machine. Colmar's machine, two metres long and capable of calculations of up to thirty digits, had been on display at the 1851 and 1855 Universal Exhibitions in London and Paris respectively.

14 Two examples among many of the now standard refutation (in scholarly works of originality and insight) of the popular view ofVerne as prophet are Arthur B. Evans, *Jules Verne Rediscovered. Didacticism and the Scientific Novel* (Westport, Connecticut: Greenwood Press, 1988), 1-5, and Daniel Compère, *Jules Verne. Parcours d'une œuvre* (Amiens: Encrage, 1996), 82-83.

15 See, for example, Simone Vierne who points out that Verne's attitude towards science is imbued with a sense of its miraculousness, and that in this he is very much a representative of his time (77-88).

16 Peter Costello claims that by 1869, the year of publication of *Vingt mille lieues sous les mers*, some twenty-five submersible craft had successfully taken to the water, and that the name *Nautilus* itself comes from a craft built by Robert Fulton in 1800 (101-9).

17 *Voyage à reculons en Angleterre et en Ecosse*, édition établie par

Christian Robin (Paris: le cherche midi éditeur, 1989). The metaphor of moving backwards is central to this fictionalized account of the journey which Verne and a friend made to Britain in 1859. In 1862, Hetzel refused to publish the manuscript, which now forms part of the extensive holdings in the Bibliothèque de la Ville de Nantes.

18 See the footnote, signed "M.J.V." (Monsieur Jules Verne or Michel Jules Verne?) on the first page of *La Journée d'un journaliste américain en 2889* (*Hier et demain* 187).

19 For a reliable account of Michel's role in his father's work, and a discussion of the various voices which resonate in the Vernian corpus, see Compère 58-62. The case of *La journée d'un journaliste américain en 2889* is complicated by its publication in both English and French. For comments on the role played by Michel in the writing of the first version (in English), then in the rewriting of Jules Verne's French version of the story, see Piero Gondolo della Riva, "A propos d'une nouvelle," in *L'Herne: Jules Verne* 25 (1974), 284-88.

20 As Compère puts it: "Quelle que soit l'importance des interventions de Michel Verne sur les textes posthumes, il faut constater que ceux-ci prennent parfaitement leur place dans la série des 'Voyages extraordinaires'" (60-61).

21 Pierre Macherey, "Jules Verne, ou le récit en défaut," in *Pour une théorie de la production littéraire* (Paris: Maspero, 1966), 183-275.

22 Roland Barthes, "Nautilus et bateau ivre," in *Mythologies* (Paris: Seuil, 1957), 90-92.

23 "[Fogg appartenait à] cette race d'Anglais qui font visiter par leur domestique les pays qu'ils traversent": Jules Verne, *Le Tour du monde en quatre-vingts jours* (Paris: Garnier-Flammarion, 1978), 73.

24 *De la terre à la lune* 166.

25 For pertinent further remarks on the cohabitation of present and future in the *Voyages extraordinaires*, see Macherey 191-94.

26 Two Anglo-Saxon critics who make much of the place of *L'Eternel Adam* in the *Voyages extraordinaires* are William Butcher, *Verne's Journey to the Centre of the Self: Space and Time in the "Voyages extraordinaires"* (New York: St Martin's Press, 1990), especially 75-93, where it is suggested that the structures of return and recommencement are pushed to the limit; and Andrew Martin in *The Knowledge of Ignorance*. As Martin elegantly points out, *L'Eternel Adam* gives the lie to the Vernian idea of progress towards the future, since far from "ascending a ladder into a cornucopian future, [man] is trapped in a futile iterative loop" (148). A complete examination of the place of *L'Eternel Adam* within the thematic structure of the *Voyages extraordinaires* as a whole has been carried out by Jean Roudaut, "*L'Eternel Adam* et l'image des cycles," *L'Herne : Jules Verne* 25 (1974), 180-212.

27 As Macherey writes, in a striking generalisation about Vernian narrative structure: "L'anticipation ne sera que la recherche des origines. Ainsi, la structure de la fable est toujours ramenée à un modèle très simple: la marche sur les pas de quelqu'un d'autre, et elle est en fait l'histoire d'un retour" (215).