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Jules Verne's Dream Machines: Technology and Transcendence

Arthur B. Evans
DePauw University, aevans@depauw.edu

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ABSTRACT: This article discusses how Verne mythologizes and poeticizes his fictional machines. More than just a means for solving problems and/or for providing access to exotic geographical locales, Verne's technology is portrayed as being intrinsically poetic. Bridging the worlds of the industrial and the artistic, Verne's machines constitute a new kind of *objet d'art*. Anthropomorphized to make them seem less coldly mechanical, these devices take on a life of their own and exist in a richly symbiotic relationship with their creators. Such machines transport the readers of Verne's *Voyages extraordinaires* beyond the mimetic, serving both as a means to build verisimilitude and as a stepping-stone to transcend the real.

In the history of world literature, there is probably no writer whose reputation has been more associated with machines, technology, and the future than Jules Verne. From the 1860s to today, Verne has been repeatedly celebrated as the "Prince of the marvelous in literature" (Anon. 33), "the first great progenitor of science fiction" (Amis 28), the "prophet, foreseer, and foreteller of our mechanical age" (Horne vii), and the prescient novelist whose "dreams of yesterday have become realities today"(Souday 34).[1] In contrast to his younger British rival H.G. Wells—often cited as the other founding father of science fiction—Verne's technical extrapolations have always been viewed as being more scientifically plausible, more grounded in the real. Verne himself made this point during two separate interviews in 1903 and 1904 when he discussed Wells's *scientific romances* in the following terms:

"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 [sic] 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." (Sherard 589)

"Some of my friends have suggested to me that his work is on somewhat similar lines to my own. But here, I think, they err. I consider him, as a purely imaginative writer, to be deserving of very high praise, but our methods are entirely different. I have always made a point in my romances of basing my so-called inventions upon a groundwork of actual fact, and of using in their construction methods and materials which are not entirely beyond the pale of contemporary engineering skill and knowledge. [...] The creations of Mr. Wells, on

the other hand, belong unreservedly to an age and degree of scientific knowledge far removed from the present." (Jones 669-71) [2]

It is well known that one of Verne's goals—as mandated by his editor and publisher Pierre-Jules Hetzel[3]—was to teach *science through fiction*. And, at least until Hetzel's death in 1887, Verne never strayed very far from the facts. Wells's goal, on the other hand, was to develop *fiction through science*, and the role of the latter served more often as a convenient means for building verisimilitude for his storylines.[4] In the considerable mass of scholarship devoted to these two authors during the past century, Verne seems invariably portrayed as the writer of "hard" sf—more technical, empirical-based, and didactic—whereas Wells is described as the writer of a "softer" brand of sf—more social, philosophical-based, and speculative.[5]

In contrast to these neatly polarized (and admittedly stereotypical) characterizations, I would like to offer a somewhat different picture of Verne and his *romans scientifiques*. In my opinion, an important and often overlooked trademark of the Vernian text is the extent to which the science and technology portrayed is mythologized and poeticized, creating a kind of "mechanical mysticism." That is to say, the iconic significance of the many futuristic transportational vehicles and other extrapolated technologies in Verne's work lies not in their value as technological predictions, however accurate these may be. And it does not lie solely in the former's usefulness as a plausible means to transport the protagonists and the reader to those magical *points suprêmes* of the Earth, once discussed by Michel Butor. The real originality of these "dream machines" lies, rather, in their role as powerful stepping-stones to a sense of wonder. They are the textual objects that bridge for the reader the industrial with the artistic and the scientific with the sublime—objects that add not only a certain verisimilitude to Verne's narratives but also an element of poetry. They allow Verne's readers to transcend their earth-bound selves and to experience a kind of spiritual *voyage extraordinaire* into a world where "no one has gone before." As the captain of the *Nautilus* explains to his guest Aronnax in *Twenty Thousands Leagues Under the Seas*: "You are about to travel to the land of the marvelous. Amazement and astonishment will be your normal state of mind. You will never tire of the spectacular visions that will continually appear before your eyes!" (99). In the words of Simone Vierne: "Jules Verne is not only a purveyor of prophetic machines; he is above all a merchant of dreams" (154).

Figure 1

The "birth" of the Vernian machine and its subsequent discovery by the public reinforce in the reader's mind its quasi-mythic origins. The *Nautilus*, for example, is Captain Nemo's dream-child. The mystery of Nemo's own identity is duplicated in the secrecy surrounding the construction of his fantastic submarine on a deserted isle, from parts imported anonymously from around the world and assembled by a specially trained crew. As Nemo explains, "Once the operation was over, we burned every trace of our stay on that islet, which I would have blown up if I could have" (135). And the millions that the *Nautilus* cost to build? Of no consequence to a man who describes himself as "Infinitely rich, sir. Without difficulty, I could pay off the ten-billion-franc French national debt!" (137). In the mid-1870s, following the catastrophic Franco-Prussian War and the heavy reparations demanded by Germany, such an affirmation no doubt had a special resonance for French readers. And notice how this underwater craft initially goes through a series of ontological metamorphoses as the sea-going public attempts to understand its true identity (a narrative strategy that Verne often uses when first presenting his high-tech travel machines):

Captain Baker at first thought he was in the presence of an unknown reef; he was even about to write down its exact position when two waterspouts shot out of this inexplicable object and went hissing into the air some 150 feet high. So, unless this reef was subject to the intermittent eruptions of a geyser, the Governor Higginson was dealing with some aquatic mammal, of a species heretofore unknown... (3)

As sightings of this strange "moving reef" (title of chapter 1) multiplied, the public's imagination began to run wild. Rumors circulated that it was a kraken, a sea serpent, or an "unknown species of whale" (title of chapter 7). The scientist Aronnax, after inspecting the hull of a ship damaged by this creature, argued that it was probably a "giant narwhale" or "sea unicorn." And, after more than 60 suspenseful pages, both Aronnax and the reader finally learn the truth:

No longer was there any doubt about it! This animal, this monster, this natural phenomenon that had puzzled the entire scientific world, that had muddled and misled the minds of seamen in both hemispheres, was really, there could be no escaping it, an even more astonishing phenomenon—a phenomenon created by the hand of Man! [...] We were stretched out on the back of some sort of underwater vessel! (65-66)

Consider too the birth of the *Steel Giant* in Verne's novel *The Steam House*—that exotic steam-driven overland locomotive designed to resemble an elephant. A piece of technology that "is situated half-way between a natural marvel and a scientific marvel" (Huet 54), it was constructed by a British engineer named Banks, one of the protagonists of the story. But its original conception was by an eccentric and fabulously wealthy rajah of India who "wore out his head trying to imagine the impossible" and whose "purse, had it not been inexhaustible, would have been emptied to materialize it" (72). When approached by the rajah about taking on this project, Banks accepted immediately, thinking:

It's not every day that a mechanical engineer has the opportunity to dabble in the fantastic, to add an animal of his fancy to those of the Apocalypse or of the creatures in *A Thousand and One Nights*. In the final analysis, the rajah's fantasy was doable. [...] So I got to work on it. (73)
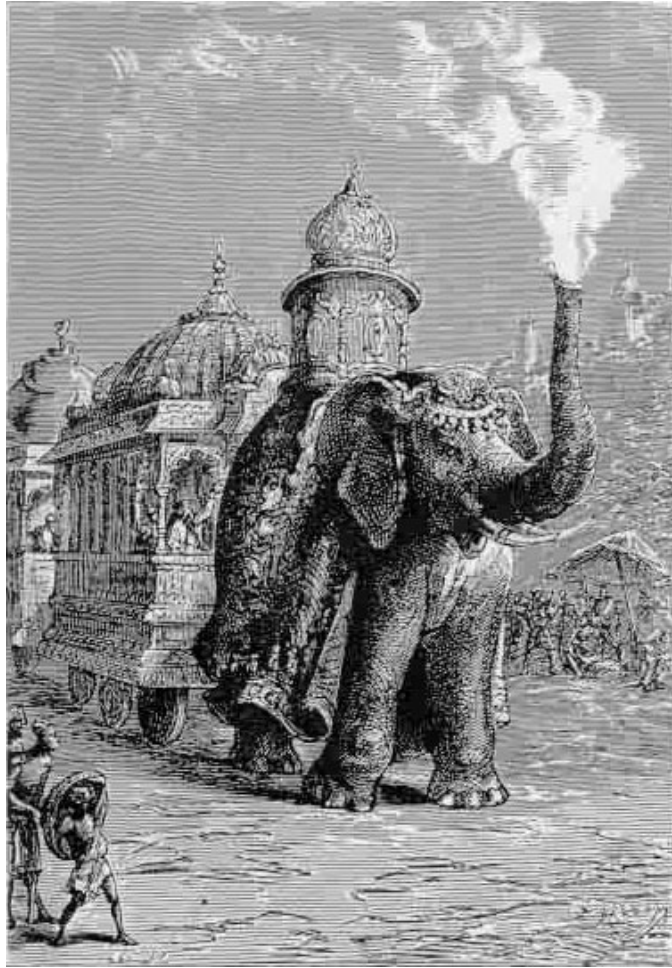
Figure 2

As a result of this unusual collaboration, a gigantic mechanical elephant is born. Called an "artificial Leviathan" (74), it is destined to transport the British travelers across the plains and jungles of the Indian subcontinent. And Banks himself becomes known among his peers as "A master engineer who is also, above all, an artist [...] a poet of iron and steel" (74). It is important to note that Verne's engineers—at least in his pre-*fin-de-siècle* novels—are almost always depicted as practical generalists who are encyclopedic in their learning, who work well with their hands, and who pay little attention to matters of money. Whereas some of Verne's scientists are intentionally humorous, absent-minded, or "original," (e.g., Lidenbrock of *Journey to the Center of the Earth*, Paganel of *The Children of Captain Grant*, or Benedict of *A Captain at Fifteen*), Verne's engineers are most often portrayed as serious, pragmatic, and down-to-earth (e.g., Barbicane and Nicholl of *From the Earth to the Moon* or Robur of *Robur the Conqueror*). They are frequently idealized as true Industrial Age heroes, masters of technology and shapers of the future.[6] As Jean Chesneaux once characterized them: "Verne's engineers are closer to the

Renaissance engineers of the da Vinci type than they are to the captains of industry, like Eiffel, of Verne's own time" (44).

The luxurious accommodations aboard these Vernian dream machines transform them from simple modes of transportation into sumptuous vehicular utopias.[7] The impressive (and impressionistic) interior of Nemo's *Nautilus*, for example—with its dining room containing silver, porcelain, and glass dinnerware "of incalculable value" (100), its vast library of 12,000 volumes "that would do credit to more than one continental palace" (105), and its drawing room/museum containing a giant pipe organ and dozens of works by artists from Leonardo da Vinci and Raphael to Géricault and Delacroix—is probably one of the most memorable mobile living spaces ever conceived by an sf author. And consider also the opulent accoutrements and furnishings of the cars of the "Steam House" pulled by the *Steel Giant*:

> The first car was 15 meters long. In the front, its elegant pilaster-supported veranda covered a wide balcony on which ten persons could fit easily. Two windows and a door opened into the living room that was lighted additionally by two lateral windows. The living room, furnished with a table, a library, and soft couches all around, was artfully decorated and walled with rich cloth. A thick rug from Smyrne covered the floor. "Tattis," a kind of wicker blind, hung over the windows and they were constantly sprayed with perfumed water which maintained a pleasant freshness in the living room and sleeping quarters. From the ceiling hung a belt-driven "punka" which waved back and forth automatically with the movement of the train and which, during halts, was kept in motion manually by the servant. [...]
>
> In the rear of the living room, a second door of precious wood, facing that of the veranda, opened into the dining room, lighted not only by the lateral windows but also by a ceiling of frosted glass. Around the table in the middle, eight guests could be seated. Since we were only four, we were more than comfortable. This dining room was furnished with buffets and credenzas filled with all the sterling silver dinnerware, crystal glassware, and porcelain that true English comfort requires. (79-80)

These mobile mansions epitomize the bourgeois dream of taking along one's entire home when traveling—a kind of 19th-century fantasy RV. As Jacques Noiray has pointed out, "one would be at a loss to understand the subliminal functions of the machine in the *Voyages extraordinaires* if one did not see

that the machine is first and foremost a house" (119). And, comfortably ensconced in these hi-tech ambulatory cocoons, Verne's protagonists travel through space comfortably protected from the elements and the outside world. The very coziness of these vehicles recalls Roland Barthes's observation that one "existential principle" seems to permeate Verne's fiction: "the continual gesture of enclosure" (90).
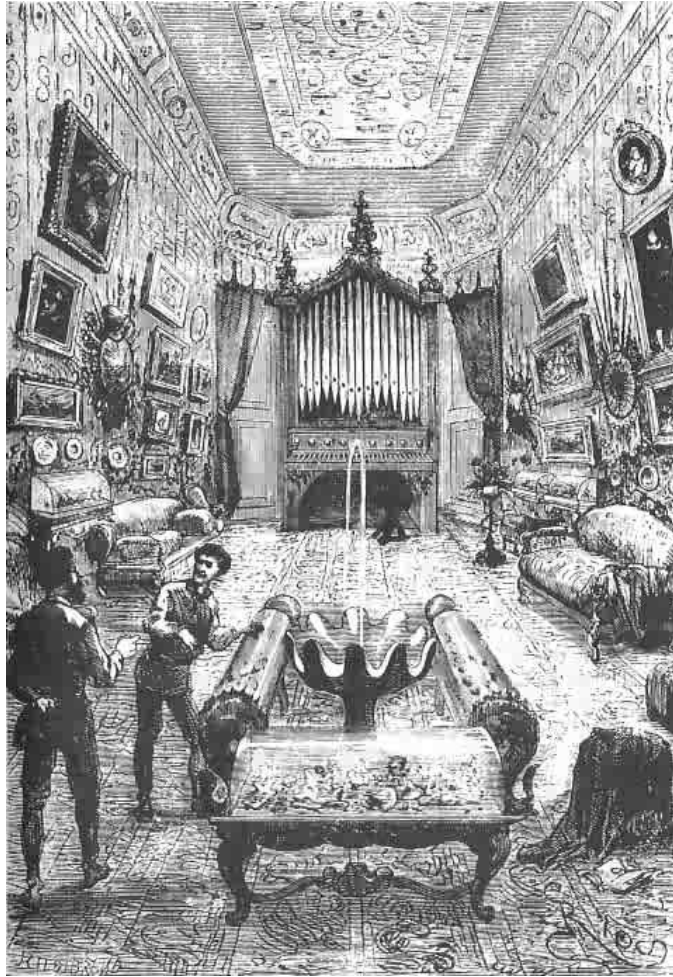

Figure 3

One measure of the extent to which Verne's dream machines are built as much on fantasy as they are on technology can be seen in the details of their construction. To demonstrate this point, let us return to Nemo's *Nautilus*. How is this futuristic submarine propelled and what is the source of its immense power? Electricity. But not just any kind of electricity. As the normally taciturn Nemo is quick to clarify: "My electricity is not that of just anyone's" (119). The reader is eventually told that large Bunzen batteries generate this special electricity and "huge electromagnets activate *a special system of levers and gears* that transmit movement to the propeller's shaft" (124, my italics). The result? According to Nemo: "the dynamic power of my engines is nearly infinite" (131). The scientist Aronnax's reaction to Nemo's

explanations is understandably incredulous as he wonders: "There was a mystery in all this, but I did not insist on trying to discover it" (126). Yes, a "mystery" indeed. Verne needed a power source that would be as poetic and it was powerful, one that would capture the imagination of his readers as well as serve to legitimate the Nautilus's extraordinary capabilities. And what was known in late 19th century France as "la fée électricité" [the electricity fairy] served Verne's purposes perfectly—in much the same way as sf writers would use radium during the 1920s or atomic energy in the 1950s. Repeatedly referred to by Verne as "this soul of the universe" (*Propeller Island* 57) and "the power source of the future" (*Mathias Sandorf* II 58), electricity would power the majority of his travel machines.
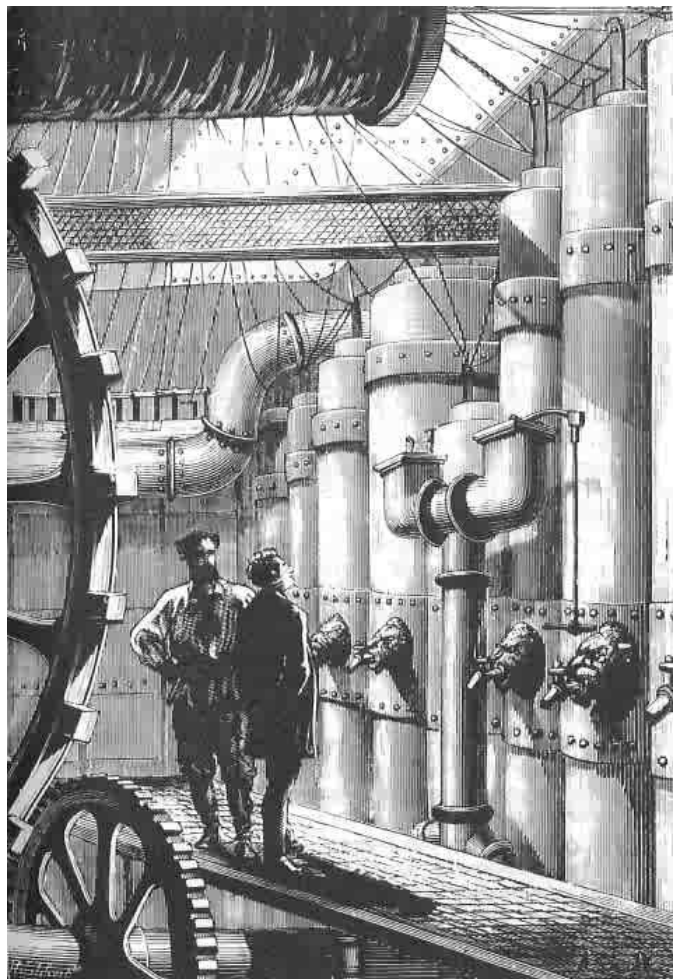

Figure 4

Another, more ironic, example of how these vehicles are built on fantasy can be seen in a novel that, historically, has been cited more than any other to justify Verne's reputation as a scientific prophet, *From the Earth to the Moon* (along with its sequel *Around the Moon*). Not only does Verne calculate with uncanny precision all the mathematics and physics involved in sending a vehicle to the Moon and back,

but also the resemblances between his "moon shot" and America's Apollo program 100 years later are remarkable. Verne's launch site is located in southern Florida not far from Cape Canaveral; the size, weight, and material that make up the two space vehicles are the same; in both cases, the spacecraft crew consists of three men; and, upon their return, Verne's astronauts land in the Pacific within just a few miles from where the Apollo 11 astronauts would eventually splash down. Obviously, the accuracy of Verne's technical extrapolations in these works is nothing short of amazing!

Figure 5

And yet, let us look a bit closer at the interior design of Verne's celebrated space bullet or, as he called it, his "projectile coach." The interior measures only about 10 feet high and 8 feet wide at its base. But it must be a magical space indeed because the reader is informed that three adult men will share this room with two large dogs, a half-dozen chickens, and one rooster; one year's supply of food, water, and gas; several cases of wine; fifty gallons of brandy; many changes of clothing "for all temperatures"; air scrubbers with an ample supply of replacement chemicals; several thermometers, barometers, telescopes,

and maps; six rifles with ammunition "in great quantity"; some picks, shovels, handsaws, and a few other "indispensable tools"; several boxes of plant seed; and finally a dozen small shrubs "carefully wrapped ... and placed in the corner of the projectile"! As one scholar quipped when describing Verne's fantastic space-bullet: "how its interior is equipped reveals all the persuasive magic of the master story-teller ... all those heaps of things in a circular space hardly more than two meters in diameter, and without toilets! What an imagination!" (Deschamps 108).

The vehicular dream machines in Verne's novels all carry names: *Nautilus*, *Albatross*, *Steel Giant*, *Victoria*, *Terror*, etc.). Such a naming practice not only anthropomorphizes each vehicle, making it seem more human, but it also confers upon it a certain individuality. These unique machines are also "de-mechanized" and festooned with Victorian ornamentation—at least on the inside where the travelers dwell. They are transformed into artistically expressive spaces as befitting "the final word of Progress in matters of travel!" (*Steam House* 28). In masking its identity as technology, the Vernian machine is often cast as a cultural product instead of a purely industrial one. It is viewed as a thing of beauty in its own right, carrying the reader's imagination not only into new and unexplored geographical spaces but also into new dimensions of esthetic appreciation—sleekness of design, precision of movement, strength of material, amplitude of effect, and so on. The Vernian machine is a technical device but it is also a one-of-a-kind artistic creation, an *objet d'art*.
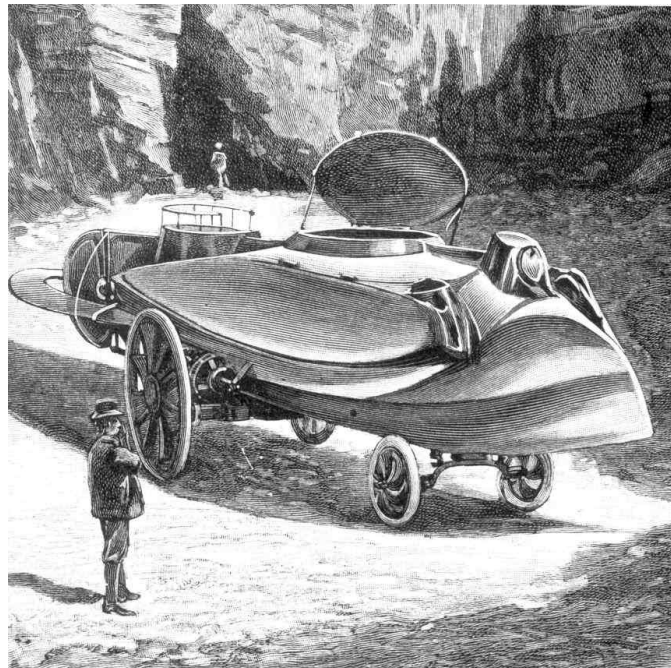

Figure 6

The wondrous nature of such machines is continually emphasized by Verne's narrators. For example, through the eyes of its passengers who are "in awe of its perfection" (94), *Robur the Conqueror*'s helicopter-ship Albatross is repeatedly characterized as "a marvelous vehicle" (73), "an admirable engine" (116), "an extraordinary vessel" (144), "an incredible flying machine" (173), "this miraculous Albatross" (213), "this amazing machine" (229), and so forth. The narrative effect of such lexical repetition on the reader is cumulative. As Noiray has observed, "Textually what is happening here is what might be called an *incantation effect*: the machine, repeatedly praised in a non-stop series of glorifications, begins to appear not as a mechanical masterpiece but, rather, as a real miracle" (160). And miraculous—or a divine *deux ex machina*—is certainly the impression such machines also give to various primitive peoples who witness their passage. For example, Fergusson's modified hydrogen balloon *Victoria* is worshiped as a Moon goddess by the natives of the African town of Kazeh in Verne's *Five*
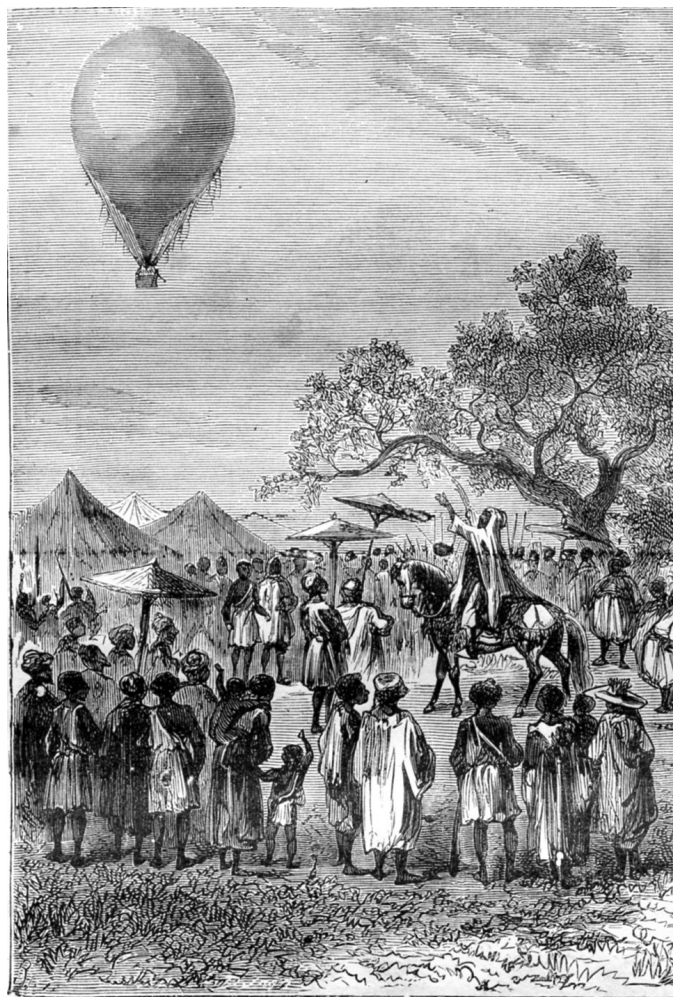

Figure 7

Weeks in a Balloon (110-11). In the west African state of Dahomey (Benin), Robur's helicopter airship *Albatross* is seen as "a celestial being come to honor the [recently deceased] King Bâhadou. The crowd's enthusiasm was indescribable, the shouts interminable, the prayers unending—all addressed to this supernatural hippogriff, which had doubtless come to take the King's body to the higher regions of Dahomian heaven" (158). And the *Steel Giant* of *The Steam House*, no doubt because of its form as a colossal mechanical elephant, finds itself venerated wherever it goes throughout India: "The natives pressed close around us. Those in front raised their arms into the air, stretching them toward the elephant; others were kneeling, bowing, or laying prostrate on the ground in the most profound adoration" (122).

The religious dimension of these Vernian machines is reinforced by the fact that (unlike in the novels of Zola, for instance) they are *never* part of the industrial and economic world. They do not produce any "plus value" and are not involved in the capitalistic processes of production and exchange, supply and demand, buying and selling, etc. They produce nothing. And they themselves are not for sale. Money was irrelevant to their construction—such costs most often being covered by fabulously wealthy individuals or international corporations. And money continues to be irrelevant to their primary purpose which is to make the impossible possible and the fantastic real.

The Pygmalion-like metamorphosis of such machines into quasi-living beings with whom their creators have a symbiotic relationship is another important aspect of their portrayal in Verne's texts. Nemo, for instance, is passionate about his *Nautilus*, saying "I love it as I love the flesh of my flesh!"(134). The rapport between Robur and his *Albatross* is described as follows: "It was incredible to see how rapidly and with what precision the vessel responded to each of his commands. It was almost like a living being whose very soul was the engineer Robur" (104). Similarly, Captain Hatteras is described in *The Adventures of Captain Hatteras* as constituting "the very soul of his ship and is at one with it, like a man and a horse in the time of the centaurs" (427). Given such descriptions, it does not seem too exaggerated to say that the Vernian machine often becomes a surrogate for a loved one. Such a relationship is explicit in *Twenty Thousand Leagues Under the Seas*: Captain Nemo "loved his ship as a father loves his child" (134). But also note the obsessed baron de Gortz in Verne's *The Castle of the Carpathians* who has captured the holographic image and voice of a recently-deceased soprano named La Stilla in a special phono-photographic recording device and "It was thanks to this device [...] that he was able to relive again the enchantment of her singing " (238-39). As Verne scholar Marcel Moré has suggested (169-72), the futuristic technology in this latter novel may well have been influenced by another famous—and very Freudian—dream machine published a few years earlier: the seductive female android

Hadaly in Villiers de l'Isle-Adam's 1886 novel *The Future Eve*. Be that as it may, it is nonetheless intriguing to notice that the vast majority of scientists and engineers who create and operate these magnificent machines in Verne's oeuvre seem invariably to be bachelors.[8]

Once their narrative task is fulfilled, Verne's dream machines always disappear, and the pre-narrative world of the status quo is firmly re-established. The extent of their personification is perhaps nowhere more evident than when one of these machines "dies" and is mourned by the surviving protagonists. Note, for example, the balloon's death in *Five Weeks in a Balloon*, which elicits the following emotional reaction from the voyagers: "'Poor *Victoria*!' said Joe. The doctor himself could not hold back a tear. He opened wide his arms, and his two friends rushed into them with great emotion" (359). Or consider especially the demise of the *Steel Giant*, set to self-destruct in order to wipe out an attacking horde of Hindu bandits:
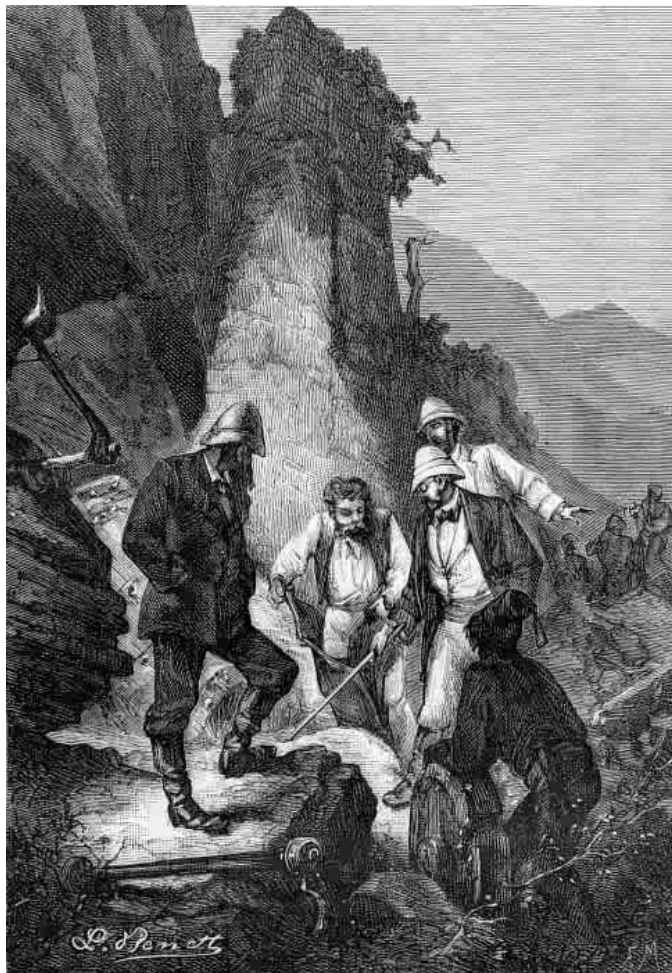

Figure 8

"Poor *Giant*" exclaimed Captain Hod, "It died to save us!" [...] Neither Captain Hod, nor Banks, nor any of the members of the expedition were ever to forget this "faithful animal" which they had begun treating as if it were real. For a very long time, the explosion which had ended his life would echo in their memories. [...] "The poor beast!" Captain Hod could not help saying as he stood before the body of his beloved *Steel Giant*. "We could build another ... one that would be even more powerful!" said Banks. "Yes, no doubt," answered the Captain with a deep sigh, "but it would not be *him*!" (518).

Invested with a life of its own, treated as a family member, the Vernian machine is appropriately eulogized after its death and the individuality of its life fully acknowledged. And it will forever live on in memory—not only of its fictional "friends" but also of its readers.

Finally, no discussion of Verne's fictional dream machines would be complete without some mention of the distinctly "mise-en-abyme" structure in which they are embedded and of which they form a part. In much the same way as the paintings in Nemo's museum can be viewed as artwork inside a work of art, the *Nautilus* is a novel machine inside a novel, itself a "textual machine" that functions as a semiotic device, generating both content and meaning. The gears and levers of this narrative machine are theme, plot, setting, characterization, point of view, figures of speech, and all the components usually referred to as an author's "style." What is noteworthy about Verne's style is not only that his texts are hugely "intertextual" and richly "polyphonic" as they seek to combine scientific with literary discourse (Compère, *Jules Verne* 11-13) . It is also that Verne continually foregrounds the writing process itself and purposefully calls attention to those gears and levers. Verne never tells the reader "pay no attention to that man behind the curtain." Instead, he invites the reader to experience the story as story but *also as narrative*. As Timothy Unwin has observed:

More, perhaps, than any other novelist in nineteenth-century France, Verne appears to open up the secrets of his craft, drawing attention to the tools of the trade [...] Whether this be in explicit interventions as heterodiegetic narrator commenting on the contents of his stories, or in contrived manipulations of the basic materials of fiction [...] Verne appears to beckon the reader behind the scenes of his writing, inviting close observation of decisions and processes of the novelist's work. (134)

And this may well constitutes the most interesting aspect of all of Verne's fictional machinery: seeing how he operates the gears and levers in creating his *Voyages extraordinaires*.

Figure 9

NOTES

1. For an overview of published work on or by Jules Verne in English since 1965, see my bibliography on the *Verniana* website: <http://www.verniana.org/volumes/01/HTML/ArtBiblio.html>. All translations from the French are by me unless otherwise attributed.

2. In a much later response, Wells agreed entirely with Verne. In the 1934 preface to his collected sf novels, he says:

> "These tales have been compared with the work of Jules Verne and there was a disposition
> on the part of literary journalists at one time to call me the 'British Jules Verne.' As a
> matter of fact, there is no literary resemblance whatever between the anticipatory

inventions of the great Frenchman and these fantasies. His work dealt almost always with

actual possibilities fo invention and discovery, and he made some remarkable forecasts.

[...] But these stories of mine collected here do not pretend to deal with possible things;

they are exercises of the imagination in a quite different field. [...] They are all fantasies

[...] They have to hold the reader to the end by art and illusion and not by proof and

argument [...] In this type of story, the living interest lies in their non-fantastic elements

and not in the invention itself." (vii.)

3. In announcing Verne's new series of the *Voyages extraordinaires*, Hetzel described its goal as follows:

M. Jules Verne has succeeded in creating a new genre. What is promised so often and what

is delivered so rarely—instruction that is entertaining, and entertainment that instructs—M.

Verne gives both, unsparingly, in each one of his exciting narratives. [...]

Young or old, rich or poor, learned or uneducated, all will find both pleasure and profit

from these excellent books. [...] They are certain to become friends to the entire family and

will occupy a front shelf in their home's library.

New works of M. Jules Verne will be added to this series, which we shall always keep

up-to-date. All together, they will fulfill the intent of the author when he chose as their

subtitle "Voyages in Known and Unknown Worlds." The goal of the series is, in fact, to

outline all the geographical, physical, and astronomical knowledge amassed by modern

science, and to recount, in an entertaining and picturesque format that is his own, the

history of the universe. (7-8)

4. See my article "Science Fiction vs. Scientific Fiction in France."

5. In comparing Verne with Wells, Brian Stableford speaks of Wells's deliberate use of "facilitating

devices" such as the anti-gravity Cavorite (used by other sf authors before Wells—see Roberts 108-110)

or the notion of a fourth dimension to give some plausibility to time travel:

Such an imaginative device had little or nothing in common with Jules Verne's earnest

extrapolations of locomotive technology—as Verne was quick to complain—but Wells

understood better than the Frenchman how necessary some such literary device had

become as a means of liberating the future as an imaginative space for serious speculative endeavor. (16)

6. The quintessential engineer in Verne's oeuvre is probably the American Cyrus Smith of *The Mysterious Island*, who is described as follows:

> Along with his ingenious mind, he also possessed great dexterity and strength. [...] A man of action as well as of thought, he moved through the world effortlessly, impelled by a great vitality, with a kind of persistence that defies every threat of failure. Very learned, very practical, very *débrouillard* as French soldiers say in speaking of an unusually resourceful person, he was also a man of superb temperament; whatever the circumstances, he never failed to retain mastery over himself. (13)

7. See my article "Vehicular Utopias of Jules Verne."

8. See, especially, the work of Peter Schulmann on bachelors in Verne's oeuvre.

WORKS CITED

Anon. "Jules Verne's *From the Earth to the Moon*." *Book Buyer* 7 (November 15, 1873): 33.

Amis, Kingsley. *New Maps of Hell: A Survey of Science Fiction*. New York: Ballentine, 1960.

Barthes, Roland. "Nautilus et Bateau Ivre." *Mythologies*. Paris: Seuil, 1957. 90-92. Published in English as "The Nautilus and the Drunken Boat." Trans. A. Lavers. In Barthes, *Mythologies*. New York: Hill and Wang, 1972. 65-67.

Born, Franz. *The Man Who Invented the Future*. Trans. Juliana Biro. New York: Prentice-Hall, 1963.

Butor, Michel. "Le Point suprême et l'âge d'or à travers quelques oeuvres de Jules Verne." *Arts et Lettres* 15 (1949): 3-31. Rpt. in Michel Butor, *Répertoire*. Paris: Ed. de Minuit, 1960. 130-62. Rpt. in English as "The Golden Age in Jules Verne." *Inventory*. Trans. Patricia Dreyfus. New York: Simon and Schuster, 1961. 114-45.

Chesneaux, Jean. *The Political and Social Ideas of Jules Verne*. Trans. Thomas Wikeley. London: Thames and Hudson, 1972. English translation of *Une Lecture politique de Jules Verne*. Paris: Maspero, 1971.

Compère, Daniel. *Jules Verne: Ecrivain*. Geneva: Droz, 1991.

——. "Les Machines à écrire." *Jules Verne 3: Machines et imaginaire*. Ed. François Raymond. Paris: Minard, 1980.

Costello, Peter. *Jules Verne: Inventor of Science Fiction*. New York: Scribner's, 1978.

Deschamps, Jean-Marc. "Les machines fantastiques de Jules Verne." *Jules Verne: Les Machines et la Science*. Ed. Philippe Mustière et Michel Fabre. Nantes: Coiffard, 2005. 107-14.

Evans, Arthur B. "Jules Verne in English: A Bibliography of Modern Editions and Scholarly Studies." *Verniana* 1.1 (2008-2009): 9-22. <http://www.verniana.org/volumes/01/HTML/ArtBiblio.html>

——. "Science Fiction vs. Scientific Fiction in France: From Jules Verne to J.-H. Rosny Aîné." *Science Fiction Studies* 15.1 (1988): 1-11.

——. "Vehicular Utopias of Jules Verne." *Transformations of Utopia: Changing Views of the Perfect Society*. Ed. George Slusser, Paul K. Alkon, Roger Gaillard, and Danièle Chatelain. New York: AMS Press, 1999. 99-108.

Horne, Charles F. "Jules Verne." In *Works of Jules Verne*, ed. Charles F. Horne, vol. I (New York: Vincent Parke & Co., 1911), pp. vii-xviii.

Hetzel, Pierre-Jules. "Avertissement de l'éditeur." *Voyages et aventures du capitaine Hatteras*. 1866. Paris: Hachette, 7-8.

Huet, Marie-Hélène. "L'Ecrivain tératologue." *Jules Verne 3: Machines et imaginaire*. Ed. François Raymond. Paris: Minard, 1980. 53-66.

Jones, Gordon. "Jules Verne at Home." *Temple Bar* 129 (June 1904): 664-670.

Moré, Marcel. *Nouvelle explorations de Jules Verne*. Paris: Gallimard, 1963.

Noiray, Jacques. *Le Romancier et la machine*. Paris: José Corti, 1982.

Roberts, Adam. *The History of Science Fiction*. New York: Palgrave Macmillan, 2006.

Schulmann, Peter. "A la Recherche du 'Rayon Vert'? : Jules Verne's Bachelor Chronotypes." *Australian Journal of French Studies* 42.3 (2005): 303-17.

——. "Eccentricity as Clinamen: Jules Verne's Error-Driven Geniuses." *Excavatio* 16.1-2 (2002): 274-83.

——. "L'Espace du célibataire fantastique: *Le Secret du Wilhelm Storitz*." *Bulletin de la Société Jules Verne* 156 (Dec. 2005): 56-61.

Sherard, Robert. "Jules Verne Revisited." *T. P.'s Weekly* (1903): 589.

Souday, Paul. "A Rush of Anniversaries in Paris," *New York Times Book Review* (March 4, 1928): 34.

Stableford, Brian. "The Emergence of Science Fiction, 1516-1914." *The Anatomy of Wonder: A Critical Guide of Science Fiction*. 5th ed. Ed. Neil Barron. Westport, CT: Libraries Unlimited, 2004. 3-22.

Verne, Jules. *Autour de la lune* (*Around the Moon*). 1870. Paris: Livre de Poche, 1966.

——. *Les Aventures du capitaine Hatteras* (*The Adventures of Captain Hatteras*). 1866. Paris: Hachette, 1978.

——. *Un Capitaine de quinze ans* (*A Captain at Fifteen*). 1878. Paris: Hachette, 1978.

——. *Le Château des Carpathes* (*The Castle of the Carpathians*). 1892. Paris: Livre de Poche, 1966.

——. *Cinq semaines en ballon* (*Five Weeks in a Balloon*). 1863. Paris: Livre de Poche, 1966.

——. *De la terre à la lune* (*From the Earth to the Moon*). 1865. Paris: Livre de Poche, 1966.

——. *Les Enfants du capitaine Grant* (*The Children of Captain Grant*). 1867. Paris: Livre de Poche, 1966.

——. *L'Île à hélice* (*Propeller Island*). 1895. Paris: UGE, "10/18," 1978.

——. *L'île mystérieuse* (*The Mysterious Island*). 1875. Paris: Livre de Poche, 1966.

——. *La Maison à vapeur* (*The Steam House*). 1880. Paris: Livre de Poche, 1967.

——. *Mathias Sandorf* (*Mathias Sandorf*). 1885. Paris: Livre de Poche, 1967.

——. *Robur le conquérant* (*Robur the Conqueror*). 1886. Lausanne: Ed. Rencontre, 1968.

——. *Vingt mille lieues sous le mers* (*Twenty Thousand Leagues Under the Seas*). 1870. Paris: Livre de Poche, 1966.

——. *Voyage au centre de la terre* (*Journey to the Center of the Earth*). 1864. Paris: Livre de Poche, 1966.

Vierne, Simone. "Puissance de l'imaginaire." *Cahiers de l'Herne*. Ed. Pierre-André Touttain. Paris: Ed. de l'Herne, 1974. 153-71.

Villiers de l'Isle-Adam, Auguste. *L'Eve future*. 1886. Paris: José Corti, 1977. In English as *Tomorrow's Eve*, trans. Robert Martin Adams. Urban, IL: Univ. of Illinois Press, 1982.

Wells, H. G. "Preface." *Seven Famous Novels by H. G. Wells*. New York: Knopf, 1934. vii-x.