Rediscovering French Science-Fiction in Literature, Film and Comics

From Cyrano to Barbarella

Edited by
Philippe Mather and **Sylvain Rheault**

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To my wife Angeline.
—Philippe Mather

In Memory of my mother and my father.
—Sylvain Rheault

In Memory of George Slusser (1939-2014).

"The astronomers suddenly notice strange beings coming out from underneath the mushrooms, while making singular contortions. These are the Selenites, or inhabitants of the Moon. A fantastical being rushes on an astronomer, who defends himself, and with a stroke of his umbrella the Selenite bursts into a thousand pieces."
—From "Le Voyage dans la Lune" by Georges Méliès.

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PREFACE

French science fiction is as old as the French language. Cyrano de Bergerac wrote about a trip to the moon that was published in 1657. So did Jules Verne in 1865, this time using hard, scientific facts. The first movie showing a trip to the moon was made by Georges Méliès in 1902. In the comics format, Hergé had Tintin walk on the moon in 1954, 15 years before Neil Armstrong. Artist Jean-Claude Mézières' work was clearly the inspiration for many of the aliens and spaceships in George Lucas' Star Wars saga. These are just a few of many unique French contributions to science fiction (SF) that rightly deserve to be better known.

On the weekend of November 2nd, 2012, a multi-disciplinary conference was held at the University of Regina (Saskatchewan, Canada) that featured scholars and artists from France, Belgium, Canada, and the United States. Titled "POW! In the Eye of the Moon", a nod to Méliès' iconic film, the event aimed to recognize the contributions of French SF to world SF and also to engage in multi-disciplinary exchanges. Since SF is deeply rooted in popular culture, panelists discussed the role of science and fantasy in French SF, the influence of key authors in the genre's history, as well as the impact of films and graphic novels on the public perception of the genre's nature. The event was highlighted by a keynote lecture by the preeminent SF author from Québec, Élisabeth Vonarburg.

The present collection of essays is a record of this event, enhanced by a few additional contributions that were not included in the conference itself. One of our objectives was to introduce French SF to an English-speaking audience, which involved providing simultaneous translations for papers presented in French. For this monograph, it was therefore decided to publish English-language versions of the essays authored by Philipps, Stojanov, Guay, Rolland, and Rheault. We also chose to include titles and quotations in English in the body of the text, with the French originals available as endnotes.

Of particular note are the section introductions, kindly provided by the renowned literary scholar Dr. George Slusser, a specialist in French SF

who, sadly, passed away on November 4, 2014, while we were awaiting a reviewers evaluation of the manuscript. We look forward to a posthumous publication of Dr. Slusser's own completed monograph, titled *The Left Hand of Reason: The Science Fiction of Continental Rationalism*, which is likely to be a landmark theoretical study of French SF.

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Part I:

French Proto Science Fiction in Literature

Introduction

French Proto-SF in its Scientific and Literary Context

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The above title gives reason to pause and reflect, especially in conjunction with France's contribution to the creation of an SF genre. That contribution, which spans the period, essentially, from the latter part of the 18th through to the 19th century, is immense. French fiction has developed major themes. We have, first of all, the quite revolutionary literary theme of the future, Paul Alkon's "futuristic fiction". If there were English examples of future speculation, such as Samuel Madden, his work was marginalized by that great arbiter of taste, Dr. Samuel Johnson. In late 18th century and post-revolutionary France, however, the literary landscape was more fluid. Sébastien Mercier's *Memoirs of the Year Two Thousand Five Hundred* (*L'An 2440*) appeared in 1771. It was followed by works like Rétif de la Bretonne's *The Posthumous Ones* (*Les Posthumes*), Félix Bodin's *A Novel of the Future* (*Le Roman de l'avenir,* 1834), and Émile Souvestre's *The World as it Shall Be* (*Le Monde tel qu'il sera*), and on through the 19th century with Verne's *Paris in the Twentieth Century* (*Paris au XXe siècle*, written 1862-63), Albert Robida's *Electric Life* (*Le vingtième siècle. La vie éléctrique*, 1890), to J-H. Rosny aîné's stunning evolutionary terminal future in *The Death of the Earth* (*La Mort de la Terre*, 1910). French literature of the late 18th century was first to develop the trope and narrative model of the imaginary voyage. Charles-Georges-Thomas Garnier's 25-volume collection, *Imaginary Voyages, Dreams, Visions, and Cabalistic Tales* (*Voyages imaginaires, songes, visions et romans cabalistiques*, 1787-1790) was possibly the first genre-establishing anthology in modern times. Its source was Defoe's *Robinson Crusoe*, but it displayed a vast collection of *robinsonades* and imaginary voyages derived from this work. The great majority of these works were French. They mark a long French tradition that leads to Jules Verne's *Voyages extraordinaires*

and a central current trend in modern SF. Finally, there was the French fascination, in the early 19th century, with Walter Scott's historical novel. This led to the creation of the SF sub-genre, known today as the "alternate history." An early example is L.-N. Geoffroy-Chateau's *Napoléon and the Conquest of the World* (*Napoléon et la conquête du monde*, 1836), where Napoleon won Waterloo. Charles Renouvier, in a sense, canonized this sub-genre with his *Uchronia (Utopia in History), an Aprocryphal Sketch of the Development of European Civilization, Not as It Was, But as It Might Have Been* (*Uchronie: Esquisse historique apocryphe du développement de la civilisation européenne tel qu'il n'a pas été, tel qu'il aurait pu être*, 1876).

France, then, offers a rich heritage of "proto" science fiction that continued into the early 20th century. If the process of canonization of literature and fiction – the distinction between "high" and "low," or "popular" and "literary" – was well underway in 19th century England, in France these boundaries were once again more fluid. An example is Honoré de Balzac's *The Centenarian, or the Two Beringhelds* (*Le Centenaire; ou les deux Beringheld*, 1822). Written under a pseudonym by the young Balzac, and later renounced by its author, *Le Centenaire* is a powerful example of "proto-SF" written by the writer who will do more than anyone else to establish the canon for 19th century fiction in France. Written four years after Mary Shelley's *Frankenstein* (1818), it bears close comparison with that "seminal" work. For it is perhaps the first fictional work that presents a scientist doing real science in the modern sense. Frankenstein's "science" is alchemy; the process that creates his living creature is simply "electricity", no further details. The Centenaire, however, answers to no moral authority; he answers to his science alone to extend his life, to his skill as a laboratory scientist. There is no pact with the devil; there is simply his laboriously detailed lab equipment, and his "method", which he describes as a thoroughly "modern" version of ancient alchemy, deemed unfit to get results in the new world of Restoration France. The Centenarian's laboratory is the prototype for the film laboratories of future Frankensteins, full of beakers and a huge bell-like device that looks forward to a similar contraption in Zamiatin's *We.* His method relies on the laws of the transfer of energy that the young Balzac shaped in the context of the early thermodynamic research of André Ampère and Sadi Carnot. It can be argued that, even if Balzac later repudiated this work, the fearful laws of energy transfer – thoroughly materialist and inexorable - that operate at the deepest level of his *Human Comedy* (*Comédie humaine*), were first worked out in this "popular"

novel. The process of canonization, that separates "literature" from "paraliteratures", like this proto-SF, can be seen taking shape in the later 19th century. Flaubert, for instance, refused all illustrations in his historical novel *Salammbô*, on the grounds that it was the word and its magic, not the visual image that carried the charge of "poetry". Verne's work, on the other hand, relies heavily on the interplay of text and image to convey its message. In a sense, it was in the wake of Verne, and the so-called "school of Verne", that the divide occurs. On the one hand, there is a tremendous "pulp" production of SF adventures that ends only with World War I, and does not resume until after World War II, with the series *Le Rayon fantastique* and *Fleuve noir anticipation*. On the other hand, there is Mallarmé, Valéry, and an increasingly hermetic sense of "literature," that continues throughout the 20th century, and offers no room for the "pulp" themes and excesses of SF.

The above remarks, hopefully, provide a context in which to place the authors dealt with in the three essays in this section. Two papers out of three in this section deal with Cyrano de Bergerac (1619-1655), who – in terms of the science fiction of travel, exploration, and speculation – is France's seminal author. Cyrano's two works – *The Other World, The States and Empires of the Moon* (*L'Autre Monde, ou les Etats et Empires de la Lune*), and *The States and Empires of the Sun* (*Les Etats et Empires du Soleil*) – are commonly seen as proto-examples of space travel. This latter is not achieved by dream, or on the wings of birds, but by means of a physical propellant, even though ludicrous (bottles of dew heated by the sun). Cyrano is a complex mind and writer. He is a man of the century of Descartes. Yet the issues he addresses in his fiction (e.g. Copernican Astronomy) are far more scientifically forward-looking than those addressed by Descartes or Pascal. Nor does he have his equal in the England of the time. The encyclopedic chattiness of a Robert Burton bears no comparison to the skeptical imagination of Cyrano, in which the true Baconian spirit thrives.

Arianne Margolin's essay "How Do I know Unless I Go There: Cyranian Thought Experiment as Scientific Method and Scientific Fiction," sees the author practicing a scientific method, in the modern sense, in his fiction. That method does not follow the deductive process of Descartes, but the empiricist view promoted at the time by Gassendi: "Cyrano's method is not based in pure deduction and elimination, but rather in the act of measuring, experimenting and collecting external physical data". She further argues that this method is not only a scientific

one, but a fictional one as well. In a sense, she asserts, we have a genuine work of proto-SF, whose method is akin to what later writers see as a defining element of the genre--extrapolation. As Margolin sees, Cyrano's fictions "offer hypothetical experiment: the instruments and observations he proposes in *The Other World* (*L'Autre Monde*) do not *yet exist*". What is more, it is Cyrano's use of the narrative voice, of his narrator's freethinking skepticism and unsystematic (un-Cartesian) presentation of Copernican science that shores up a very modern sense of how science is done, science not as a demonstration of order, but as a search *for* order. For example, after hearing arguments by proponents on both sides, he decides that the only way to test his hypothesis – that both the Earth and Moon are moving bodies – is to physically travel to the Moon in a spaceship. If the mode of propulsion is absurd, there remains the future possibility of a propellant. If his spaceship (by our standards) "won't fly", the idea of space flight is there, a blank to be filled by future generations of engineers and scientists. One of the problems with science fiction is that its technology is *too detailed*, too rooted in a given time and place, even if that time and place is – at the time of writing – on the "cutting edge." Cyrano, on the other hand, taught his reader to think in a different, perhaps more "science fictional", manner, which accepts speculation and experiment as so many avenues into a future that is unwritten, but will not remain unwritten. As Margolin puts it: "*Because his thought experiments existed within an imaginary, virtual world, his ideas were pseudo-experiments that could not be immediately replicated*". As SF sees it, there is no reason they will not be replicated some day.

The second essay on Cyrano, Lionel Philipps' "The Filiation from Cyrano to Verne, an exacting poetics that birthed French science fiction", focuses not on the scientific side of the author, but on his "poetical" technique and *its* influence on French SF that appeared later, notably via the work of Jules Verne who cites Cyrano, being obviously familiar with his fiction. Philipps emphasizes an interesting, and little discussed, aspect of Verne's writing, which he calls his "diverted references". These comprise "*a method of writing as rigorous as it is poetic, which could very well be one of the major characteristics of a French 'pre-science fiction'*" ("*un procédé d'écriture aussi rigoureux que poétique […] qui pourrait bien apparaître comme l'une des caractéristiques majeures d'une pré-SF française*" – translated from the French by Anton Iorga). One thinks offhand of Axel's famous misquote of Virgil as he encounters the "quaternary man" in *Journey to the Center of the Earth* (*Voyage au centre de la terre*). I have perhaps a more telling, and seminal, example. My

colleague and I have just finished the first English translation of Verne's first novel *A Priest in 1835* (*Un prêtre en 1835*). The novel is full of quotes from various writers. Some are pure boyish pedantry (Verne was 19 when he wrote the latter), but many (quoted correctly or misquoted) occupy an ironic space, a realm that points outside the narrative that could be seen as the beginning of what Philipps calls a "procédé d'écriture".

Philipps' essay has two sections. The first is a long and interesting analysis of Cyrano's technique of composition. The second affirms the connection Cyrano-Verne: "*This exacting poetics which is the source of a first French science fiction masterpiece did not escape Jules Verne*" ("*Cette exigence poétique à la source d'un premier chef-d'oeuvre de la SF française n'a pas échappé à Jules Verne*" – translated from the French by Anton Iorga) What is truly significant is that Philipps' choice of a piece of Verne's work, indeed one of his most complex and controversial, *The Adventures of Captain Hatteras* (*Les Aventures du Capitaine Hatteras*, 1866). His claim is that, in this novel, "*[Verne adopts] the process of polysemous proliferation as a foundation for the Romanesque invention*" ("[*Verne adopte] le procédé de prolifération polysémique comme fondement de l'invention romanesque*" – translated from the French by Anton Iorga). His argument turns on the very different accounts of Captain Hatteras' maniacal voyage to the North Pole – notably those of Dr. Clawbonny, who in counterpoint to Hatteras' "folie polaire", consistently offers scientific evidence that casts doubt of ever identifying an exact location for the North Pole. Clawbonny's attraction to the polar landscape could be called "poetical", insofar as his scientific skepticism ("*Here our ears hear wrong, and our eyes deceive us!*") ("*les oreilles entendent de travers et les yeux voient faux*", Project Gutenberg EBook #29413) presents, at each step, a relativizing vision to what other more fanatical observers claim to see and hear. Philipps bases his argument on the "polysemic" nature of the word "ours", seeing here in Verne – as in Cyrano – "*the same poetic exploration of language*" ("*une même exploration poétique de la langue*" – translated from the French by Anton Iorga). There are certainly parallels between Cyrano's mode of narration and that of Verne in terms of cultivating the multiple possible meanings of words and citations. What is really important however, in Philipps' analysis, is his calling attention to this dimension of Verne's fiction. Verne after all began his career as a writer producing poetry and plays. There is no reason, once he fell under the tutelage of Hetzel and gained popularity with his *voyages extraordinaires*, that he would abandon all literary concerns. Much more research needs to be done on Verne and this

"exigence poétique". Philipps' other claim, that this becomes a distinct property of French SF in the wake of Verne, needs to be proven. Indeed, what *is* an SF that can be called distinctly "French"? It is something assumed, in this and other essays – almost taken for granted. It remains to be defined, in order to know that it exists.

The third paper is Scott Sanders' "Flying the Colonial Skies during the French Enlightenment: Rétif de la Bretonne's *Découverte australe*". Rétif's title translates as *The Southern-Hemisphere Discovery*. Sanders argues that Victorin's flying machine – the means by which he is able to reach the southern realms and establish his utopian colony – is in fact a clever illusion, one designed to cover technology in the garb of nature. Comparing the famous frontispiece showing Victorin in flight with the preface, he finds that the latter explains the technology behind the machine, while the former clothes it in mythical garb. In a long disquisition on the nature and uses of the *machine*, and on those whose art was to manipulate machines – *the machinist* – in order to create spectacles of mythic grandeur and power, in 17th and 18th century France, he argues that "Victorin's flying machine appropriates *ancien régime* representations of the divine sovereign into a late Enlightenment image of the colonial despot".

This argument is compelling, but it touches on one single work of Rétif, who remains a mysterious figure because of the diversity of his output. As a writer evolving at a time of catastrophic change, he is a polyvalent figure, about whom generalizations are difficult. If he is a late Enlightenment apostle of colonialism, the place he chose to colonize – the *terres australes* – were at that time, in a real sense, a forbidding place to colonize, simply more *arpents de neige.* In fact, his *Nocturnal Spectator* (*Les Nuits de Paris*) presents a very different "colonizer", one who explores a strange land at the heart of French civilization. Far from a despot, his night owl remains a simple observer. The world he discovers is not one of power and fabulous riches; it is one of a thriving underground economy, in the nooks and crannies of the great city – for instance, the observer raises rabbits from grass growing in cracks in the streets. His preoccupations, never those of the *ancien régime*, are things like sanitation and real social reform. His speculation on future worlds, for better or worse, were his *Posthumous Ones* (*Posthumes*). The best description of a figure like Rétif is that of Peter Tosh's Mystic Man: a man of the past living in the present, but walking in the future. This is precisely his situation in Ettore Scola's brilliant film, *That Night in Varennes* (*La Nuit*

de Varennes). In the film, Rétif is the narrator and actor that ensures the confused continuity of events that surround the pivotal "nuit de Varennes". Riding in the coach, he sits between Casanova and Thomas Paine – the libertine past and the new democratic future. He arrives at Varennes too late to find Louis XVI. What he does find are the royal robes, a symbol of privilege and power that suddenly is no more. Neither he, nor anyone else, – like Victorin – can pretend to use these empty robes to mount a spectacle of power. The future is anyone's guess, and all he does is move with the times. In a final scene, in one long single traveling shot, Rétif mounts the stairs from the quai of the Seine where a soirée is taking place. He enters the streets of modern Paris where he walks unnoticed and unnoticing among an otherwise alien world of cars, noise and congestion, but which, because of his act of walking, is made a place where possible new futures can be encountered. Science fiction is the literature of this single, unbroken shot.

Chapter One

How Do I Know Unless I Go There? Cyranian Thought Experiment as Scientific Method and Scientific Fiction

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However the early-modern French thought experiment has been frequently associated with the utopian criticism of Plato and Thomas More, the early-modern prototype – for what James Robert Brown calls the "mind laboratory"[1] – first appeared in René Descartes' *Discourse on the Method* (*Discours de la method,* 1637). Intended as an introduction to his rationalist triad, the *Dioptrique, Meteors* (*Météores*) and *Geometry* (*Géométrie*), the *Discourse* presented Cartesian theoretical method by combining mathematics and accepted, albeit speculative, explanations on first causes. As we may note in the fourth and fifth parts of the *Meditations on First Philosophy,* Descartes' quasi-Aristotelian process of elimination through doubt, partly resembled the modern thought experiment structure: clear statement of the problem; visualization of the natural phenomenon's mechanism; exploration of the problem *ad reductio*; and conclusion. Not surprisingly, this method subsequently proved popular for conducting research, as scientists could investigate ideas within private or public missives. Yet the rationalist Cartesian methodology of *ad reductio* was widely criticized by the *libertins* and empiricists, notably Cyrano de Bergerac. In two of his major works, *The Other World* (*L'Autre Monde*, 1657) and the *Fragment of Physics* (*Fragments de physique,* 1662), Cyrano urged natural philosophers to observe and explain phenomena through experiments that could be replicated easily,[2] noting that "Physics could only be a conjectural science", a glimmer of *vraisemblance*

expressing the most probable of possible explanations.[3] According to this empiricist view, stemming from Gassendi's *Paradoxical Exercises against the Aristotelians* (*Exercitationes paradoxicae contra Aristoteleos*, 1624), Galileo's *The Assayer* (1623), and Jacques Rohault's Wednesday lectures, Cyrano's *méthode* was not based on pure deduction and elimination, but rather on the act of measuring, experimenting, and collecting external physical data. Cyrano recognized that while the Cartesian-Rohaultian method proved useful for a philosophical or mathematical *ad reductio* argument involving figures and axioms, the deductive process failed to explain adequately physical phenomena – in a tangible manner – to the public, as these phenomena exist externally to the faculty of the mind. As he noted in the *Fragments*, the understanding that philosophers gain from reason, through convincing visual experiences from sound, light, and color, are also as valid as the understanding gained by the sensory sensations of pain, odor, and taste, both of which are exterior to the mind.[4] For Cyrano, natural philosophy, as the study of physical phenomena, should be articulated either through discussion of a previously conducted experiment or by imagining a familiar situation where a potential experiment could be conducted. In this paper, I explore how Cyrano's thought experiments were symptomatic of early-modern scientific investigation, a perplexed literary attempt to address Galilean scientific method's inherent conflicts between theory and experiment.

In his *conte philosophique, The Other World*, Cyrano created a fictional, yet realistic, Galilean "world" to test realistic "physical reflections" that highlighted several inaccuracies of Aristotelian physics. According to the *Fragments*, "physical reflection" was the method of examining hypotheses of relative motion, the observable effects first noted by Kepler and Galileo that were unrecognizable and indeed unacceptable to the Aristotelian eye:

> *Appearances of the Sun and Fixed Stars.*
> *Specific hypothesis in order to explain these appearances [apparences], given that all motion [mouvement] is attributed to the Heavens.*
> *Daylight and nightfall, and their [observable] differences in many places throughout the world.*
> *Physical reflection.*
> *Hypothesis that explains appearances of the Sun, once [we have] determined its fundamental mass while in motion.*
> *Another physical reflection.*[5]

"Physical reflection" followed each suspiciously Galilean-Copernican

hypothesis ("day and night around the world;" "Explanation of the appearances of the Moon, given its fundamental mass at rest") and opposed both the scientific terms "observation" and "supposition:"[6] The factual observable science that resulted from the senses and the conclusions that it supposed based on induction. For Cyrano, reflection was a physically, and sensibly, possible *méditation* that resembled Galileo's famous ship thought experiment in the *Dialogue Concerning the Two Chief World Systems* (1632):

> *SALVIATI. Shut yourself up with some friend in the main cabin below decks on some large ship, and have with you there some flies, butterflies, and other small flying animals. Have a large bowl of water with some fish in it; hang up a bottle that empties drop by drop into a wide vessel beneath it. With the ship standing still, observe carefully how the little animals fly with equal speed to all sides of the cabin. The fish swim indifferently in all directions; the drops fall into the vessel beneath; and, in throwing something to your friend, you need to throw it no more strongly in one direction than another, the distances being equal; jumping with your feet together, you pass equal spaces in every direction. When you have observed all of these things carefully (though there is no doubt that when the ship is standing still everything must happen this way), have the ship proceed with any speed you like, so long as the motion is uniform and not fluctuating this way and that. You will discover not the least change in all the effects named, nor could you tell from any of them whether the ship was moving or standing still.* [7]

The notable difference between Galileo and Cyrano is one of method. Galileo's celebrated thought experiment, as narrated by the Copernican Salviati, displays a real scenario – observers below deck on a moving ship – that has been tested, and could be re-tested. Within the ample detail of the thought experiment, the reader is convinced of its veracity. Cyrano's "list," however, offers no such detail or observational precision. It is in *The Other World* that we find the early-modern French literary equivalent to Galileo's ship experiment.

Though a well-known empiricist, as we may note from his intrinsically Montaignian "How can I know unless I go there?" of *The Other World*, Cyrano tentatively embraced Descartes' dualistic metaphysics in the form of physical reflection – thought experiment – to publicly display the "new science"[8] of Galileo. However, contrary to the Cartesian *cogito*, which encompassed absolute and fundamental knowledge, Cyrano added the external world of the senses as admissible fundamental knowledge to scientific experience. In his view, the thought experiment should be

expressed to the public, either by the narration of a previously conducted experiment or by imagining a hypothetical experiment within a familiar world or environment using the given laws of physics. From this modification of scientific discourse, Cyrano devised *The Other World* – one of the first forms of French "science fiction" – where the reader could verify Galilean scientific theory and contest the results, or inherent fallacies, of the thought experiment. Cyrano's general assertion of method replicates that of the Cartesian-Galilean scientific method: General theory from mathematics, or a phenomenon as appearance – statement of hypothesis – and experiment to resolve the validity of the theory. Nevertheless, Cyrano's method offers a purely hypothetical experiment: The instruments and observations that he proposes in *The Other World* do not yet exist.

Though French Classical critics, notably the grammarian and polemicist Gilles Ménage, lambasted Cyrano's unorganized tableau and blatant violations of conventional *vraisemblance* in *The Other World*, the scientists among them grudgingly admitted his thought experiments' attractiveness, from which both Fontenelle and Voltaire would later borrow extensively. On the one hand, these thought experiments proved effective for two reasons: First, Cyrano's readers could "replicate" the experiments suggested in the story in real life; second, Cyrano's thought experiments contained both Cartesian deduction and Galileo's artistic talents for pictorial demonstration and irony. On the other hand, Cyrano's thought experiments were problematic not only because of their unsystematic presentation of Copernican science, but also because of their tenuous epistemological union between the faculties of the mind and the senses. While this truce permitted these modern insights into the future, it precluded their acceptance as *vraisemblable* by the public.

Inherent to Cyrano's scientific method is the free-thinking skepticism of the reader, who, as a scientist, can present evidence for a theory or completely discount it by experiment. In the introduction of *The Other World*, the scientist-narrator recounts a debate with his colleagues regarding relative motion and narrates the impetus for his voyage to the Moon:

> *"And I," I replied, "[...]* I think the Moon is a world like this one, and the Earth is its moon*." My friends greeted this with a burst of laughter. "And maybe," I told them, "someone on the Moon is even now making fun of someone else who says that our globe is a world." I told them that Pythagoras, Epicurus, Democritus and, in our time, Copernicus and*

> *Kepler had been of the same opinion, but it was no use; they just hooted all the more. My mood was strengthened by contradiction, and my thought engrossed me so much that all the rest of the way home I was bursting with ideas about the Moon but could not quite give birth to them. I supported my comical belief with such serious arguments that I almost convinced myself of it.*[9]

Here we find the first and second steps of Cyrano's general methodology, as well as the preamble for Cyrano's thought experiments throughout the story. Although it is indirectly referenced from the first sentence of the quote, the orthodox theory of planetary motion – in seventeenth century France – is that of Ptolemy's geocentrism, which asserts that celestial bodies revolve around the Earth and are uninhabited. Using his second step, Cyrano's narrator-scientist suggests an opposing hypothesis – that the Moon is another "world" and the Earth is its satellite – which his Aristotelian contemporaries dismiss as ludicrous. Though the Moon is actually a natural satellite of Earth (which Cyrano knows), his argument is a rhetorical and satirical one: From the point of view of an observer on the Moon, the Earth would appear as a stationary object. The narrator seeks to contradict his contemporaries' Ptolemaic stance on physics and the moon by generating counterarguments in his favor.

However, the hypothesis suggested by the narrator is only one of *appearance* and not sense. At this particular juncture of his argument, he cannot conclusively prove relative motion, as it is equally probable using human observation that the Moon revolves around the Earth (or, according to Cyrano's *satyre* that the Earth revolves around the Moon). The narrator solves the problem in one statement: "How would I rid myself of any doubt if I didn't go there?"[10] Cyrano proceeds to his third step: Testing his hypothesis through a thought or virtual experiment. Cyranian thought experiment embraces the empiricist philosophy of knowledge through the senses, but poses an experiment that anyone can do, feasible or not, within the virtual reality of the mind. In order to test his hypothesis, that both the Earth and the Moon are moving bodies, he proposes a voyage from the Earth to the Moon using a spaceship. He describes his apparatus as follows:

> *[In order to] accomplish [this voyage], I established myself in a fairly remote country house and entertained my imagination with various means of transport. Here is how I betook myself to heaven. I attached to myself a number of bottles of dew, and the heat of the sun, which attracted it, drew me so high that I finally emerged above the highest clouds.*[11]

Like many subsequent science fiction novels, Cyrano proposes a unique, albeit questionable, method of propulsion, juxtaposing the ridiculous concept of dew (water) bottles heated by the sun and the realistic suggestion of propellant as a technological possibility. However, Cyrano's apparatus presents both an experimental and philosophical conundrum: The dew bottles have elements of fiction – dew being chemically insufficient to generate the force needed to truly send the narrator to space – and reasoned, "reflection"; a glimpse into the future of space travel that – while it may be mentally possible – proposes substances that do not yet exist in the early-modern world. For the seventeenth century empiricist, Cyrano's science is inherently occult.

Near the end of his flight in space to the Moon, Cyrano has the narrator describe the following phenomenon:

> *When I had gone – as I have calculated since then – much more than three-fourths of the way from the earth to the Moon, I suddenly realized I was falling head downwards without having turned around in any way. [...] I realized that I was actually not falling back to our world. I was between two moons and saw very clearly that I was moving away from one and approaching the other. I was very sure that the larger was the Earth: after a day or two of traveling, the receding refractions of sunlight blurred the diversity of shapes and weather, and the Earth appeared to me as only a large golden plate, much like the other moon. That made me think that I was coming down towards the Moon, but I happened to remember that I had begun to fall only after going three-fourths of the distance. "Since," I said to myself, "the Moon's mass is less than the Earth's, its sphere of activity must be less extensive, which has caused me to feel the force exerted by its center when I am nearer to it than to the Earth."*[12]

Cyrano expects the reader to start with the known laws of physics (*mouvement*) and apply them to a new, hypothetical situation. Even without Newton's law of gravitation, the seventeenth century scientific community and learned public could in a sense appreciate that the major forces on the spaceship depended on the masses of the Earth and the Moon, and their distances with respect to the ship. Though it is important to note that Cyrano's guesstimate of the distance (three-fourths to the Moon) is skewed due to seventeenth century measurements and estimates, his thought experiment – the impossible act of traveling to the Moon in the seventeenth century – is uncannily perceptive for its time. At the same time when Cyrano composed *The Other World*, natural philosophers began to postulate an early theory of attraction. Cyrano's "sphere of activity" refers to the Keplerian-Galilean explanation of planetary movement by

magnetic action between spheres or planets. Though Kepler's and Galileo's theory of planetary magnetism was ultimately incorrect, the *essential description* of the force exerted by celestial masses, as larger than that of elemental (or earthly) masses, is accurate. Nonetheless, Cyrano's thought experiment does contradict itself in one notable respect: Cyrano supposes Descartes' conservation law of momentum (the quantity of matter and movement) and asserts that weight – what the Cartesian science referred to as movement – is not a type of matter, but is inherently a sort of impending collision;[13] yet, as the narrator describes, he only *feels* the forces of the Earth and the Moon exerted upon him and does not collide with either body. In this case, the Cartesian view of momentum no longer applies; although it contained elements of theoretical validity, the thought experiment does not hold probable explicative truth for the physical world.

Although his thought experiments yielded certain results that were provocative and perceptive for future space travel, they were only as accurate as his mental situation and instrumentation and only as believable as his public's acceptance of them. Because his thought experiments existed within an imaginary virtual world, Cyrano's ideas represented pseudo-experiments, in that they could not be immediately replicated. *The Other World* attempted an empirical version of the Galilean and Cartesian thought experiment; an experiment based on feeling and actual real-world experience, rather than on simple mental reasoning. In the two decades following the posthumous publication of *The Other World*, several literary critics – such as the conservative Gilles Ménage – dismissed the story as a dangerous form of libertine and *invraisemblable* discourse. He noted, "I believe when [Cyrano] wrote this *The Other World* that he already had a quarter of it in his head. He died insane".[14] However, even more unsettling was his experimental style, based partly on the imagination and partly on seventeenth century, pre-Newtonian physics. While the *vraisemblance* of space exploration may have been questionable at the time, the general thought-experimental method by which Cyrano and the reader arrived at Galilean conclusions was plausible. It was for this reason that French physicist Bernard de Fontenelle engaged in this literary genre of thought experiment with his *Conversations on the Plurality of Worlds* (*Entretiens sur la pluralité des mondes*, 1686) – to please, to entertain, and to practice natural philosophy using a new method.

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Notes

1 James Robert Brown, The Laboratory of the Mind: Thought Experiments in the Natural Sciences, (New York: Routledge, 1993), 33-49.

2 Cyrano, "Chapitre IV : Du progrès de la matière en général," Fragments de physique in L'Autre Monde, ed. Jacques Prévot, (Paris : Gallimard, 2004), 333.

3 Cyrano, "Idée générale de la physique: première partie," Fragments de physique, 320.

4 Cyrano, 329-331.

5 Ibid, 324, my translation: *"Apparances du Soleil & des Estoiles fixes.*
Hypothese particuliere pour satisfaire à ces aparences du Soleil, tout le mouvement estant attribué aux Cieux.
Des jours & des nuits, & de leur difference en divers endroits de la terre.
Reflexion physique.
Hypothese qui satisfait aux aparences du Soleil après avoir suposé la masse elementaire mobile.
Autre reflexion physique."
Cyrano's usage of the term "appearance" comes from the Greek phainomenon, which refers to natural, observable phenomena.

6 Ibid, 323.

7 Galileo Galilei, Dialogue Concerning the Two Chief World Systems, trans. Stillman Drake, (Berkeley: University of California Press, 1967), 186-187. French translation, Dialogue sur les deux grands systèmes du monde, trans. René Fréreux avec le concours de François de Gandt, (Paris : Editions du Seuil, 1992), 204 : *"Enfermez-vous avec un ami dans la plus grande cabine sous le pont d'un grand navire et prenez avec vous des mouches, des papillons et d'autres petites bêtes qui volent ; munissez-vous aussi d'un grand récipient rempli d'eau avec de petits poissons ; accrochez aussi un petit seau dont l'eau coule goutte à goutte dans un autre vase à petite ouverture placé en dessous.*

Quand le navire est immobile, observez soigneusement comme les petites bêtes qui volent vont à la même vitesse dans toutes les directions de la cabine, on voit les poissons nager indifféremment de tous les côtés, les gouttes qui tombent entrent toutes dans le vase placé dessous ; si vous lancez quelque chose à votre ami, vous n'avez pas besoin de jeter plus fort dans une direction que dans une autre lorsque les distances sont égales ; si vous sautez à pieds joints, comme on dit, vous franchirez des espaces égaux dans toutes les directions. Quand vous aurez soigneusement observé cela, bien qu'il ne fasse aucun doute que les choses doivent se passer ainsi quand le navire est immobile."

8 This references La Science nouvelle de Galilée of F. Marin Mersenne, who published the French-language critique of Galileo's Dialogue Concerning the Two Chief World Systems (1632) shortly after his censure. According to Mersenne, although Galileo did not prove all of his assertions, his ideas nonetheless merited the distinction of being both new and novel.

9 Cyrano, *L'Autre Monde*, ed. Jacques Prévot, (Paris : Gallimard, 2004), 45, my emphasis and translation: *"Ainsi peut-être, leur dis-je, se moque-t-on maintenant dans la lune, de quelque autre, qui soutient que ce globe-ci est un monde. Mais j'eus beau leur alléguer que Pythagore, Epicure, Démocrite et, de notre âge, Copernic et Kepler, avaient été de cette opinion, je ne les obligeai qu'à s'égosiller de plus belle. Cette pensée, dont la hardiesse biaisait en mon humeur, affermie par la contradiction, se plongea si profondément chez moi que, pendant tout le reste du chemin, je demeurai gros de mille définitions de lune, dont je ne pouvais accoucher ; et à force d'appuyer cette créance burlesque par des raisonnements sérieux, je me le persuadai quasi."*

10 Cyrano, 47: *"Mais, ajoutais-je, je ne saurais m'éclaircir de ce doute, si je ne monte jusque-là ?"*

11 Ibid., 47, my translation: *" Je m'enfermai, pour en venir à bout, dans une maison de campagne assez écartée, où après avoir flatté mes rêveries de quelques moyens capables de m'y porter, voici comme je me donnai au ciel. Je m'étais attaché autour de moi quantité de fioles pleines de rosée, et la chaleur du soleil qui les attirait m'éleva si haut, qu'à la fin je me trouvai au-dessus des plus hautes nuées."*

12 Ibid., 58, my translation: *"Quand j'eus percé, selon le calcul que j'ai fait depuis, beaucoup plus des trois quarts du chemin qui sépare la terre d'avec la lune, je me vis tout d'un coup choir les pieds en haut, sans avoir culbuté en aucune façon. [...] Je connus bien à la vérité que je ne retombais pas vers notre monde ; car encore que je me trouvasse entre deux lunes, et que je remarquasse fort bien que je m'éloignais de l'une à mesure que je m'approchais de l'autre, j'étais très assuré que la plus grande était notre terre ; pour ce qu'au bout d'un jour ou deux de voyage, les réfractions éloignées du soleil venant à confondre la diversité des corps et des climats, il ne m'avait plus paru que comme une grande plaque d'or ainsi que l'autre ; cela me fit imaginer que j'abaissais vers la lune, et je me confirmai dans cette opinion, quand je vins à me souvenir que je n'avais commencé de choir qu'après les*

trois quarts du chemin. Car, disais-je en moi-même, cette masse étant moindre que la nôtre, il faut que la sphère de son activité soit aussi moins étendue, et que, par conséquent, j'aie senti plus tard la force de son centre."

13 Cyrano, Fragments de physique, 321.

14 Gilles Ménage, Menagiana, (Paris : F. and P. Delaulne, 1693), 238 : *"Je crois, quand il fit son Voyage dans la Lune, qu'il en avait déjà le premier quart dans la tête. Il est mort fou."*

Chapter Two

The Filiation from Cyrano to Verne: An Exacting Poetics that Birthed French Science Fiction

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It is no surprise that Verne cites Cyrano as his forerunner (yet omits Lucian of Samosata, and Ariosto) in *From the Earth to the Moon*. But one must always be wary of Verne's citations, he being an author who – conscious of his works' worth – despite its publication in a collection intended for adolescent readers, does not fail to toy with often diverted references, which only a reader capable of situating them precisely in literary space can appreciate in their proper context and meaning. Such is the case with a citation of Chateaubriand whose exact source is obviously erroneous, and which gives all its depth to *The Robinson Crusoe School* (*l'École des Robinsons*), or even those of Baudelaire, who give us unique glimpses into *The Sphinx of the Ice Fields* (*Le Sphinx des Glaces*) and *The Village in the Treetops* (*Le Village Aérien*)[1].

As for the author of *The Comical History of the States and Empires of the Moon*, if the link uniting Cyrano to Verne were merely that of the exploitation of a common theme, their similarity would have no more than an anecdotal interest. However, although Verne decides to explicitly quote his predecessor when he speaks about the operation of the Gun-Club, more important is the fact that he has read and understood him so well that, far from only borrowing a single theme from him, he has appropriated and developed – in the course of other novels – a method of writing as rigorous as it is poetic, which could very well be one of the major characteristics of a French "pre-science fiction".

To establish clearly this relation, we obviously have to minutely pore over Cyrano's body of work, as Verne did. *The Comical History of the States and Empires of the Moon* is thus only the first of two parts of a novel whose title, too often neglected, is *Other Worlds*[2]. This title, essentially polysemous, serves more as an enigma than as a program. Those Other Worlds are not necessarily other planets; they could be a reference to the New World, microcosms, etc. The reader, confronted with this constellation of apparently contradictory possibilities, waits for the text to choose one, so that he may then better follow and understand it.

Yet Cyrano's text explicitly disdains this selective approach and rather takes all the possibilities into account, attempting to make them coexist, which expresses a profligate boldness of thought. Such an exploration of an expression's entire possible meanings, of a Romanesque situation even, bars any unequivocal reading, the tale blossoming where one thought it would have to be abruptly severed. Instead of a succession of different episodes, a subtle art of variations on the initial motive is offered.

Everything starts thus, in the first part's early pages whose title apparently spontaneously associates the Other World to the Moon, without any ambiguity. Yet it is in North America that the narrator lands, to his surprise, after his failed attempt at leaving the Earth's atmosphere by following the path of dew sucked up at dusk by the star of Diana: *I learnt that I was in reality in France, but that it was in New France.*[3] [4] The explanation given for this erroneous destination is thus: The tensile force was miscalculated, and so as the unfortunate traveler raised up high in the skies, his ascension was so lengthy that the Earth did half a rotation upon itself before he inevitably came down again in a vertical descent, but on the other side of the globe.

We see straightaway that nothing is as simple as it seems, for if the New World is indeed the Other World – reached due to the failure of the first flight attempt – it remains that the narrator was aiming for another one, an Other World desired; the Moon, dreamy and mysterious sphere whose mention is at the opening of the novel: *I Had been with some Friends at Clamard, a House near Paris, [...] when upon our return home, about Nine of the Clock at Night, the Air serene, and the Moon in the Full [...].*[5] [6]

On the other hand, the title of the second part of the novel tells us that after the Moon will come the Sun, and so two Other Worlds are now

promised at the cusp of a work whose title only speaks of one, and whose first pages suggest us a third.

Yet, before beginning the novel, the expression "Other World" itself seems unambiguous, and does not hint at traveling; there is no mention of a journey. The Other World is always the place where we rest; it is the Heavens, hidden from us mortals while we are alive but soon revealed to the dead, which we will become. Dyrcona can explore all the planets he wishes, nonetheless it remains that, in its mere occurrence in the text, the expression "other world" is a synonym for Death:

> *Likewise I doubt not that he [God] has put off till now the sending of any to preach the Gospel to them [Selenians], for the very reason that he knew they would receive it ill; and so, hardening their hearts, it would serve but to make them deserve the harsher punishment in the world to come.* [78]

This sole occurrence of the title expression is made even more remarkable by the fact that it is at the very nexus of the novel, since it ends the last sentence of the first part and thus precedes the very first one of the second.

The protagonist of the novel is thus retracing the steps of olden heroes, such as Orpheus, Ulysses, and Aeneas in Hades. This dark sojourn of the deceased's souls is very explicitly and classically situated in underground regions on two different occasions. In the first instance, it does not seem very serious and even brings a smile to the reader's face, as the physical consequences, which Monsieur de Montmagnie gleans from the narrator of this mythical landscape, are obviously simplistic and ludicrous:

> *"Really," said he, 'I fancy that the Earth does move, not for the Reasons alleged by Copernicus; but because Hell-fire being shut up in the Center of the Earth, the damned, who make a great bustle to avoid its Flames, scramble up to the Vault, as far as they can come from them, and so make the Earth to turn, as a Turnspit makes the Wheel go round when he runs about in it.*[9] [10]

However, in the second instance, the narrator does not allow us to have the same critical distance: The facts are undeniable, a tall devil has kidnapped the satanic "son of the host" – the Moon's libertine, at the feet of whom the narrator has cowered; already this strange trio hurls forth towards the terrestrial atmosphere:

I perceived I was drawing near our World; Since I could already distinguish Europe from Africa, and both from Asia; when I smelt Brimstone which I saw streaming out of a very high Mountain, that incommoded me so much that I fainted away upon it.[11] [12]

So, the Other World is the typical afterlife, the opposite of Earth and life, where spirits wail amidst monotony and regret. However, to this is also added an alternate vision of the afterlife, the Judeo-Christian one, which implies a paradise. However, the narrator discovers this marvelous place upon the Moon – even if, exiled upon our satellite, it is the only terrestrial paradise – and meets there the holy men Elijah, Enoch, and Saint John (It should be noted that, since the son of the host is sent both in soul and body into Hell, these three characters are, in the Gospels, the only ones to be brought directly to eternal bliss without suffering the torment of death). Has the other world finally stopped eluding us? It seems so, until the arrival of Campanella at the end of the second part. Indeed, through this unusual philosopher we learn that the Sun also has afterlife pretensions.

Souls come to join this mass of light as likenesses; for this world (the Sun) is made up of no less than the spirits of all that dies on the outer orbs, as are Mercury, Venus, Earth, Mars, Jupiter, and Saturn.[13] [14]

In addition, the novel ends with the expected arrival of the soul of the French philosopher Descartes. From that moment on, everything is once again muddled and mixed up. The Other World was first the Americas, then the Moon and the Sun. Now that it is the afterlife, it is at once the center of the Earth (Hell), the Moon (Paradise) and a part of the Sun (the kingdom of philosophers).

Moreover, we discover yet another new avatar of it, far from death and interplanetary journeys, in the discourse of a solemn Selenian doctor:

That we in our turns, are likewise Worlds to certain other Animals, incomparably less than our selves, such as Nits, Lice, Hand-worms, etc. [...] For tell me, pray, is it a hard thing to be believed, that a Louse takes your Body for a World; and that when any one of them travels from one of your Ears to the other, his Companions say, that he hath travelled the Earth from end to end, or that he hath run from one Pole to the other? Yes, without doubt, those little People take your Hair for the Forests of their Country; the Pores full of Liquor, for Fountains; Buboes and Pimples, for Lakes and Ponds; Boils, for Seas; and Defluxions, for Deluges: And when you Comb your self, forwards, and backwards, they take that Agitation for

the Flowing and Ebbing of the Ocean.[15] [16]

A man, wandering from planet to planet, and waiting to disappear is also a world unto himself. The Other World is the traveler as well. To whoever should wish to trivialize the words of an obscure thinker of the Moon, we should remind the geography in which the narrator and his guide Campanella evolve in the final pages of our text. How could one understand this philosophical excursion in the countries watered by the rivers of Memory, Imagination, and Judgment, where we find the Lake of Sleep, which feeds the fountains of Sight, Taste, Smell, Touch, and Hearing? Without context, they are then treading the mysterious, yet incontrovertibly, real ground of the microcosm: They walk about within Man, they wander within him and discover him.

Still, the metamorphoses of the Other World do not stop here; the image of the Cosmic Bird yet imposes itself:

> *I began to fall asleep in the shade, when I noticed a marvellous bird floating above my head; it held itself with such a light and imperceptible movement, that I wondered several times whether it wasn't a small universe balanced on its own centre.*[17] [18]

From a Copernican and Galilean perspective, the small spherical animal drifting is a reflection of the world floating in space, a new microcosm with which man – the previous microcosm according to the original concept – will blend so well that an entire series of thematic variations will result from it, from the episodes of the traveler's flights to his trial on the Sun where the birds accuse him of being a man, and thus harmful, and he must do everything in his power to dissuade them of such a notion, as well as of his captivity amidst the Selenians, who think of him as some dimwit before they teach him their language, akin to the singing of birds...

By its very title, Cyrano's novel seems essentially polysemous. The text is a result of a word's oscillation between unstable meanings. If, as Jacques Prévot writes, this novel is a work of "radical skepticism", it is so from the very first page, where a title is imposed of which we know not what to think. A primordial mechanism of the Romanesque invention in Cyrano's works is that it is not really about moving forward but rather about constantly repeating the beginning in different ways.[19]

The work's structure is the crowning feat of the literary process, as it creates a very ambiguous relation between both parts of the novel. Indeed, to the reader of *the States and Empires of the Moon*, what are *the States and Empires of the Sun*? Not yet the sequel of what he is presently discovering since he has not finished reading it, but simply a Selenian work graciously offered, in fiction, by the character, which is Socrates' daemon to the narrator:

> *At that time I began the Memoires of it (Voyage); and after my return, put them into as good order, as Sickness, which confines me to Bed, would permit. [...] I have begg'd of Monsieur le Bret, my dearest and most constant Friend, that he would publish them with the History of the Republick of the Sun [...].*[20] [21]

This is but a glimpse; the daemon does not tarry upon it or its contents, but rather moves on to the *Grand Oeuvre des Philosophes* (literally, *the Great Work of the Philosophers*), whose reading he considers far more worthwhile. Yet this is enough to trouble the reader. The Second Part of Cyrano's novel is contained and read within the First. Yet the latter is no less contained within the Second, since, immediately upon the narrator's return to the Earth, he publishes an account of his discoveries titled *the States and Empires of the Moon*. *From every street corner the City resounded with the hoarse voices of the hawkers screaming their heads off: This is the portrait of the author of the States and Empires of the Moon!* [22] [23]

The First Part of the novel, during which one character suggests to another to read the Second, is thus itself composed and edited in the Second. Having read the First, have we then effectively read the text written by the narrator before his departure towards the Sun? Have we kept ourselves up to this point in a second degree of sorts of this tale, in a long, simple quote? An even more troubling question is the following: Should we truly consider the Second Part as a sequel to the First? Should we, encouraged by the reading, think that the traveler – whose peregrinations on the Moon we have followed – is effectively the same as the one who, coming back from this same Moon, finds this Monsieur de Colignac who has never before been spoken of and decides, to his behest, to write an account of his odyssey? After all, *the States and Empires of the Sun* are perhaps the very work Socrates' daemon referred to, which we are allowed to read − so to speak − over the shoulder of the traveler to whom it was offered.

Certainly, appearances seem to prove the opposite. The narrators of the First and Second Parts seem to be one and the same; the one whom we leave on a ship sailing to France, and find again on a ship arriving at Toulon. However, nothing is certain; moreover, one thing in particular is strikingly odd: The appearance of a name.

What is the name of the narrator of *the States and Empires of the Moon*? We do not know. As narrator, he does not have the occasion to name himself; as an adventurer on an unknown planet he is so clearly and naturally distinct from those whom he meets that he has no need to introduce himself. What of the narrator's name in *the States and Empires of the Sun*? We learn it from the mouth of one of his friends whom he finds again: Dyrcona. But is Dyrcona (an anagram of De Cyrano) the first traveler? The one whose portrait is sold at the crossroads, whom each reader, ignorant or wise, goes about praising or requesting a swift book-burning? This narrator, a barely fictitious doppelgänger of the author – is he yet who we think he is? This bipartite work, constituted and crowned by the double term, is characterized by perpetually vague frontiers whose limits are always arguable, forever undecided. The more we reflect upon it, the more doubt settles in; the more we delve into it, the more we risk getting lost within it.

This exacting poetics, which is the source of a first French science fiction masterpiece, did not escape Jules Verne, as we would now like to prove, whose apparent status of author for the youth must never have us neglect his rigorous and erudite relations with great texts, and his mischievous exploration of the literary space. Yet it is not in his two Lunar novels, *From the Earth to the Moon* and *Around the Moon*, that the influences of Cyrano are most apparent. Indeed, if, as we have mentioned, the former bears his only explicit mention of the *Other Worlds*, it is rather in one of the first *Extraordinary Voyages* that Verne truly pays tribute to him by not only mentioning a commonality of themes, but also by adopting the process of polysemous proliferation as a foundation for the Romanesque invention: I am referring here to the *Adventures of Captain Hatteras* (1874).

Prior to a more in-depth study of its composition, we realize that the structure of this novel works much in the same singular fashion as that of Cyrano's. Once again, and in a no less troubling fashion, the first part contains the title of the second and cites it as an independent work.

We should, in order to better contextualize this discrepancy – which only happens in the final pages – remind the reader of the main parts of the intrigue. The English Captain Hatteras, exalted dreamer whose maniacal reputation precedes him, wishes more than anything to be the first to reach the North Pole. He charters a ship, the *Forward*, and brings along as a scientific consultant the charming doctor Clawbonny. This enlightened companion − who by his jovial, pacifying ways and universal knowledge, is very sympathetic to us − though he be interested in the project of the captain, offers nonetheless serious scientific reasons to doubt his ultimate identification of the Pole. He thus works for Johnson, the boatswain, to distinguish the magnetic pole from the true pole, and once they have reached it, he can no longer share the "polar frenzy" of Hatteras, who tries to make him risk his life and that of the sailors to set foot on the exact, yet ultimately chimerical, point of convergence of all the meridians.[24]

Short of actually dying (we now know that this was Verne's original idea, refused by Hetzel), the hero instead loses his wits in his attempt to tread the North, throwing himself into an erupting volcano crowning the Pole only to be spewed out again, definitely insane.

The reader is henceforth tempted to consider arctic solitudes, less from the perspective of Hatteras than from that of the doctor. One sees in them nothing more than deserts seeming to block all access to the Pole, while the other understands and appreciates its charms precisely from the perspective of the relativism, which allows him to conquer said Pole without becoming its Empedocles. Indeed, here is how he sums up the singular appeal of the landscape: *Here our ears hear wrong, and our eyes deceive us!*[25] [26]

Therefore, it is solely through his attention, manifested in such a fashion for the wonderful illusions created by this new climate, that the reader can be initiated to beauties to which Hatteras is blind. It is to the imagination of Clawbonny that the picturesque architectures of the icebergs speak[27]. Moreover, it is to the mediation of his gaze that we owe the magnificent description of the aurora borealis, where his vocabulary melds the different states of matter (wave, meteor...) in a captivating yet illusory osmosis before the slow decrescendo of the last sentence finally consumes its vanishing:

> *Gradually the brilliancy arose in the heavens, following the magnetic meridian, and appeared striped with black bands; jets of luminosity shot with varying brightness here and there; when it reached the zenith it was*

often composed of several arcs bathed in waves of red, yellow, or green light. It was a dazzling sight. Soon the different curves met in a single point, and formed crowns of celestial richness. Finally, the arcs all crowded together, the splendid aurora grew dim, the intense colors faded away into pale, vague, uncertain tints, and this wonderful phenomenon vanished gradually, insensibly, in the dark clouds of the south. [28] [29]

The doctor is a character so charmed by the effects of any phenomenon's refraction, which forces him to relativize his first impressions and biases, that he proves himself capable of a sociological reflection susceptible to be associated to them. As the *Forward* reaches Greenland and Johnson deplores the barrenness to which Nature condemns its inhabitants, Clawbonny does not hesitate to formulate a more thoughtful opinion − born from a deeply pondered confrontation of the near and the far, beyond the errors of perspective generated by a misunderstood distance − by stating that these difficult living conditions are probably far more bearable and honorable than the misery of English workers. We can recognize and master errors of moral judgment, just as we can recognize and relativize optical illusions of a strictly physical origin. In the flooding light of the Pole, a crevice is not always where we think it is; force of habit can prevent us, in our own land, from considering sufferings and injustices flagrant under different skies.

The moderating role, which the doctor is called to play between the two captains Hatteras and Altamont − the latter a shipwrecked American captain taken aboard by the *Forward*'s crew, but who reveals himself to be a dangerous rival for Hatteras because they share the same obsession with the Pole − was inevitable henceforth. But it is more revealing to recognize that Verne used him to break (or illustrate, because an illusion, which is visible is an illusion, which betrays itself) the Romanesque illusion itself, by introducing this character who is a fictitious author of a travel narrative whose title, given in the very last page, is that of the first part of the real novel: *The English at the North Pole*. Between one and the other, the only difference is the switch from French to English[30].

One who can appreciate, as well as redress, the erring of the senses and of judgments goes beyond the threshold of Romanesque credibility for a fleeting instant. This sage – master of the distances – is thus akin to Socrates' daemon, the other well-wishing and sceptic philosophical figure whose offer to read *the States and Empires of the Sun* in the midst of a paragraph from *the States and Empires of the Moon* also confronts the reader with the complexity of a plurivocal work.

These plays on distances − which Clawbonny revels in and offers the key to − are thus echoed, beyond the narrated adventure, in the adventure of writing. This not only informs the alert reader of a relation to *Other Worlds*, but also hints to the fact that this adventure is not limited to the singular shadow cast by the Second part upon the First. Verne's debt is more essential; the pleasure, which the doctor derives from considering the *variations of illusion based upon distance,* brings to our attention nothing less than the process of invention by polysemous proliferation, and thus the major debt of Verne to Cyrano.

In *Hatteras*, the ambiguous goal of the journey is the North, and it is the series of avatars of the North, which is the keystone of the intrigue. Verne indeed decided to create an entire well-crafted episode on a wordplay, which relates to this. While Hatteras and his comrades are about to reach the Pole, the captain − quirky Robinson of sorts − is bitterly disappointed to find human footsteps on what he thought were virgin spaces, European footsteps, no less, since in the midst of them he finds the *lens* of a spyglass. Nevertheless, we quickly discover that this is simply the result of a new error of orientation, the heroes having walked in circles during a previous storm; the doctor confirms this when, wanting to use his spyglass, he realizes that he has lost... the lens.[31]

Words are superimposed upon each other. Behind this wandering lens, more or less lost, we see Hatteras' objective, which he is about to reach – and yet forever loses (In French, the word lens, "objectif", also means "objective", thus the doctor losing the lens becomes a clever pun for Hatteras' objective lost.)

The North, then – that it is about the Pole, we are well aware. The name of the hero otherwise confirms this, since the cape Hatteras, in North Carolina, is infamous for the "northeaster", which plagues it and, which earned it the nickname of "Atlantic cemetery". The North also stands for Sanity (In French, "perdre le Nord" [losing the North] means to go crazy): We know that Hatteras loses his, by struggling so much to keep it. But the North, also – more subtly – pertains to what will constitute, from variations to meanderings, an essential part of the invention of these improbable adventures in the great white solitude of the sterile page: The figure of the bear. To whomsoever would doubt this, the poetic link between the North and the Bear is so indisputable that one need simply mention the definition Littré gives of the Zodiacal Bear (*l'Ourse*) to immediately understand it: *Poetically, the North*. The adverb, which the

lexicographer thus uses, is essential, as much for Verne's novel as it is for Cyrano's... The reader henceforth can fully appreciate the resources, which this double animal of unstable lens/objective offers, to discover within it the logic of the novel, that of the *bear* in all its various states.

If we consider that the Bear represents the North, Hatteras' obstinate and unsympathetic character is suddenly less surprising, never managing to evoke the admiration, which another – such as Nemo – might arouse, since he seems so willing to sacrifice without a thought his sailors in order to fulfill his dream, which is almost entirely absurd. Only after great lengths will the lessons and example of the good doctor, Clawbonny, tame him: Thus rude, violent, and obstinate, Hatteras *is a bear*. It only seems logical then that, during the first weeks of navigating, this grumpy bear of a captain should choose, as an alias, another animal – Duk, the dog-captain.[32]

The latter is furthermore central to the episode that immediately precedes the dramatic turn of events, during which the sailor Garry is revealed to be the mysterious captain Hatteras whose dog was only a temporary substitute. This episode focuses on the themes of the bear and of refraction, while some of the sailors have taken it upon themselves to get rid of the seemingly malevolent authority of the animal and have thrown him in a hole in the ice field, he resurfaces against all odds in a fantastical manner:

> *"It's an enormous bear," said one.*
> *– "It's the beast of Gevaudan!"*
> *– "It's the lion of the Apocalypse!"*
> *Shandon ran to his cabin to get a gun which he kept always loaded; the doctor seized his arms, and made ready to fire at the beast, which by its size, recalled antediluvian monsters.*
> *(...) The doctor gazed attentively, and could not help bursting out laughing.*
> *"It's refraction!" said he.*
> *– "Refraction!" cried Shandon.*
> *But a terrible cry from the crew interrupted them.*
> *"The dog!" shouted Clifton.*[33] [34]

When it is time for it to make way for Hatteras – a bear in search of the Great Bear – the dog reappears to those who had forsaken and forgotten him under the illusory, yet truly terrifying, guise of a gigantic polar bear.

A significant reference to this major scene is found in chapter XXV. The doctor and Duk, having gone hunting, commune together in their

desire for bears: *Do you hear, Duk?" he said, patting the dog's head, "we want some bears, my friend, bears! Bears!* [35] [36] However, once a bear has been sighted and killed, the illusion quickly dissipates. Thinking they had been hunting a giant plantigrade, they realize they have in fact only killed a fox – almost a dog since it has a collar, and bears the message of poor Franklin:

> *[Refraction] deceived us with respect to its size as well as the distance! It made us see a bear in a fox's skin! Such a mistake is not uncommon under similar circumstances! Well, our imagination alone was wrong!* [37] [38]

Yet before we look into the actual bears, the novelist Verne – who for a long time was only a playwright – still allows us to glean a now lost meaning of the word *ours* (*bear*), which is attested by Balzac, among others[39]:

> *A bear ("ours") is a play which has been refused by a multitude of theatres, but which is finally represented at a time when some manager or other feels the need of one. The word has necessarily passed from the language of the stage into the jargon of journalism, and is applied to novels, which wander the streets in search of a publisher.*[40] [41]

Was Verne afraid that *Hatteras* would not be as successful as *Five Weeks in a Balloon*[42]? The captain at least is not unanimously accepted since, like a once rejected playwright, he imposes himself upon his crew − disheartened by the tragic failure of his previous expedition − only with insistence and cunning once the first real problem arises, and by promising them a lofty bonus (closer to Raymond Roussel offering himself magnificent sums to set up his own plays than to Ahab nailing a single doubloon to the mast). It is thus not insignificant that the name of the cape of North Carolina storms, so well adapted to this frigid weather, is also the anagram of the word *theaters* (all those where the author of this *ours* (*bear*) is asked to feature in vain?).

The motive thus expressed as essential, there is a proliferation in the novel of dubious or approximate bears whose occurrences mark the rhythm of Hatteras' progression towards a better self and, simultaneously, towards insanity. In chapter XXX of the first part, there is a real bear. Nevertheless, the dense fog gives it the same ethereal presence as the dog and the fox. Because these animals are confused with one another, the bear manages to survive. In chapter V of the second part, the game of deception and confusion is this time played at the expense of the animal since a bear,

duped by Hatteras covered in a seal skin, is thus lured and killed. A bear tricked then, but by another bear of a different nature.

Chapter XII offers a very similar yet inverted situation: The men fall prey to bears, who, themselves, plan a diabolical trap. While the crew, minus the doctor, barricaded themselves inside the Doctor's House – a dwelling carved in the ice by the shipwrecked sailors – a group of starving polar bears attempt to asphyxiate them by blocking all the openings with snow boulders. Reduced to the state of animals trapped in their lair, the men thus confuse Dr. Clawbonny − as he bursts out of a tunnel laboriously dug into the trap fortress − with one of the bears, and he barely avoids the shot destined for the clawed assailant whom he was mistaken for.

As they are about to reach the Pole, and before they are absorbed by the maelstrom which forbids access to it, the survivors then see, as in an (icy) mirror's reflection, an image of themselves when they witness the group of bears drifting away on an iceberg, left to the tantrums of the sea. It is a strange episode, both by its shortness and by the uncanny nature of the emotion felt: *A vague feeling, of astonishment rather than terror, took possession of them; they admired this spectacle, which completed the struggle of the elements.*[43] [44] Fear, admiration, silence: The characters salute what would constitute an important, yet discreet, parallel to the goal they are about to reach – and lose.

Lastly, the bear is not simply exploited as a theme in the language of the author. It would be regrettable to neglect what he could be in the language, which the English and American protagonists actually speak − and in which the Dr. Clawbonny writes his tale *The English at the North Pole* in the final chapter − considering that it explains another of Hatteras' singularities. Verne, as we know, has a knack for expressing the ridiculous xenophobia of some of his characters (Ben-Zouf, Adjutant-General of Servadac and interplanetary traveler, relates everything solely to butte Montmartre; César Cascabel is ready to forgo all tributes during the crossing of British Colombia rather than offer himself as a spectacle to populations who swear allegiance to Queen Victoria), but he has rarely degraded a heroic figure by adorning it with prejudices susceptible to make it seem ungrateful and unjustly aggressive, as he does with Hatteras, who barely manages to restrain his defiance towards the American Altamont to whom his fate is nonetheless linked (we are a long cry from the proud and international flag of Nemo).

His persistence in floating the Union Jack above the Pole is an undeniable sign of insanity, but if we see behind this an English *bear* (*ours* and only *ours*), the coherence between the race to the North and this apparently displaced nationalism is flawlessly revealed. The door we have thus opened then leads straight to the one who will manage to assuage these destructive, nationalistic rivalries, to unite both captains in friendship – the literal mother of this grumpy bear – which she patiently soothes and turns into an accomplished being, Clawbonny: The *claw*, and *bonny*, from the French *bonne*, gentle, nice, affectionate. He is the good paw who hangs on and perseveres until he has restored in this brute more human emotion, and whose patience finally bears fruit.

Everything thus stems from one word, whose echoes progressively bring life to the vast solitudes of the barren white world where Verne situates his plot[45]. We need say only "North" and everything comes to life. Here we have the objective (in French, the lens, which can be lost or confused for something else, as we have earlier seen), sanity (which is eventually lost), the bear (with its various metamorphoses); those are the instruments of his writing.

The most surprising part of all this is thus that this quasi systematical writing presents precisely as the most convincing tool in the discovery and experience of this new space to which the reader is initiated, the mysterious and frosty Pole: Both correspond to each other perfectly, in the original destitution and rigor of their resources and in the fertility yet obtained from their lives and their beauty.

We thus realize that if there is a filiation from Cyrano to Verne, a filiation, which *From the Earth to the Moon* claims explicitly, it is not limited to the mere heritage of the space exploration and travel to the Moon themes. From *Other Worlds*, a constantly rekindled journey of a fleeting alterity, to *Hatteras*, a novel about a rigorous quest, which leads to the loss of sanity, the very plot, as well as its tantalizing oddities, is born of the same poetic exploration of language. It can thus characterize the singular nature of the first French science fiction, which finds a new achievement in the body of work of Raymond Roussel.

We know of the veneration, which the author of *Impressions of Africa* professed towards the one whom he regarded as a *modern Homer,* and the writing methods he reveals in *How I Wrote Certain of my Books* (*Comment j'ai écrit certains de mes livres*) are quite similar to those we have

observed with Verne and Cyrano, so that the scientific fantasy, which the gifted engineer Canterel (the singer) manifests in *Locus Solus,* appears as the poetic sister of those that Dyrcona and so many other Vernian characters expressed.

Translated by Anton Iorga.

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Notes

1 Cf *Le Village aérien, noir sur blanc*, Bulletin of the Société Jules Verne, n°168, December 2008, *Le Rire jaune de Chateaubriand : la source de l'École des Robinsons*, BSJV n°176, April 2011 and Echos et variations dans le Sphinx des Glaces in *Les Voyages extraordinaires de Jules Verne : de la création à la réception*, texts compiled by Marie-Françoise Montceau-les-Mines and Christophe Reffait, Belles Lettres, Encrage Université, 2012.

2 We know the problems encountered by whomsoever studies this posthumously titled and edited novel of which no handwritten manuscript of the author subsists. Its first edition, that of Le Bret, only features the first part, toned down in order to seem less scandalous. It is not until 1662, when Les Nouvelles Oeuvres de Cyrano de Bergerac are printed in Paris by Charles de Sercy, that The States and Empires of the Sun, found God knows where, were published as the second part: *"I can hide these States and Empires of the Sun, letters and other works which have fallen in my possession no longer"*, writes de Sercy in his dedication to M. Cyrano de Mauvières, brother of the novelist. Regardless, what is most important is that, as early as its first edition in its incomplete form, the work already bore the title The Other World.

3 Bergerac, Cyrano de. *A Voyage to the Moon*. New York: Doubleday and

McClure Co. 1899. p. 20. Translated by Archibald Lovell.

4 *[...] J'estois en France et n'estois point en Europe, car j'estois en la Nouvelle France [...].* Cyrano de Bergerac, *Oeuvres complètes* (OC), édition de Jacques Prévot, Belin, 1977, p. 361.

5 Bergerac, Cyrano de. *A Voyage to the Moon*. New York: Doubleday and McClure Co. 1899. Translated by Archibald Lovell.

6 *La lune estoit en son plain, le Ciel estoit descouvert et neuf heures au soir estoient sonnées lorsque nous revenions d'une maison proche de Paris, quatre de mes amys et moy.* OC, p.9-10.

7 Bergerac, Cyrano de. *A Voyage to the Moon*. New York: Doubleday and McClure Co. 1899. p.219. Translated by Archibald Lovell. *Aussi je ne doubte point qu'il [Dieu] n'ayt différé jusque icy d'envoyer leur [aux Séléniens] prescher l'Evangile, parce qu'ils en abuseroient et que cette resistance ne serviroit qu'à leur faire mériter une plus rude punition en l'Autre Monde.* OC, p 363.

8 *Aussi je ne doubte point qu'il [Dieu] n'ayt différé jusque icy d'envoyer leur [aux Séléniens] prescher l'Evangile, parce qu'ils en abuseroient et que cette resistance ne serviroit qu'à leur faire mériter une plus rude punition en l'Autre Monde.* OC, p 363.

9 (p.28-29) Bergerac, Cyrano de. *A Voyage to the Moon*. New York: Doubleday and McClure Co. 1899. Translated by Archibald Lovell.

10 *En effect, disoit-il, je m'imagine que la Terre tourne, non point pour les raisons qu'allegue Copernic, mais par ce que le feu d'Enfer, ainsy que nous apprend la Saincte Ecriture, estant enclos au centre de la terre, les Damnez qui veulent fuir l'ardeur de la flame, gravissent pour s'en esloigner contre la voute, et font ainsy tourner la Terre, comme un chien faict tourner une roue lors qu'il court enfermé dedans.* OC, p. 423.

11 Bergerac, Cyrano de. *A Voyage to the Moon.* New York: Doubleday and McClure Co. 1899. P.215-216. Translated by Archibald Lovell.

12 *Desjà je distinguois l'Asie de l'Europe et l'Europe de l'Africque, desja mesmes mes yeux, par mon abaissement, ne pouvoient se courber audela de l'Italie, quand le coeur me dit que ce diable sans doubte emportoit mon hoste aux Enfers, en corps et en âme, et que c'estoit pour cela qu'il le passoit par nostre terre, à cause que l'Enfer est dans son centre.* OC, p. 493.

13 Translated from the French by Philippe Mather.

14 *Les âmes viennent par un principe de ressemblance se joindre à cette masse de lumière ; car ce monde cy (le Soleil) n'est formé d'autre chose que des esprits de tout ce qui meurtt sur les orbes d'autour, comme sont Mercure, Vénus, la Terre, Mars, Jupiter, et Saturne.* OC, p. 405.

15 Bergerac, Cyrano de. A Voyage to the Moon. New York: Doubleday and McClure Co. 1899. P.165-166. Translated by Archibald Lovell.

16 *Et nous, à nostre tour, sommes aussy des mondes de certaines gens encore plus petits comme des chancres, des poux, des vers, des cirons (...) Car, dites-moy, je vous prie, est-il malaisé à croire qu'un pou prenne nostre corps pour un monde, et que quand quelqu'un d'eux a voyagé depuis l'une de vos oreilles*

jusques à l'autre, ses compagnons disent de luy qu'il a voyagé aux deux bouts du monde ou qu'il a courru de l'un à l'autre pôle ? Ouy, sans doubte, ce petit peuple prend vostre poil pour les forests de son pays, les pores pleins de pituite pour des fontaines, les bubes et les cirons pour des lacs et des étangs, les apostumes pour des mers, les fluxions pour des deluges ; et quand vous vous peignez en devant et en arrière, ils prennent cette agitation pour le flux et le reflux de l'Ocean.

17 Same edition, p. 464.

18 Translated from the French by Philippe Mather.

19 In this context, Cyrano is very baroque. The baroque uses repetition to better persuade : le poème baroque semble ne pouvoir que s'envelopper autour d'une isotopie insensiblement variable (Michèle Clément, *Une poétique de crise : poètes baroques et mystiques (1570-1660)*, Paris, Champion, 1996, p.256).

20 Bergerac, Cyrano de. *A Voyage to the Moon*. New York: Doubleday and McClure Co. 1899. P.218. Translated by Archibald Lovell.

21 *Affin de vous divertir pendant que je ne seray point avec vous, voicy un Livre que je vous laisse, je l'apportè jadis de mon pays natal : il est intitulé. Les Estats et Empires du Soleil.* OC, p.423.

22 Translated from the French by Philippe Mather.

23 *Et la Ville retentissoit dans chaque Carrefour, du gosier enroué des colleporteurs qui crioient à tue teste : Voilà le Portrait de l'Auteur des Estats et Empires de la Lune !* OC, p. 425.

24 Clawbonny goes so far as to attenuate the usefulness of being at the Pole by specifying that, even at the exact point, one could not be exempt of terrestrial movement, since we must take into account, if not the displacement of the globe on its axis, at least that its progression around the Sun.

25 Verne, Jules. *The Voyages and Adventures of Captain Hatteras*. Release Date: July 15, 2009 [Project Gutenberg EBook #29413])

26 (*Les oreilles entendent de travers et les yeux voient faux.*)

27 *"Tenez, Jonhson, admirez cet ensemble de blocs de glace ! Ne dirait-on pas une ville étrange, une ville d'Orient avec ses minarets et ses mosquées sous la pâle lueur de la lune ? Voici plus loin une longue suite d'arceaux gothiques qui nous rappellent la chapelle d'Henri VII ou le palais du Parlement"*, Partie I, chap. VII.

"See there, Johnson; see that singular collection of blocks of ice! Would one not say it was a foreign city, an Eastern city, with minarets and mosques in the moonlight? Farther off is a long row of Gothic arches, which remind us of the chapel of Henry VII., or the Houses of Parliament." (Verne, Jules. *The Voyages and Adventures of Captain Hatteras*. Release Date: July 15, 2009 [Project Gutenberg EBook #29413])

28 (Verne, Jules. *The Voyages and Adventures of Captain Hatteras.* Release Date: July 15, 2009 [Project Gutenberg EBook #29413])

29 *Peu à peu la zone brillante s'élevait dans le ciel suivant le méridien magnétique, et apparaissait striée de bandes noirâtres ; des jets d'une matière lumineuse s'élançaient, s'allongeaient alors, diminuant ou forçant leur éclat ;*

le météore, arrivé à son zénith, se composait souvent de plusieurs arcs, qui se baignaient dans les ondes rouges, jaunes ou vertes de la lumière. C'était un éblouissement, un incomparable spectacle. Bientôt les diverses courbes se réunissaient en un seul point et formaient des couronnes boréales d'une opulence toute céleste. Enfin, les arcs se pressaient les uns contre les autres, la splendide aurore pâlissait, les rayons intenses se fondaient en lueurs pâles, vagues, indéterminées, indécises, et le merveilleux phénomène, affaibli, presque éteint, s'évanouissait insensiblement dans les nuages obscurcis du sud. Partie I, chap. XXVI.

30 We see further that Verne even risks an interlingual pun. Relating to his interest on the similarities of these two languages, see Echos et variations dans le Sphinx des Glaces in Les Voyages extraordinaires de Jules Verne : de la création à la réception, texts gathered and assembled by Marie-Françoise Melmoux-Montaubin and Christophe Reffait, Belles Lettres, Encrage université, 2012.

31 Partie II, chapitre XXI.

32 Let us remind the reader that, conscious of the terrible reputation which he has acquired during his last campaign, during which he cruelly inflicted suffering upon his crew, Hatteras charters the Forward without ever revealing his identity. The sailors, enticed by a sizable salary, simply know that their captain will only board the ship once they are already sailing and demands of them that they obey the Second until then. In his cabin, however, is a dog which, out of ridicule, they call Captain.

33 Verne, Jules. *The Voyages and Adventures of Captain Hatteras*. Release Date: July 15, 2009 [Project Gutenberg EBook #29413]

34 *« C'est un ours ! disait l'un.*

– C'est la bête du Gévaudan !

– C'est le lion de l'Apocalypse ! »

Shandon courut à sa cabine prendre un fusil toujours chargé ; le docteur sauta sur ses armes et se tint près à faire feu sur cet animal, qui, par ses dimensions, rappelait les quadrupèdes antédiluviens (…) Le docteur regarda avec attention et ne put s'empêcher d'éclater de rire.

« La réfraction ! dit-il.

– La réfraction ! s'écria Shandon.

Mais une exclamation terrible de l'équipage les interrompit.

*« Le chien ! » fit Clifton. (*Partie I, chapitre XI.)

35 (Verne, Jules. *The Voyages and Adventures of Captain Hatteras*. Release Date: July 15, 2009 [Project Gutenberg EBook #29413])

36 *Entends-tu, Duk ? fit le docteur en caressant le chien : il nous faut des ours, mon ami.*

37 Verne, Jules. *The Voyages and Adventures of Captain Hatteras*. Release Date: July 15, 2009 [Project Gutenberg EBook #29413].

38 *(la réfraction) nous a trompés sur la dimension comme sur la distance ! Elle nous a fait voir un ours sous la peau d'un renard ! Pareille entreprise est*

arrivée plus d'une fois aux chasseurs dans des circonstances identiques ! Allons ! Nous en sommes pour nos frais d'imagination !

39 *Petites Misères de la vie conjugale*, Pléiade, t. X, p. 978, note. The Dictionnaire de l'Académie once again takes the meaning of a manuscript which could not find a publisher. Thank you to O. Dumas for this finding.

40 Balzac, Honoré de. *Petty Troubles of Married Life*, Complete. Release Date: June 29, 2005 [Project Gutenberg EBook #16146].

41 *On appelle un ours une pièce refusée à beaucoup de théâtres, et qui finit par être représentée (...). Ce mot a nécessairement passé de la langue des coulisses dans l'argot du journalisme, et s'est appliqué aux romans qui se promènent. On devrait appeler ours blanc celui de la librairie, et les autres des ours noirs*.

42 *Five Weeks in a Balloon*, which allowed Verne to sign a contract with Hetzel.

43 Verne, Jules. *The Voyages and Adventures of Captain Hatteras*. Release Date: July 15, 2009 [Project Gutenberg EBook #29413].

44 *Un sentiment vague, qui tenait plus de l'étonnement que de la terreur, s'emparait de leur cerveau ; ils admiraient et ce terrifiant spectacle complétait la lutte des éléments.*

45 Let us remind the reader on this occasion of the importance of the theme of overwintering in the novels of the author. A Winter Amid the Ice, short story originally published in French in 1855, begins the series to which will be added, other than Hatteras, The Fur Country, Off on a Comet and the crucial Sphinx of the Ice Fields. We can see here a manifestation of the method we are studying: upon the country whose guise is that of a blank page, J. VERNE imposes himself. (In French, this reads as j'hiverne [I am overwintering])

CHAPTER THREE

FLYING THE COLONIAL SKIES DURING THE FRENCH ENLIGHTENMENT

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In the first edition of Rétif de la Bretonne's *The Austral Discovery by a Flying Man,* the frontispiece depicts a turning point in the protagonist's journey when the main character Victorin flies from France to discover and colonize inhabited islands in the South Pacific.[1] See Fig. 1. This image, and its accompanying prose description, highlight Victorin's role as both explorer and colonizer. His flying machine evokes a nautical theme, with sails, ropes, and a diminutive mast supporting a parasol, to which the description confirms its maritime inspiration.[2] Indeed, Victorin's suit is in the form of a seaman's outfit.[3] While the frontispiece shows Victorin as an enhanced naturalist explorer, Fig. 2 makes visible structural similarities between his flying machine and avian anatomy. The second engraving illustrates that Victorin and his male heirs are not passive naturalist observers. Indeed, their flying suits are often compared to birds of prey.[4] The engraving's description furthermore explains that the belt hanging from Victorin's waist allows the protagonist to capture prey. See Figs. 1 and 3. In this regard, the frontispiece, depicting Victorin's oversize presence on the page, seems to foreground Victorin's predatory impulses.

The most intriguing aspect of Victorin's machine is what is concealed from view. The preface explains that a hidden mechanism of cords, belts, springs, and gears enhances and redirects Victorin's leg motions into powerful thrusting movements.[5] By covering his flying machine in the garb of nature, the inventor creates a miraculous illusion. This paper will argue that Victorin's naturalized flying machine borrows from early-modern *machine* marvels, which were intended to project a supernatural image of power. The cultural meaning of *machine* and *machiniste,* during

the long 18th century, is strongly connected to early-modern representations of the supernatural and sovereignty. As a modified symbol of *machine* marvels, Victorin's flying machine appropriates *Ancien régime* representations of the divine sovereign from a late Enlightenment image of the colonial despot.[6]

Marvelous Machine

My analysis traces the presence of *machines* and *machinistes* as symbols of supernatural power in early-modern literature and performance, in order to demonstrate how the narrator modifies *Ancien régime* sovereign imagery. In many examples across genres, a *machine* referred to a *deus ex machina* wherein a deity would intervene either directly or indirectly through supernatural means. The term was also used interchangeably with the word Marvelous. The *Encyclopédie* article on opera, referring to the *merveilleux des machines* or Machine Marvelous, combines two definitions of machine into one. The first referred to the intervention of supernatural beings, and the second to the mechanical apparatus on which deities flew, or demons descended. The word machine thus referred to supernatural representations across narrative and dramatic genres.

The *machine* essentially crossed art forms, and early-modern commentators often critiqued representations of the supernatural across time (ancient versus modern texts), and genres (fables, fairy tales, epic poetry and opera).[7] For instance, Jean Terrasson's 1715 work on the *Iliad* criticized the ancient Marvelous because unlike operatic Marvelous, the ancient form did not follow the dictates of reason or the logic of nature.[8] In the mid -century, Grimm's *Encyclopédie* article, "Poëme Lyrique" referred to the French opera as epic poetry *mise en action* replete with a visible form of the Marvelous.[9] In *Austral Discovery*, the preface echoes a similar comparative approach. It explains that the model for Rétif's story is Ovid's Daedalus myth. However, the narrator improves on Daedalus' ancient machine because he furnishes the 18th century reader with a detailed description of its internal mechanisms.[10]

Figure 1: Frontispiece entitled “Victorin Taking Flight” by Louis Binet. Rétif de la Bretonne, *La Découverte Australe,* 1:1. Courtesy Rare Book & Manuscript Library, Columbia University Library.

Figure 2: “The Men of Night” by Louis Binet. Rétif de la Bretonne, *La Découverte Australe,* 1:183. Courtesy Rare Book & Manuscript Library, Columbia University Library.

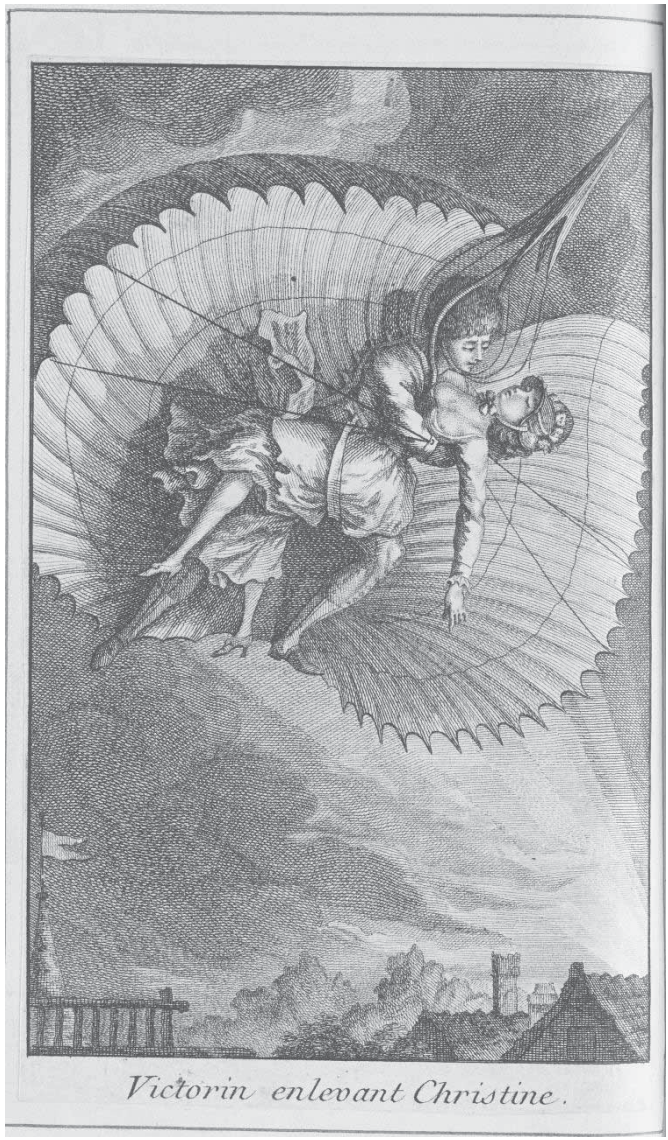

Figure 3: “Victorin abducting Christine” by Louis Binet. Rétif de la Bretonne, *La Découverte Australe,* 1:101. Courtesy Rare Book & Manuscript Library, Columbia University Library.

In this comparative context, Victorin's flying machine seems less based on Daedalus' ancient machine, and more based on early-modern Machine Opera. Indeed, fig. 4 seems to parody a lascivious scene from a pastoral ballet, replete with flying chariots and satyrs.[11] The narrator even borrows the lexicon of theatrical machinery. Like operatic *machines*, Victorin's flying apparatus is an assemblage of gears, springs, and straps, which facilitate its mechanical movement.[12] His machine's range of motion also resembles the vertical and horizontal movement of those on the Opera stage. Much like operatic *machines* depicted in figs. 5 and 6, Victorin's machine moves vertically and horizontally with the aid of three mechanisms: "The lifter, that allows it to climb, the depressor, that brings it back to earth, and the horizontal, that moves it forward".[13] The comparison with Machine Opera does not end simply with a study of mechanical similarities. Victorin's flight resembles the awe-inspiring spectacle of 17th century operatic *machines* whose purpose was to dazzle the audience with supernatural, and even divine, effects. In Rétif's novel, uninitiated characters respond like spectators with awe, wonder, or fear. Indeed, when townspeople see Victorin's horseless carriage, the narrator describes the onlookers as astonished spectators.[14] Throughout Victorin's journey, characters ascribe supernatural and divine attributes to his flying machine. For some, the flying man is a monster, a mythical chimera. For others, the machine conjures images of the devil.[15] Some onlookers even kneel in religious adoration, calling the flying man Messiah, Mohammed, or God.[16] Within the larger context of sovereignty and the supernatural, Victorin's machine elevates him to the supernatural order of power, a power similar to the one that Roger Chartier attributes to the sacred authority of the French king.[17] Instead of merely recycling images of absolutist power, Victorin's flying machine re-imagines and re-invigorates the divine right of sovereignty that was eroding in France during the late 18th century.[18]

Marvelous Hierarchy

As a propaganda tool for his colonial enterprise, Victorin's machine borrows the visual vocabulary of operatic Marvelous to emulate *Ancien régime* representations of sovereignty. Indeed, opera prologues of the 17th century began with mythological deities praising, in barely veiled terms, Louis XIV's munificent reign.[19] While these mythological prologues slowly became unfashionable by the mid-18th century, the gods of Machine Operas still retained their aura of monarchical authority. Martha Feldman

explains in her book, on 18th century Italian opera and sovereignty, that

Figure 4: "Men-horses" by Louis Binet. Rétif de la Bretonne, *La Découverte Australe,* 1:350. Courtesy Rare Book & Manuscript Library, Columbia University Library.

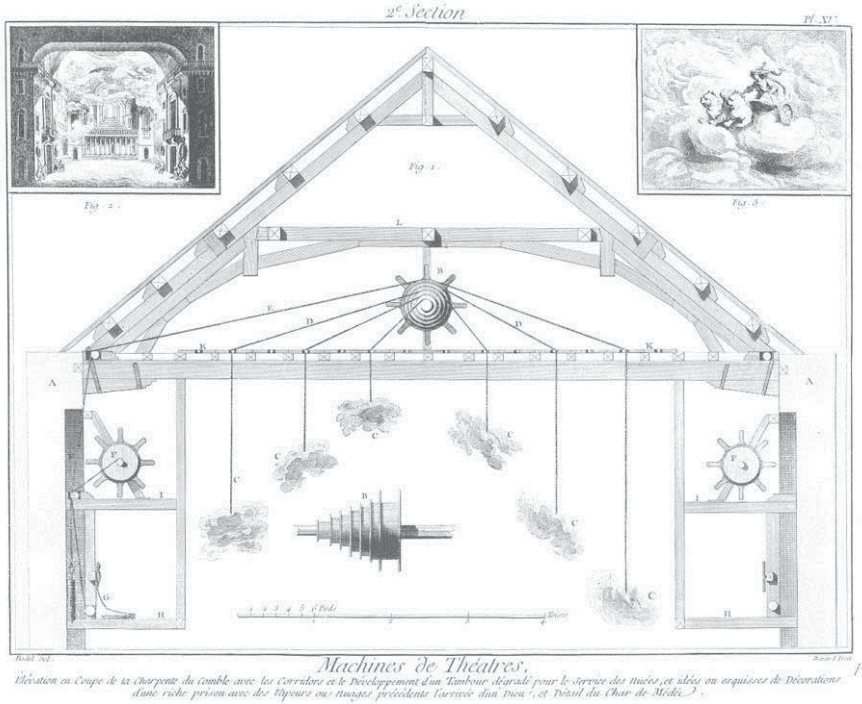

Figure 5: Machines de Théâtres. Planche XV. 2e section. In *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers, etc*., eds. Denis Diderot and Jean le Rond D'Alembert. Courtesy Rauner Special Collections Library, Dartmouth College Library.

"opera seria thrived in the glow of old-regime sovereignty. In this sense, it thrived in a world endlessly marked by the reiteration of social hierarchies whose implications were nothing short of cosmological–implicit assertions of a world order in which ranks cascaded downward in the great chain of being from God to sovereign or ruling class to the various classes and orders below".[20]

In a colonial version of old-regime sovereignty, Rétif's preface introduces the greatness of the French hero in relation to a great chain of beings.[21] Indeed, Victorin and his male descendants similarly cultivate a

theatrical representation of power wherein flight and mythological divinity are visible manifestations of "enlightened" authority. Throughout most of the tale, Victorin and his male heirs constitute a ruling elite who maintain power through an exclusive claim to flight. Victorin's son, Hermantin, strategically ensures the prowess of their dynasty. Through a political alliance with the Patagonians – a race of giants – Hermantin is able to produce descendants, which he envisions as Herculean demigods.[22] Victorin's descendants essentially become flying demigods whose colonial authority is slowly limited by their own enlightenment ideals.

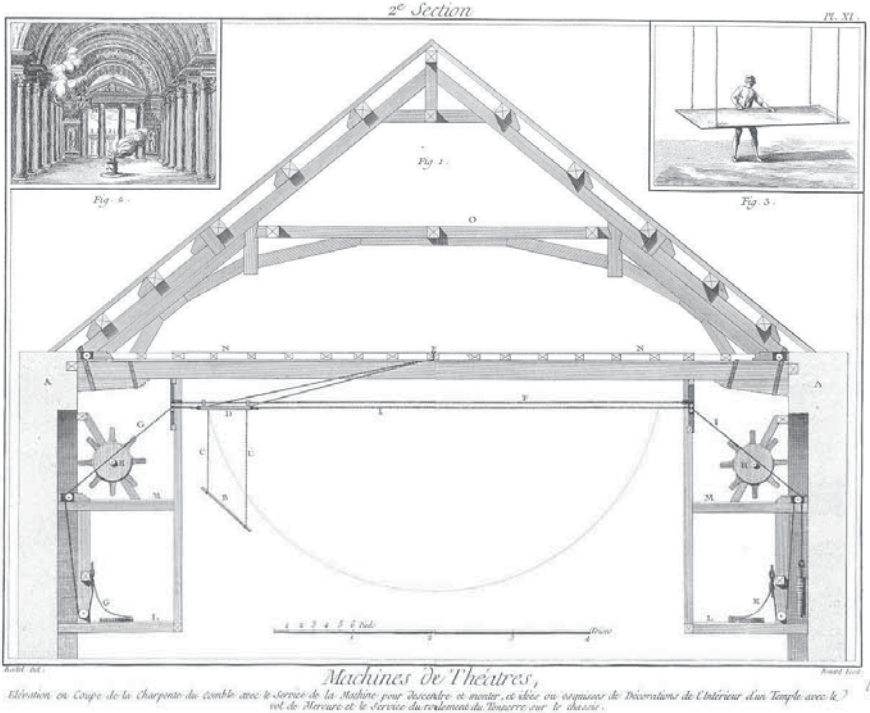

Figure 6: Machines de Théâtres. Planche XI. 2e section. In *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers, etc.*, eds. Denis Diderot and Jean le Rond D'Alembert. Courtesy Rauner Special Collections Library, Dartmouth College Library.

Divine-Machine

The wondrous spectacle, which Victorin's flying machine inspires, represents a porous boundary between the divine image of Louis XIV and Retif's "enlightened" version of colonial power. When Victorin establishes his first colony on *Mont Inaccessible,* he solicits the help of a priest to propagate his divine aura.[23] This holy alliance adapts *Ancien régime* political protocol, which dictated that political authority required the support of the religious hierarchy. As a colonial version of divine authority, Victorin's territorial ambitions moreover emulate the proselytizing mission of Catholic colonizers, and transform a religious vocation into an Enlightenment desire to educate.[24] Instead of a wholesale re-purposing of the early-modern collusion between religious and political power, Victorin's divine aura appears to meld the divine authority and legitimacy accorded to *Ancien régime* monarchs with a more radical deist conception of god as *machiniste*.

Indeed, the word *machiniste*, for 18th century philosophers, often meant a hidden architect who either deciphered or created the mechanisms of life. *Machiniste* became a metaphor for both an intelligent human and a divine designer. In Voltaire's articles on atheism and animals, *machiniste* was a metaphor for an intelligent creator who designed, but would not interfere with, the cosmos.[25] Outside the divine realm of creation, Etienne Bonnot de Condillac imagined society as a *machine* and the magistrate as a *machiniste* who maintained harmony and power among all of its members.[26] Finally, Bernard Fontenelle figuratively presented the world as a Machine Opera whose mechanistic nature was hidden from everyone except the *machiniste*-spectator. Fontenelle's *machiniste* referred to a philosopher, whose intelligence and reason enabled him to discover the hidden mechanisms of nature.[27] Although these texts investigate separate issues from different perspectives, they imagine similar attributes for their *machiniste* – intelligence, reason, and at times enhanced perception for two types of *machiniste*: The *machiniste* -philosopher who merely discovers the hidden mechanisms of nature, and the *machiniste*-creator who designs nature itself.

In the context of *Austral Discovery*, the philosophical and political meanings of *machiniste* help clarify Victorin's melding of *Ancien régime* divine authority with Enlightenment attitudes toward social engineering. Victorin essentially represents a divine-like architect of a colonial utopia. Victorin embarks on an agenda of eugenics, promoting hybridity between

races that resembles Pamela Cheek's observation on the relationship between colonial sexual encounters and the formation of French and British identities. In particular, she "proposes that extraordinary thematization of hybridity as a tool for French regeneration".[28] Victorin's genetic engineering, according to Cheek, attempts to remedy the natural inequities of nature while also preserving the naturally enhanced authority of his ruling family.[29] Victorin and his descendants are hybrid machine-men whose mechanical appendages project the power of a machine-sovereign, and elicit the adoration of their colonial subjects.

Victorin's symbol of colonial power, as my comparison with 17th century French opera suggests, re-imagines Louis XIV's use of spectacular technology to attain political power. Georgia Cowart notes that Louis XIV was limited in his actual political power insofar as he was required to negotiate between various institutions and factions. With the aid of court spectacles showcasing dazzling machine plays and ballets, the king camouflaged these perceived limitations with court spectacles that promulgated the image of the machine-king, a sovereign of absolute authority.[30] These spectacles moreover constructed an image of Louis XIV's global power. According to Georgia Cowart, the *Ballet des Muses,* a 1669 court ballet, represented a shift in royal imagery from imperial power to the "image of a French empire, superior to both ancient and contemporary European powers and cultures".[31]

Similar to Louis XIV's court spectacles, Victorin's flying machine appears to project a global power. However, Victorin's skill distinguishes his power from that of Louis XIV. While the Sun King manifests his power as the commissioner of mechanical wonders, Victorin creates his machine. His ingenuity thus represents a modified version of French sovereignty in which merit is elevated over birth. This new version of sovereignty also emphasizes the intelligence and acumen of an inventor as essential qualities of a ruler.

Indeed, the narrator seems to imagine Victorin as a savior who can rectify the inequities of the 18th century colonial system. In the preface, the narrator favorably contrasts Victorin's actions to the brutal Spanish conquest of the Americas.[32] In the context of French history, the narrator's depiction of Victorin's global power is particularly invested in what the Southern Seas represented for the French in the late 18th century. According to Lynn Festa, the embarrassing French losses after the Seven Years' War (1756-63) gave way to "speculation about a vast undiscovered

landmass in the Southern Hemisphere" that the French could then exploit to rebuild their commercial empire.[33] In this global context, Victorin, as a machine-explorer, becomes a symbol of an "enlightened" colonial sovereign whose ingenuity redresses the failings of the Bourbon kings.

Sovereign Merit and Morality

Rétif's preface, moreover, appears to modify the machine-king imagery of Louis XIV to project a late 18th century version of global power. As the leader of a new power in the Southern Seas, Victorin exemplifies a meritocratic system. Indeed, he does not rely on birth to accumulate talented machinists whose technological marvels – stage machines and amazing waterworks – construct the illusion of a machine-king.[34] Instead, he is an ingenious machinist in his own right, a more perfect version of famous French machinists.[35] His image as a machine-explorer is more than simply an elevation of the professional class among the ranks of society. Victorin, as a machine-sovereign, re-formulates the *Ancien régime* system of political power. The protagonist does not require institutional and hereditary legitimacy to attain power. Instead, he relies on his inventive spirit to create a mechanical symbol of authority.

His genius, the source of his (il)legitimate authority, is best understood in relation to his creative process. His capacity to invent has as much to do with desire as skill. In fact, he labors for years to perfect his invention, and despite many setbacks, never waivers from the task. The force of his resolve comes from a violent and obsessive desire. His completed machine is intended as a tool for sexual violence, enabling him to abduct his object of desire, Christine. Moreover, once his project is complete, one of his first major expeditions is a nocturnal flight to Christine's home. Under the cover of night, Victorin, flying high above Christine's castle, serenades his love. Victorin's flying machine is as much a product of his mechanical aptitude as his violent passion.

Victorin's blending of machine with emotion reflects a similar trend of this period. As Tili Boon Cuillé notes, the mechanistic worldview represented by machine apparatuses of the late 17th and early 18th centuries changed with late Enlightenment operatic *machines*, which blended biological form with mechanism.[36] It is a trend based on the philosophy of vitalism, which could be described as mechanism plus sensibility. In this formulation, sensibility refers to the capacity to feel, and mechanism refers to the capacity to move. Cuillé emphasizes the vitalist

turn in operatic Marvelous, to explain why Gluck either retained or added machines to his 1770s reform operas. Gluck's operas establish a relationship between supernatural action and passion insofar as this reformed Marvelous externalizes characters' passions.[37]

As an example of this vitalist turn, Victorin's nocturnal serenade perfectly captures the combination of sensibility and mechanism. The narrator even comments how "the sonorous air in high altitudes rendered [Victorin's song] extremely clear (distinct and audible)".[38] What's more, Victorin's flying machine transforms a moment of passion into a spectacular event of wonder. His voice assumes a supernatural aura, which surprises and perplexes listeners.[39] Insofar as Victorin's machine both amplifies his touching voice and shrouds it in mystery, *Austral Discovery*'s supernatural becomes a form of mechanically enhanced passion.

The term passion, here, refers to a broader Enlightenment conception of human emotion. Within the 18th century domain of the passions, Victorin's flying machine interfaces with more than just amorous feelings. His machine becomes a mechanical implement with which characters strive to achieve their deepest desires. For instance, Victorin's servant, Jean Vezinier – who invents the first flying prototype – draws his inspiration from an irrepressible urge for vengeance. Indeed, he unleashes his creative genius in an attempt to satisfy his predatory fantasy. Above all else, he wants to murder and rape his enemies who have mocked his laziness.[40] Oddly, his violent urges are causally linked to his laziness. The narrator emphasizes Jean Vezinier's negligent attitude almost on equal footing with his criminal intent because both vices have social implications. Although modern readers would never categorize the heinous violence of rape and murder with the gluttony of laziness, in Rétif's perverted world, these vices are crimes antithetical to social utility and harmony. While Vezinier's negligence demonstrates a complete lack of social responsibility, his rape fantasy represents an attack on the community's social and moral order. In this regard, *Austral Discovery*'s Marvelous technology interacts with positive and negative passions.

Vezinier's flying apparatus appears to intensify his egotistical rage, much like the operatic Marvelous enhanced personified performances of vices. Baroque operas, for instance, often include an allegorical character, such as Envy or Hatred, who plots revenge. In much the same way, he and his prototype, embodying a futurist version of personified passions, become an allegory for self-interest. In the parlance of 18th century moral

philosophy, Jean Vezinier's socially destructive desires exemplify the problems with *amour-propre*, an umbrella term for forms of narcissism: Selfish love, self-esteem, self-interest, and selfishness. Vezinier's flying machine, inspired by base desires, becomes a mechanical embodiment and implement for his egotism. Since *Austral Discovery* promotes the myth of a colonial utopia, Vezinier's machine of vengeance represents one of its major obstacles. Like personified passions, the narrator attributes the cause of Vezinier's accidental fall to the desire of "misfortune."[41] Thus personified, misfortune functions as a Deus ex Machina of moral philosophy. Vezinier's machine of self-interest is destined to fail because his technology could never serve the greater good.

Austral Discovery essentially revisits the difficult issue of technological power and social unity, an issue that connects Enlightenment philosophies to modern science fiction. From Jean-Jacques Rousseau's *Discourse on the Origin and Basis of Inequality Among Men* (*Discours sur l'inégalité parmi les hommes*) to Michel Houellebecq's *The Possibility of an Island* (*La possibilité d'une île*), technology often poses a danger to social unity. *Austral Discovery*, in re-examining this negative portrayal of technology, casts Vezinier's fate as a cautionary tale against technology's injurious effect. As such a warning, the narrative reformulates the lessons of a fallen Icarus into an Enlightenment version of this myth. Vezinier demonstrates that technology has fatal consequences when it becomes an implement of malicious self-interest.

In contrast, Victorin's use of technology appears as a positive form of stewardship, which Rétif furthermore recommended elsewhere in his vast corpus.[42] In the perverted colonial universe of *Austral Discovery*, the greater societal good still includes forms of social violence.[43] For instance, Victorin's abductions are almost as selfish as Vezinier's violent urges except that the protagonist transforms a self-interested abduction fantasy into a social engineering project.

At first, Victorin wants to kidnap the lady Christine and take her to a deserted island. However, Victorin gradually realizes that Christine would have both social and physical needs that only a fully functioning society – with farmers, tailors, and bakers – could satisfy. Victorin considers his use of force to populate *Mont Inaccessible* as a "dignified manner of serving the queen's will."[44] Victorin casts his abductions as the product of a sovereign will whose violent actions appear justified by the results, namely the creation of a colonial utopia. In this regard, Victorin evolves

into a totalitarian (per)version of Rousseau's ideal citizen, which John O'Neal describes as an unselfish individual. In essence, the protagonist "subordinat[es] selfish love (amour-propre) to the love … of the species and the community (*amour de soi*)".[45] Victorin's communitarian love, however, is tangled up in the appropriated old-regime imagery of his authority.

Technology and Inequality

While Victorin's technological prowess enables him to enforce communitarian ideals of gender and class equality, his supernatural aura complicates the very ideals that he wishes to promote. On the one hand, his flying apparatus is beneficial to society because Victorin and his descendants distance themselves from the inequalities of European civilization, and thus are able to create a colonial utopia. On the other hand, Victorin's flying apparatus elevates his family over his colonial subjects. It is a technology that paradoxically promotes greater social equality while preserving hereditary inequality.

This apparent paradox is at the heart of Victorin's spectacular use of technology. His machine's primary purpose revolves around the sovereign's deployment of technology as a means to impose his will. His use of supernatural prowess modifies Louis XIV's abuse of technological power. The Sun King deployed a variety of machinists to construct his image as an absolute monarch. His technological marvels were connected to seemingly unrelated fields, which the definition of *machiniste* helps explain. During this period, *machinistes* were expert clockmakers, hydraulic specialists, and makers of stage machinery.

Among the technological marvels showcased at Versailles were Louis XIV's amazing fountains, made possible by new aqueducts and hydraulic machinery. Julia Simon notes that Louis XIV's "invisible hydraulic technology…creates a site in which the territorial ambitions of the French absolute monarchy were in the landscape".[46] However, the monarch's display of technological prowess came at the expense of the community. According to Simon, 18th century philosophers condemned Louis XIV's waterworks because they wasted human capital without benefiting the French nation.[47] In contrast to the frivolous waterworks of Louis XIV, Rousseau envisioned the Roman aqueducts as a sublime use of technology because they were intended both to improve social welfare, and to celebrate a "collective social achievement".[48]

As a technological symbol of power, Victorin's flying machine represents a middle road between the wasteful self-interest of an *Ancien régime* monarch and the social utility of republican public works. Victorin and his family embrace technology for both its social and familial benefits.[49] His family resembles a political version of Fontenelle's *machiniste*-spectator who uncovers the hidden mechanisms of nature. They rely on their perceptive ability to cloak the machinery of "enlightened" despotism in the garb of nature and the aura of supernatural power. They are critics of *Ancien régime* abuses, who paradoxically construct their authority on the symbolic power of the Sun King.

Modern readers might be inclined to read Victorin's flying machine as a prefiguration of technologies present in science fiction. However, as an early example of futurist technology, Victorin's flying machine is not a sign of things to come, but it is a transitional symbol that bridges the gap between early-modern supernatural and modern science fiction. The flying machine serves as a figure of change that combines paradoxical elements. It is both inspired by 18th century conceptions of *machine* and an inspiration for futurist technologies. The machine is partly derived from passion and created from rational observation. Finally, it symbolizes both the political authority of an *Ancien régime* society and a liberating force from European social inequalities. In the broader context of science fiction, *Austral Discovery*'s mechanical supernatural is reminiscent of science fiction's tendency to create the future in the image of the present. From the atomic age to the genetic era, science fiction reflects on how new technology reconfigures our present social order. As a reflection of 18th century natural philosophy and technology, Victorin's flying machine captures compelling paradoxes from the Enlightenment era. Its mechanical supernatural depicts the coexistences of democratic rights with divinely sanctioned authority, where equality among global communities is praised, but the implement of this liberation, Enlightenment ideas, retains an aura of old-regime sovereignty.

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Notes

1 This essay is on Rétif's original French title, *La Découverte australe par un homme volant*. However, since this essay is in English, I will refer to his work as *Austral Discovery.*

2 According to Françoise Le Borgne, Louis Binet's engravings in *Austral Discvory* resemble illustrations in18th century travel journals. She convincingly argues that Binet's engravings play between pseudo-scientific images of the globe and imaginary representations of far off lands. See Françoise Le Borgne, "Les gravures hybrides de *la Découverte Australe*," *Etudes rétiviennes: bulletin de la Société Rétif de la Bretonne* 31 (1999): 11-27. My analysis, in contrast, focuses on the interplay between representations of the supernatural and sovereignty in *Ancien Régime* culture.

3 Rétif de la Bretonne, *La Découverte australe par un homme volant, ou le Dédale français* vol. 1, (Paris and Leipzig: 1781), 4.

4 For instance, the narrator compares Victorin to an eagle and a large bird. See Ibid., 1:100,102.

5 Ibid., 1:4.

6 Given that this essay is part of a volume on science fiction, I would like to point out Tzvetan Todorov's definitions of the Marvelous. Victorin's flying machine, according to Todorov's definition, would be both instrumental and scientific forms of the Marvelous. Scientific refers to supernatural that is explained from a rational perspective and instrumental to an object that is plausible, but beyond current technology. See Tzvetan Todorov, *Introduction à la littérature fantastique* (Paris: Editions du Seuil, 1970), 61-62. Instead of

focusing on contemporary theories of science fiction and the supernatural, I prefer to address the relationship between Victorin's machine and early-modern culture. I do, however, return to science fiction near the end of this essay wherein I locate specific early-modern attitudes toward technology that are also present in modern science fiction.

7 It is not surprising that critics compared forms of the Marvelous across genre because French serious opera–*Tragédie en musique*–was primarily considered as tragedy set to music. See Downing A. Thomas, *Aesthetics of Opera in the Ancien Régime,1647-1785* (Cambridge: Cambridge University Press, 2002), 30.

8 Jean Terrasson, *Dissertation critique sur l'Iliade d'Homere, Où à l'occasion de ce poëme on cherche les regles d'une poëtique fondée sur la raison, & sur les exemples des Anciens & des Modernes* vol. 2, (Paris: Chez François Fournier, 1715), 231-234.

9 Frédéric-Melchior Grimm, "Poëme lyrique," in *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers, etc.,* eds. Denis Diderot and Jean le Rond d'Alembert. University of Chicago: ARTFL Encyclopédie Project (Spring 2013 Edition), Robert Morrissey (ed), http://encyclopedie.uchicago.edu/.

10 Rétif, *La Découverte australe,* 1:5.

11 Rétif's novel may draw inspiration from an early-modern theme associated with the Southern Hemisphere. Orest Ranum notes a theme in early-modern court festivals wherein technological wonders were often deployed to represent chimerical creatures from the southern isles. See Orest Ranum, "Islands and the Self in Ludovician Fête," in *Sun King: The Ascendancy of French Culture during the Reign of Louis XIV.* Ed. By David Lee Rubin, (London: Associated University Presses, 1992), 17-34 at 17-18.

12 "ressort, sangle" and "mouvement rapide de son rouage." Rétif, *La Découverte australe,* 1:4, 52.

13 Translations are mine unless otherwise noted. "l'*érecteur,* qui élevait de terre; le *dépresseur,* qui y ramenait; & l'*horizontal,* par lequel on alait en avant…" (Ibid., 1 :58).

14 "Une partie des Spectateurs se retira profondement étonée…" (Ibid., 1:85).

15 Ibid., 1:89.

16 Ibid., 1:181.

17 Roger Chartier, *Les Origines culturelles de la révolution française* (Paris: Editions du Seuil, 1990), 150.

18 The divine-right of *Ancien régime* monarchs is a topic of scholarly debate. On the one hand, Jean-Marie Apostolidès describes the mythical construction of Louis XIV's heroic and deified image. See Jean-Marie Apostolidès, *Le roi-machine: spectacle et politique au temps de Louis XIV* (Paris: Editions de Minuit, 1981). On the other hand, scholars have noted chinks in the French monarch's divine authority. In relation to music, see Georgia Cowart, *The Triumph of Pleasure: Louis XIV & The Politics of Spectacle.* (Chicago : University of Chicago Press, 2008); and Downing A. Thomas, *Aesthetics of*

Opera in Ancien Régime. In terms of the late 18th c., Roger Chartier traces cultural movements that slowly eroded the divine authority of 18th-c. Bourbon kings. See Roger Chartier, "Le roi désacralisé," in *Les Origines culturelles de la révolution française,*138-166.

19 Thomas, 88-89. As Thomas notes, the encomiastic prologue is problematic inasmuch as the "unsurpassed" heroism of the king is depicted alongside the "dubious heroic figures" of opera (Ibid., 8). See Thomas, "The Opera King," in *Aesthetics of Opera in the Ancien Régime,* 53-99.

20 Martha Feldman, *Opera and Sovereignty: Transforming Myths in Eighteenth century Italy* (Chicago: Chicago University Press, 2007), 6.

21 "gradation des Êtres" (Retif, *La Découverte australe*, 1:7). While my interpretation emphasizes the chain of beings in relation to sovereign stagecraft, a few notable analyses have examined the scientific origin of *Austral Discovery*'s hybrid creatures and their function within the context of a colonial fantasy. Rétif's hybrid creatures, Pamela Cheek notes, were "drawn directly from Benoît de Maillet's influential argument for polygenesis [the multiple origins of human races] in *Telliamed*...which proposed that new races were particularly likely to transmigrate from the sea in polar regions in the globe." The sexual hybridization in *Austral Discovery*, Pamela Cheek asserts, "offers the continuing possibility of perfection…and moving beyond Nature's mistakes." Pamela Cheek, *Sexual Antipodes: Enlightenment, Globalization, and the Placing of Sex* (Stanford: Stanford University Press, 2003), 173-174. The mistakes of "nature" also become part of a critique of colonialism. Pierre Hartmann points out that the Megapatagonians, a race superior to and completely different from the French, admire the hierarchy of beings as part of nature's inherent inequalities. For Hartmann, their admiration is intended as a warning against the pretext of colonialism; that is to say, to correct the inequalities of "nature." Pierre Hartmann, *Rétif de la Bretonne: Individu et Communauté* (Paris: Editions Desjonquères, 2009), 200.

22 Rétif, *La Découverte australe*, 1: 217. Victorin and his male heirs cultivate a masculine image of sovereignty that coincides with *Ancien régime* imagery and rhetoric of French monarchy. According to Jeffrey Merrick, anti-monarchical propaganda often associated effeminacy with the Bourbon kings. Victorin's masculine prowess re-claims the mantle of sovereign authority. See Jeffrey Merrick, "The Body Politics of French Absolutism," in *From the Royal to the Republican Body: Incorporating the Political in Seventeenth- and Eighteenth Century France* (Berkeley: University of California Press, 1998), 11-31.

23 Rétif, *La Découverte australe*, 129-130. Pierre Hartmann also discusses how Victorin recreates a pact between the aristocracy and clergy. See Hartmann, 179.

24 Pamela Cheek notes the educational function of colonialism in *Austral Discovery,* and integrates Enlightenment pedagogy into the Christinians' goal to perfect "nature" (Cheek, 174).

25 Voltaire, "Athéisme" in *Questions sur l'Encyclopédie (A-B),* vols. 22 & 23 (Geneva: Cramer, 1768-1777) ; and "Bêtes," in *Dictionnaire philosophique.* Ed. J. Benda, (Paris: Garnier, 1954), 51.

26 Etienne Bonnot de Condillac, *Traité des systèmes* (Paris : PUF, 1947), 208.

27 Bernard Le Bovier Fontenelle, *Entretiens sur la pluralité des mondes* (Paris: M. Guerout, 1687), 15.

28 Cheek, 166. See Cheek, "French Encounter: Crafting Transparency," in *Sexual Antipodes,* 164-193. My approach, however, considers the creation of a hybrid-machine body infused with the divine authority of *Ancien Régime* sovereignty.

29 Cheek, 173-175.

30 Georgia J. Cowart, *The Triumph of Pleasure*, xx-xxi.

31 Ibid., 74.

32 This comparison is a common trope in French and British literature of the Enlightenment. Lynn Festa notes the same refrain in French and British literature. Lynn Festa, *Sentimental Figures of Empire in Eighteenth Century Britain and France* (Baltimore: Johns Hopkins University Press, 2006), 57.

33 Ibid., 50. My analysis differs from Festa insofar as her work *Sentimental Figures of Empire* emphasizes the prominent role of sentimentality in depictions of French empire. Festa notes that "the French…emphasize the universality of humanity, justifying imperial practices by subsuming colonial subjects into a familial, patriarchal model" (Ibid., 62). While I agree that a patriarchal model of sentimentality has an important role in *Austral Discovery*, my analysis seeks to emphasize Victorin as a sovereign who re-imagines the propaganda of the absolute monarchy for the purposes of colonial rule. My essay more closely resembles Peter DeGabriele's analysis of Edward Gibbon's approach to sovereignty insofar as Gibbon questions "the replacement of the vertical bond with the sovereign as the agent of social cohesion, by the horizontal force of sympathy." Peter DeGabriele, "Sympathy for the Sovereign: Sovereignty, Sympathy, and the Colonial Relation in Edward Gibbon's The Decline and Fall of the Roman Empire," *The Eighteenth Century* 53, no. 1 (2012): 1-22 at 1.

34 The *Encyclopédie* article "Machiniste" defines the professional range of activities across many fields: stage machinery, hydraulics and clockwork.

35 Rétif, *La Découverte australe*, 18.

36 Tili Boon Cuillé, "Marvelous Machines: Revitalizing Enlightenment Opera," *Opera Quarterly,* winter 2011, 27 (1) : 66-93 at 67. Contemporary scholars often ascribe to the late 18th century a decline in the Marvelous, which reflected a shift in audience taste away from supernatural spectacles and toward emotionally touching music. See Thomas, 265-266. Tili Boon Cuillé, however, suggests that the Marvelous was re-invigorated in the late 18th century.

37 Cuillé argues that "Gluck's *Armide* ultimately encourages the spectator to question the desirability of reason as well as the reliability of the senses" (Ibid., 79). My analysis differs from Cuillé's perspective because I believe that Victorin encourages his subjects to believe in his divine aura. The differences

between Gluck's *Armide* and Rétif's *Austral Discovery* may come from the source of supernatural power. While Armide, as Downing Thomas has noted, deploys her supernatural power ineffectually (Thomas, 112), Victorin and his male descendants adopt an effective mechanical supernatural. In the colonial context of this essay, Armide may appear as a dangerous, yet ineffective form of colonial resistance.

38 "il s'avisa de chanter ces mots que l'air plus sonore dans les régions élevées, rendit très-intelligible" (Rétif, 1 : 60).

39 Ibid., 1:60.

40 Ibid., 1:43.

41 "le malheur voulut que le ressort de Jean Vezinier cassât" (Ibid., 1 : 44). It's worth noting that Vezinier's machine sends him plummeting into a pond, much like the trap doors reserved for operatic demons.

42 Rétif de la Bretonne, *Les Françaises ou XXXIV Exemples choisis dans les mœurs actuelles, propres à diriger les filles, les femmes, les épouses & les mères* (Paris: Guillot, 1786), 154.

43 Pierre Hartmann offers a nuanced argument that considers the tensions between Victorin's individual desires and his eventual utopian project. (Hartmann, 175-182).

44 Rétif, *La Découverte australe*, 1:100.

45 John C. O'Neal, "Jean-Jacques Rousseau," in *Encyclopedia of the Enlightenment* (Oxford: Oxford University Press, 2005) DOI: 10.1093/acref/9780195104301.001.0001.

46 Julia Simon, "Diverting Water in Rousseau: Technology, the Sublime, and the Quotidian," *The Eighteenth Century* 53, no. 1 (2012): 73-97 at 94.

47 Ibid., 83. Here, Julia Simon is specifically referring to Montesquieu and *Encyclopédie* contributors who criticize the expenditure of Louis XIV's chateau at the expense of beneficial infrastructure.

48 Ibid., 93.

49 Hartmann provides an expansive account of the inherent paradoxes present in *Austral Discovery*'s colonial enterprise. In addition to the tension between equality and hereditary authority that I analyze, he also draws attention to the plan of human perfectibility. Instead of creating a more equal race, hybridization has the paradoxical effect of freezing social hierarchies (Hartmann, 193-195).

Part II:

Modern French Science Fiction in Literature

Introduction

Modern French SF in its Cultural and Literary Context

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The title of this section, given the works discussed in it, also requires some contextualization. In short, what is French SF? Furthermore, given the long history of proto-SF in French literary culture, is there a "modern" version of that SF? If so, what might it be? The tradition of imaginary voyage and alternate history, which stretches from Cyrano to Verne and the pulp production of the "school of Verne", openly flourished until the First World War. This current returned after the Second World War in so-called "popular" series, like Le Rayon fantastique and Fleuve noir anticipation. However, in the 1950s, as if to complicate things, this French tradition – that up to now thrived without any necessary connection to its Anglophone rival – encountered an "invasion" of American SF, the SF of the American "golden age" of the 1940s and 1950s, and the SF of the American New Wave of the 1960s and 1970s. The thematic and (I dare say) literary sophistication of this SF, however, came along coupled with an expansionist ideology that ran counter to the post-war vision of a French critical elite. From Verne onwards, SF in France was considered "popular" literature, in the sense that it relied on sales to readers and fans for its existence. In post-WWII France, "mainstream" literature could rely on pundits and academies for its persistence. SF had to create its own space, but what sort of space did it create?

The central locus of the "new" French SF is the long-running magazine *Fiction*. It was established to be the French version of the American *Magazine of Fantasy and Science Fiction*; its initial mission was to translate American stories. What occurred however was an editorial takeover – which was presented as an attempt to redefine SF and, by doing so, elevate it in the French literary hierarchy. The takeover occurred in the

early 1950s, when other literary "schools" were vying for official cultural recognition: Groups, such as the cinematic New Wave, or the Nouveau roman. The French editors of *Fiction* established an editorial apparatus that included critics whose job it was to trace the heritage of a "serious" SF, which would have a strong French component. Wells may have been a founder, but Verne was heralded as the "father of SF," *and* on grounds that might have surprised Verne himself. Through a long series of essays, critics assessed many of the writers they were obliged to publish, rejecting some outright (Heinlein), lionizing others (P.K. Dick, A.E. Van Vogt). Doing so, they in effect established a set of criteria for excellence in science fiction writing. The goal was to encourage young French writers to produce this sort of SF. Thus, the magazine gradually detached itself from its American sponsors, and became the central force in promoting a new form of French SF. As one could see from a look at the covers, the *Fiction* editors replaced the space art of *F&SF* with a literary and visual inspiration that appeared to come from French surrealism. Their artists were people like Jean-Claude Forest and Philippe Druillet, whose fantasmagorias were later to flower in the *bande dessinée*. France had a new and unique form of SF; the critics set it off from the old popular post-Verne current by attacking, every chance they could get, the parallel production of the *Fleuve noir.* This series too primarily featured French writers, but these writers were disparaged for assuming "American" names and for working within "American" themes and icons.

The result, however, encouraged a number of talented young writers, and offered what could be called a "renaissance" of French SF in the 1960s and 1970s. The science fiction produced, because of its surrealist foundations, often seemed indistinguishable from French "mainstream" fiction. Yet, because of the long-standing stigma among intellectuals of the Verne sort of SF, this new French "SF", a label it now openly bore, was generally excluded from literary forums and discussions. It was doomed to fail in the strictly canonized French literary context, because not only its antecedents were deemed "juvenile," popular, but because, despite its open stand to the contrary, it was seen as pro-technology – a major point of contention for the French intellectual establishment. Nonetheless, this French New SF produced, during its brief heyday, some stunningly original works of SF, signed by writers like Michel Jeury, Philippe Curval, Gérard Klein, Serge Brussolo, and others. None of the works discussed in this section are works from this post-war movement. Instead they must be seen as works – all of the twentieth century – that belong to a period of transition in French narrative literature, from roughly the end of the First

World War to the end of the Second World War. Among them, René Barjavel's career spans the time of the New French SF. However, he is a writer whose SF roots (he wrote in other genres) lie in this earlier transition period. The exception is Elisabeth Vonarburg. She is a product of this New French SF matrix, but her idea of SF has undergone a sea change. Emigrating to Quebec early in her writing career, she has had a unique contact with American SF, particularly with the New Wave writers – a number of which offered a female or feminist voice to what was an essentially male genre. If her formation is that of the *Fiction* school, itself a male bastion, her subsequent work moved into areas explored by Tiptree, Russ, Le Guin. Her SF is not simply French, it is deeply international.

The first essay in this section, Lia Mitchell's "The Challenge of the Invisible in Maurice Renard's *The Blue Peril*", explores a significant crux in the development of SF. The sense of possibly menacing things unseeable, inspired perhaps by Louis Pasteur's "germ theory", unseen entities that invade and destroy the human organism, was an obsessive trope in late 19th century literature. Stoker's *Dracula* (1895) is a prominent example. Even earlier, and more importantly, there is Guy de Maupassant's *The Horla* (*Le Horla*). The ambiguity of Maupassant's two versions of this scenario offers a generic crossroads between the *fantastique* and what will become science fiction. Reading the two versions, most French critics conclude that the narrator is mad. There is no "horla", it is a figment of a deranged mind. All we need, to be in the realm of SF, is a leap of scientific faith: We posit that it does exist. We somehow "see" it, even if no one else can. Along one way lie institutions that (forcibly) preserve the epistemological status quo; along the other way lies the unknown. Maupassant's work, as interpreted by the psychoanalysts, leads to the surrealists, a closed system of inquiry where mind studies mind. Renard's novel, significantly, leads in the other direction. As Mitchell puts it, the novel opposes an invisible adversary to what Renard sees as our cultural dependence on the sense of sight. With an invisible foe, we must find alternate paths to knowledge.

The Blue Peril (*Le Péril bleu,* 1913) presents a series of inexplicable events of unseen cause that lead residents to conclude that there is some hostile and murderous force operating in an invisible spaceship, invisible aliens who perform medical experiments on abducted humans, then cast their remains to earth. When one of these ships crashes in the middle of Paris, humans try to make it visible by painting it with a special paint. This however only destroys the invisible material, and the observers are left

with a few photographs. Mitchell passes in review the Cartesian legacy of observation, and the 19th century fascination with optical extensions, where it is assumed that extending the range of visibility extends the range of human knowledge. The advent of invisibility puts an end to this – but what then, when faced with a "péril bleu", is a feasible means of obtaining knowledge? For Mitchell, Renard proposes a scientific detective like Poe's Dupin, who is able to use intuition and an almost tactile sense of this environment to reconstruct a coherent vision from a set of facts. Renard's example of such a figure is the nearsighted Robert Collin. Because he is unable to rely on sight, he becomes an investigator "doué de singulières qualités scientifiques […] une sorte de divination". Inside the alien ship, he experiences things being done to his body, and concludes that they are experimenting on humans. When he finds an ape placed in the same space as humans, he further postulates that, not only are the aliens classifying humans, but that they are capable of misclassifying them. There is another example of this "sightless perception" borrowed directly from Maupassant. We remember, in that work, the narrator's experiment whereby he attests to the presence of the Horla by watching his own mirror image fade and return before his eyes. He assumes that the invisible Horla has passed between himself and the mirror. In Renard's novel, an astronomer notes that, at a certain time, the star Vega is absent from the sky. Noticing the same thing the next night, he concludes that it is the alien ship that blocks the view of the star. Thus, does he determine its invisible location.

The Blue Peril is a key work that, when compared with Maupassant's *Horla*, clearly marks the bifurcation that is taking place in French literature at the beginning of the 20th century, in terms of the creation of a literature (as Mitchell and Pierre Versins call it) of "rational conjecture". The ambiguous nature of Maupassant's invisible encounter allows French critics to reaffirm closure, to restrict scientific exploration of the unknown to the confines of the human mind. This is the vision of Tzvetan Todorov claiming that the *fantastique,* in the 20th century, has been replaced by the science of psychoanalysis. Or that of Roland Barthes in his famous essay *The Nautilus and the Drunken Boat* (*Nautilus ou Bateau ivre*), where he restricts Nemo's quest for knowledge to the enclosed space of his drawing-room Nautilus, while proclaiming that the real "frôler d'infinis" is the quite unseaworthy dreamcraft of Arthur Rimbaud, forerunner of surrealism. On the other hand, Renard's novel continues the tradition of Verne, or more accurately, that of physiologist Claude Bernard, for whom the proper object of scientific investigation is always the unknown. As Mitchell puts it clearly, for Renard the biggest danger in science is

complacency. We are often too comfortable in our parameters, and complacency in any frame of reference--here that which is or must be visible--leads to stagnation.

Fred Waage's "Science Fiction as Science: The Case of S.S. Held's *The Death of Iron* (1931)" on the novel *La Mort du fer*, presents the SF text hunter with a true rarity: A find that is genuinely *significant* in the history of the genre. This is apparently the sole novel by the mysterious Serge-Simon Held, whose identity was unknown until Waage dug it out of recently published material on the web. Held was apparently a prolific inventor, known for his claim to have invented the electric toothbrush. His interest was seemingly in applied mechanics. Waage, however, has discovered that the Held who wrote this novel was quite learned, both in chemistry and (more surprisingly) in the implications of the new quantum theory. This novel survives today in a translation by Fletcher Pratt, which appeared in the American pulp magazine *Wonder Stories*, in 1932. Mention of it is absent from most biographies of French SF.

The novel takes place in the dismal iron mills of Dinain, in Northern France, in the *pays noir*, near the time of the novel's publication. It is a time rife with poor working conditions, labor unrest, and social turmoil. The novel, however, is not a new *Germinal*. It develops instead the theory that iron is a form of life, thus susceptible to infection, to a "virus" that, as Held puts it, is "killing the aged body of a France paralyzed by the collapse of its metal industry". This is a possibility envisioned by J.H. Rosny aîné in *The Death of the Earth* (*La Mort de la Terre*, 1910), but on very different, ecological, grounds that both human activity and natural processes in the nature of iron contribute to the creation of a new, iron based life form. Rosny's novel is set in the farthest reaches of the human future. This novel is quasi-naturalist in its topical relevance and painfully realistic setting, but the problem here is again humankind's ability to think out of the box, to look beyond capitalism and communism and to consider new challenges to our basic assumptions about the nature of physical reality. In the midst of labor disputes, Held presents – as protagonist – an engineer who is willing to look at new ideas in quantum chemistry, such as the crystal field theory. Here once again, as with *The Blue Peril*, what we see may not be the reality of the situation. From the idea that symmetry in crystals does not guarantee their stability, one extrapolates to transition metals like iron, and from here to the stability of boundaries between the inorganic and the organic. The term the workers and owners use for the "death" of their iron is "sidérose", an ironic usage as this term designates

black lung disease, as well a form of iron with properties that tend toward a possible ferromagnetic form of "life". Waage, in conclusion, sees Held's novel as another challenge to the fate of "The Horla's" narrator, judged insane and locked away in an institution. The whole point of Held's novel, he suggests, is to point out "the inadequacy of received ideologies to deal with circumstances not dreamed of in their philosophies".

The next paper, Patrick Guay's "The Generic Shift of Jacques Spitz: Towards Science Fiction", focuses on another transitional figure within this period of the "roman entre deux guerres". The SF question, raised by Jacques Spitz's career, is not one of themes, or even ultimately of form, it is a question of publishing protocols in a society desperately seeking to establish an acceptable cultural norm for the prose novel. Spitz is a writer generally remembered as an SF writer today, but he began his career writing for Gallimard, which Guay describes as "the most narrow sphere of the French literary field". From 1926 to 1933, he wrote Gallimard novels; after that, from 1935-1945, he produced the "fantastique" novels the French SF community remembers him for today. Guay's argument is that his novel, *Sever the Earth* (*L'Agonie du globe*, 1935) is the "turning point in Spitz's journey", the novel that defines the before and after.

The period in which Spitz wrote was a veritable potpourri of novelistic forms and directions. There were people as diverse as Jean Giono, André Maurois, François Mauriac, and Alphonse Daudet. There were regionalist writers, writers *du terroir*, and writers of historical novels. Guay presents Spitz as a writer who, from the start, wrote against these forms of novel: "[he liked] this mixing of the forms, which institutional literature loathes". Spitz admired, and incorporated into his fiction, forms that were eminently "respectable" as fiction, but which also were later claimed as "ancestors" of a fiction of "anticipation": The genre of "conte philosophique", or satire in the manner of *The Persian Letters* (*Les Lettres persanes*). With *Sever the Earth,* the theme of cataclysm is not new. Writers from both sides of the fence wrote cataclysmic novels: Théo Varlet and André Maurois, for example. What is interesting, is his narrative blend of forms he called "fantastique", forms he saw as "outside" to the realistic novel, "peripheral, but literary". Spitz in fact had the ideal background for an SF writer; he was a *polytechnicien*, engineer, with an interest in physics and contempt for the bourgeois, mimetic novel. His later "fantastic" novels can be seen as early gropings, within the context of French literary history, toward a functional form for the later "roman d'anticipation" to come.

The next essay, Elisabeth Stojanov's "The Transfigured Epic in René Barjavel's Body of Work", deals with another writer who emerged from the "entre deux guerres" and who chose to write some novels in the SF vein. However, the kind of SF he writes is not, like that of Spitz, necessarily derived from French literary parameters. Barjavel has written powerful novels: *Future Times Three* (*Le Voyageur imprudent* – where it is claimed that this is the first "grandfather paradox" time travel novel), *Ashes, Ashes* (*Ravage*), *The Ice People* (*La Nuit des temps*), and *The Immortals* (*Le grand secret*). No English translation of a Spitz novel exists; all of the above Barjavel novels have been translated into English, and stand as international "classics". *Ravage*, for example, deals with "barbaric" invasion and survivalism in a manner that surely pleased a Heinlein; the anti-technology aspect of the novel is purest Bradbury. French critics, however, have not been kind to Barjavel. *Ravage* has been denounced as a Pétainist tract. Stojanov's theme of transfigured epic is an important aspect of Barjavel's work. A novel like *The Enchanter* (*L'Enchanteur*), for example, with its mixture of ancient round table and modern technology, is a replay of Mark Twain's *A Connecticut Yankee in King Arthur's Court*. French SF writers of the Fiction school would not write such a novel. One of their main contentions with the "popular" SF series *Fleuve noir anticipation* is its over-reliance on the space epic or space odyssey motif. One of its *chefs de file*, Gérard Klein, assumed the pseudonym "Gilles d'Argyre" (the joke is that he now writes for "money" not literary excellence), and wrote several supposedly parodistic space epics, with names like *The Planet Surgeons* (*Chirurgiens d'une planète*), novels that *Fleuve noir* gladly bought. The epic form is seen by Klein and others as simplistically degraded by an SF treatment.

Barjavel remains a writer of French SF who was not trapped in the toils of cultural disputes between "high" and "low" literature. As such, he reaches across boundaries, and secures an audience among SF readers in other spheres, and not simply Anglophone. In the millennial year, 2000, during a conference held at Hong Kong University – with proceedings published as *World Weavers: Globalization, Science Fiction, and the Cybernetic Revolution* – the name of René Barjavel was raised many times. His fiction has transcended its French context, and now belongs to a world SF.

The final essay, writer Elisabeth Vonarburg's "Writing Science Fiction in French" is in many ways self-explanatory. It describes a science fiction peregrination that is much more culturally specific than that of a Barjavel,

who is able to take international themes and write in a style that is easily translatable into other languages. With Barjavel, it is the story that counts. With Vonarburg, the writing of SF is a much more existential act. Her essay ends thus: "The poet Milosz says that a writer's true country is his tongue". For Vonarburg, as the title to her essay states, that "tongue" has become two. It is her description of the *parcours,* which has led to her bilingual / bicultural rendezvous with SF that is priceless here.

She describes herself as a product of a "classical" French education, as it still was in the 1960s. However, in an alternate sense, she was influenced by Jacques Bergier's *The Morning of the Magicians (Le Matin des magiciens*), one of the more fascinating and prophetic French books of the time describing what Anglophone critics saw as "new worlds for old." From the promise of SF, she discovers the literature in *Fiction*. Her focus at that time, she states, was the international nature of the SF published. Neither wholly American nor wholly French, it opened many doors into the "multidimensional house of SF". Nevertheless, as a French person, she discovers the sophistication of writers like Klein, Curval, Demuth, and Christine Renard. Her subsequent realization, when she emigrates to Quebec, close to the US, is that the above writers are writers in her native culture and language. When she begins to read Anglophone SF in English, she discovers writers, like LeGuin and Sturgeon, who are also stylists, poets. She also discovers that a woman can be an SF writer. From LeGuin and Tiptree, she decides that" "I wanted to be--and it was not only possible but *allowed* to be-- an SF writer."

From Quebec, she sees two things. One is just how *American* American SF is; and two, that if SF is to transcend cultural barriers, and not just become an American product, it must follow the international way of science and the scientific imagination, which plays the key role in all forms of SF literature. Vonarburg herself writes in French, but she also takes particular pains with the English translations of her novels and stories, revealing her concern with reaching this audience. When asked what the influence of Anglophone SF is on a non-native speaking author, she replies, "I am writing both with and against it […].We write with and against a whole corpus of works in English as our French tradition grows more and more distant". In a way, one senses in Vonarburg's statements that she sees SF much as Goethe described a scientific *Weltliteratur* to come, a literature that can reach a new synthesis out of the clash of an international thematics, and is also rooted in national literary languages and traditions. It is in this vein that she can state, "But for me the choice of

a genre is the choice of a language. I write in science fictionese". Yes, but behind the bold facade, there is apprehension: "When I ask how my stories are received by Anglophone readers, I conclude that […] they are read through the same cultural misunderstanding as when I first read Anglophone SF". My own sense, as an Anglophone reader reading works like *Dreams of the Sea* (*Les Rêves de la mer*), is that her writing (her *écriture* as the French would say) – if it makes use of themes like telepathic communication and gender transformation, such as is found in Le Guin and other American women writers – does so in a way that I recognize as French. What I mean by this is a fascination with mental states, conditions, internal transformations, and communication across time and cultures by means of telepathy. In Cartesian terms, much of her work, like that of many of the *Fiction* writers who influenced her, moves away from the *res extensa* of conventional, *American* SF, into a mind-body nexus, where the action is confined in the interplay of these elements. To me, this is a very interesting form of SF, and it is one that Vonarburg quite elegantly brings to the Anglophone sense of SF. Nevertheless, its primary inspiration, at least for me, remains French.

What intrigues me with this section is that, with the exception of Vonarburg, none of the novels examined neatly belong to the SF current that, in the *Fiction* writers, marked world SF in the 1960s and 1970s with a uniquely French form of science fiction. There is no equivalent anywhere for writers like Michel Jeury and Serge Brussolo. The only way such writers and artists, like Moebius and Druillet who incarnated their vision, influenced American SF is via magazines like *Métal hurlant / Heavy Metal*. It can be argued that William Gibson drew heavily on this magazine for his trendsetting cyberpunk novel *Neuromancer*. The *Fiction* writers produced masterpieces like Jeury's *Le Temps incertain* (one of the rare novels of this period translated into English, as *Chronolysis*). However, their work did not sustain a general readership, perhaps because it resembled too closely an esoteric phenomenon like *le nouveau roman*. What is more, most of the novels and stories produced by this "new" French SF, evolving as they do in mental space, were seen as claustrophobic, paranoiac. Critics like Roland Barthes and Michel Serres may celebrate this closure, attaching it to the long French tradition of novels that celebrate the work of the mind rather than that of bodily adventure. The general French reader may think otherwise. Perhaps they would prefer to take Jules Verne to their desert island instead. The works discussed in this section – by writers like Renard, Held, Barjavel, even Vonarburg who dialogues with her Anglophone partners – suggest, to me

at least, that a taste for the open-ended, for scientific adventures that do not seek refuge in sequestered mental spaces, was alive and well in 20th century France.

Chapter Four

Science Fiction as Science: The Case of S. S. Held's *The Death of Iron* (1931)

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Sources

While researching my recently-published book on Ross Lockridge, Jr.'s novel, *Raintree County* (1948) my interest was drawn to a French novel, *The Death of Iron* (*La Mort du Fer*, 1931), that his son, Larry Lockridge, (in his biography, *Shade of the Raintree*), says his father read during recovery from scarlet fever in the mid-1930s. This novel, which Ross Lockridge probably encountered during his collegiate Junior Year Abroad residence in Paris, inspired his belief in:

> *[…] the growth of industry as spiritual illness and literal blight. The fiery iron mills [of The Death of Iron] were like diseased hearts and the contagion spread deep into the ground and into people's skin and bones. The antidote to all this was a renewed spiritual link to the body and the natural world. He had emerged from his sickbed a worshipper of nature.* (185)

The author of *The Death of Iron* is the mysterious Serge-Simon Held, whose identity I have sought to discover through many web searches and much international correspondence.

There exists a picture of Held, authenticity unknown, which could be that of any upscale French intellectual of the 1930s, and he appears to be very familiar with the industrial zone around the Franco-Belgian border, since the novel is set in the industrial city of Denain, in the Département

du Nord, and alludes to many conurbations of the area; Held also seems familiar with the (then) French colony of Morocco, since one of his protagonists has previously been working on engineering projects there. Otherwise, Held seemed like a vapor, until Google and ITT recently put patent documents online.

None of the accessible records go back to the 1930s, but from the 1950s until *circa* 1970, Held was a prolific inventor, patenting such objects as hair curlers, and hydraulically powered pruning tools ("Serge […]"). His patent for "electrically-driven clockwork", dated December 9, 1955, gives his residence as 31 Rue de Chazelles, Paris 8ième ("Electrically Driven"). He was even involved, if one can read between the lines of patent claims, in a dispute over the invention priority of the electric toothbrush, with two other noted French inventors, André Auguste Miéville, and Philippe Guy Woog ("Electrically Controlled"). Popular history credits the invention to Woog ("Electric Toothbrush"), as does Broxo SA, which marketed it initially under the brand name Broxodent ("About Us"). An interesting sidelight however is that a professor at the University of Geneva, Arthur Jean Held, is credited with showing (1956) that "electric toothbrushes are superior to manual ones" ("History"). Obviously, these Helds are related, in a manner as yet unknown to me. Important to our subject, though, is that Serge-Simon Held was deeply involved in what might be called "applied mechanics", and appears to have had the expertise to characterize its processes credibly.

Although *The Death of Iron* was nominated for the Prix Goncourt, Held apparently never wrote another novel, and its only afterlife is in an English translation by American science fictioneer, Fletcher Pratt, which appeared serially in the sci-fi magazine *Wonder Stories* (1932), and later in *Wonder Story Annual* (1952).

Omitted from some bibliographies of French science fiction, briefly noted in others, *The Death of Iron* is best characterized by literary controversialist Juan Asensio in his online blog/journal *Stalker* (which also includes his translation of my essay on Held). Asensio rightly praises the realism of Held's narrative, and the chain of consequences – financial, social, political – resulting from its premise: A fatal molecular collapse of iron and steel. The novel, as he says, develops a theory that "iron is a form of life, susceptible to an infection which, in its development, resembles that of a real [i.e. organic] virus", killing the "aged body of a France paralyzed by the collapse of its metal industry" (Asensio).

Held's premise is not innovative; the apocalyptic collapse of metal is found in Henri Allorge's *La Famine du Fer* (1913) (roughly: *The Hunger of Iron*), Raoul Bigot's *Le Fer qui Meurt* (1918) (roughly: *Iron that Dies*), Fletcher Pratt's own (with Irvin Lester) *The Great Stell Panic* (1928), and even E.M. Forster's futuristic short story *The Machine Stops* (1909). What is different is that Held's settings are so topical and painfully realistic, and his descriptions of metallurgical processes so credibly sensory. His work manifests the antithetical tendencies of French literature, *circa* 1930: "an idealized vision of a new world order following apocalyptic events, and a gritty, painful, 'realistic' view of the capitalistic labor system" (Waage 16). These characteristics work to support my argument of a direct connection between the concerns of the novel and those of a literate post Great War public only too aware of economic instability, violently opposed political systems, syndicalist unrest – and, most relevantly, the challenge to basic assumptions about the nature of physical reality itself posed by quantum theory, as its evolution accelerated toward the "Miracle Year" of 1932.

Place & Time

Held's future, in *The Death of Iron*, is shackled to the present, and no less are the mysterious processes that are deconstructing metals to the processes of social, political, and economic disorder looming over the frontier between the 1920s and 1930s.

Denain, the real industrial city of the novel, was a ready-made industrial dystopia on the borderline between France and Belgium. Its phenomenology could represent both the factory world of literary realism between the wars and the hallucinatory distortion of a future world unmoored, subject to the caprice of total relativity. Because of its location on the navigable river Escaut (Scheldt), the real Denain prospered initially as an inland port, then as the commercial center of a mining industry established in the mid-19th century (the Compagnie d'Anzin and Fosses Renard most prominently), and of the iron and steel foundries that quickly followed, of which Usinor was the most notorious. With the first rail line from Anzin to Denain (1838), the latter grew to be the center of a complex construction and transport system: Rail transported raw coal and iron to foundries, and their products to wholesalers or to the canal traffic beside the Escaut.

Denain became, in the words of Guy Cattiaux (35) "[…] a black city, smoke-filled, built of bric-a-brac, without any symmetry", an industrial

slum basically, surrounded by coke furnaces "whose reddish flames glowed sadly in the night". In this environment, workers' strikes became increasingly frequent, particularly during the 1880s and afterwards, to the extent that Zola used its conditions heavily in his epic *Germinal*, and its miner-poet Jules Mousseron became nationally famous. Jean Jaurès visited Denain in 1914, days before his assassination, since it was "one of the cradles of mining syndicalism and socialism" (Cattiaux 389). The Denain-Anzin region is in many ways an extension of the *bassin industriel* of southern Belgian Wallonia, known variously as the *Pays Noir* and the *Borinage*, subject of Storck's and Ivens's monumental documentary film *Misère au Borinage* (1933) (roughly: *Misery at Borinage*).

Not that far from Denain – the Low Countries, Germany, Denmark – in the years leading up to 1931, Paul Dirac, Niels Bohr, Hendrik Kramers, Werner Heisenberg, and a cast of other illustrious physicists, were leading the wave of research into a new (actually several new) theory/ies of matter, displacing or reinterpreting the premises of classical physics. In the same period, and basically in the same space, *Mein Kampf* was published; the Nazis held their first Nuremberg rally, and their representation in the Reichstag steadily grew. Further east, Stalin came to power and widened his genocidal purges. In France, layoffs and strikes were a constant source of ferment in the mining and metallurgical areas of Lorraine, Picardy and the Nord: "LA LORRAINE DU FER ET DU ACIER EST UN VASTE CAMP MILITAIRE" (roughly: "The Lorraine of iron and steel is a vast military camp") reads one headline in *L'Humanité.* In 1927, "the most famous conference in physics' history," (Segrè 156), the fifth Solvay conference, was held up the road from Denain at the Solvay Institute in Brussels. It focused on the new quantum theories, and was attended by 17 current, or future, Nobel Prize winners.

These random congruities suggest the harmony of dissonance that reigned over the political and scientific realms during these years; Adam Frank's characterization of quantum theory's "disturbing dissonance" could apply to both realms: "There are mysteries […] lurking at the heart of quantum physics suggesting that our everyday assumptions about reality are no more than illusions". In Niels Bohr's (variously phrased) pithy proclamation, "Anyone who is not shocked by quantum theory has not understood it". To get a sense of how this situation manifests itself in *The Death of Iron*, it is necessary to get a sense of the novel's shape.

Crystal Field

The initial protagonist is 30-year-old engineer Raymond Leclair, hired away from dam constructions in Morocco by Morain, an iron foundry's *patron*, to work under the factory's chief applied engineer, Pierre Sélévine, a Russian of atheistic and socialistic tendencies. Both develop a concern over Leclair's finding that certain "aciers sauvages" do not act the way steel should, losing at a certain point their internal cohesion and crumbling for no apparent reason (Held 11). He has discovered what would seem impossible within certain molecular-level crystalline structures "something unforeseen, something as variable as life [itself]" (12).

Leclair has, in a sense, non-theoretically witnessed the phenomena of crystal field theory, a quantum derivation first described by Hans Bethe in his 1929 monograph "Splitting of Terms in Crystals" [English translation]. In Bethe's words, he sought to treat the influence of a "crystalline field" "wave-mechanically" (4). He proves "a perturbation of the free atom on its inclusion in a crystal" (4). What this amounts to is a massively complex demonstration that seeming symmetry in crystals does not guarantee their stability. This is particularly true of "transition metals", such as iron, in whose atoms electron density is unequally distributed (Burns 1, 25). Held's assumption, through Leclair, is analogous: That "life itself" lacks some definable structuring qualities, such as symmetry and stability.

This organicizing of the inorganic was actually one debatable philosophical extension of quantum theory, and is somewhat related to the concept of quantum indeterminacy – that no physical system can be completely described, by analogy with the assumed inability to completely describe any life form. In a 1935 paper, Einstein, Podolsky and Rosen reached the paradoxical conclusion that one tenet of quantum theory had to be that no description of reality (including quantum theory) could be complete if one assumes that a "complete" description requires that "*every element of the physical reality must have a counterpart in the physical theory*" (777).

Story

Leclair, of course, is less theoretically-minded; his, and the novel's, central claim, seems to be that what humans consider inanimate, nonliving – and therefore subject to accurate description, analysis, and human control – is actually a form of animate life, with the mutable and

unpredictable traits of an organism. Held asserts this claim through astonishing sensory imagery, both precise and hallucinatory. In the foundries, for example, "the radiant skin of metal elaborated itself. Fire reigned under these deep naves […]. It took the most diverse forms, appeared, in its different modalities, in purple tongues, in rubescent vapors, in gems, in the flowers of dreams" (18-19).

As machines begin crumbling, in the manner of diseased organisms, the foremen, foundry workers, even the managers, ignorant of the engineers' theory, see all this as the result of human agency: Since the works of human technology cannot self-destruct, these breakdowns must be the work of saboteurs, acting on the principles of the late labor agitator Emile Pouget. This assumption leads to a chain of reaction and counterreaction, equivalent to, but totally separate from, the chain of metal dysfunctions.

We encounter in the novel, at Morain's estate, a group of technological triumphalist intellectuals, who reject Sélévine's belief that metals have a "slow life, a sort of obtuse consciousness and sensibility [...] phenomena in common with the basic body and the living cell" (32). Rather, iron is "the primordial element" and "in a way the structuring agent of modern civilization" (33). They celebrate its manipulation by superior human intelligence, the "organic machine" (34).

Sélévine has observed phenomena in metal that contradict the "classical" constructs of both physics and humanism. The triumphalist intellectuals' sense of the latter is well characterized by Ehrenfeld as "[...] a supreme faith in human reason – its ability to confront and solve the many problems that humans face, its ability to rearrange both the world of Nature and the affairs of men and women so that human life will prosper" (5). But Sélévine has observed, on night duty in the foundry, a machine's actual heartbeat: "From this heart of copper and iron, energy like a mysterious blood flowed through the cables," as though "monster, gestating larvae drawn from the depths of the earth slept in anticipation of the creative forces which would animate them" (53-4). His awareness of scientific arrogance and ignorance leads him to a prophetic nihilism with respect to the human as "obstinate insect working in his glass cage" (54). The sight of Denain's slag piles in the dawn is a sign of a time when "the last tree will perish on an earth sterilized through the efforts of [our] race […]. Hardened petrifications and angular crystallizations will replace the soft curves and exuberances of life […] the entire world will suffocate in

the choking embrace of metal and force […]." (58-9) – this is a crystal field with a vengeance. Sélévine predicts humanity caught in paradox: Through technology it will become victimized by "the instruments constructed for its liberation" (60).

Indeterminacy

The troubling perception that there is no definable difference between the organic and the nonorganic harmonizes with the troubling perceptions connected to quantum theory, that both "reality" and the future are ultimately unknowable/unpredictable through conventional empirical investigation. Speculatively, Held contemplates a concern of Bohr's circle, the "intangibility" of what differentiates the living from the nonliving (Segrè 267): Hund claims that the concept of "quantum theory […] asserts a restriction on the extent to which we can determine physical quantities. It thus also implies a limited determination of the future […], a restriction on the extent to which the past determines the present and the future" (16).

Interestingly, these two problems are connected through the application of quantum theory to what is now known as geomorphology. Harrison and Dunham consider as false the assumptions of empiricism and realism that "knowledge in the sciences is predicated on the basis that successive scientific theories move towards what is 'true' and 'real' about the world" (504). By contrast, the "geo-" or non-technologized world viewed *via* Bohr's version of quantum theory is not a "pre-given entity which exists 'out there', awaiting interpretation and explanation" (510), but is a "probabilistic, entangled and complex" (511) system. There is no "true" or "real" difference between, for example, blood and an electric current – the difference is created by the interfering consciousness of the observer.

In *The Death of Iron*, economic and political repercussions of such misunderstood indeterminacy are played out through the consequences of progressive technological die-offs. The obsession with human agency motivates both the managerial class – which goes to great lengths to capture the supposed "saboteurs" of the machines – and the workers, who see in the *chômage* resulting from reduced capacity and orders, some form of managerial conspiracy to reduce the work force. Only Morain and the scientific staff – particularly Leclair and Sélévine – perceive some unexplainable physical cause within the decaying material itself. Finally, Sélévine is found unconscious and delirious, later shouting "It's the death of iron […] the disease must be stopped […] everything is collapsing!

Everything's falling apart!" (72).

As similar phenomena spread to other factories and mines in the North, Leclair comes to share Sélévine's belief: "A contagion was raging among the accumulations of steel, passing rapidly from one metal to another. All his reason was repelled by this incredible conclusion" (80) – that this "sickness" was spreading in the way germs are spread among living creatures.

Siderosis

Two terms are used in the novel for that which was previously unnamed because unknown: *Mal bleu* or "blue sickness" and Siderosis, or *Sidérose*. The latter is a fascinating term in itself for three reasons. On the one hand, "siderosis" is a medical term for a form of "black lung" disease caused by the inhalation of iron particles (by analogy with "silicosis" with reference to silica inhalation, both products of industrial pollution), thereby associating it with minero/organic processes.

Secondly, several important papers authored, or coauthored, by Jean Becquerel (of the Becquerel dynasty) – and others – in the 1920s, used experiments on siderite (French *sidérose*), in applying crystal field theory to metals. Siderite is a carbonate of iron (FeCO3) with ferromagnetic properties, and was particularly useful in applying quantum field theory to minerals. In 1947, Becquerel brought together his crystal field studies of siderite in a *mémoire*, *Propriétés Magnétiques Générales de Divers Composés des Éléments du Groupe de Fer* (roughly: *General Magnetic Properties of Various Compounds from Elements of the Iron Group*) Here he emphasized that magnetic applications to siderite manifest "abnormal phenomena" (29) and the action on siderites of an intense magnetic field "leads to consequences that contradict [scientific] evidence" (16).

Finally, granted that most serious experimentation in this area postdates *The Death of Iron*, siderites are shown to be minerals readily created through biomineralization: "Many species of microorganisms, mainly anaerobic bacteria, are capable of reducing crystalline and amorphous Fe (Iron) oxides" (Roh et. al. 883), as well as the reverse process wherein they "facilitate mineral formation by creating external chemical environments suitable for precipitation" (83). Roh, et.al. present the evidence of "Microbial formation of magnetite and siderite using amorphous hydrous ferric oxide" (84).

Thus, both quantum physical indeterminacy and biomineralization can be attached to the mystery of Held's "siderosis", and his evocation of organic behavior of supposedly inorganic substances. It is as though iron, through an unknown para-organic triggering agent, degenerates into friable siderites. Held describes the spread of siderosis in language, which is both technological and imagistic:

> *Favored by the constant traffic, [siderosis] invaded the docks, where cranes pile up coal and ore, welded shafts, metal plates, bars of smooth iron, mottled, white, or black cast iron; depots where were collected: pig-iron, massive ingots, building-frames, girders, sheet-iron, rails, rigid and sonorous metal fabrics where light shatters in violet splinters, cold and polished metal casings, supple as vines, hard as diamonds* […]. (100)

It should be clear that Held is not creating out of theoretical physics a material force that will actively destroy civilization (as we know it). He is suggesting the inadequacy of received ideologies to cope with circumstances *or ideas* that are not dreamed of in their philosophies. As fiction, siderosis is a conceit; as science, it is a phenomenon incomprehensible to received social and economic beliefs of *entre-deux-guerres* Europe.

Immune to these considerations, when the primal steam engine running Morain's factory explodes, killing him, workers rebel as though it is a capitalist plot, capitalists as though it is a proletarian plot. The sceptical scientist Renaud sees siderosis as no plot at all, but regrets that "scientific minds are repelled at [the thought of] admitting the possibility of a mineral sickness and make an effort to explain everything through the classical formulations of molecular physics" (124). The collective social disintegration that accelerates from this point on could be considered to result from a failure of imagination at every social and intellectual level, where all "still tend to harbor a mechanistic image of the socioeconomic world, self-equilibrating in the manner of a Newtonian clock" (Karsten 389). Not only economic, but all structures are "born out of an environment in which everything affects everything," as in quantum mechanics. As Michael Ortiz says:

> *[…] when we look at the world through the lens of quantum mechanics, we see that the economic systems of capitalism, socialism, and communism actually have more in common with each other since they all are based on material acquisition and distribution and on the assumption that our world is a fundamentally material realm. However, we can use quantum mechanics to create an entirely new way of viewing and operating inside*

the world, which would require a drastic philosophical and ideological change […]"

Held, writing at the fulcrum moment centering two eras of understanding and chaos, perceived the present in the future and the future in the present, knowing no prophecy could inspire the drastic changes that could redeem his world.

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Chapter Five

The Transfigured Epic in René Barjavel's Body of Work

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According to Bakhtine, any novel is an epic, and though his definition is still debated, we can nonetheless state that science fiction is greatly influenced by the epic genre. Indeed, the literatures of the imaginary are none other than the mythical re-actualization and the epic transfiguration of a genre that, in Aristotle's time, was considered noble. The epic is the telling of a collective action whose protagonists will experience dangerous adventures. More recently, Georg Lukács defined it as the narrative of *a whole collectivity within an enclosed universe* (p.19).

Schaeffer, in his study of the genres, proposes the concept of "regulatory conventions" to describe a number of criteria establishing a specific genre (p.159). The epic, in this article, will constitute a *convention* and it will be characterized as a story *of the collective*. To establish a useful comparison, the epic will be opposed to the heroic, a convention that will express the story *of the individual*. However, conventions are not always faithfully respected and when it happens, Schaeffer calls this a *transgression*. I propose that transgressions in literary genres could create an estrangement effect that is appropriate for science fiction, by the way it contributes to the genre's atmosphere of unfamiliarity.

The French writer René Barjavel (1911-1985) considers that science fiction is not a genre but rather a renewal of literature, which began with the epic. We will see how this convention is at the nexus of barjavelian reflection and writing, as well as how the writer shifts from the story of an individual to that of a collective to better ground his texts – *Future Times Three* (*Le Voyageur imprudent*, 1944)[1], *The Ice People* (*La Nuit des temps*,

1968)[2] and *The Enchanter* (*L'Enchanteur*, 1984)[3] − in a collective genre. We will thus see first how the individual is dealt with in these three novels through the analysis of the epic character up to the initiatory quest. Secondly, we will see the way in which the collective appears in these texts through war and the collective quest.

From the individual hero to the initiatory quest

The main features of the hero are dependent upon several criteria based on the era in which he lives, and the genre to which he belongs. Traditional greco-roman myths, and heroic tales of the Middle Ages, have as a hero a warrior of noble or divine lineage who is destined to an early death, such as Achilles, Hector or the knights of the Round Table.

The barjavelian heroes, and those of science fiction in general, have lost through the centuries their prestigious lineage, and yet the unique characteristics of the individual hero are still present in these characters. We will see what some of the main characteristics are.

First and foremost, we are speaking here of warriors who, judging by their armors, have evolved alongside social progress. With the exception of *The Enchanter*, which deals explicitly with the rewriting of the Arthurian myth, and thus has knights dressed in traditional armor, the other protagonists have armors, which have evolved to reflect their context.

Indeed, in *Future Times Three* Pierre Saint-Menoux is a mathematics specialist, but at the beginning of the novel he is mobilized as a graded corporal – and so it is a modernly armored warrior that the narrator presents:

> *He began to unharness himself, undoing his suspenders and safety clasps, laying aside his rifle, water bottle, knap-sack, gun-shield, shovel, bayonet, belt, cloak, gloves, helmet and beret. He immediately lost two thirds of his volume. He was so thin that his tall frame looked even more gaunt.*[4] [5]

Even when Pierre removes his soldierly apparel, we are still confronted with a protagonist whose stature is "stretched" due to his "imposing height". This particular physical attribute is reminiscent of Ajax, son of Telamon, in the *Iliad* (III, 225) who is described as an "Achaean warrior, valiant and tall, towering above the Argives, with his head and broad shoulders". Going back to Pierre's apparel, we note that (a few pages

earlier) his beret is spoken of as a "helm" (p. 13). This is the one and only reference to a medieval armor, and yet another armor, this time of much more ancient origin, is found in the novel. I am speaking here of the spacesuit, which Pierre dons for his time travels. The latter becomes a shield that protects him from the ravages of time so he can travel outside the confines of his allotted lifetime.

In *The Ice People*, it is the scientific team, which is referred to as heroic: *Except for the few heroic pioneers of science whose skill and courage have created the shaft, no one in the world has seen the ruins*. [6] [7] You will notice, however, that they are presented as scientific heroes rather than warriors. Nonetheless, the image of the knight comes up a few lines later. A team of professionals is on site to open the Golden sphere, made of a strange matter that is breach-resistant. A new torch, combining both laser and plasma, the "plaser", is thus created to open the Golden door: *At the bottom of the hole, in a golden glow, a white knight was assailing the metal with a lance of light*.[8] [9] Here we indeed have a single man who is fighting against an enemy, the Golden door, whose characteristics are almost human: *[...] as if cut flesh were to heal immediately behind the knife*.[10] [11]

The second point characteristic to heroes, which is to say solitude, is equally visible in the hero's figure. Pierre Saint-Marcoux is described to us as a thirty-something single man who lives only for mathematics; he travels alone through time, questing for a happiness, which could be extended to humanity.

In *The Ice People*, because of their geographical situation[12], the protagonists live in total isolation and are connected to the world only through television. There is nonetheless a solitary figure, represented by the character of Coban. This scientist, who has invented an equation which bears his name, and who, it is thought, is the man asleep in the Golden sphere, lives alone in Gondawa because the computer could not find him a sufficiently intelligent woman who could tolerate his company: *[...] a certain quickness of the mental faculties can sentence one to solitude.*[13] [14]

In *The Enchanter*, Merlin also has to come to terms with solitude. Conscious that his relationship with Vivian could mean the failure of his quest for the Grail, he sacrifices his personal happiness for that of the whole world. Even though Vivian asks him numerous times to be a part of his life, Merlin never ceases to refuse, inflicting chastity upon himself.

We are thus presented with solitary characters not only because of their marital status, but also because of their scientific vocation; and so it is not a coincidence if all of them go through a wandering period. This wandering corresponds to our third point. Indeed, just like the individual heroes of the ancient times, these nostalgic protagonists will wander and travel the globe.

In *Future Times Three*, it is the discovery of the thousandth century, and its more than strange civilization, that will make Pierre Saint-Menoux nostalgic of his era. He also regrets leaving himself after meeting his alter ego. Furthermore, he discovers within himself a sort of nostalgia for the 19th century after he decides to go and rob the rich in 1890. Quite obviously, the regret, which is expressed in *Future Times Three,* is intimately linked to the theme of time travel since it allows man to not only avoid the nostalgia of such and such an era, but also to erase regrets. We are referring here, among other things, to the return of Philomène in the novel, the much-mourned wet nurse of Annette that Essaillon will resurrect.

Pierre's wanderings are twofold. First – during his initial tests with the spacesuit – he wanders, lost in time and space because he has yet to master time-traveling with the suit. He consequently makes a number of trips when he finds he is totally lost and, not knowing where he is and what year he is in, comes back to his own time. The second type of wandering refers to Pierre as a dead leaf. Indeed, at the end of the novel Pierre disappears at the same time as his ancestor, because he has just killed him. While he is about to enter his bed to consummate his marriage, he disappears right in front of his new wife, Annette. She then gets up, goes down to the main floor, walks towards the front door, opens it and *a little whirlwind climbs the three steps and throws on her bare feet a dead leaf.*[15] [16] Here the leaf is not only a writing metaphor, but also a metaphor for Pierre's eternal wanderings between life and death.

In *The Enchanter*, the Knights of the Round Table never cease to travel across the country in search of fights and of the Grail. Nevertheless, it is Lancelot who wanders the most, as he disappears for over a year; additionally, he leaves on his own to avoid the temptation of being close to married Guinevere in Camelot.

Quite obviously, these wanderings, which are the result of the heroes' solitude, are to be directly related to their initiatory quest, since according

to Simone Vierne, initiation is defined as the passage from one state to another through the course of a journey, which the initiate must complete with the aid of his/her master[17]. The wanderings, which the protagonists experience, remain within the framework of the initiatory scenario. Indeed, the initiate must go through several ordeals, namely: Preparation, initiatory death, and finally, rebirth, to attain a new status. So, these wandering journeys, where death teases the protagonists, − such as Pierre, who nearly dies in a 2052 Paris set ablaze; Lancelot, who fights a Dragon; or even Éléa, who escapes from the laboratory and hides in the labyrinthine city of Gondawa; − will allow these initiates to make it to the final ordeal, which is rebirth.

We also discover that by applying the initiatory scenario to these novels, it is not so much the initiatory quest of the protagonist, which is important, but rather that of all the characters. We then understand that though initiation is inseparable from the individual, in reality it includes all the protagonists, and thus the entire community.

From the collective quest to the epic dimension

At first glance, everything leads to the conclusion that Barjavel's novels will tell us the story of an individual. Not only the titles in the singular, *The Foolhardy Traveler* (rough translation of *Le Voyageur imprudent*), *The Ice People* (*La Nuit des temps*) and *The Enchanter,* which stress not only the characteristics of the hero (or of the night where everything changed), but also the driving impetus of each character: The time travels of Pierre Saint-Menoux, the life of Dr. Simon at the South Pole, and the love Merlin has for Vivian. Yet, we realize that these are quests made for an entire group or community, even for the whole of humankind.

For instance, in *Future Times Three,* the story is set during World War II, which is what motivates Noël Essaillon to invent noëlite in order to time travel and bring happiness to all humanity. In *The Ice People*, the equation of Zoran, which creates matter from nothingness, would allow – among other things – the end of world hunger. In *The Enchanter*, the protagonists search for the Grail in order to maintain balance and harmony in the world.

These collective quests are thus the quests of the entire humanity. This is all the more visible in *The Ice People*, where the discovery of the Golden sphere brings about a coalition of the world's countries.

> *Never before had there been an international undertaking on such a scale. Men had turned to it eagerly as though it were the long-awaited chance to put aside their hatreds and to reach brotherhood in a totally unselfish endeavour.*[18] [19]

So, all the nations come together, in this forsaken area of the globe, to ally their efforts and knowledge in order to wake up the ancient couple found in the Golden sphere.

Nonetheless, when the UN plots to steal Zoran's equation, a diplomatic conflict arises. Léonova, one of the South Pole scientists, is designated as a spokesperson to ask the nations to continue working in a communal spirit:

> *"We wish to work for all men," she said. [...] Our success thus far has been the result of a concerted and unselfish effort by many nations. This effort must continue. You who are listening to us can compel it. I am appealing not to governments and politicians but to men and women, to all peoples. Write to your rulers, your chiefs of state, your ministers, your soviets. Write immediately – all of you write!* [20] [21]

We can see how Léonova, using the plural form of the first person personal pronoun "we", encompasses the collective, which is to bring about the success of the quest.

Additionally, a few lines down from this passage, the call to the nations has been received and, breaking the barriers of language and culture, a global demonstration arises so that Zoran's equation may remain a discovery that would benefit all humankind, and not only a single organization – the UN:

> *For the first time, the people manifested a common will, transcending their respective languages, borders, differences and divisions. No government could oppose such a widespread sentiment.* [22] [23]

This is thus truly a collective quest where the whole planet is made to contribute, and though we are dealing with solitary protagonists, as we have previously seen, the community will transcend their universes − in a manner of speaking − since these characters will be presented to us in a fashion pertaining much more to the collective than to the individual.

In *The Ice People,* Éléa is introduced for the first time to the entire planet via television. It must be said that the discovery of the Golden sphere, and of the couple asleep inside it, is broadcast live on television all over the world.

As for Merlin, in *The Enchanter*, his first appearance may be in the forest with Vivian, but a few pages later he is described during a fight. Arthur and his fellow knights are going to the castle of Leodagan to free it from the dominion of Duke Frolle. Both sides are about to engage in battle and it is at this moment that Merlin *brought to his lips the whistle [...] that he wore around his neck* [24] [25] and beckons the wind to awaken. This magical intervention then allows Arthur to begin the battle to his advantage since a cloud of dust rises with the wind. This action creates suspense since no one sees what is happening and by the time the whirlwinds cease the battle is already well under way. We thus see how the character of Merlin, thanks to this intervention, serves the collective, even more so considering that all the protagonists in the novel are presented during this battle.

Additionally, war, which is the central theme in epics, is also present in Barjavel's novels. The author fancies himself, first and foremost, a fabulist, one who is attentive to the possibles, considering the myriad eventualities, which are presented to him. So it is natural that the theme of war be at the nexus of Barjavel's novels since he himself has lived through both World Wars. War not only grounds the reader in a known reality, but it also allows the author to ground his novels in communities and thus in an epic dimension.

Indeed, the battles and combat scenes, which are presented to us in novels, are truly Homeric.

In *Future Times Three* Essaillon, the scientist who has invented noëlite – the substance that makes time traveling possible – gives a sample of it to a chief of staff, who then tests it on a city by bombing it:

> *Hunger overcomes the besieged. [Sic] Soon death extends its silent hand over the city. In the streets, cadavers are hanging, fastened to the air by pieces of their flesh, which the noelite has touched. Decay, little by little, tears them from their bodies. The ground is strewn with carrion, fleshless bone, while the air remains peopled with profiles, ears, heads of hair, breasts, black fingers, stiff, eternal, bound to the sky by the immobile rain of the present"* [26] [27]

With this excerpt, we realize the extent of the bombing horror through the stylistic figure of hypotyposis, which allows for a visual representation of the scene. We find a similar writing technique in *The Ice People*. At the end of the novel, Éléa shows us the war, which brought about the creation of the Golden sphere:

> *The sky pulsed and was riven. With a savage howl a horde of half-naked Enisorian soldiers, painted red and sitting astride their iron cars as if they were horses, poured down out of the heights of the fiery night and veered off obliquely above the lake toward the Mouth. Defensive weapons fired from all the outlets. The airborne army was slaughtered, scattered, exterminated, thrown back to the stars in the form of thousands of shattered corpses that plunged into the lake and the forest.* [28] [29]

We see the fashion in which the epic convention is applied thanks to enumeration and gradation stylistic devices: "*slaughtered, scattered, exterminated, thrown back to the stars*". This war of ancient times also has a collective dimension since it affects the entire planet. Its potency is such that not only is the human race decimated but the earth also pivots off its rotational axis.

In *The Enchanter*, the epic battle scenes recast the theme of medieval epics:

> *As the horses galloped, the armour scales rose, fell, clashed together, and the combined forty-one composed a fearsome iron chant. They flew like a spear towards the motionless army in the plain.*
>
> *[...] The wind then stretched and cracked and rumbled and howled, became enormous and rolled out on the plain, tearing out dust and stones, carrying off haystacks, forgotten chickens and the roofs of thatched cottages, and blinded the enemy army that it threw itself upon. Behind it, Arthur and his companions, lowering their spears and stinging with both spurs, arrived like a hurricane.*
>
> *The women, the girls and the children, standing on the walls to witness the battle that would determine their fate, initially could only see a surging and russet-coloured fog, hollowed out by swirling wind, from whence emerged the crash of weapons and the cries of sliced or pierced combatants, and those of raging horses. Then, the wind fell asleep again in a lengthy sigh, and the battle revealed itself to the light of day. The centre of the plain, where the clash had occurred, was littered with the injured or dead bodies of men and horses. Hundreds of smaller combats took place all around. The unseated horsemen continued to fight on the ground.*[30] [31]

Arthur and his fellow knights are introduced by the synecdoche "the forty-one", thus losing their individuality and forming a whole whose goal it is to subjugate Duke Frolle. Expressions such as "stinging with both spurs" ("piquant des deux"), and also comparisons, such as "they flew like a spear" ("ils filaient comme un javelot"), "[they] arrive like a hurricane" ("[ils] arrivèrent comme l'ouragan"), also intensify the epic register. Similarly, Nature takes part in the battle since the wind, called upon by Merlin to support them, is personified with verbs like "cracked" ("gronda") and "howled" ("hurla"). From this point on, the collective becomes a full-fledged universe, a closed one, to use Lukács' term. Everything becomes bigger, stronger, more extraordinary, and so, although there are but forty-one fighters in Arthur's army, "the women, the girls and the children […] that should determine their fate" ("les femmes, les filles et les enfants […] dont leur sort dépendait") will see unfold before their eyes "hundreds of smaller combats" ("des centaines de petits combats").

In conclusion, I have demonstrated that these three novels were representative of a certain heroic convention, insofar as the text is dealing with the exploit of a lone character engaging in an initiatory quest. However, I have demonstrated that the quests also had a collective agenda because they deal with the whole of humanity. This collective dimension will then transcend the individual universes, characterized by a heroic agenda, into a collective universe presented within an epic convention. The narrative universe, closed on itself, is then modified by a transgression creating an effect of detachment that is characteristic of innovations expected from the genre of science fiction. Therefore, we are faced with a new question about the genre to which these novels belong. Are we dealing with science fiction, the fantastic, or fantasy? Even if, *The Enchanter,* is more in line with fantasy novels because of the very retelling of the Arthurian myth, the anachronisms, which we encounter within it −such as the replenishing tin can that Merlin gives Bénigne, the supermarket, which he creates for some villagers, or even the bulldozers that build Morgane's castle (p. 308) − lead us to think that this novel is also to be classified as science fiction. This last novel corresponds perfectly with Barjavel's conception of science fiction since, according to him, science fiction: "is not a single literary genre, it is all the genres, it's lyricism, satire, analysis, morale, metaphysics, epic. It is all the activities of the human mind, coming into force into limitless horizons". [32] [33]

Translated by Anton Iorga.

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Notes

1 *Le Voyageur imprudent*, René Barjavel, Paris : Folio, Ed. Denoël, 1958, 245 p. In the remainder of the article, the reference to this work will be shortened to LVI.

2 *La Nuit des temps*, René Barjavel, Paris : Presse de la cité, 1968, 381 p. Shortened to LNDT.

3 L'Enchanteur, René Barjavel, Paris : Folio, Ed. Denoël, 1984, 471 p. Shortened to L'E.

4 Barjavel, René. *Future Times Three*. New York: Awards Books. 1974. P.16. Translated from the French by Margaret Sansone Scouten.

5 *Il se déharnacha, défit boucles, bretelles, boutons, mousquetons, quitta fusil, bidon, musette, masque, pelle, baïonnette, ceinturon, capote, gants, casque passe-montagne, béret. Il perdit les deux tiers de son volume. Il apparut si mince que sa haute taille s'en trouvait encore étirée.* LVI, p. 16-17.

6 Barjavel, René. *The Ice People*. London: Rupert Hart-Davis. 1970. P.25. Translated from the French by Charles Lam Markmann.

7 *Sauf les quelques* ***héroïques pionniers de la science humaine*** *qui ont creusé le Puits avec leur technique et leur courage, personne au monde ne les a encore vues.* LNDT, p. 45-46

8 Barjavel, René. *The Ice People*. London: Rupert Hart-Davis. 1970. P.32. Translated from the French by Charles Lam Markmann.

9 *Au fond du trou, dans une lumière dorée,* ***un chevalier blanc*** *attaque le métal avec une lance de lumière.* LNDT, p. 60.

10 Barjavel, René. *The Ice People.* London: Rupert Hart-Davis. 1970. P.32. Translated from the French by Charles Lam Markmann.

11 *[elle] se referme aussitôt. Comme si on fendait une chair avec un scalpel. LNDT, p.59.*
12 The story is set in the South Pole.
13 Barjavel, René. *The Ice People*. London: Rupert Hart-Davis. 1970. P.131. Translated from the French by Charles Lam Markmann.
14 *Une certaine vivacité des facultés mentales condamne à la solitude. LNDT, p.243.*
15 Translated from the French by Sylvain Rheault.
16 *un petit tourbillon de vent monte les trois marches et jette sur ses pieds nus une feuille morte*.
17 *Rite, Roman, Initiation,* Simone Vierne, Grenoble : PUG, 1973, 138 p.
18 Barjavel, René. *The Ice People.* London: Rupert Hart-Davis. 1970. P.23. Translated from the French by Charles Lam Markmann.
19 *Jamais une entreprise internationale d'une telle ampleur n'avait été réalisée. Il semblait que les hommes y eussent trouvé, avec soulagement, l'occasion souhaitée d'oublier les haines, et de fraterniser dans un effort totalement désintéressé.* LNDT, p. 41.
20 Barjavel, René. *The Ice People.* London: Rupert Hart-Davis. 1970. P.50-1. Translated from the French by Charles Lam Markmann.
21 ***Nous** voulons travailler ici pour tous les hommes, dit-elle. […] **Notre** réussite, jusqu'à maintenant, a été le résultat d'un effort concerté et désintéressé des nations. Il faut que cet effort continue avec la même intensité. **Vous** pouvez l'obtenir, **vous** qui **nous** écoutez. Ce n'est pas aux gouvernements, aux politiciens que je m'adresse. C'est aux hommes, aux femmes, aux peuples, à tous les peuples. Écrivez à vos gouvernants, aux chefs d'État, aux ministres, aux soviets. Écrivez immédiatement, écrivez.* LNDT, p. 96.
22 Translated from the French by Philippe Mather.
23 *Pour la première fois, les peuples manifestaient, par-dessus leurs langues, leurs frontières, leurs différences et leurs divisions, une volonté commune. Aucun gouvernement ne pouvait aller contre un sentiment d'une telle ampleur.* LNDT, p. 97.
24 Translated from the French by Philippe Mather.
25 *porta à ses lèvres le sifflet […] qu'il portait au col.* LNDT, p. 19.
26 Barjavel, René. *Future Times Three.* New York: Awards Books. 1974. P.39. Translated from the French by Margaret Sansone Scouten.
27 *La faim assaille ces assiégés. Bientôt la mort étend sa main silencieuse sur la ville. Dans les rues, des cadavres pendent, accrochés dans l'air par les morceaux de leur chair que la noëlite a touchés. La pourriture, peu à peu, les en arrache. Le sol est jonché de viandes putréfiées, d'os décharnés, tandis que l'air reste peuplé de profils, d'oreilles, de chevelures, de seins, de doigts noirs, figés, éternels, reliés au ciel par la pluie immobile du présent...* LVI, p. 50.
28 Barjavel, René. *The Ice People.* London: Rupert Hart-Davis. 1970. P.122. Translated from the French by Charles Lam Markmann.
29 *Le ciel palpita et se fendit. Dans un hurlement, une nuée de soldats enisors à demi nus, peints en rouge, à cheval sur leurs sièges de fer, surgit dans les*

hauteurs de la nuit enflammée, et coula en oblique, par-dessus le lac, vers la Bouche. De toutes les cheminées, les armes de défense tirèrent. L'armée aérienne fut ravagée, dispersée, rasée, renvoyée vers les étoiles en milliers de cadavres disloqués qui retombaient dans le lac et dans la forêt. LNDT, p. 298.

30 Translated from the French by Philippe Mather.

31 *Au galop des chevaux, les écailles se soulevaient, retombaient, s'entrechoquaient, et l'ensemble des quarante et un composait un chant de fer terrible. Ils filaient comme un javelot vers l'armée immobile dans la plaine.*
[…] Alors le vent s'étira et craqua et gronda et hurla, devint énorme et se roula sur la plaine, arrachant la poussière et les cailloux, emportant les meules de foin, les poules oubliées et les toits des chaumières, et se jeta sur l'armée ennemie qu'il aveugla. Derrière lui, Arthur et ses compagnons, baissant leurs lances et piquant des deux, arrivèrent comme l'ouragan.
Les femmes, les filles et les enfants, montés sur la muraille pour assister au combat dont leur sort dépendait, ne virent d'abord qu'un brouillard roux et mouvant, creusé de tourbillons, d'où sortaient le fracas des armes et les cris des combattants taillés ou transpercés, et ceux des chevaux furieux. Puis le vent se rendormit dans un long soupir et la bataille se révéla à la lumière du soleil. Le centre de la plaine, où s'était produit le choc, était jonché de corps d'hommes et de chevaux blessés ou morts. Des centaines de petits combats se déroulaient tout autour. Les chevaliers désarçonnés continuaient à se battre à terre. L'E., p. 18-20.

32 Translated from the French by Sylvain Rheault.

33 "ce n'est pas un genre littéraire, c'est tous les genres, c'est le lyrisme, la satire, l'analyse, la morale, la métaphysique, l'épopée. Ce sont toutes les activités de l'esprit humain en action dans les horizons sans limites". Barjavel, René, "La science-fiction, c'est le vrai 'nouveau roman'", *Les Nouvelles littéraires*, 11 octobre 1962.

Chapter Six

The Challenge of the Invisible in Maurice Renard's *The Blue Peril*

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Maurice Renard's, *The Blue Peril* (*Le Péril bleu,* 1913), engages with questions of vision and knowledge by posing an invisible adversary as a challenge to what he diagnoses as a cultural overdependence on sight. Pushed beyond the self-imposed limitations of vision, Renard's characters seek out different kinds of evidence and alternative paths to knowledge. Thus, rejecting both the ocularcentrism and the epistemic ideal of objectivity of the late nineteenth century, Renard's novel returns to the free-minded, reasoning subject as the creator of knowledge and decoder of the universe. Seeing and sensing are only half the battle; it is ultimately the work of organization and the interpretation of the resulting evidence that makes knowledge possible.

The story begins with a series of mysterious disappearances centered around Bugey in south-eastern France. The locals first imagine that the culprits are human thieves or pranksters, and give them the colloquial title of *les sarvants*. Soon, however, not only objects but also animals and then people go missing, and what was originally perceived as an annoying joke becomes a serious and frightening problem. As friends, family members, and possessions, seem to vanish into the clear blue sky above Bugey, first the terrified locals and then the rest of the world all begin to speak of "the blue peril" (Renard 1913, 323). Even more horrifying, blood and dismembered bodies begin to fall from the sky, suggesting that this unknown force is both hostile and murderous.

Notable among the missing humans are astronomer Le Tellier's beautiful daughter, Marie-Thérèse, her brother, Maxime, and later on, Le

Tellier's secretary, Robert Collin. With evidence on the ground indicating that the solution lies in the sky, Collin intentionally positions himself as an abductee in the hope of finding his beloved Marie-Thérèse, or at least discovering her fate. However, when he arrives in an invisible structure – that he calls an *aérium* – fifty kilometers above the Earth's surface, the *sarvants* are nowhere to be seen. Collin soon realizes that they are nonetheless present, as the invisible agents of terrifying medical experiments performed upon himself and his fellow prisoners. Having seen a grey dress and blond hair, that he believes belong to Marie-Thérèse, in a distant cell, and with no other hope of escape or rescue, Collin commits suicide to ensure that his body will be thrown back down to Earth along with the journal in which he recounts his experience.

From this journal, Le Tellier learns of Collin's deductions about the *sarvants*, knowledge that becomes indispensable when their invisible ship crash-lands in the middle of Paris. After a great deal of confusion, a tactile investigation of the ship, and the bodies found within, is performed with the help of several blind specialists. The *sarvants'* bodies degrade quickly in the dense atmosphere of the Earth's surface. To render the ship visible, a special paint called arnoldine is developed. Unfortunately, the arnoldine reduces the invisible material to dust within a day of its application, so that only photographs and moldings remain. These are eventually dismissed by the general public as fake, and the entire episode as a hoax.

From the very beginning of the investigation, Renard dramatizes the difficulties of relying on visual evidence in particular. Witnesses describe utterly confusing scenes of fluttering fish and Italian laborers marching up into the air, a giant eagle and a shadowy hot-air balloon – none of which can satisfactorily explain the recent abductions or the traces left behind. Thus, visual evidence, in *The Blue Peril,* offers no incontrovertible facts, only signs that must be interpreted in order to learn the truth about the invisible. As Le Tellier puts it, "parce que la vue est celui de nos sens qui a le plus vaste domaine, c'est le sens que nous disons principal, et voilà pourquoi vous contestez l'existence des choses qu'il n'apprécie en aucune façon"[1] (Renard 1913, 404). This is not only because seeing, then as now, was often taken for believing, but also because, at the particular time period at which Renard wrote, the extension of the range of knowledge and the extension of the range of visibility were clearly intertwined. Contemporary technology like X-rays, telescopes, microscopes, photography, and film, all seemed dedicated to creating a larger realm of the visible. Furthermore, images produced using mechanical means, with

untrustworthy human intervention in their creation kept to a minimum, were construed as possessing a greater truth-value than the subjective knowledge produced by the human eye (Daston and Galison 2007, 187).

This represents a change from what Martin Jay (1994) refers to as the scopic regime of Cartesian perspectivalism (69), or what Lorraine Daston and Peter Galison (2007) call the "truth to nature" period in scientific observation (58). During the eighteenth century, these scholars wrote that the ideal of the intelligent observer cast the reasoning, seeing, subject as the most reliable producer of truth. The Cartesian observer's fixed, disembodied gaze could master and understand its objects without entering into contact with them, based only on the innate ideas of reason already present in his own mind (Jay 1994, 73). In fact, the well-trained and experienced observer could extrapolate a higher order of truth from its objects than they actually demonstrated; as Daston and Galison (2007) wrote, "The eyes of both body and mind converged to discover a reality otherwise hidden to each alone" (58). While individual specimens and circumstances might be broken or flawed, or so it was thought, the scientist could deduce the more perfect forms, intended by nature, hidden within them.

Beginning in the late eighteenth century, and continuing through to the nineteenth, the invention of new optical devices altered the status of the individual seeing subject in knowledge production, as the human eye was shown to be far from infallible. Phantasmagoria and magic lantern shows, panoramas and dioramas, and other forms of optical trickery, all created convincing illusions, showing people and things that could not exist, seeming to instantaneously transport the spectator to faraway places. Clearly, people could be made to observe phenomena that were neither real nor present (Milner 1982, 38). Equally troubling was the demonstrable fact that even the best human eyes were inadequate to truly comprehend the world as it is. Not only could the eye of the most intelligent and attentive observer be tricked, but photography, and improvements in telescopes and microscopes, created images unobtainable by the naked eye, and, as in the famous example of Eadweard Muybridge's photographs of a horse running, showed that unmediated visual impressions might be revealed as misconceptions. Thus, these technological extensions of human vision created new images of the world that were undeniably true and accurate, but also strange and inaccessible in the realm of everyday experience (Jay 1994, 126; 146-147).

> *Although human eyes are unreliable, prone to fatigue or distraction or simply blinking at the wrong time, far more troubling was the possibility that subjective observations might be tainted by conscious or unconscious bias, made to match the observer's previously held expectations or beliefs. It was this fear of subjectivity's preconceptions, according to Daston and Galison, that pushed scientists to trust mechanically produced images over human observers, in an effort to eliminate as much as possible their reliance on subjective interpretations of information. Even if mechanically produced images such as photographs were acknowledged as manipulable products of human work, the ideal of objectivity that they seemed to offer became the holy grail of scientific observation in the nineteenth century.* (Daston and Galison 2007, 138-139)

However, as Andrea Goulet argues, in *Optiques* (2006), while one can speak of general trends and attitudes towards vision at one time or another, "[a]t no given moment does one particular figure or text actually embody the dominant 'scopic regime'". Instead of seeing scopic regimes as successive, Goulet proposes a "structure of overlap" (14) as more discernibly represented in any actual text. Correspondingly, in *The Blue Peril*, the mistrust of vision includes not only a mistrust of the vagueries of the naked eye and human interpretation, but also the possible distortions and destructions that technology may effect, as suggested by the dissolution of the *sarvants'* ship under the arnoldine paint. While sufficient evidence may be required, the quality of the evidence is less important than the ability to think intelligently about what is seen or known in the correct manner, unfettered by limiting preconceptions.

Renard's emphasis on the power of the mind, in the organization and deciphering of evidence, is consistent with the ordering of knowledge performed by the detective in the *roman policier* of the nineteenth century, as described by Goulet. The model for that detective, she writes in *Optiques*, at least in the cases of Poe's Dupin, Doyle's Sherlock Holmes, or Émile Gaboriau's Monsieur Lecoq, was biologist Georges Baron Cuvier. Lauding the power of logical deduction, Cuvier claimed that from the smallest bone fragment (or fossil thereof) the scientist could reconstruct the entire original animal, just as detectives in *romans policiers* reconstruct a crime based on the physical traces that remain, and just as Robert Collin will learn about the *sarvants* based on the visible signs of their actions. Their deductive method depends on "the use of rigorous reasoning from observed facts" in order to move "from the known to the unknown" (Goulet 2006, 94). For Michel Foucault, Goulet writes, Cuvier represents a sign of the epistemic transformation that occurred around the time of the French Revolution, from a system of knowledge-making that

sought to catalogue the visible world to one that attempts to make conclusions about the unknown based on what is already known. "Cuvier's work marks, then, a moment of rupture; it ushers in a new 'space of knowledge' that founds classification on organization rather than on the description of what can be seen" (Goulet 2006, 88).

This consideration of the unknown is an important distinction between Renard's two figures of the detective, Collin and Tiburce, who differ sharply both in their reliance on visual clues and in their willingness to seek answers outside the usual realm of possibility. The novel's clearest example of the failure of visual evidence alone is offered by the cartoonish amateur detective Tiburce, a self-proclaimed *sherlockiste* and a friend of Marie-Thérèse's preferred suitor, the duc d'Agnès. For example, upon meeting Le Tellier for the first time, Tiburce attempts to impress the astronomer by deducing his habits from minute traces of physical evidence, just as Sherlock Holmes famously could. He confidently declares that Le Tellier plays piano, has served in the cavalry, frequently wears a monocle, and enjoys target-shooting – all of which turns out to be false. The wrinkles and marks around Le Tellier's eyes, the callouses on his hands, and a slight oddity in his walk, are mostly due to extended time looking through a telescope (Renard 1913, 256-257).

Tiburce is also an indefatigable believer in his own ideas, even in the face of all contrary evidence and reason. Having immediately determined through his questionable methods that it was a certain Mr. Hatkins who abducted Marie-Thérèse along with her companions, he chases his quarry all over the world, detailing his search in letters to the duc d'Agnès. When no evidence exists that his quarry is nearby, he simply sees what he wants to see – four people traveling together, for example, "j'avais facilement reconnu Hatkins et Henri Monbardeau, Mme Fabienne Monbardeau et Mlle Marie-Thérèse Le Tellier voyageant sous des déguisement et des travestis"[2] (Renard 1913, 341). Losing track of these four, he finds another group of six whose names correspond in no way to the abducted, and finds them "*too well* concealed (*trop bien* dissimulés!)" (341, italics in original). In other words, whatever information presents itself becomes evidence for Tiburce's predetermined conclusion, however much it must be twisted to meet this end. Unsurprisingly, he has no success in solving the mystery of the *péril bleu*.

It is notable that the characters who most successfully contribute to the solution of the mystery are those for whom vision has never been the

easiest or most reliable of the senses. This includes several minor characters who are completely blind: Le Tellier's mother, Madame Arquedouve, is the first to detect the buzzing sound made by the *sarvants'* ship and to associate this phenomenon with the disappearances, and several times serves to alert the other characters that danger approaches. Later, a blind anatomy specialist named Louis Courtois is instrumental in the investigation of the *sarvants* and their ship. With his trained hands, he helps Le Tellier and his team to examine manually, with their eyes closed, finding that "with closed eyes, touching became easier (aux yeux fermés, ils touchaient plus commodément)" (Renard 1913, 412). Together, they disassemble the seemingly human forms removed from the ship and discover that the *sarvants* are not human or humanoid, but rather a spider-like being that can exist individually or conjoin with others to form a larger conglomerate entity (413-4). The need for non-visual evidence is stated explicitly by Le Tellier, when faced with the problem of investigating the *sarvants* and their ship: "Do you wish to dispel the magic of the invisible? That's no problem: just close your eyes!"[3] (405). In response, the previously doubtful duc d'Agnès concedes, "We foolishly believed what our eyes were seeing"[4] (406).

The more able investigator of the *péril bleu* is not fully blind, but vision has certainly never been kind to Robert Collin. During his first appearance in the novel, we learn that "his short-sightedness made his eyes soft, circled with gold (sa myopie lui fait des yeux très doux, cerclés d'or" (Renard 1913, 240), and Collin himself will also note his nearsightedness several times in his journal. In addition to the untrustworthy nature of his own vision, Collin's appearance also undermines the accuracy of visual assessment, at a time when scientists like Cesare Lombroso and Alexandre Lacassagne were making claims for a physiological basis of criminality. Visual examination of Collin reveals him to be an ugly, skeletal man, but this misfortune, too, belies his value as a lover. His desperate love for Marie-Thérèse leads him to investigate the *sarvants*, at first in hopes of winning her hand in marriage, and eventually sacrificing his own life in the hope of saving hers. His rival, the more favored duc d'Agnès, contributes little to the solution of the mystery, engaging his *sherlockiste* friend and working on his airplane; what success these efforts obtain is accidental, when the incompetent Tiburce locates Marie-Thérèse by coincidence. Perhaps it is because of this inability to rely on sight that Collin has developed a greater and more exploratory intelligence, becoming, as M. Le Tellier remarks, "gifted with unique scientific talents [...] a strange insight [...] a kind of divination"[5] (241).

Despite his difficulties in seeing and being seen, Collin is able to discover things that are hidden to most people because he is willing to consider possibilities that seem to others ridiculous. During the first investigation of the disappearance, he does not suggest that giant eagles actually abducted Marie-Thérèse and her companions, but he is willing to consider the ways in which this fantastical hypothesis would explain the evidence before him. Explaining his tactic, he says, "to lead the mind to the truth, nothing beats the study of false hypothesis. [...] When I know a thing isn't here, I suspect it can only be there. As well, a streak of losing often makes one win at the end"[6] (Renard 1913, 266). When Tiburce objects to Collin's suppositions, arguing that they should restrict their theories to "simple, possible, *natural* explanations (explications simples, possibles, *naturelles)* " Collin retorts, "Who, among men, can distinguish between what is *impossible* and what is *natural*?"[7] (269, italics in original). Moreover, while Tiburce departs in search of his pre-convicted suspect Hatkins, Collin defines his own course of action very simply: "To think (Penser)" (269).

Later, imprisoned in the *aérium*, Collin's ability to make deductions based on visual evidence allows him to learn what occurs beyond the limits of his perception. Seeing incisions forming on skin, asphyxiations, and other physical reactions occurring without any causal agent, Collin deduces that the invisible *sarvants* are dissecting and experimenting to learn more about their prisoners. Furthermore, based on the visually nonsensical organizations and reorganizations of prisoners in the *aérium* (with an ape at first included among the humans and a priest among the women due to superficial similarities) Collin is able to conclude that the *sarvants* are attempting to catalog the species on the Earth's surface based on similarities of shape. They, too, are limited in their sense perception – blind, they cannot properly arrange their specimens.

Another striking example of the need for extravisual discovery occurs when Le Tellier manages to find the *aérium* where his children and the other victims are being held. He manages this not by searching the sky with his telescope, but by looking idly at the star Vega. Suddenly, Vega disappears. At first, Le Tellier does not believe his eyes: "He attributed to fatigue and irritation what he considered to be an optical aberration"[8] (Renard 1913, 329). However, this non-vision of the star is repeated at the same time the following night for a duration of five seconds, showing that the absence was neither a hallucination nor a lapse of the eye, but rather an eclipse by an unknown body. Seeing nothing becomes seeing something

when Le Tellier extrapolates the position of the eclipsing object mathematically, discovering *the square stain* (*la tache carrée*) and calculating its altitude at fifty kilometers above the Earth. Further investigation through larger telescopes in Paris and Lyon, however, reveal little more information: "Since large telescopes can't be transformed into spectacles for the Earth, all kinds of makeshifts were used to correct the image of that square charade. […] New mysteries"[9] (336).

Renard's novel thus questions not only the place of vision as the sense most primarily associated with knowledge, but also any process of knowledge production that seeks to fit new facts into already-known paradigms and preconceptions, without considering the possibility of unknown criteria and methods. As Le Tellier tells Maxime, as they reconsider the possibility that the *sarvants* may be giant eagles, "[…] it would be absurd; but I will provide you with an answer nevertheless, because science is about investigating all the available possibilities"[10] (Renard 1913, 298). In order to be truly effective, Renard demonstrates, that the seeker of knowledge must open his mind, arranging and rearranging evidence and considering all possibilities until the facts are explained.

The problems of properly arranging, interpreting, and explaining evidence are built into the very structure of Renard's novel and brought into play explicitly in its "préliminaire," a prologue in which Le Tellier asks the narrator to write the story of his family during "*the terrors of the year nineteen twelve* (*les Terreurs de l'An mil neuf cent douze*)*"* (214, italics in original). The book is necessary, he says, "because it is the only way to make everyone understand *all* that happened last year, and because such a teaching *must* be given"[11] (214, italics in original). At the end of the novel, we discover another reason why this "teaching" is so important: because despite the evidence that exists, "the believers' prayer rises again in a sky where nothing exists anymore, since nothing can be seen"[12] (447). That is, the public has forgotten, or no longer believes, the story of the *blue peril*, and has consequently returned to its previous complacency, as if there could be no threats to humanity's supremacy.

To facilitate the work of the narrator, Le Tellier both relates his experience and offers his personal archive of documentary evidence accumulated during the course of events, such as Collin's journal, news clippings, and letters exchanged between the characters, particularly those of Tiburce. These "documents" are integrated into the narrative,

distinguished not only by their form but also by their catalog number. The narrator cites as justification for these inclusions that each of the integrated documents contributes "its concision, its brevity, its accuracy, and the affability of its words (sa concision, sa brièveté, sa justesse et la bonhomie de son écriture)", and suggests that they represent "life, fully palpitating (la vie, toute palpitante)", far preferable to a "second-hand story (discours d'un rapporteur)" (Renard 1913, 215). Further reinforcing the documentary nature of the work, the narrator takes care to explain that (with the important exception of Collin's journal) he will tell the story and reproduce the documents in chronological order, even if those events and documents seem unrelated, and throughout the text, the dates and times of events are carefully noted. To maximize the pedagogical value of his story, Renard's narrator even goes so far as to suggest specific maps for the curious reader to reference, that they may most accurately reconstruct the events as they occurred (216).

The effect of this "archival novel" form, as Marco Codebò (2010) has defined the term, is that, in imitating the archive's production of knowledge, the novel also shows how "knowledge is the result of the systematic arrangement of records" (14). That discussion is further emphasized in *The Blue Peril* by the fact that the physical evidence alone, retained in the Musée des Arts et Métiers in Paris, has failed to convince the public of the story. It must be organized and retold properly by a figure acting as, what Codebò describes, "an archival authority who uses his/her knowledge as a tool for structuring the receiver's experience of the world" (14) or "an epistemic center of gravity [...] necessary for turning the text into a coherent cognitive tool" (15). As a result, the novel not only purports to recount a story with a lesson, but to demonstrate that lesson by its very form.

The need to understand the world in new and different ways is given even greater prominence in Renard's epilogue, in which the narrator reflects upon the dangers posed not only by the invisible but also by all kinds of unknown challenges that, he posits, may currently exist unknown to humanity. The lesson of the *blue peril* and the *sarvants* is that the greatest danger of all is complacency. Humans become too comfortable living within the parameters of what is already known, even when the known contains horrors like the abductions in Bugey, or such as the even more real and accepted horrors of war and alcoholism (Renard 1913, 448). Unexplored territories like the deep ocean or outer space may hold beings we cannot yet imagine, Renard writes (449-450), and the invisible may

also already exist alongside the visible, in the form of X-ray or gaseous entities. Summing up the moral of the "fable," Renard writes:

> *Mankind, through a limited number of small windows that our senses are, can only grasp but a derisory corner of the universe. Mankind must always be expecting surprises from the unknown parts that cannot be perceived, coming from the immesureable sectors of the infinity that are still forbidden*[13]. (450)

While the evidence offered by blind characters is instrumental in the elucidation of the mystery, the moral is not simply that vision is an unsure tool, but rather that complacency in any one epistemological framework leads to stagnation and vulnerability to danger. Evidence is of great importance, visual and otherwise, but even greater is the need for the kind of open-minded reasoning that can order the evidence carefully and interpret it correctly. In other words, the path to truth that Renard advocates – seemingly forward into the unknown – sets aside new technologies of vision in favor of the simplest way possible: That of the intelligent subject and thought.

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Notes

1 "because, of all our senses, sight has the largest scope, we say it's the main one, and that is the reason why you contest the existence of things that sight doesn't like at all" Translated from the French by Sylvain Rheault.

2 I had easily recognized Hatkins et Henri Monbardeau, Mrs. Fabienne

Monbardeau and Miss Marie-Thérèse Le Tellier travelling disguised or costumed. Translated from the French by Sylvain Rheault.

3 "Voulez-vous rompre le sortilège de l'invisible? Qu'à cela ne tienne: fermez les yeux!" (405) Translated from the French by Sylvain Rheault.

4 "Nous nous sommes fiés bêtement au témoignage de notre vue" (406) Translated from the French by Sylvain Rheault.

5 "doué de singulières qualités scientifiques [...] une étrange perspicacité [...] une sorte de divination […]" (241) Translated from the French by Sylvain Rheault.

6 "pour mener l'esprit à la vérité, rien ne vaut l'étude des hypothèses fausses. [...] Quand je sais qu'une chose n'est pas ici, je me doute qu'elle peut être là. Et puis, à force de perdre, on finit par gagner" (Renard 1913, 266). Translated from the French by Sylvain Rheault.

7 "Quel homme peut savoir ce qui est *impossible* et ce qui est *naturel?*" (italics in original, 269) Translated from the French by Sylvain Rheault.

8 "Il mit alors sur le compte de la fatigue et de l'énervement ce qu'il traita d'aberration d'optique" (Renard 1913, 329) Translated from the French by Sylvain Rheault.

9 "Comme les gros télescopes ne sauraient se muer en lunettes terrestres, on employa toutes sortes d'expédients pour redresser l'image de ce logogriphe carré. [...] Nouveaux points d'interrogation" (336) Translated from the French by Sylvain Rheault.

10 "ce serait absurd; mais je te responds quand-même, parce qu'il est scientifique d'examiner tous les arguments qui se présentent" (Renard 1913, 298) Translated from the French by Sylvain Rheault.

11 "parce que c'est le seul moyen de faire comprendre à tout le monde *tout* ce qui s'est passé l'année dernière, et parce qu'un tel enseignement *doit* être donné." (214, italics in original) Translated from the French by Sylvain Rheault.

12 "L'oraison des croyants monte à nouveau dans un ciel où rien n'existe plus, puisqu'on n'aperçoit rien." (447) Translated from the French by Sylvain Rheault.

13 *L'humanité, ne possédant sur l'univers qu'un petit nombre de lucarnes qui sont nos sens, n'aperçoit de lui qu'un recoin dérisoire. Elle doit toujours s'attendre à des surprises issues de tout cet inconnu qu'elle ne peut contempler, sorties de l'incommensurable secteur d'immensité qui lui est* encore *défendue*. (Renard 1913, 450) Translated from the French by Sylvain Rheault.

Chapter Seven

The Generic Shift of Jacques Spitz: Towards Science Fiction

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If the name of Jacques Spitz lives on today, it does so exclusively as that of a science fiction novelist. Based on this affirmation, I would like to elaborate on three statements. 1. How his published body of work as a novelist has progressively evolved, then divided itself, and how Spitz has eventually become the representative, more or less against his will, of a genre with which his relations have never ceased to be troubled. 2. How the novel *Sever the Earth* (*L'Agonie du globe*) is situated in spite of itself at the frontier of this division. 3. I would also like to help others see more clearly the place that Spitz's body of work occupies in the history of French science fiction (SF). My general question is the following: What is the true relation between Spitz and French SF? Relying partly on my readings of his works and partly on my examination of his personal diary and correspondence, I intend to shed light on what we might qualify as a generic shift.

1. The Two Spitz

Around 1923, when Spitz begins writing his first novel, nothing seems to point towards his eventual shift to the still fluctuating field of what would become French SF. From 1926 onwards, Spitz publishes at Gallimard – which is to say, in the narrowest sphere of the French literary field – with quite an acute awareness of the stakes that are linked to this part of the field, and with his own idea of what a literature worthy of that name is. His first sketches of poems, his practice of automatic writing, his relationship with Benjamin Crémieux, the subjects broached in his personal diary, *everything* expresses the desire to create literature in the

most "noble" sense of the term. His own hierarchy of the genres, as it is revealed in his diary, is in accordance with this: Poetry reigns supreme and he has nothing but spite for the novel, or rather, let us say, for a certain type of novel. Spitz practices automatic writing, the very same one that an emerging surrealism promotes, and the reading of the first years of his diary shows us an image of Spitz as a writer mostly preoccupied with poetry (his preferences going towards Lautréamont, Rimbaud, and Valéry). From 1926 to 1933, a number of aesthetic and institutional characteristics classify his production in the narrowest sphere of the French literary field, which is to say, literature. I have studied these characteristics elsewhere[1]. Suffice us to remember the use of formal procedures, which tend to break the novelistic illusion, and, in so doing, discredit the genre itself. Spitz published five titles in seven years, two tales of surrealist inspiration, which directly attacked the traditional novel (by ironically illustrating some of its most apparent mechanisms), a very lautréamontian poetic prose (*La Mise en plis* (editors' translation: *To Have One's Hair Set*)) is a booklet published at the author's expense, which has become an extreme rarity), then two autobiographical essays, which are formally inspired by the personal diary. Nothing there then that has anything to do with SF. Yet, two of these titles, *La Croisière indécise* (editors' translation: *The Undefined Cruise*) and *Le Voyage muet*, (editors' translation: *The Silent Voyage*) are troublesome to our contemporary amateurs of SF, who do not know how to classify these and are occasionally duped[2]. Once and for all: These are not SF stories, but *La Croisière indécise* would make a very nice SF title and the story in specific passages borders on the fantastic in certain ways. This element of Spitz's writing is more or less overlooked nowadays.

Following this view, which is partly justified, the body of work of Jacques Spitz is divided into a *before* and an *after,* circumscribed by the publishing of what he himself called his "fantastic novels", from 1935 to 1945, which is to say from *Sever the Earth* (*L'Agonie du globe*) to *The Eye of the Purgatory* (*L'Oeil du purgatoire*). Eight titles in ten years, among which only three are actually available in French. Eight titles that tradition, commentators, magazines, those who speak of these works, the editors – in sum, the whole institutional machine – has slowly integrated to the French SF domain. *Before*, Spitz would have dedicated himself to literature. *After*, he would have compromised himself in paraliterature. Without this compromise, this transgression even, Spitz would not exist anymore: It is today the SF author who brings the other to the spotlight.

My interest for Spitz is not an isolated case, as some recent re-editions and new releases of unpublished material confirm, as well as their reception by the SF readers' community – a flourishing virtual community, which multiplies its expressions of gratitude, all the while continuing to more or less ignore the pre-1935 Spitz.

This split between the restricted-field-novelist and the SF author is translated and maintained by certain critics and editorial manifestations:

- The translations (I still find new ones, and they continue to be published) and the reprints, which systematically ignore his first titles;

- The fourth cover page of *Sever the Earth*'s reprint (in 1977), where we read the following statement: "Jacques Spitz publishes his first novel *Sever the Earth*, presently reprinted, in 1935", without any mention of his first works. It is an editorial blunder, assuredly, yet is it significant:

- The present literary histories and anthologies all omit Spitz's name, while those dedicated to French SF include him more or less systematically, and are generally laudatory.

Here is thus how the incomplete image of a writer is constructed. Astonishingly, neither in his lifetime nor since his death, in 1963, have any of his works – other than his SF novels – been reprinted or been the object of critics' attention. I say "astonishingly" because: 1) These titles are in no way outdated, even in this present day and time, 2) those are the titles, which Spitz himself thought most worthy, and 3) those are also the titles that his beneficiary has sought to be re-printed for 30 years without success.

If this strong acquaintance with SF is not attributed simply to the publishing of *Sever the Earth*, I would nonetheless like to speak of this novel *exactly* because of where it is played, historically and generically – an important part of the passage, or rather of the ambivalence, I have just expressed.

2. *Sever the Earth*

I am not entirely certain that at the time of its redaction, Spitz had judged *Sever the Earth* to be separate from his other works. I would think rather the opposite, which is to say that this was just another work like any of his previous ones. Yet for Spitz, "lost father" of French SF (*dixit* Serge Lehman[3]), *Sever the Earth* seems to constitute a turning point in his journey. A "queer object" (*dixit* Joseph Altairac[4]), this novel galvanizes in its own way the generic question and, consequently, reading habits.

From the outside, it seems to represent the entry of Spitz into SF, but upon its appearance in 1935, *Sever the Earth* was not classified in the "fantastic novels" series, a series inaugurated in 1936 with *Les Évadés de l'an 4000* (editors' translation: *The Escapees of the year 4000*). The novel was later included in the aforementioned series, due to a new cover and to the success of *The Escapees*, the only title that was re-edited while the author was alive (in regards to the posthumous re-edition of his SF works, it began in 1970).

Sever the Earth tells of the separation, in 1946, of "our sphere in two halves, one bearing the Old, and one the New World"[5] (SE, 36). On the one side, there is Europe, Asia, and Africa, and on the other, the Americas. Both halves will progressively distance themselves and gravitate around one another until the moon crashes into one of them and completely destroys it (there will remain of the Americas nothing more than a rock in a museum). How this occurs and how humanity reacts, that is what is related in what is described as "simply a narrative of events"[6] (SE, vi), which is retrospectively constructed by the narrator with the help of a "treasury of documents"[7] (SE, viii), a letter and discourse excerpts, and newspaper clippings as fictional as the totality of this pessimistic fable whose tone is nonetheless resolutely humorous. Science fiction, philosophical fable, and satire in the manner of *the Persian Letters,* all at once. *Sever the Earth* is generically multiple; the novel mimics a quantity of genres, brief referential genres for the most part: Press articles, letters, travel diaries, etc. It is a false documentary, a collage, which is part historiographic, part journalistic, and without psychological intrigue, since it is without characters properly speaking, without chapters or other forms of division, without dialogues, and whose use of illustrations – relatively rare in the restricted field – is reminiscent of *Nadja* or *Mad Love.* We find in it a few subtle references for the initiated: To Gaston Gallimard, to Valéry, to Verne, and to Gistucci, a personal friend of Spitz; I probably

missed a few other allusions. It is mostly an opportunity for the author to mock his contemporaries, to meticulously mimic their political, scientific, or other discourses. These pastiches are well perceived by the critics, as they offer a mosaic illustrating an extremely simple anecdote while also offering a commentary on Western civilization. It is important to remember that the narrative does not drive towards the catastrophe, the separation of the planet in two: This happens earlier, and offers a clue to the author's interest, which resides elsewhere than in this plot. He still maintains suspense, thanks to the possible crash of one of the two halves of the planet with the moon. Spitz refers to "these manners of 'reports', which are novels[8]". He makes use of a number of small genres to build a fiction greater than reality, to prepare the scene for the greatest of events, the foreseen end of humanity.

We could see in this a metaphor of the division of his body of work into two blocks themselves, caught in a mutual attraction and repulsion. From a less metaphorical point of view, we must see in it the expression of the pronounced nostalgia of those who had lived through World War I, a feeling of the end of a world, of a brutal passage from an ancient to a newer order, a feeling, you may say, relatively common in SF, for which it is a primordial theme. A feeling, which we find expressed in various writings at the time, newspapers, correspondences, and others.

What is all-too-readily apparent within the first ten or twenty pages of this singular novel is that it powerfully activates the generic question, galvanizes it, so to speak, jostling even our reading habits of today, and most certainly those of its readers in 1935.

If *Sever the Earth* seems to begin as a novel, it is quickly revealed as atypical or unleavened, according to the traditional norms of novels. It represents, in its own way, a refusal of the Romanesque, and yet it does not for all that cease to tell a story. Two or three traits, for example, are quickly apparent to the reader: The absence of a hero or main character, and even the absence of proper characters so to speak, as well as the absence of a sustained intrigue. *Sever the Earth* is truly a case at the very edge of the novelistic genre, certainly along with *Le Vent du monde* (1928) (editors' translation: *The Wind of the World*), the work where generic hybridization is the most explicitly perceptible.

It is thus a work, which is clearly literary, if by this we mean a text where the work on form is as important as the work on its content, perhaps

more. The work is also literary because it exposes itself, gives itself to be seen, ironically or otherwise, in a text that reveals in a manner of speaking its mechanisms, in the notes and other elements of a (false) editorial machine.

Spitz does not seem to me a novelist who has shifted to SF, but rather a writer who has never ceased to refuse and denigrate the novel, who then began to write novels and to explore a burgeoning genre, literally in the process of taking shape and drawing itself, institutionally and aesthetically speaking.

It must be mentioned that even though it was published in 1935, *Sever the Earth* had been written in 1930, early enough in what was to be Spitz' journey. Even though it was eventually published by Gallimard, it was previously rejected by at least eight other publishers, from December 1931 to June 1932. A significant time had thus gone by before Gallimard finally published it, in May of 1935, and I still do not know to what extent Spitz had meanwhile altered his initial manuscript. Is it surprising that such a manuscript had not sparked the interest of publishers? Most of the grounds for rejection, mentioned by publishers, have to do with the very core of what I am addressing: One is not sure whether it is truly a science fiction novel, or rather "the story of our actual times"[9] (Albin Michel, Dec. 18th 1931), whose very nature prevents it from reaching a large public (Fayard, Dec. 21st 1931), a public, which is quite surly towards anticipation novels, states a correspondent of les Éditions de France (June 1st 1932). I would like to quote the publisher Lemerre, who, in his letter of refusal of February 1932, sums up the essential criticisms towards Spitz:

> *There is, indeed, no lack of imagination in this "anticipation" type novel [...], but,* for the public*, this book has a great flaw, which forbids its success. It is a long story* without any central characters*, a scientific story rather than a Romanesque one, a relation of possible catastrophes, rather than a human novel in the setting and atmosphere of a catastrophe.* (Letter written on the 17th of February 1932. Editor's emphasis.)[10]

It is of course a perspective, which is entirely defensible, to which the novelist Pierre Mille unwittingly subscribes with an abundance of similar criticisms: "With two or three characters, you could have written on that subject a novel, which would have been, I believe, greatly successful [...]"[11] (Letter written on the 21st of June 1935). We can see the reticence.

Yet, two critics see this book in an entirely different light:

a) The extraordinary advantage of M. Jacques Spietz [sic] is that he places his cataclysm in our present times, in our state of material progress. [...] M. Jacques Spietz thus possesses a magnificent and rare quality in this kind of literature: human and psychological realism;[12] [13]

b) But the scientific novel is mostly a pretext for the study of mores and satirical psychology, not to mention the constant and amusing pawing where the claw barely scratches the surface. An almost universal satire of our society, of our customs, political and other, of the ridicules, passions and vices of humanity.[14] [15]

One can easily see the difficulties, which professional readers encounter in trying to grasp the core of this novel, but does this necessarily mean that *Sever the Earth* has a generic uniqueness? The letter of rejection from Denoël & Steele speaks of a "contract for a novel conceived in a virtually identical manner"[16] (Letter written on the 11th of January 1932). To what novel, are they referring? *The End of Paris* (1932), by Marcel Sauvage? I do not know. Perhaps it was only a fictional excuse from the editor.

Whatever the case may be, if the form of this novel is relatively new, the theme of the cataclysm is far from it, and Spitz obviously did not work from scratch. Rosny aîné had published *The Death of the Earth* (*La Mort de la terre*) in 1910, and Théo Varlet and Octave Joncquel, *The Martian Epic: The Titans of the Heavens. The Agony of the Earth* (*L'Épopée martienne: l'Agonie de la terre*), planetary novel, in 1922[17]. A novel of Maurice Leblanc, *The Tremendous Event* (*Le Formidable événement)*, proceeds approximately in the same fashion, with one notable difference. You will remember the lead-in:

The tremendous event of June 4th, whose consequences affected the relations of the two great Western nations even more profoundly than did the war, has called forth, during the last fifty years, a constant bloom of books, memoirs and scientific studies of truthful reports and fabulous narratives. Eye−witnesses have given their impressions; journalists have collected their articles into volumes; scientists have published the results of their researches; novelists have imagined unknown tragedies; and poets have lifted up their voices. There is no detail of that tragic day but has been brought to light; and this is true likewise of the days which went before and of those which came after and of all the reactions, moral or social, economic or political, by which it made itself felt, throughout the twentieth century, in the destinies of the world.

There was nothing lacking but Simon Dubosc's own story. And it was

> *strange that we should have known only by reports, usually fantastic, the part played by the man who, first by chance and then by his indomitable courage and later still by his clear−sighted enthusiasm, was thrust into the very heart of the adventure.*[18] (1924, 3)

This small difference, we now grasp, is that Spitz would have decided, first, not to name his narrator, and second, not to make him the hero, or even one of his anecdotal characters, but only a reporter.

3. Conclusion

The institution was maintaining balance, the realm of possibilities was being reconfigured, and we have reason to believe that Spitz was maintaining balance as well, that he had considered his "fantasy novels" as being outside of his usual repertoire – indeed, peripheral perhaps, but literary – and had written them as though they were literature in the strictest sense of the term, not unlike Voltaire laboring honestly on his *Candide* or his *Micromégas*. It is interesting to note that Spitz practically never mentions his "fantasy" novels in his diary, and when he does, it is mostly to emphasize how troublesome and constraining they are, to express his frustration towards them.

Writers of various allegiances and horizons − Alexandre Arnoux, Charles Derennes, Ernest Pérochon, and André Maurois, had occasionally produced, and continued to produce, anticipation novels, utopian or scientific, without these tarnishing their body of work: *Happiness Reigns Supreme* (*Le Règne du Bonheur*), *The Conquerors of Idols* (*Les Conquérants d'idoles*), *The Frenzied Man* (*L'Homme frénétique*), *The Weigher of Souls* (*Le Peseur d'âmes*). Roger Bozetto lists some 600 of them published between 1915 and 1945 "with a prosperous period between 1920 and 1933"[19]. The genre evolves, morphs, drawing its themes and processes from multiple sources. Is it surprising then that Spitz, polytechnician, engineer by training, attracted by the developments in physics[20], detractor of the bourgeois and mimetic novel, turned towards a rational conjecture literature, avid of "this mixing of the forms, which institutional literature loathes"[21] [22]? This mixing of genres and forms may only have seemed such, to novelists and critics, from the perspective of a conventional or commonplace Romanesque canvas, that of the psychological novel or of the continuation of the naturalistic novel. Spitz's case seems to fall into the category of what Jacques Dubois considers, as "intermediary or mixed zones",[23] half into the literary system, half outside of its jurisdiction, "which is all the better since, to a certain extent, the

same forms and behaviors are at stake"[24] [25]. Rather than being a rare case of famous authors having empowered literature's domain, here is an author who has partially and progressively slipped away from it, somewhat in spite of himself. His relation to the institution, and to his peers, did not change when Spitz began writing and publishing "fantasy" novels. What changed was the interest of others towards *him*. I am thinking here of the interviews, which were requested of him, and which he accepted, from 1938 onwards, by Sylvain Roche (see note 5), then by Gaston Derycke[26]. Interviews that focused solely on his SF, which is to say his "fantasy" novels, even if Derycke reminds us that Spitz was also another kind of novelist. The study of his conception of literature and its genres, in his diary, shows us that he journeyed through various aesthetic practices: He shifted from poetry to a form of subversive novel, then to the autobiographical novel, and finally to "fantastic". Suffice it to say, his diverse narrative practices work for him, but also work with each other. However, let us remember this as well*:* *Sever the Earth* was repatriated retrospectively under the generic label of "fantastic novels", and we have strong reason to believe that Spitz, circa 1930, did not yet see a constitutive difference between this novel and the ones he had previously written. *Sever the Earth* was first published without the generic subhead "fantastic novel". This subhead was added later, on a slightly different cover and in the course of a print run, which was in fact a reissue, in a manner of speaking. This is also a clue that either the sales were substantial, or that Gallimard or Spitz had realized its potential. Spitz had likely written a SF novel, which in his opinion, was well worth what he imagined to be real literature, a fiction in the lineage of Cyrano, Swift, and Voltaire. One glimpses here the heart of the matter. The shift progressively taking place is somewhat beyond his control; it is not fully acknowledged by Spitz as his own. Gallimard most likely had something to do with this annexing of his novels to "fantastic," and then to SF. All Spitz could do was to play the game honorably, or ridicule his own production, as he had done so with a certain kind of psychological novel.

His diary and a few of his letters are revealing: The order in which he wrote his novels is slightly different from that of their publication. If this rectification does not affect the strictly textual or semiotic identity of the novels in question, it still plays a role in their pragmatic and institutional double dimension – or let us say in their history – in the sense that it is far from unimportant to my discussion that this or that novel may have been conceived of and produced before another. Spitz had already published three titles with Gallimard during the period when he received – from

December 1931 to June 1932 – at least eight refusal letters for *Sever the Earth*.

Had he suggested it to Gallimard, who would have refused it? I have no trace of any exchange on this subject. Unless Spitz himself judged initially that such a story would not fit with Gallimard's catalog or with his image of the publishing house. Yet Gallimard still published it in 1935. Was this the version he had submitted to other publishers who had rejected it? There is reason to believe it, based on the comments written in the letters I consulted. There is still research to be done, but the hypothesis of a generic shift is nuanced, thanks to this detour through the writing history of his works. He uniquely allocates rhythm and production order, and invites caution in our judgments on the reasons that would have incited him to hover between different genres. The rupture seems less clear between literature and paraliterature, and we must consider, once again, that Spitz himself likely did not see any qualitative difference between *Sever the Earth* and *Les Dames de velours* (editors' translation: *The Velvet Ladies*). Generically distinct, they would nonetheless both clearly belong to the domain of restricted circulation literature.

Translated by Anton Iorga

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Notes

1 Patrick Guay, "Contre, tout contre le roman : Le Vent du monde de Jacques Spitz (1896-1963)", *Proceedings of the 4th biennal colloquium of the joint UQAC / UQAR / UQTR programs*, held at the UQAC on April, 24th and 25th, 2009, co-edited by Ms Cynthia Harvey and Anne Martine Parent, p. 69-81, 201.

2 Commentators generally know, but not always, and not all of them, that Spitz had written other titles before L'*Agonie du globe*, but none of them have bothered to specifically seek any, to the extent that any amateur might wonder, as sincerely as possible, based on the title (misleading, let us agree), if La croisière indécise belongs or not to Sci-Fi (source: Babelio, Nov. 2011.)
"Having heard: Jacques Spitz, precursor of French science fiction, "father" of Barjavel, I seek him, and begin with his first opus: La croisière indécise. And I struggle, I get tired... and I arrive at the end of an annoying cruise with this feeling of déjà vu.
Eureka: information noted, before his Sci-Fi period, this gentleman had gone through a first phase inspired by surrealism... Ouch! Not only did I get to the end of the novel (I rarely give up), but I have now confirmed that surrealism annoys the sh... out of me."
Or on Forums.bdfi.net (on the 18th of December 2005) :
"I never dared to read La Croisière indécise, or Le Voyage muet, but I am not at all certain that they are based on conjecture..."

3 Serge Lehman, "Père égaré", *Revue de la Bibliothèque nationale de France*, nº 28, 2008, p. 45-46.

4 Joseph Altairac, "De La Guerre des mondes à La Guerre des mouches : H. G. Wells et Jacques Spitz face au pessimisme cosmique", in *Joyeuses apocalypses*, Paris, Bragelonne, 2009, p. 417-430.

5 "de notre globe en deux moitiés dont l'une porte l'Ancien, l'autre le Nouveau Monde" (*L'Agonie du Globe*, 54)

6 "simple exposé des événements" (*L'Agonie du Globe*, 7)
7 "trésor de documents" (*L'Agonie du Globe*, 9)
8 Sylvain Roche, "Avec le père de l'homme élastique", 1938 interview (unknown source, gift from Bernard Eschassériaux to the author of the article).
9 "l'histoire de nos temps actuels"
10 *Il y a, certes, beaucoup d'imagination dans ce roman du type "anticipation" […] mais, pour le public, le livre a un grand défaut, qui interdit d'espérer un succès. C'est un long récit sans personnages centraux, un récit scientifique et non romanesque, une relation de catastrophes possibles, mais non un roman humain dans le cadre et l'atmosphère d'une catastrophe.* (Letter written on the 17th February 1932.)
11 "Avec deux ou trois personnages, vous auriez pu écrire là-dessus un roman qui aurait connu, je crois, un immense succès […]"
12 Antoine Forestier, "L'Agonie du globe", *Radio Magazine*, 21st of July 1935.
13 *a) L'extraordinaire avantage de M. Jacques Spietz [sic], c'est qu'il place son cataclysme de nos jours, dans l'état de notre progrès matériel. […] M. Jacques Spietz possède ainsi un élément magnifique et rare dans cette sorte de littérature : la vraisemblance humaine et psychologique.*
14 Ch. Bourdon, "L'Agonie du globe", *La Revue des lectures*, 15th of October 1935, p. 1190.
15 *b) Mais le roman scientifique est surtout prétexte à étude de mœurs et à psychologie satirique, sans compter les nombreux et amusants coups de patte où la griffe est à peine rentrée. Satire à peu près universelle de notre société, de nos mœurs, politiques ou autres, des ridicules, des passions et des vices de l'humanité.*
16 "contrat pour un roman conçu d'une manière à peu près identique"
17 La mort de la terre, as a serial in Les Annales politiques et littéraires de mai-juillet 1910, then as a book published at Plon, 1912. L'épopée martienne, Amiens, Malfère, 1922, p. 193 Coll. "Bibliothèque du hérisson". Both these stories are, formally speaking, quite conventional.
18 *Le formidable événement du 4 juin, dont les conséquences agirent de façon plus profonde encore que la guerre sur les rapports des deux grandes nations occidentales, a suscité depuis cinquante ans une floraison de livres, de mémoires, d'études, de relations véridiques et de récits fabuleux. Les témoins ont raconté leurs impressions. Les journaux ont recueilli leurs articles. Les hommes de science ont publié leurs travaux. Les romanciers ont imaginé des drames inconnus. Les poètes ont chanté. Et de cette journée tragique il ne reste plus rien dans l'ombre, ni de celles qui la préparèrent, ni de celles qui la suivirent, et rien non plus de toutes les réactions morales ou sociales, économiques ou politiques, par quoi, au long du XXe siècle, elle a retenti sur les destinées de l'univers.*

Seule manquait la parole de Simon Dubosc. Et c'était chose étrange de ne connaître que par des reportages, le plus souvent fantaisistes, le rôle de celui que le hasard d'abord, puis son courage indomptable, et, plus tard, son enthousiasme clairvoyant, avaient jeté au cœur même de l'aventure.

19 Roger Bozzetto, “La science-fiction comme genre et produit : originalité de la S.-F.”, on the website *Quarante-Deux* (in January 2013).

20 See his articles on “La théorie quantique et le problème de la connaissance” and ”Les quanta et l’individu”. Bernard Eschassériaux, his close friend and beneficiary, told me during one of our interviews that one of Spitz’s rare professional regrets was not to have been a physician.

21 Marc Angenot, “La science-fiction : genre et statut institutionnel”, *Revue de l’institut de sociologie*, 1980, nº 3-4, p. 651-660.

22 “ce mélange des formes dont la littérature instituée a horreur”

23 “des zones intermédiaires ou mixtes”

24 Jacques Dubois, *L’Institution de la littérature*, Bruxelles, Nathan/Labor, 1983, p. 137. (Coll. “Dossiers Media”) The journeys of René Thévenin, Maurice Renard and Pierre Véry seem to be very comparable cases.

25 “d’autant mieux que, jusqu’à un certain point, les mêmes formes et les mêmes comportements sont en jeu”

26 Gaston Derycke, “Jacques Spitz ou les caprices de la renommée”, *Cassandre*, 11th of February 1939. Derycke will later hide behind the pseudonym of Claude Elsen, critic, essayist and novelist.

Chapter Eight

Writing Science Fiction in French

Élisabeth Vonarburg

Writer

I was lucky enough to discover SF after "the Golden Age", which is supposed to be seven years old for SF readers – and I mean *male* readers, a gender distinction problem that I only have in French. I was about fifteen years old, in the mid-sixties (1964, to be precise). My literary tastes were well established by then: Mythology, legends and fairy tales, "classic" fantastic literature, such as Poe, Hugo, Baudelaire, Camus, Dostoevsky (in French), bits and pieces of Shakespeare, and the English Romantic poets (in the original). I had also been writing fiction of a sort, (but not SF) for two years, which has an impact on reading: Writers – even would-be writers – never read exactly like ordinary readers. My luck also includes the fact that I found SF before *Star Wars*, and that I was not brought up with a television in the house (in fact, I did not have one before I was 22, and married; that is emancipation for you!). Furthermore, I had not had the regular American SF TV shows inflicted on me before the end of the seventies – so I was safe. Last, but not least, I had a (male) friend who encouraged me to read *Dawn of the Magicians* (*Le Matin des Magiciens*) by Louis Pauwels and Jacques Bergier. That book described SF as "the only modern literature" and called into question many of the traditional versions of history, sciences, and the universe. At the time, my whole environment was telling me: "That's the way it is, that's the way it has always been, that's the way it will always be". However, the book was telling me: "Well, no: The universe is way more vast, more mysterious, and more wonderful than anything you have been taught up until now". It was the beginning of the sixties, times they were 'a-changin'. There were book titles in the book, summaries and samples of SF stories, and authors' names! I immediately began ransacking every bookstore I could find.

Another stroke of luck, necessary for continuing this story, is that I also discovered SF through disparate copies of a French SF magazine called *Fiction*, which I had found for sale in a market on my way to school. (I was sixteen, and going through what was my last year of high school, called "the Philosophy Year", roughly equivalent to the first year of university). The magazine published translations of the American magazine *Fantasy & Science Fiction* and it had a rather ecumenical approach to genres, offering SF, fantasy, and "fantastique" on an equal footing. I took them all in my stride, considering them as cousins, not antithetical, and felt no need to arrange them hierarchically.

So I began with a massive dose of SF, mostly through short stories, rather than the "pulp" novels of the then abundant Anticipation SF collection (Fleuve Noir), although it was decidedly more French, publishing only originals by French writers (and, almost the only exception, Perry Rhodan in translation!). In *Fiction,* I found in one place a smorgasbord of themes and styles from very different authors, not only English and American ones, but Italian, Russian, Polish.... It was the case also with *Galaxie*, which, as its title indicates, translated stories from the American *Galaxy*. What was thus opening for me was not one door but many doors, allowing me into the many different rooms in the multidimensional house that is SF.

The really decisive factor, I think, is that *Fiction* published French authors on an equal footing with the Anglophone authors of the forties, fifties, and sixties, and they were just as good! They were stories by Francis Carsac (*Those of Nowhere*, in French: *Ceux de nulle part*), Barjavel (*Ashes, Ashes,* in French: *Ravages*), Nathalie Henneberg (*The Plague,* in French: *La Plaie*), Gérard Klein (*The Day before Tomorrow*, *The Pearls of Time*, in French: *Le Temps n'a pas d'odeur, Les Perles du temps),* the short stories of Christine Renard, Pierre Versins, Philippe Curval, Michel Demuth (*Les Galaxiales*), the biting humor of Jacques Sternberg or the stories of Pierre Boulle (not so much *Planet of the Apes*, more *E=MC2* – which I found and read in English!). All of them sophisticated writers, aware that "speculative fiction" had a Francophone tradition as well as an Anglophone one – not to mention an international one.

Since I read them at the same time as I read the translated authors, I did not perceive a *difference* as much as I did a fascinating – and seamless – spectrum of voices, styles and themes. In short, I never thought nor felt at

the time that SF written in French was in any way inferior to that written in English. In fact, the writing seemed much better – the quality of translation being rather poor back then, as is too often still the case now. I had to read Sturgeon, Cordwainer Smith, Brian Aldiss and Ursula Le Guin (among others) in the original to find out they were not merely good story tellers full of ideas, but also true writers, stylists, and even poets sometimes.

I thus encountered Anglophone SF in my own tongue first, through translations – the way most non English-speaking readers encounter it. Unlike today, when 95% of the Francophone market is swamped by translations, there was much less English SF in translation at the time. It only began being massively available at the beginning of the seventies: A thousand new SF collections exploded onto the market -- or at least it seemed so; I would say at least twenty new SF collections, which is a great deal for such a small market.

The great classic novels were translated first, for the most part. Then the British New Wave SF hit, stylistically and thematically rampaging through the French SF of the seventies, and causing an estrangement of the readership, which resulted in the "grande noirceur" ("great darkness") and crash of the eighties. However, at that time, my SF tastes were quite well entrenched: Sturgeon, Simack, Cordwainer Smith, Dick, Ballard, Aldiss, Delany, Vance, Lafferty, Zelazny, Herbert, Sheckley, Brunner, Heinlein, Clarke... and Judith Merril's anthologies, when I could get my hands on them. I had begun reading the original texts, French translations were no longer enough for my SF fix! (Of course, when I came to Canada, I went anglo-berserk and my SF collection began madly proliferating practically on its own!)

Then, at the end of the sixties, for me as for many other female writers of my generation, at last there was Le Guin. I read *The Left Hand of Darkness* in 1969, I think. (In French first, and French is a multigendered beast, which inflicted many interesting and appalling transformations on that story!) That was when I decided to keep on writing – and reading – SF. I had been feeling rather less enthusiastic towards the genre, and felt, nebulously, that it did not explore all the themes that interested me, or, when it did, it was in a manner I found increasingly too narrow.

In *Fiction* (Joanna Russ...) or in Merril's anthologies, I found and read stories written by women, and, although I did not quite understand why,

they spoke much more to me than... ordinary SF, written by men, that is. Thanks to Le Guin's novel, those inchoate, nebulous feelings gave birth to my little "sun": I wanted to be – and it was not only possible but *allowed* – a science fiction writer. After that epiphany, I only had to discover James Tiptree Jr., (which I did in French first, then in English, during the seventies), and discover that "a woman was James Tiptree Jr." (as Le Guin so aptly said). An enduring shock that oriented not only my writing and my literary cogitations, but also my personal life as a human being of the female variety.

However, I was not reading those female or male writers as *American* (or *British*) *Anglophone* writers. I was reading them as "science fiction writers". I had to come and live in Quebec, closer to the States (in 1973) to begin perceiving little by little how much American SF (and I mean *American*, here) can sometimes be... well, *American*. As a child of the sixties and of globalism, a closet utopian, I had wanted for a long time to see SF as a "transnational" literature. Even now, I still believe that, like the scientific imagination that keeps playing an important role in it, SF transcends cultural barriers, as science does – and not merely because SF is nowadays first and foremost an American product, while the Americanization of the planet continues apace.

Nevertheless, I could say that in France, then in Quebec in the early seventies, I read Anglophone SF only through a cultural misunderstanding. However, I still am extremely wary of the questions of "cultural specificity". Who is to judge? From which hypothetically privileged point of view? For instance, what is the "cultural specificity" of a French woman born in France to a half-Cambodian mother, who emigrated to Canada as a young adult and lives in Quebec – very far from cosmopolitan Montreal to boot?

If, as a writer, I ask myself about the influence of Anglophone SF on my own SF, I first and foremost see that, like all non-native English-speaking authors, I am writing both with *and* against it. Of course, each generation writes both with and against what came before, and also with and against its present, but non-Anglophone SF writers have a more ambivalent, more ambiguous, more disquieting position. The stakes – our sense of identity – are higher. We write with and against a whole corpus of works written in English, as our own French SF tradition grows more and more distant as time passes without it being sufficiently revitalized by new generations of writers. However, we also write with and against a whole

underlying *culture* – history, landscapes, ideologies and fantasies – that is not our own.

I have already described through another venue the dilemma of the writer who finds herself translated in English and who is welcomed with a certain amount of goodwill by the Anglophone SF institutions. Is it because she writes "like an American", as some of her compatriots are quick to say, that she is a renegade from her own culture, worse, a traitor – traitress? Does she benefit from a momentary infatuation, quite circumstantial, for a certain kind of exoticism – and in that case, what exactly is her "specific exoticism"? Is it her "Frenchness", and what would that Frenchness consist of for North American readers? Or is she – a possibility that is easier on the ego and therefore more suspect – simply "a good writer"?

What does that word mean? "Good" for whom, how, compared to what? I, for one, have become extremely cautious in the use of that adjective, which is so recklessly thrown about by so many, as in "There is no feminine or masculine writing, there is only *good* writing"*;* or "There is no male or female SF, there is only *good* SF". It is always the same question in the end: "Who is using the word – 'good'"? So, if I ask myself about how my stories are received by Anglophone readers, I have to conclude, in all honesty, that they are read through the same cultural misunderstanding as when I first read Anglophone SF – and why not? It did not keep me from loving those stories!

I find it very hard to assess how Anglophone SF has influenced the *writing*, and not the themes, of my stories. My initial love of the genre, and my dedication to writing stories in that literary framework, came from a whole series of texts, English, French ... and texts from other cultures, although translated (German, Italian, Romanian, Russian, and Polish – Stanisław Lem!). Certainly female American writers confirmed my desire to write SF (Moore, Merril, Russ, Le Guin, Tiptree...) but other women, French writers, had also inspired and encouraged me (Christine Renard, for instance, who, alas, died in the seventies).

The "ideas", the images of SF... are adjusted according to place and time, but they are fantasies that belong to the collective human imagination – be it dreams of immortality, flight, or the run-amok excesses about the objects of power afforded by technology. Specifically on *writing*... I do not believe I have been influenced by any SF writer, male or

female. I have never tried to imitate any, at any rate. Even now, I am instead trying to rid myself of my first loves, the grand phrases à la *Hug*o, for instance, his verbal inflation! As for narration, the way a story is structured, I love fragmented future histories such as Cordwainer Smith's *Instrumentality*, as well as rigorous world-building stories like *Dune*... Nevertheless, I had read the Greek myths, Proust and Joyce before Smith and Herbert, and it is from them that I learned to build a story. I love slippery realities like those of Philip K. Dick (*Ubik* or *The Man in the High Castle*), but I read Nerval and the French "fantastiqueurs" long before encountering Phil...

Readers and critics play the game of thematic similarities – it is expected, it is the rule, but I think anyone reading my work (Francophones in French, Anglophones in translation, even though I always work in close collaboration with my translators) would have a hard time claiming to detect a stylistic influence of this or that Anglophone SF writer in my writing. Besides, and notwithstanding what I said earlier about "specificity," the "style" – the writing, the way a text dances, breathes and sounds, is different in each language, in each culture. I do believe deeply in the uniqueness of each writer's voice in her or his native tongue (a very French proclamation, I think, since being able to write in somebody else's style is not a worthy literary pursuit in my culture, from the 18th century on, whereas it is seen as a sign of talent in the Anglophone milieu...). What happens to that unique voice in translation is of course another "paire de manches", we say, another kettle or fish – or another can of worms, you say.

The poet Milosz says that a writer's true country *is* her or his tongue. Sometimes it is also the language of her or his choice (some have found their voice when they gave up their native tongue). As for me, I would say that, since the choice of a genre is also the choice of a language for writers – the kind of stories they are able to tell, the way they are able to tell them – I write in science fictionese, and I will keep on doing it one way or another. Because, you see, *that is the way the world may be* – we should check! – and *that is the way it might have always been* – that is far from certain! – *but it is definitely not the way it always will be*. That is what I wish for us all.

Part III:

French Science Fiction in Cinema and Graphic Novels

Introduction

French Science Fiction Cinema and Graphic Novels

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and Sylvain Rheault
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It is interesting to note that film and comics, two relatively new mass media, both emerged at the end of the 19th century and owe their existence to technical innovations. Flexible celluloid allowed the capture of motion while offset printing was key in making inexpensive reproductions of images.

Historically, the relationship between science fiction (SF) literature and visual narrative media, such as film and the graphic novel, has often been territorial and unfriendly – a surprising fact if one considers the extent to which the SF genre as a whole has been assigned a marginal position by the arbiters of good taste, as juvenile or otherwise commercial literature. One might expect that embattled cousins would support each other in arguing and demonstrating the aesthetic and intellectual merits of their common interest in stories about extrapolative and speculative science and technology, about how such stories speak to modernity and the human condition. Unfortunately, SF's growing popularity after World War II, especially in the wake of Hiroshima, led a number of critics to complain that SF films and comic books were the genre's least sophisticated manifestations, and were further dragging down the reputation of its founding literary wing, in the eyes of the cultural establishment and perhaps the public at large as well. In hindsight, it is fair to say that these fears were not entirely justified, as the boom in SF film production in the fifties (expressing fears about nuclear technology), sixties (interest in the Apollo space program and computers) and late seventies onwards

(following the phenomenal success of *Star Wars*), did in fact lead to a fairly standard ratio of formulaic, to more ambitious, narratives that characterize all literary and para-literary genres.

In France, the reputation of SF film and literature appears to express itself in a polarized fashion, revealing opposite camps that either denigrates the genre as silly and low-brow, or as poetically symptomatic of contemporary society, even when it addresses a wide audience. The dominant trend among French apologists of SF film has been to value its more fantastic, imaginative, and speculative stories, out of a broad interest in the exotic, the surreal, and the purely conceptual. Filmmakers have also reflected this interest, thus distinguishing most French SF films from their relatively more mundane or realistic Anglo-Saxon counterparts.

Films of the Machine Age

In 1924, René Clair directed *The Crazy Ray* (*Paris qui dort*), about a scientist who invents a device that can freeze time. Clair's best-known film may be *Freedom for Us* (*A Nous la Liberté*, 1931), which likely inspired Charlie Chaplin's *Modern Times* (1936). Both are humanist critiques of the machine age, expressing the idea that modern technology had created a technocratic mindset that provided power for the elite, over factory workers on the assembly-line.

In his study *A Distant Technology*, film scholar J.P. Telotte argues that a machine that freezes time is partly a reflexive idea. It refers to the movie camera as a machine that does the opposite, to create movement from still images. Related to this is an ontological argument about the intimate connection between film and SF. If SF is the genre that expresses the realities of modernity, the effects of science and technology on society, is it not appropriate to use an invention of the industrial age, the cinematograph, to articulate those conditions?

The Crazy Ray's stance regarding technology remains positive, for example, in the way the Eiffel tower is represented – a proud emblem to French engineering expertise, one that paradoxically appears to serve no other purpose than just stand there, like a glorified radio antenna. However, it also appears to possess a poetic function, providing hope for a scientific age in which technology, unavoidable as it is, with inherent challenges, can still offer solutions to its own problems.

Similarly, the film's comedic tone, which we find in much French SF, allows the filmmaker to offer a critique of the potentially dehumanizing effects of technology, but in a way, that does not condemn science outright. On the one hand, the crazy scientist wishes to dominate nature, and perhaps other scientists as well. On the other hand, technology, including the crazy ray, may not be all that bad, because it provides opportunities for betterment, and it is up to us to use it properly. Moreover, to the extent that the ray is a metaphor for cinema itself, it must have redeeming qualities.

Among the cultural fears evoked by *The Crazy Ray*, according to Telotte, is that of humanity becoming obsolete in a technological world, such as being replaced by robots. The other fear concerns our self-perception as social animals, and how technology may remove or replace human interactions, via mediated forms of communication that could make life seem meaningless. Characters in *The Crazy Ray* become bored and lonely, after a brief, initial euphoric sense of freedom.

Another famous French filmmaker, Jean Renoir, made a short SF parable in 1927, titled *Charleston*, in which Africa replaces Europe as the site of political and scientific power. An African anthropologist studies an exotic French dancer, as if she were an alien being, a comment perhaps on colonialism as a will to conquer and dominate the Other, and keep him/her different and subservient.

A popular topic in the thirties was the end of the world or disaster theme, perhaps emerging out of a fear of impending war in Europe. Director Abel Gance, better known for his 1927 widescreen film *Napoléon*, adapted a novel by French author Camille Flammarion in 1930 cheerfully entitled *The End of the World* (*La Fin du monde*). The story concerns a comet on a collision course with Earth that devastates the planet but narrowly misses actually colliding with Earth. Society breaks down, and the film features images of fear and abandon upon learning that the world is about to end. It also tapped into concerns about the stability of the world economy, in the wake of the stock market crash of 1927, combined with the impression made in 1910 by Halley's Comet.

One more film of note is *The World Will Shake* (*Le Monde tremblera*), shot in 1939 just prior to World War II, but only released after the war. It is about a scientist who creates a machine that can predict when a person will die. This leads to rioting when the scientist's patron starts to exploit the

machine commercially. It starred filmmaker Erich Von Stroheim and was co-written by Henri-George Clouzot, better known for directing horror/thriller films in the mid-fifties, such as *Diabolique* and *The Wages of Fear*.

J.P. Telotte argues that while most SF films from the Machine Age, i.e. pre-WWII, are fundamentally ambivalent, neither embracing nor rejecting science and technology, French SF seems to be more aware of the complexities of the issues involved. It may seem paradoxical that such awareness should manifest itself in films that favor a relatively light-hearted treatment, through either humor or fantasy, but this should not be mistaken for a lack of content.

For instance, *Knight of the Night* (*Le Chevalier de la nuit*), released in 1953, is a Jekyll and Hyde story set in 1884, in which a mad scientist claims to provide an operation that can separate good from evil, except that the character who agrees to this is taken over by his evil side . A more recent French SF film, titled *The Machine* (*La Machine*), produced in 1994, and starring Gérard Depardieu, reprises this theme. The 1958 comedy *A Dog, a Mouse, and a Sputnik* (*A pied, à cheval et en Spoutnik*), is a response to the Soviet Union launching the first artificial satellite. The story involves a Frenchman who does not want the Soviets to send animals into space, but he ends up, by accident, going around the Moon and back, in a rocket with a Russian astronaut.

An extended intertextual reference to an American film is *A Martian in Paris* (*Un Martien à Paris*, 1961), inspired by the Jerry Lewis farce *Visit to a Small Planet* (1960). Jerry Lewis plays a childish alien who wants to visit Earth to study earthlings, whereas the French film concerns a Martian who is sent on a mission to Earth to find out about a disease that is called Love. Of course, he ends up being infected and falls for an attractive earthling. The difference between the two versions appears to highlight a Gallic inclination for matters of the heart and the loins. One gets a sense of the French preference for humour, fantasy and sex, over action and melodrama, but one that remains fueled by ideas about alternative moral norms and identities, among other themes.

Philippe Mather's opening essay attempts to survey the history of French SF film production and identify its unique features. His filmography reveals that a majority of French SF films (80%) have been produced since 1960, suggesting that the popularity of this genre is now fairly well

established. The essay's main argument concerns the filmography's split personality, given the copresence of realistic near-future stories and noticeably more speculative tales that lean towards fantasy. Taking a cue from SF scholar George Slusser, Mather locates the philosophical origin of this duality in an apparent French tendency to favor rationalism over empiricism, and thus to construct fictional thought experiments as opposite terms in a logical argument. Mather adds that the polarizing effect of this rationalist approach might seem, at first glance, to be undermined by a simultaneous French *engouement* for surrealism, exoticism, and sexuality, except that this apparent interest in the irrationality of emotions retains an intellectual dimension. The second contributing influence on this dual tradition in French SF film, according to Mather, is a sharp awareness among both viewers and filmmakers, of the variable position of SF within cultural hierarchies, thereby motivating genre enthusiasts to adopt strong and contrasting views regarding the genre's nature. The essentialist undercurrent within French SF film is further nurtured by a manifest need to position oneself with respect to the dominant brand of SF film emerging from Hollywood, as a means to promote French SF cinema's distinct identity and unique qualities.

Mazin Saffou's article on the film *Barbarella* begins by suggesting that Roger Vadim's adaptation of the Jean-Claude Forrest graphic novel exemplifies French SF's approach to sexuality. Whereas Anglo-Saxon SF exhibits either puritanical tendencies or at least a reluctance to dwell on the emotional dimension of sexual desire, due to an ideological focus on materialism and scientism, French SF offers sublimated sexuality through the expression of subjective states. This is in keeping with the legacy of Cartesian philosophy on French thought as analyzed by George Slusser, whereby idealism and rationalism allow for more solipsistic views of the self, including sexuality. Saffou's main argument is that the character of Barbarella herself reveals conflicting ideologies, alternating between the feminist ideal of sexual liberation and a Playboy-style commodification of the female sex-kitten. Saffou also presents *Barbarella* as a metaphor for the postmodern condition, whereby a release from sensory overload that characterizes postmodern consumer-culture, is often expressed in sexual terms. The famous scene in which Barbarella outlasts the Orgasmatron can be read as an attempt to reclaim the reified female body, defeating postmodern solipsism and male consumerism. Saffou concludes that *Barbarella* has more to offer than high camp cheesecake erotica, and that its French origin, combining elements of surrealism and Cartesian skepticism, may account for some of its critical potential.

In the case of Christian Volckman's animated film *Renaissance: Paris 2054*, Kirsten Bligh argues that the combination of film noir and SF provides the futuristic dystopia with a particular ethical framework that modifies both genres in the process. She begins by pointing out analogous strategies in these two popular postwar genres, including the tension between realism and estrangement, expressed as feelings of alienation and dread in film noir, which also affects protagonists in dystopic narratives. More could be said about the history of this generic combination, particularly in films featuring detectives struggling to survive in run-down metropolises, such as *Soylent Green* (1973) and *Blade Runner* (1982). In France, an intriguing antecedent is Jean-Luc Godard's *Alphaville* (1965), a more experimental splicing of a detective narrative and an Orwellian society. Bligh analyzes the ways in which the noir tropes in Volckman's film are given a science fictional inflection, particularly how the German scientist, Dr. Muller, expresses serious ethical misgivings about his research on immortality. Far from being merely a detective tale in a futuristic setting, it is further argued that Dr. Muller's research constitutes the film's fictional innovation (novum) in a way that remains consistent with mainstream SF, particularly if one thinks of other mad scientist stories from Frankenstein onwards. Bligh concludes that the moral dilemma concerning the role of science in a technocratic state is resolved thanks to the value-laden world of film noir, but in a way, which adds a broader political dimension to the usual concerns of noir. Instead of a vision of a corrupt society embodied by shady characters, the SF setting presents a technocratic world in which the criminal underworld almost seems honorable in contrast with the industrial elite.

Graphic Novels as Laboratories for Science Fiction Universes

Stories in image can be dated back to ancient Egypt murals or even cave painting. However, mass printed narrative images in France existed as early as 1796 in the form of the Image d'Épinal, a kind of single page poster. In 1827, the Swiss Rodolphe Töpffer created stories with images for his students in book format. Although his books were not widely distributed, he is now recognized, by both Americans and Europeans, as the inventor of the medium of comics. In 1897, *The Yellow Kid* was the first comic strip published in a newspaper, in New York, marking the real beginning of comics as a mass medium. Later, such "funny" strips were collected in cheap paperback books known as "comic books." Across the Atlantic, however, comics that were first published in newspaper

supplements or magazines were reprinted as books. Starting in 1942, the publisher Casterman produced delicately colored comics in nice hardcover books. It was obviously designed to be a collectible item, a distinctive feature of early French graphic novels. From the beginning, in terms of quality of production, the bar was set higher in France.

Before the Second World War, many French publications found it cheaper to simply translate American series than to hire a local artist, such as *Buck Rogers* by Dick Calkins and Phil Nowland as well as *Flash Gordon* (known as *Guy l'Éclair*) by Alex Raymond. These popular series were interrupted during the German Occupation and after the war, newly created series like *The Pioneers of Hope* (*Les Pionniers de l'Espérance*, 1945), by Roger Lécureux and Raymond Poïvet as well as *Blake et Mortimer* (1946) by Edgar P. Jacobs (1946) would show a strong American influence. Gradually, new series began emerging that sought to distinguish themselves from their American models. Generally, while a science fiction (SF) theme might appear within an established non-SF series, it would not form the background or the universe of the series in question. Thus, SF would occasionally serve as a pretext for a story like *Z is for* Zorglub (*Z pour Zorglub*, 1959) for the famous character Spirou, then authored by Franquin, or the two-part adventure *Destination Moon* (*Objectif Lune*, 1953) and *Explorers on the Moon* (*On a marché sur la Lune*, 1954) by Hergé, featuring Tintin. Another series from the fifties, notable for its longevity, is *Bob Morane* by Henri Vernes, first published as a string of novels in 1953, but quickly adapted to comics from 1959 onwards and drawn by many artists, including William Vance.

The creation of *Barbarella* in 1962 by Jean-Claude Forest was nothing less than a revolution in the French SF landscape. It clearly targeted an adult audience, and it did set up the tone for a typically French type of "non-realistic" SF, as Philippe Mather describes in his article on typology. The sixties and seventies then saw the launch of several fully-fledged SF series, many of which remain popular to this day (2014). The focus was on the characters and their universe. First, there is *Lost in Time* (*Les Naufragés du temps, 1964*) by Paul Gillon and Jean-Claude Forest, then *Lone Sloane* (1966) by Philippe Druillet, an artist famous for his highly detailed and baroque style. Another notable series from the same period is *Valérian et Laureline* (1967) by Pierre Christin and Jean-Claude Mézières, which, as suggested by many Internet sources easy to find, could have been used as a visual inspiration for the *Star Wars* universe. In all these series, the quality and precision of the drawings as well as the creativity

invested in the universe constitute distinctive characteristics of French SF graphic novels.

1975 saw the foundation of the magazine *Métal Hurlant*. Although it disappeared in 1987 (the magazine briefly reappeared from 2002 to 2004, and again in 2006), its English-language spin off, *Heavy Metal*, is still publishing. *Métal Hurlant* highlighted the work of its creators, presenting it as an art form. The fictional characters and the stories almost played second fiddle to the new status conferred upon the graphic artists. Famous French SF artists, who published with the magazine, including Moebius, Philippe Druillet, Enki Bilal, Alejandro Jodorowsky and Philippe Caza, became international super-stars. Moebius, for example, was solicited to work on the visual design of movies like *Alien* (1979) and *Tron* (1982). *Métal Hurlant* definitely constitutes a landmark in French SF. The magazine not only helped to promote French artists, but also introduced influential artists from other cultures to the French public. Most of all, *Métal Hurlant* gave French SF "bandes dessinées" (BD) its "lettres de noblesse".

Many new series and single albums have been created since 1975. Among the most popular, one can mention *The Obscure Cities* (*Les Cités obscures*, 1983) by Benoît Peeters and François Schuiten, *The Cyann Saga* (*Le Cycle de Cyann*, 1993) by Claude Lacroix and François Bourgeon, and *Lanfeust of Troy / of the Stars* (*Lanfeust de Troy / des étoiles*, 1994) by Christophe Arleston and Didier Tarquin. A common feature of all these series is the highly detailed quality of the universes they depict. This may in fact be a defining characteristic of French SF BD. When compared to Japanese manga and North American comics, French BD offers much detailed scenery and background. The fictional world is treated with the same importance as the characters. Characters, such as Valérian, do not dominate their environment, they have to deal with it, struggle through mud and icy water. Furthermore, many Franco-Belgian artists studied in traditional fine arts schools, and were trained in the norms of classical aestheticism. Precision in drawing bodies and perspective is common to many of these schools, and backgrounds are given much importance, as would be expected in a painting from a European artist. Furthermore, recent productions seem to carry on the tradition flawlessly.

Alexandra Rolland's article focuses on the French SF magazine *Métal Hurlant*. After a brief presentation of the pioneers of SF BD, and the circumstances surrounding the creation of the publishing company *Les*

Humanoïdes associés by leading French SF artists, Rolland describes the evolution of the magazine, in terms of both content and changes of editors. The second half of the article presents the heritage of *Métal Hurlant* in great detail, explaining how it has influenced generations of comics artists and how it explored new aspects of SF. However, most importantly, *Métal Hurlant* created a convergence of minds that led to an increase of French SF stories both in quality and in quantity. Without a doubt, the foundation of the magazine was a defining moment in the history of French SF.

Sylvain Rheault's article focuses on the presence or the absence of a specific theme within French comics: The robot, a common actant in SF, appears to be treated mostly as a public enemy rather than a friendly companion. Rheault offers a comparative analysis of French and Japanese robots in a post World War Two context. Representations of robots are initially compared in terms of their size, deformation, and sources of inspiration. It is revealed that a greater diversity exists in Japan than in France. Explanations for differences are provided by comparing cultural aspects of France and Japan, such as recent history and religion. It appears that cultural attitudes towards history as well as different conceptions of spirituality have contributed to the representation of robots as companions in Japan, and evil-doers in France.

CHAPTER NINE

A BRIEF TYPOLOGY OF FRENCH SCIENCE FICTION FILM

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While the French film industry has produced far fewer films that might be labeled "science fiction" than Hollywood, it remains possible to compile a list of approximately 150 titles (cf. Filmography, below) that exemplify a genre that I would describe as a hybrid, combining elements of realism and fantasy[1]. Efforts to characterize such a list reveal a tendency for the films to favor either one of two expressions: Earth-bound, realistic, near-future fiction or, more commonly, speculative science-fantasy and surrealistic stories[2]. If one accepts the premise that one can roughly situate films along this spectrum, then we could mention a few titles as examples of realist science fiction (SF), such as *The Man with the Transplanted Brain* (1971, Jacques Doniol-Valcroze), *Shock Treatment* (1973, Alain Jessua), *Malevil* (1981, Christian de Chalonge), *The Machine* (1994, François Dupeyron) and *Chrysalis* (2007, Julien Leclerq). Examples of science-fantasy might include *A Trip to the Moon* (1902, Georges Méliès), *The Crazy Ray* (1925, René Clair), *Barbarella* (1968, Roger Vadim), *Fantastic Planet* (1973, René Laloux) and *Gandahar* (1988, René Laloux). This centrifugal, or polarizing, tendency in French SF film is also asymmetrical, privileging the fantasy end of the spectrum, and leaving something of a gap between the two extremes. It may not be insignificant that the most prominent sub-genre in American science fiction film, the space opera, is one that we could situate precisely in the aforementioned gap. The space opera is thus noticeably absent from the French filmography, and I would argue that the apparent preference for fantasy in French SF is due to a network of factors rooted in French cultural history that include questions of literary tradition and legitimacy, as well as economic determinations partly linked to an ambivalent relationship with the dominant American brand of SF film.

France's complex love-hate relationship with American culture, including SF, may be prefigured by the literary establishment's rejection of Jules Verne as a possible father figure for the genre. This establishment was not only well versed in the politics of competing aesthetic norms, but also keen to undermine the legitimacy of mass-market popular literature.[3] First, the French critique of Verne's scientism can be linked to the romantic backlash against realism and naturalism in the late 19th century, as well as the emergence of the surrealist movement after the First World War. Secondly, Verne's success in selling his outer-space, underwater and aerial adventure tales, was also compromised in the eyes of the literati by the fact that: 1) it addressed a young audience, 2) included illustrations, and 3) expressed a naive, if not altogether anachronistic, technophilia. This sentiment even informs French pop culture, including the first ever SF film, produced in 1902 by Georges Méliès.[4] *A Trip to the Moon*, which clearly parodies Verne's novels, with images playfully referencing medieval sorcery and alchemy that spoof the contemporary faith in science and the ideology of progress (cf. Figure 9-1).

In fairness, it helps to bear in mind that SF as a genre, focused as it is on the effects of science and technology on contemporary life, has always adopted both positive and critical discourses about modernity, sometimes combining the two and arriving at what has been called an aesthetics of ambivalence, expressing our culture's hopes *and* fears for the future. The difference between French and American versions of that cultural expression resides in a generally more straightforward acceptance of realist assumptions about the world in American SF.[5] As for French SF, it has been argued that its relative resistance to the dictates of naturalism, as a precondition for diegetic believability, can be attributed in part to the broad influence of Cartesian philosophy in French thought, which privileges rationalism over empiricism, and particularly the mind's freedom to entertain ideas in a way unhindered by boorish notions of physical reality.[6] Paradoxically, surrealism, even though it was conceived as an artistic movement that rejected dominant bourgeois morality and especially rational thought, nevertheless managed to represent a complementary form of knowledge in French SF, one that is not rational or positive, but remains something of the mind. As surrealists were heavily invested in Freudian psychology, this imaginative knowledge of the unconscious provided a kind of surplus value to a stricter Cartesian definition of mind. It has also been the basis, for instance, for writer Gérard Klein's definition of French SF as "scientific surrealism."[7]

Fig. 9-1: *A Trip to the Moon* (1902, George Méliès). © Star Film/Edison Manufacturing Company. Courtesy of Photofest, Inc.

An interesting case study is the seldom discussed film *Sideral Cruises* (1942, André Zwoboda), produced during the German occupation in a studio just north of Paris. It is a light-hearted film involving a company running a cruise ship in space that promises to send its passengers twenty years into the future. This follows an accidental and humorous confirmation of the twin paradox, whereby time slows down as one's speed increases. In one scene, the steward (played by Julien Carette) shows passengers how the clock monitoring Earth time spins much faster than the clock keeping track of the ship's time. While the film includes more fanciful scenes involving a landing on Venus and a meeting with French-speaking Venusians, it remains somewhat unusual as an effort to combine realism and fantasy, thanks in part to a brief didactic text that opens the film and mentions the laws of relativity, assuring viewers that "the adventure told in this movie is based on a true scientific idea." Later in the film, some of the dialogue even refers to the Dutch physicist Hendrik Lorentz, whose equations were used by Albert Einstein. According to one reviewer, initial screenings of *Sideral Cruises* in April

1942 were preceded by a short documentary explaining the theory of relativity, and director André Zwoboda was even asked by the Nazi authorities to explain why he was promoting the ideas of a Jewish scientist.[8]

Fig. 9-2: *Je t'aime, je t'aime* (1968, Alain Resnais). © New Yorker Films. Courtesy of Photofest, Inc.

The notion of relative time and space brings up a favored theme in French SF, namely time-travel. This theme allows for philosophical speculations and various "what if" scenarios that do not depend on scientific plausibility or realism, particularly as the time-loop story, involving travel into the past, introduces basic logical paradoxes. These paradoxes fit perfectly with the French preference for conceptual over realistic SF, and films, such as *La Jetée* (1963, Chris Marker), offer imaginative journeys to characters for whom access to space has been denied due to a nuclear war, and where the only way out lies in time. This theme also inspired a number of French surrealists, including author Jacques Sternberg, who wrote the screenplay to Alain Resnais' film *Je t'aime, je t'aime* (1968), chronicling attempts by scientists to use a time machine on a suicidal man whose personal obsessions thwart the

experiments (cf. Figure 9-2). Concerning his relationship to the SF genre, Sternberg said in an interview, "Science fiction allowed me to write normally, because it provided me with a grounding for my flights of fancy. I no longer had to experiment with words or images; I simply had to write about surrealistic things in a realistic way."[9]

Fig. 9-3: *La Jetée* (1963, Chris Marker). © New Yorker Films. Courtesy of Photofest, Inc.

The time-travel theme also has a strong libidinal dimension, which would automatically be of interest to the disciples of Freud known as the surrealists. Characters traveling into the past, while officially trying to change history to benefit humankind, are actually more invested in a desire to retrieve their own youth or a lost love. The narrative trajectory of *La Jetée*, for instance, can easily be described in oedipal terms, as the woman pursued by the protagonist in the past is simply a mother figure (cf. Figure 9-3). The related interest in exploring sexuality is another characteristic of French SF film, particularly when one compares it to the repressed, puritanical American variety. In an article entitled "The Virginity of Astronauts," film scholar Vivian Sobchack notes, "more than

any other American film genre, science fiction denies human eroticism and libido a traditional narrative representation and expression."[10] In contrast, French SF seems to revel in the apparently incongruous juxtaposition between emotionless, rational science, and uninhibited sexuality, as illustrated by Roger Vadim's *Barbarella*, a film analyzed further in this volume by Mazin Saffou.

A lesser-known film is *Girl in His Pocket* (1957, Pierre Kast), released in November 1957. It was partly a gentle parody of *The Incredible Shrinking Man* (1957, Jack Arnold), released six months earlier in France. The American film is dead serious, including a critique of nuclear testing, whereas the French film is a comedy, in which the protagonist, played by Jean Marais, is a chemist who has developed a formula that both reduces and preserves life-forms. His fiancée is an ambitious and fearsome woman, so when Marais falls in love with a new, pretty lab assistant, the running gag involves the assistant drinking the formula and hiding in Marais' pocket whenever the fiancée is about to walk in. The film also features a number of other French filmmakers and personalities of the period in small roles, including author Boris Vian, who had been instrumental in promoting American SF literature in France after the war.

The presence of surrealist author Boris Vian reminds us of the complex relationship between French and American SF literature and film. In the wake of World War II, American popular cinema and literature made deep impressions on French culture. There was and remains a fairly widespread fascination with American pop culture that rejuvenated interest in the SF genre in France, a genre, which from then on would define itself largely in terms of how it responded to the American variety. Among the reasons mentioned by sociologist Anita Torres for the surrealists' attraction to American SF, we might list the following four:

1. The mythological basis of pop culture interested the surrealists because of the assumption that it represents a collective unconscious, bypassing traditional morality and the repressive values of an authoritarian culture, a problematic argument given the social function of myth to support the status quo.

2. The imaginative qualities of this pop literature made it easy to read it metaphorically, almost against the grain, on a more "artistic" level, also helping to bridge the two cultures divide, between high and low art, a challenge the surrealists were no doubt feeling in

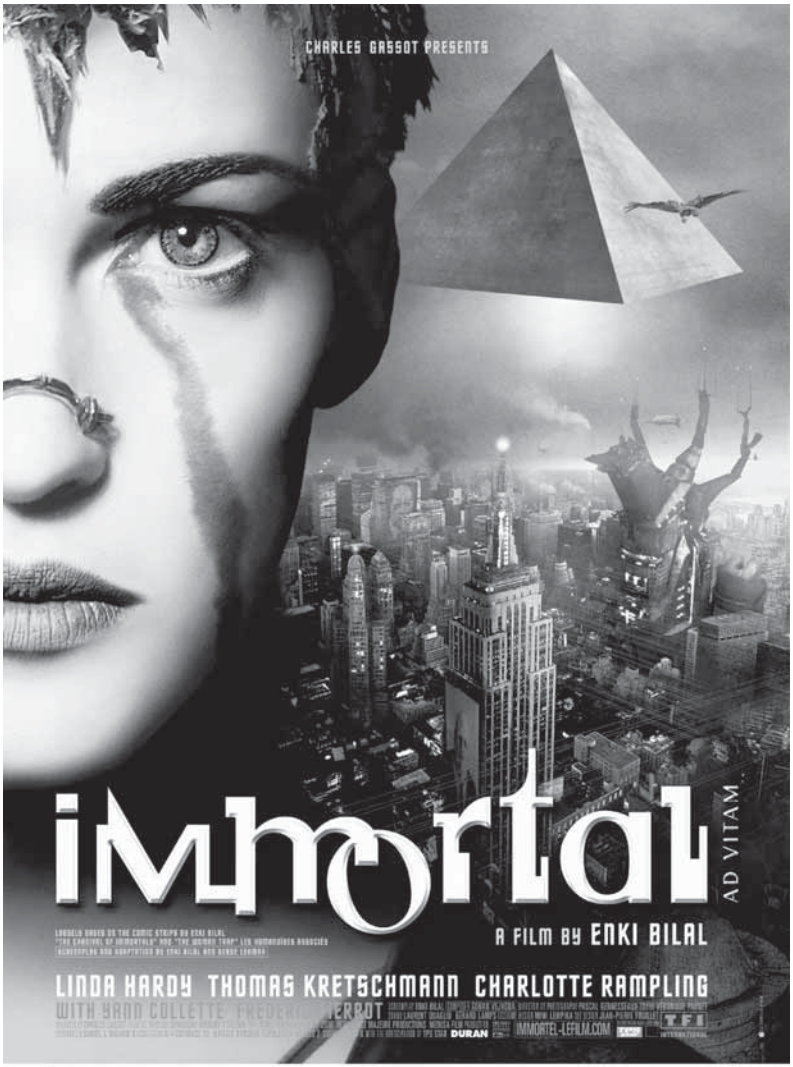
their own work, often perceived as elitist and irrelevant.

3. Another appeal of SF was that it came across as a fresh, new expression of modernity, particularly coming from the most modern nation on Earth, in contrast with an old, stuffy European literary tradition. This was a matter of combining the aesthetic criterion of originality with social relevance or currency.

4. Finally, there was the perceived authenticity of SF, in the sense that it expressed the values of a popular/sub-culture, one denigrated by a traditional and still dominant bourgeois culture. The surrealists made a virtue out of SF's illegitimacy. It is partly a classist argument, in which SF is promoted as a genre for the working class, thus appealing to surrealists whose political views often lean towards socialism or communism.[11]

This admiration for American SF is paradoxical in that it leads to, on the one hand, readings against the grain, and, on the other hand, French film productions that are quite different from the American films celebrated by the surrealists, including Robert Benayoun's *Paris Does Not Exist* (1969), Jean-Daniel Pollet's *Le Maître du temps* (1970), and Enki Bilal's *Immortal, Ad Vitam* (2004) (cf. Figure 9-4). The attempt to gain some legitimacy also remains challenged by the fact that the popular perception of SF continues to be dominated by American films, which may indeed have played a larger role in defining the genre worldwide than literature in the last century, including in France. It is hard to compete with a mainstream identification of SF with Hollywood space opera. In fact, French authors have produced their fair share of American-style space opera, in novels and comic books, but not in film, likely due in part to production costs, and the difficulty of matching Hollywood in terms of special visual effects.

Animation would prove to be a relatively affordable alternative for the space opera, but it was only in the seventies that filmmaker René Laloux managed to produce some animated SF features, although usually targeting a young audience, with the notable exception of *Fantastic Planet*, which can barely be described as a space opera (cf. Figure 9-5). Thus, realist SF film produced in France would have to settle for inexpensive near-future scenarios involving few special effects, or else post-apocalyptic stories shot in a barren landscape.



Immortel (ad vitam) (2004 French/Italy/UK) aka Immortal (Ad Vitam)
Directed by Enki Bilal
Shown: poster art, Linda Hardy (as Jill Bioskop)
Credit: TF1 Films Productions/Medusa Film/Téléma/Photofest © TF1 Films Productions/Medusa Film/Téléma

Rentals grant one-time, EDITORIAL use only, unless otherwise negotiated. Please inform us about usage or non-usage as soon as possible. Research fees may apply if no images are used.

Fig. 9-4: *Immortal, Ad Vitam* (2004, Enki Bilal). © TF1 Films Productions/Medusa Film/Téléma. Courtesy of Photofest, Inc.

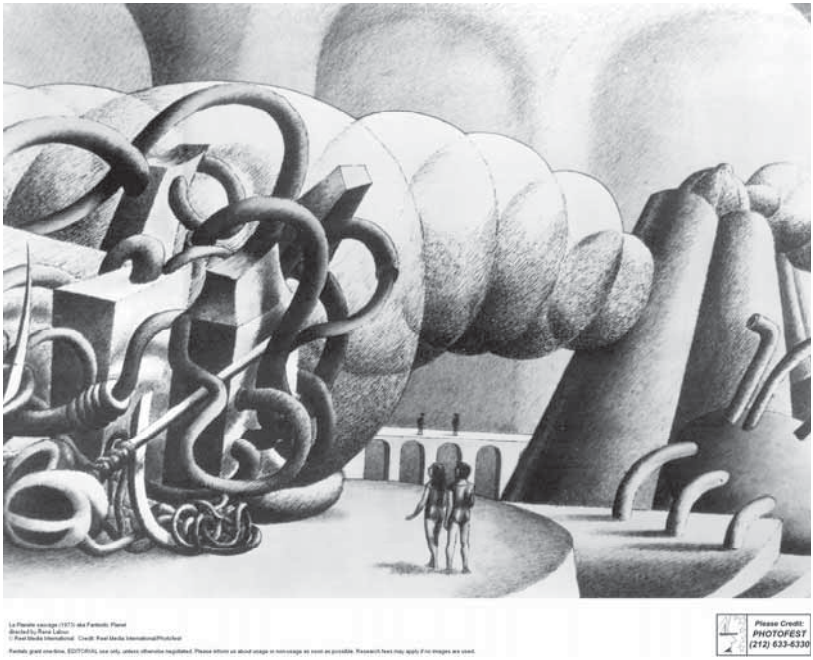


Fig. 9-5: *Fantastic Planet* (1973, René Laloux). © Reel Media International. Courtesy of Photofest, Inc.

In spite of this general preference for fantasy and surrealism in French SF film, there remains a polarized quality that manifests itself in literary camps opposing the surrealists and the realists.[12] The realists, representing a kind of SF orthodoxy, are sometimes described as purists. They accuse the surrealists of adopting an anti-science bias, or simply using science as a pretext, as well as an esoteric and self-indulgent approach to narration that eschews classical storytelling and focuses instead on subjectivity and philosophical musings.[13] It may be that the problematic status of SF within French culture, due to France's literary history and the reality of a market dominated by a foreign product, has polarized writers and filmmakers. It may have encouraged them to adopt an essentialist attitude and to identify with specific aesthetic and political positions, as a form of self-justification and an attempt to create some legitimacy.

This battle between realism and surrealism is echoed by French film theorist André Bazin's history of film aesthetics, one that opposes realist

and expressionist traditions. Bazin, a contemporary of Boris Vian, suggested that realist cinema began at the turn of the century with the Lumière brothers (cf. Figure 9-6), while the founding father of expressionist cinema was none other than George Méliès. It bears mentioning that Bazin's aesthetic model is axiological, privileging realism as the preferred mode of cinematic expression, in keeping with the phenomenology of Maurice Merleau-Ponty, an important influence on Bazin's ideas. My point here is that the competition for artistic legitimacy or recognition that defines French SF literature is heightened by its cinematic counterpart, one that has manifested itself, for instance, in a competition between the two leading film magazines in France, the realist *Cahiers du Cinéma*, and the surrealist *Positif*.

Fig. 9-6: *Arrival of a Train at La Ciotat* (1896, Lumière Brothers). Courtesy of Photofest, Inc.

Fig. 9-7: *The Fifth Element* (1997, Luc Besson). © Columbia Pictures/Sony Pictures Entertainment. Courtesy of Photofest, Inc.

In conclusion, I have argued that French SF film is bipolar, offering either extravagant fantasies, such as Luc Besson's *The Fifth Element* (1997, cf. Figure 9-7), or relatively understated narratives, like *Happy End* by the Larrieu brothers (2009). Whereas American SF film is characterized by a more even distribution of extrapolative and speculative SF and science-fantasy. The polarization of French SF film is a consequence of perhaps four or five mutually reinforcing factors, starting with a Cartesian "esprit de contradiction," a French tendency to define things in terms of opposites. This tendency is then heightened by an acute sensitivity to questions of cultural legitimacy, resulting in hotly contested claims among writers and fans regarding the true nature of French SF. The dominance of post-war American SF in the marketplace has exerted an additional polarizing influence among French writers and filmmakers, to situate their own creative work in response to Isaac Asimov and Ray Bradbury, as well as Stanley Kubrick and George Lucas. A film such as *Maybe*, by Cédric Klapisch (1999), which features fanciful speculations based on a time travel premise, begins with a brief spoof of American space opera, expressing the filmmaker's own critical response to the broad impact of films like *Star Trek* and *Star Wars*. It is possible that the development of computer generated imagery in the last two decades may encourage some French filmmakers to explore the space between realist and surrealist SF, as Marc Caro's recent film *Dante 01* (2008) appears to indicate. Whether such films will continue to adapt themes and stories from the New World, albeit in a way that reveals the French literary tradition of the philosophical tale, remains to be seen.

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Filmography

Year	Title	Director	Length
1902	Voyage dans la Lune (Le)	Méliès, Georges	014mn.
1905	Voyage à travers l'impossible	Méliès, Georges	024mn.
1906	Voyage autour d'une étoile	Velle, Gaston	006mn.
1907	200,000 lieues sous les mers	Méliès, Georges	010mn.
1907	Tunnel sous la Manche (Le)	Méliès, Georges	014mn.
1908	Photographie électrique à distance (La)	Méliès, Georges	006mn.
1908	Excursion dans la lune	de Chomon, Segundo	007mn.
1909	Voyage sur Jupiter (Le)	de Chomon, Segundo	008mn.
1909	Homme invisible (L')	Zecca, Ferdinand	005mn.
1911	Vers l'immortalité	Durand, Jean	006mn.
1915	Folie du docteur Tube (La)	Gance, Abel	010mn.
1920	Empire du diamant (L')	Perret, Léonce	060mn.
1922	Cité foudroyée (La)	Morat, Luitz	060mn.
1923	Paris qui dort	Clair, René	061mn.
1924	Terreur	José, Édouard	090mn.
1927	Charleston	Renoir, Jean	017mn.
1927	Joueur d'échecs (Le)	Bernard, Raymond	082mn.
1930	Fin du monde (La)	Gance, Abel	103mn.
1932	I.F.1 ne répond plus	Hartl, Karl	100mn.
1933	Tunnel (Le)	Bernhardt, Kurt	080mn.
1934	Homme à l'oreille cassée (L')	Boudrioz, Robert	075mn.
1934	Or (L')	de Poligny, Serge	120mn.
1936	François 1er	Jaque, Christian	100mn.
1939	Monde tremblera (Le)	Pottier, Richard	108mn.
1942	Croisières sidérales	Zwoboda, André	095mn.
1952	Alerte au sud	Devaivre, Jean	110mn.
1953	Chevalier de la nuit (Le)	Darène, Robert	092mn.
1957	Amour de poche (Un)	Kast, Pierre	088mn.
1958	A pied, à cheval et en Spoutnik	Dréville, Jean	100mn.
1959	Yeux sans visage (Les)	Franju, Georges	088mn.
1961	Hommes veulent vivre (Les)	Moguy, Leonide	110mn.
1961	Horrible Dr. Orloff (L')	Franco, Jess	086mn.
1961	Martien à Paris (Un)	Daninos, Jean-Daniel	090mn.

1962	Pinocchio dans l'espace	Goosens, Ray	090mn.
1962	Poupée (La)	Baratier, Jacques	090mn.
1963	Jetée (La)	Marker, Chris	027mn.
1964	Coplan, agent secret FX-18	Cloche, Maurice	097mn.
1964	Ciel sur la tête (Le)	Ciampi, Yves	107mn.
1964	Soir, par hasard (Un)	Govar, Ivan	090mn.
1965	Dans les griffes du maniaque	Franco, Jess	086mn.
1965	Coplan FX-18 casse tout	Freda, Ricardo	095mn.
1965	Alphaville	Godard, Jean-Luc	100mn.
1965	Marie-Chantal contre Dr. Kha	Chabrol, Claude	114mn.
1966	Atout Coeur à Tokyo pour OSS 117	Boisrond, Michel	090mn.
1966	Coplan ouvre le feu à Mexico	Freda, Ricardo	093mn.
1966	Fahrenheit 451	Truffaut, François	113mn.
1966	Barbarella	Vadim, Roger	098mn.
1966	Cartes sur table	Franco, Jess	093mn.
1966	Or et le plomb (L')	Cuniot, Alain	085mn.
1967	Anticipation, ou l'amour en l'an 2000	Godard, Jean-Luc	020mn.
1967	Fou du labo 4 (Le)	Besnard, Jacques	090mn.
1967	Coplan sauve sa peau	Boisset, Yves	090mn.
1967	Inconnu de Shandigor (L')	Roy, Jean-Louis	090mn.
1967	Invention de Morel (L')	Bonnardot, Claude-Jean	110mn.
1967	Je t'aime, je t'aime	Resnais, Alain	091mn.
1967	Ne jouez pas avec les martiens	Delanoe, Henri	090mn.
1968	Dernier homme (Le)	Bitsch, Charles	082mn.
1969	Paris n'existe pas	Benayoun, Robert	095mn.
1969	Hibernatus	Molinaro, Édouard	080mn.
1969	OSS 117 prend des vacances	Kalfon, Pierre	092mn.
1969	Temps de mourir (Le)	Farwagi, André	090mn.
1969	Vampire nue (La)	Rollin, Jean	090mn.
1970	Alliance (L')	de Chalonge, Christian	090mn.
1970	Ils	Simon, Jean-Daniel	100mn.
1970	Maître du temps (Le)	Pollet, Jean-Daniel	090mn.
1970	Rose écorchée (La)	Mulot, Claude	092mn.
1971	Galaxie	Mérigny, Mathias	082mn.
1971	Martien de Noël (Le)	Gosselin, Bernard	066mn.
1971	What a flash	Barjol, Jean-Michel	095mn.
1972	Homme au cerveau greffé (L')	Doniol-Valcroze, Jacques	090mn.
1972	Traitement de choc	Jessua, Alain	091mn.
1973	Planète sauvage (La)	Laloux, René	072mn.
1974	Chinois à Paris (Les)	Yanne, Jean	095mn.
1974	France société anonyme	Corneau, Alain	100mn.
1974	Futur aux trousses (Le)	Grassian, Dolorès	100mn.

1974	Hu-Man	Lapperousaz, Jerôme	090mn.
1974	Libra	Moreau, Roland	090mn.
1974	Toute une vie	Lelouch, Claude	150mn.
1975	Demain les mômes	Pourtalé, Jean	100mn.
1975	Ordinateur des pompes funèbres (L')	Pirès, Gérard	085mn.
1978	Écoute voir	Santiago, Hugo	105mn.
1978	Gendarme et les extra-terrestres (Le)	Girault, Jean	095mn.
1979	Histoires abominables	(collectif)	080mn.
1979	Ils sont grands, ces petits	Santoni, Joël	095mn.
1979	Mort en direct (La)	Tavernier, Bernard	120mn.
1979	Pluk, naufragé de l'espace	Image, Jean	074mn.
1979	Toubib (Le)	Granier-Deferre, Pierre	095mn.
1980	Cherchez l'erreur	Korber, Serge	092mn.
1980	Jardinier (Le)	Sentier, Jean-Pierre	094mn.
1981	Femme objet (La)	Lansac, Frédéric	090mn.
1981	Année Lumière (Les)	Tanner, Alain	090mn.
1981	Extraneus	(collectif)	098mn.
1981	Litan	Mocky, Jean-Pierre	088mn.
1981	Malevil	de Chalonge, Christian	119mn.
1981	Soupe aux choux (La)	Girault, Jean	098mn.
1982	Démon dans l'île (Le)	Leroi, Francis	102mn.
1982	Chronopolis	Kamler, Piotr	052mn.
1982	Maîtres du temps (Les)	Laloux, René	078mn.
1982	Paradis pour tous	Jessua, Alain	110mn.
1982	Prix du danger (Le)	Boisset, Yves	099mn.
1982	Revanche des humanoïdes (La)	Barillé, Alain	100mn.
1983	Dernier combat (Le)	Besson, Luc	090mn.
1983	Maîtres du soleil (Les)	Aublanc, Jean-Jacques	085mn.
1984	Déclic (Le)	Richard, Jean-Louis	090mn.
1984	Big bang (Le)	Picha, Jean-Paul	080mn.
1984	Frankenstein 90	Jessua, Alain	092mn.
1984	Gwen, le livre du sable	Laguionie, Jean-François	067mn.
1984	Secret des Sélénites (Le)	Image, Jean	076mn.
1984	Viva la vie	Lelouch, Claude	110mn.
1985	Diesel	Kramer, Robert	079mn.
1985	Unique (L')	Diamant-Berger, Jérôme	090mn.
1986	Boulevard de l'Étrange	(collectif)	117mn.
1986	Kamikaze	Grousset, Didier	090mn.
1986	Machine à découdre (La)	Mocky, Jean-Pierre	088mn.
1987	Aventures d'Eddie Turley (Les)	Courant, Gérard	085mn.
1987	Oppressions	Cauchy, Jean	085mn.
1987	Septième dimension (La)	Dussaux, Laurent et al.	090mn.

1987	Terminus	Glenn, Pierre-William	110mn.
1988	Gandahar	Laloux, René	083mn.
1988	Saisons du plaisir (Les)	Mocky, Jean-Pierre	088mn.
1989	Bunker Palace Hôtel	Bilal, Enki	095mn.
1989	Syndrome de l'espion (Le)	Petitcuenot, Daniel	070mn.
1989	Dans le ventre du dragon	Simoneau, Yves	100mn.
1990	Docteur M	Chabrol, Claude	116mn.
1990	Gawin	Sélignac, Arnaud	095mn.
1990	Trésor des îles Chiennes (Le)	Ossang, François-Jacques	108mn.
1991	Cauchemar blanc	Kassovitz, Mathieu	010mn.
1991	Simple mortel	Jolivet, Pierre	085mn.
1992	Coup de jeune	Gélin, Xavier	088mn.
1992	Delicatessen	Jeunet, Jean-Pierre	095mn.
1994	Machine (La)	Dupeyron, François	094mn.
1994	Visiteurs (Les)	Poiré, Jean-Marie	102mn.
1995	Cinquième Élément (Le)	Besson, Luc	127mn.
1996	Tykho Moon	Bilal, Enki	107mn.
1997	Mille Merveilles de l'univers (Les)	Roux, Jean-Michel	090mn.
1999	Peut-être	Klapisch, Cédric	109mn.
2003	Kaena, la prophétie	Delaporte, Chris	085mn.
2004	Dans une galaxie près de chez vous	Desrosiers, Claude	109mn.
2004	Pinocchio 3000	Robichaud, Daniel	080mn.
2004	Revenants (Les)	Campillo, Robin	102mn.
2004	Immortel, ad vitam	Bilal, Enki	103mn.
2006	Renaissance	Volckman, Christian	105mn.
2007	Eden Log	Vestiel, Franck	098mn.
2007	Chrysalis	Leclercq, Julien	094mn.
2008	Dante 01	Caro, Marc	082mn.
2008	Mutants	Morley, David	085mn.
2009	Derniers Jours du monde (Les)	Larrieu, Arnaud et Jean-Marie	130mn.

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Chapter Ten

Cartesian Dualism and the Orgasmatron: Interiority and Eroticism in *Barbarella*

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It has frequently been the case that issues of sexuality in science fiction texts have been ignored, or downplayed, in favor of exploring metaphysics and relationships to technology. This has much to do with the empirical, rationalist worldview that science espouses wherein sexuality is often discussed or portrayed in sterile, biological, and anthropological terms. It would seem, however, that French science fiction is different in this respect in that there is more of a tendency to explore sexuality and eroticism in a way often omitted from its Anglo-Saxon counterpart. One of the primary unique characteristics of the French mode of science fiction is its preoccupation with interiority and perception in contrast to more materialist worldviews as depicted in British and American science fiction. Exploring the interiority of subliminal states (dreams, fantasies, and hallucinations) leads one to explore human consciousness and the psyche in a way that more realist and materialist science fiction tends not to do. This exploration of interiority within the SF setting allows sexuality and *eros* as part of the human experience to be a focal point of discovery and dialogue. There is one French film production in particular, which I will analyze in relation to its depiction of sexuality and eroticism, Roger Vadim's *Barbarella* (1968).

George Slusser argues that the preoccupation with interiority in French art and literature can be attributed to the legacy of Cartesian philosophy on French thought.[1] Descartes' skepticism – his profound questioning of reality and whether or not our perceptions of the exterior world are an illusion – can be traced in much of French cinema. Solipsism, the

philosophical position that suggests that everything outside of the mind is uncertain, that we cannot know if the exterior world as perceived by our senses exists, infiltrates the aesthetic, narrative, and ontological structure of many French science fiction films. Beginning with George Méliès' mythical classic *A Trip to the Moon* (1902), as well as later postwar films, such as *Alphaville* (1965), *Je t'aime, je t'aime*, (1967), *Fantastic Planet* (1973) and *Maybe* (*Peut-être*) (1999). These films question perception by incorporating dreams, visions, mythology, surrealist fantasy, and various other altered states. These films portray solipsism as an immersion into the self, a retreat into the mind. It is important to note, however, that while Cartesian epistemology incorporates irrational states and conditions, such as dreams and visions, it is still cerebral but without being materialist. This means that the various states of the mind, which include both its rationalism and its irrationalism, are privileged over materialist concerns, the desire to distance oneself from "reality" without the desire to manipulate it.[2] As in the Surrealist works of painters, such as Salvador Dali and Juan Miro, it is paradoxically this retreat from the corporeal and towards the inner self, I argue, where the repressed sexuality that we perceive as absent in much Anglo-American science fiction is sublimated and reclaimed in the genre of French science fiction.

There is a crucial shift of the Cartesian polemic in *Barbarella*. Michael Angelo Tata argues that the interiority of the mind, or the fantastical surreal in a film like *Barbarella,* is heavily influenced by the postmodernity of late capitalism, its conditions of excess, both excess of pleasure and excess of information. The film is a sensory overload, "the self's immersion in potentially infinitized webs of information as generative of a sublimity unique to the postmodern world".[3] If in postmodern culture, we are witnessing the dissolution, diaspora, and disembodiment *of* the human body, the interior of the mind becomes an ideal retreat. For Tata this interior is linked to his notion of "cybersublimity", where the interior of the mind is not conveyed as solitary as in Cartesian philosophy, or even say, Buddhist notions about the mind as a sort of null space, but in the postmodern condition- the mind (distanced from the body) is overflowing with the buzz and static of information and sensory overload. Thus, while Descartes' notion of interiority, in the 17th century, may have provided a strong influence on French culture's notions of the mind, postmodernism – as glimpsed in films, such as *Barbarella* and *Maybe* (1999) – has reconfigured the landscape of the mind in very different terms, terms that have to do with excess of information and excess of textual and sensual experience.

"Cogito ergo sum" ("I think, therefore I am") in the 17th century presents a totality of the inner self, an affirmation and reclamation of the self against the backdrop of an unknowable world. "I think, therefore I am", however, in the era of postmodernism suggests a fragmented inner self rather, the interior landscape of the mind that is humming with excess, retreating from the over-stimulus of the postmodern world.

René Descartes and French Science Fiction

George Slusser argues that the legacy of Cartesian philosophy within French intellectualism has still maintained a firm hold within the socio-cultural matrix of France and French literature and arts.[4] Descartes was keenly interested in exploring the nature of consciousness and perception, and even went so far as to question whether or not the world outside of ourselves is real, or perhaps merely some form of illusion, and furthermore questioned how we can go about proving that the world outside of ourselves does indeed exist. Descartes' metaphysical probing of human interiority and the question of solipsism left a profound impact on Euro-Western thought and it would seem that much of French intellectual thought and metaphysics is particularly entrenched in this particular tradition of philosophical reasoning and speculation. Whereas British and American science fiction tend to start from the "outside in", French science fiction tends to start from the "inside out". British and American science fiction tend to start from the position of observing some sort of strange phenomenon (alien or cosmic being, or A.I., for example) from the perspective of the empirical observer and then exploring the impacts of that phenomenon upon the environment, society and culture, and then perhaps *finally* on the psyche. Typically, it would seem that psychological interiority is one of the last spheres of speculation and inquiry in this type of SF. French science fiction tends rather to start from the interior. As the viewer is being estranged via the outside phenomena (alien or alternate reality for example), the question of the nature of reality and the nature of perception (similar to Cartesian philosophy) seems to also be in question. This opens up French SF to poetic modes and aesthetics, such as Surrealism and Eroticism. Eroticism in particular, in this mode of science fiction, is depicted in profoundly different ways, as a subliminal phenomenon as opposed to a biological/zoological/anthropological phenomenon observable from the outside as in the more serious-minded "realist" SF.

Sexuality and Science Fiction

In his essay "Sextrapolation in New Wave Science Fiction", Rob Latham discusses the ways in which science fiction has for the most part ignored human sexuality up until the 1960s. For Latham it is the "return of the repressed", via the sexual revolution of the '60s, which reopens the doors of sexual expression and challenges the "puritanical rectitude of 1950s-era SF."[5] He observes the notable transition in science fiction literature with regard to depictions of sexuality in the 1960s, an era dubbed the New Wave.[6] In this essay, Latham analyzes the New Wave's particular evocation of sexuality and eroticism, noting predominant themes and preoccupations. Here it is important to delineate between classic SF's construction of sexuality and the body, and that of the New Wave, which is closer to French Science Fiction's emphasis on similar themes. In Golden Age science fiction, the discourse of sexuality was cerebral yet also materialist. Classical Anglo-Saxon SF emphasizes a "mind-over-body" discourse in which the mind vanquishes and controls the material world. The mind is the center of the regulation of bodily drives, bodily fluids, and bodily desire, and sex is a biological imperative for the purpose of procreation, not an aesthetic one. French SF by contrast is cerebral as well, but tends to privilege altered states of consciousness rather than empirical certainty and "scientific method" observation. Its characters doubt their reality rather than regulate it with science but in this skepticism of "reality" lies the power of the unconscious, a dimension of being that *logos* and empiricism denies.[7] The New Wave allowed not only for eroticism but also for *science fiction eroticism,* which – as Leonard G. Heldreth notes – is eroticism of a particular kind as it is sexual experimentation outside of the limitations of "reality".[8] It is sex as can only be experienced within the interior of our psyches (none of us will ever have sex with an android, or a telepath, or an alien, or an Orgasmatron). Thus, science fiction eroticism has a particular function, according to Heldreth, in that it confronts, challenges, and subverts taboos and socially constructed notions of "difference".[9] The human-alien eroticism, that this type of science fiction provides, explores and celebrates exogamy and "miscegenation" beyond the limits of sex on Earth and therein lies its liberating potential. Heldreth praises *Barbarella* for its notable exogamy as Barbarella "slinks, wriggles, and vamps her way across the universe and in the process has her erotic desires awakened by a blind, white angel, experiences lesbianism with a dark, evil queen, and blows the fuses of the ominous Orgasmatron, a giant sex machine designed to kill her with ecstasy."[10]

Figure 10-1: *Barbarella* (1968, Roger Vadim). © Paramount Pictures. Courtesy of Photofest, Inc.

Yet, this sexually liberated text, this surreal landscape of softcore eroticism, is synonymous with capitalist culture's emphasis of consumption, and its appropriation of sex (and the woman) as a commodity. Exogamy, the celebration of the union between "others", is ideal but it is indeed one that often finds itself inextricably bound within consumerist discourse. Consumer culture presents the "Other" as a sexual object to be exoticized and commodified, and the "alien" or "android" lover – if they did hypothetically exist – would be no exception. While SF's New Wave

literature, and films like *Barbarella,* confront and challenge miscegenation, they are also paradoxically part of the sensory overload of late capitalist society wherein a plethora of cheap sex with the "Other" is always on display and has seeped its way into the "busy" mindscape of postmodern consciousness.

It is impossible to discuss *Barbarella* further without discussing its gender politics. Barbarella, originally a comic book hero, and then portrayed by Jane Fonda in Vadim's film, is a descendant of a long tradition of female pulp heroes. Robin Roberts in "The Female Alien: Pulp Science Fiction's Legacy to Feminists", discusses the ways in which women have been depicted in science fiction, in mainstream pulp magazines. Jane Fonda's performance in *Barbarella* is most certainly indebted to this tradition and while Roberts praises the proliferation of female pulp heroes, she also notes the ways in which women are continually depicted as "Other" in these texts – one more "alien" within a masculinist paradigm. Intriguingly though, defying stereotypical notions of the genre, she also argues that "science fiction has always been fascinated with the figure of the woman"[11] in ways that liberate women from the suffocating private sphere as is depicted in more "realist" literature.[12] Yet paradoxically in SF, women are continually subordinated. This paradox is prevalent in *Barbarella* where the hero is given the opportunity for cosmic and sexual adventure in ways that free her from the conventions of the private sphere and traditional notions of female modesty, and yet Barbarella is repeatedly offered up for the male gaze and is continually placed in situations that emphasize her sexual availability. In addition, Fonda's goofy, plucky optimism and the film's sly, tongue-in-cheek, and silly tone undermine any capacity to take Barbarella seriously as a strong, female protagonist.

Yet *Barbarella* undoubtedly exploits the "post-World War II glorification of femininity"[13] as well as the 1960s feminist discourse emphasizing the procreative powers of the feminine as "Mother Goddess." While this feminine archetype might seem archaic and problematic in its essentializing and "naturalizing" of women's connection to nature, as opposed to more traditional SF, it is a rather striking feature. Rather than the phallocentric aesthetics of "male SF," as in the early *Star Trek* (1966-69), or even the lofty-minded but female absent *2001: A Space Odyssey* (1968), wherein "empirical, rational man" colonizes worlds and maps the empty void of space in phallic looking starships, the world of *Barbarella* is overtly vaginal and womblike. The organic shapes, curvilinear contours, and lush

colors of *Barbarella* differ greatly from the symmetrical "hard edges" and functional set design of much classical American Golden Age science fiction. The interiority of this womb-world is sensual in an immediate, intuitive way (rather than empiricism's "sensuality", which is used to measure and record), while outer space is vibrant with flushed colors and dizzying sensations rather than being portrayed as an inert, stagnant black void.

Figure 10-2: *Barbarella* (1968, Roger Vadim). © Paramount Pictures. Courtesy of Photofest, Inc.

Carl D. Malmgren explores how the hybrid genre of science fantasy (a mergence of SF and fantasy) is potent in that it is "a universe with value, as opposed to the value-neutral universe of SF";[14] it is a world where space is not cold and barren but rather an "empyrean ocean of radiance", as C.S. Lewis once put it.[15] Herein lie SF texts like *Barbarella,* which are the very opposite of "hard SF" in that the cosmos is depicted in archetypically feminine terms as opposed to the traditionally masculine

Figure 10-3: *Barbarella* (1968, Roger Vadim). © Paramount Pictures. Courtesy of Photofest, Inc.

empiricist view. Scenes of Barbarella hurtling through time and space in the film depict a cosmos that is alive– bubbling and bursting with brilliant color and expressive light patterns and dizzying movement. With its "liquid-projected patterns of colors and bubbles",[16] outer space in *Barbarella* is almost *aquatic* in design connoting the film's mythical

dimensions in its relationship to the maternal womb of the sea. Outer space in *Barbarella* is orgasmic and procreative rather than cold and inert.

Yet Mathew J. Bartkowiak is astute in noting that the set designers of *Barbarella* may have taken a page or two from the interior decorators of men's magazines of the period such as *Playboy*.[17] *Barbarella*'s plush, curvilinear womb-world bears a canny resemblance to the swinging bachelor pad or lounge of the swinging '60s[18] and despite any feminist counter-readings that may arise in defense of *Barbarella*, one cannot easily dispute that Fonda's plucky space sex kitten has much in common with the playmates of 1960s softcore male-oriented pornography. In *Barbarella* the aesthetic paradigm of *Playboy* magazine is conflated seamlessly with the sexually liberated hedonist counterculture of the 1960s, that when observed reveal two conflicting ideological positions. On the one hand is innocent, frivolous sexual utopianism, "free love" that can revolutionize the world with the return of the repressed orgasm and sensual play and pleasure. On the other hand, the film can easily be interpreted as a product of crass commerce with the "sex kitten" as an object and household/lounge accessory to the upwardly mobile white male's patterns of consumption. These contradictions abound in ways that problematize easy readings of the film.[19] Indeed, over the course of the film it would seem that Jane Fonda gets to play Jane Bond in that she gets to have grand, escapist adventure and has a number of sexual escapades with a series of attractive suitors, including a perfectly sculpted male angel as well as the sexy, sultry Dark Queen who is her nemesis. She even gets high off the "essence of man" in one scene where hedonists are inhaling the moist fumes of a naked Adonis floating in a transparent bubble (!). Yet, as evidenced most notably by the sexy zero gravity strip tease in the opening sequence, Barbarella is an eager and willing playmate in these sex games, offered up for the voyeuristic male gaze of the viewer and for male consumption. In terms of narrative agency Barbarella is the hero and the protector of the hunky blind angel who is vulnerable, "feminized", and dependent on her, and yet one cannot dismiss the male adolescent fantasy implicated at the film's end when the blind angel ends up in a *ménage à trois* with Fonda and the sexy Dark Queen. In comparison with another science fiction hero, that of the resourceful, level-headed Ellen Ripley in the *Alien* franchise, Barbarella is a plucky yet naive construction of objectified femininity.

In either case, the interior womb-world of *Barbarella* is fraught with sensory overload. The psychedelia of the film attests to a model of the interior mind that is perpetually "in motion", and even in its solipsistic

state is unable to quell the teeming flow of stimuli. The dissonant electronica that punctuates the film attests to this teeming flow, a combination of "primitive" drumbeats and atonal electronic resonance to accentuate a sensorium that is both cerebral and yet primordial.[20] "Combining the two can bring visions of the inner self, of excess and climax", thereby forming a basic metanarrative where sex is able to "[trump] time, space, and technology".[21] This is the realm of "cybersublimity" according to Tata, the overstimulated state of existence in the postmodern culture of late capitalism wherein the ultimate release from sensory overload is defined in sexual terms.[22] The orgasm, Tata argues, is to provide us with a sudden and momentary release from the overload of stimuli, the "comedown" after a momentary lapse from the overflow of sensory input. This brings us to the Orgasmatron. The Excessive Machine that Duran Duran uses to "torture" Barbarella is like the film itself, a sensorium of sensual and sexual delight. *Barbarella* is strapped into a large machine that resembles an organ and Duran Duran in a virtuoso performance plays the organ until Barbarella reaches a powerful climax, her sexual desire so potent that she in effect "[out-orgasms] the Orgasmotron."[23] In Cartesian dualism, the immaterial mind doubted whether or not anything outside of the mind might exist. In the postmodern condition of late capital the pathways of the immaterial mind in contrast, are so fraught with sensory excess that our technology cannot seem to keep up. Barbarella's overload of the Orgasmatron is allegorical to the postmodern subject's sense of implosion where, alienated from our bodies, we have become so immersed in the interface of information and sensation that we are "the pleasure victims of technology...diasporized, overwhelmed, absorbed, [and] overheated".[24] It is not "I think, therefore I am" that is our statement of being in our contemporary condition but "I *feel*, therefore I am".

As Bartkowiak observes, what appears on the surface as high camp, cheesecake eroticism in *Barbarella* is actually much more confounding upon closer analysis.[25] As a French film production, *Barbarella* shares much of the mythical and subliminal qualities of the genre of French science fiction. Its expressive rendition of interiority owes much to surrealism, psychedelia, and Cartesian skepticism, which doubts the real and thus privileges the mind's interior states over that of materialist, empirical rationalism (more prevalent in the British and American models of SF). Sexual fantasy makes a return of the repressed in this mode, which we witness in *Barbarella,* but tellingly the interiority of the postmodern mind has been flooded with sensory overload, seeking release in sexual

terms. When Barbarella's orgasm outperforms our technological apparatus, it is a return of the polemics of the body politic. Tata here argues that Barbarella's excess signals the result of sensory excess, "burnout" from prolonged technological interface and while this is true, it is important to note that it is bodily desire, the female orgasm itself that destroys the Orgasmatron. Tata does not make mention of this but if *Barbarella* signals a retreat into the interiority of fragmented "cybersublimity", then it is possible that her overheating of the Orgasmatron via sexual climax signals a return of the repressed body (in particular the female body) and its ability to reclaim itself. It signals a defeat of postmodern solipsism (where we have retreated into our technology and hyperreal simulacrum), a repossession of the body and the power and plenitude of the corporeal.

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Chapter Eleven

The Dualistic Traditions of American Film Noir and French Science Fiction in Christian Volckman's *Renaissance: Paris 2054*

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Christian Volckman's film, *Renaissance: Paris 2054*, rises out of a rich history of French science fiction and American film noir. Obviously set in Paris in the year 2054, *Renaissance* follows noir hero and police captain, Barthélémy Karas. Along with Bislane Tasuiev, Karas searches for Ilona Tasuiev, Bislane's little sister, a brilliant and beautiful scientist working for Avalon (an international health and beauty corporation) who has mysteriously disappeared while working on a secret protocol for immortality. Though, what would seem like a hodgepodge of influences, the combination of the two genres within the film systematically complement one another from their dualist traditions of realism and the fantastic. *Renaissance* proves to be a film whose style and content utilizes the evaluative possibilities of the scientific method in exploration of a dystopian future, while the interpretation of those possibilities are guided, or rather narrowed, by film noir's fatalistic world-view and particular ethical framework.

Its origins rise from the literary influences of Jules Verne as much as the cinematic influences of George Méliès. Unsurprisingly, even unto today, French science fiction films (and the critical scholarship thereof) greatly divide the genre between realistic and fantastic tendencies – with the debate of how French science fiction should be defined still unsettled. Neither is it surprising that a genre like film noir with its jumble of artistic origins – "German expressionism, pre-Code Hollywood, French poetic

realism, [and] pulp fictions"[1] – as well as social origins – angst-ridden veterans disoriented by their experiences in combat and threatened by working women…a near war that threatened atomic annihilation[2] – would also be greatly divided. Borde and Chaumeton, describing the style of film noir, "the fundamental contradiction of the genre: the conflict between an overly artificial strangeness and an unrelenting realism"[3], make a statement that could be just as easily applied to French science fiction with its own unrelenting technological realism and fantastic estrangement. Yet, despite their fundamental contradictions, the antithetical dispositions do not tear the genres apart, but rather harmonize the complexity of their styles and content.

Figure 11-1: *Renaissance* (2006, Christian Volckman). © Miramax. Courtesy of Photofest, Inc.

Renaissance's style, animated over black and white motion-capture, is reminiscent of film noir's fatalistic visual style. In particular, film noir's chiaroscuro, low-key lighting in combination with its claustrophobic framing and wide-angle photography, creates a style that often "[hides] faces, rooms, urban landscapes – and by extension, motivations and true character"[4]. However, its aesthetics simultaneously produces an effect of estrangement, which "wrench[es] and dislocate[s] our typical means of understanding"[5], commonly associated with science fiction. The combination of the two genres' techniques further produces an effect that "shocks us into perception"[6], and creates a diegetic world that is "less a reflection *of* than a reflection *on* empirical reality"[7]. In the aesthetic case of *Renaissance*, the stark contrast between black and white, lacking any shades of gray, appears to present an impenetrable setting and ideological

reality where a harsh divide stands between principles of right and wrong. Yet, what the stark style of animation really achieves is the concealment of moral ambivalence wherein apathy and even hostility are encouraged over empathy. Consequently, the animation further captures both the "specific [feeling of] alienation"[8] common in science fiction and film noir's fatalistic "sense of dread"[9]. Essentially, in order to truly see and understand their actions and their motivations, one has to look twice to overcome the superficial first glance of a character (cf. Fig. 12-1).

Although not exactly the classic "private eye…[or] lone wolf"[10], the film's protagonist, Barthélémy Karas, a jaded police captain, still echoes with the same voice and walks with the same gait as the traditional noir hero. In his search for Ilona Tasuiev, Karas embodies the typical noir perspective of having "a passion for the past and present, but also a fear of the future"[11], as he balances a haunted criminal past, a newly budding romance, and a fear of impending doom. Indeed, also akin to the traditional noir hero, Karas literally focuses his energy on "attempting to create some order out of chaos, to make some sense of his world"[12] as more and more of the witnesses he interviews turn up dead. Simply trying "to survive by the day"[13], he narrowly escapes the bullets aimed in his direction. Not unlike many science fiction film protagonists, he is caught up in the mysteries of life and death.

Renaissance also plays with the role of the classic femme fatale, presenting not one but two possible incarnations of one "who is fatal"[14], sisters Ilona and Bislane Tasuiev. At first glance, Bislane would appear to be the greater femme fatale as the embodiment of "violence eroticized"[15]. A dark-haired beauty that cannot hold down a proper job and spends her nights dancing at a club, Bislane provides a stark contrast to her blonde, highly intelligent younger sister, Ilona, who has been working at Avalon since she was recruited at 13 years of age, and spends her off-time volunteering at a clinic for the needy.

However, Ilona does not remain the guiltless victim she appears to be. Rather, Ilona eventually fulfills the traditional stereotype of the femme fatale, not only a lethal woman to those around her – including Dmitri, Dr. Muller, and Dr. Nakata – but also one "who is fatal for herself"[16]. Becoming "half predator, half prey, detached yet ensnared, she falls victim to her own traps"[17] and follows the same downfall of the many femmes fatales before her. Hailed as "the danger" and "not just another victim", Dr. Muller, a former Avalon researcher and Ilona's superior at the clinic,

tells Karas that if Ilona is found that "we'll all be victims". He explains: Ilona's doctoral thesis in biogenics on progeria is a ruse to hide her real intent; she intends to find the protocol for immortality, which she has in fact found. Such a discovery in the hands of Avalon, an international health and beauty corporation, Dr. Muller further explains, "would be madness".

Indeed, Ilona's pursuit does appear to be mad, as victims become perpetrators, and perpetrators become victims. One surprising victim being Ilona's apparent kidnapper, Klaus, whom Ilona tries to kill when he sets her free. Ilona's death, by Karas, in the pursuit of immortality defines the irony of the classic noir femme fatale. In contrast, a productive relationship between Bislane and Karas is built throughout the plot – a relationship that is traditionally non-existent between the noir hero and the femme fatale. Through trust, Bislane and Karas build a relationship of respect and love, exchanging the same words, "I need to trust you". As such, ultimately it is Bislane who becomes the victim; kept unaware of her sister's criminal behavior, she remains "proud of [her] little sister" under Karas' fabrication that Ilona took a new ID to "save herself", "to save us all", from ever giving Avalon the protocol to immortality.

Figure 11-2: *Renaissance* (2006, Christian Volckman). © Miramax. Courtesy of Photofest, Inc.

Finally, the Parisian setting of *Renaissance* hearkens back to the typical milieu of film noir – city as labyrinth (cf. Fig. 11-2). Literally, beginning in a nightmare of dark tunnels, guns, and gangsters, Karas is unable to escape the entangling environment of Paris asleep or awake. Day and

night, through rain and snow, Paris is portrayed as a giant maze of city streets constantly overwhelming the characters; from the wide angles of the camera emphasizing its engulfment of the film frame, to the continual descent from the top of the city to inside its streets, Paris persistently "create[s] a world that is never stable or safe, that is always threatening"[18]. From the heights of skyscrapers to the depths of the subway and sewer systems, the futuristic Paris recalls the particular utopian/dystopian architecture and themes of Fritz Lang's *Metropolis* (1927), with criminality rising from underneath all the way to the top.

The immediate presence of the Eiffel Tower in the film makes the location of *Renaissance* unmistakable. However, the fantastic architecture of glass makes Paris in the year 2054 unrecognizable, even foreign. Yet, more has changed about Paris than just what lies on the surface; there are great technological changes within. The most obvious technological advancement is of course computers – almost everything is a hologram. IDs and advertisements, both billboards and freestanding (including one of a naked woman enticing strangers to come into a strip club), are all holograms. Even police have hologram reports and advanced communication systems called "ecols" that allow them to be fully connected with their team, hearing and seeing information on a screen in front of their eyes, both in the light and in the dark. Unfortunately, however, with the advancement of technology used for the law, there is also an advancement of technology used by the lawbreakers, and invisible attackers with exotic guns roam Paris, killing the witnesses that Karas interviews.

The diegetic world that Volckman creates embraces the dualism of French science fiction as both having realistic and fantastic qualities. Allowed a "freedom of imagination"[19] to create and to play, Volckman generates a world that still has "restraints and limits…for which he has made the rules"[20]. The characters within the film do not move, act, or live within Paris in any foreign way in which people live in Paris today – they simply interact with more advanced technology. To those who call for science fiction to reflect hard-core realism – portraying a very narrow category of what "*has not happened* [yet]"[21], Volckman's approach to the film's "novum", the immortality protocol, could be criticized as deficient, serving the fantastic "purposes of wish fulfillment"[22]. However, aware of the particular dualism in French science fiction, one may also defend that an extensively explained process behind the protocol is unnecessary. One view of the science fiction genre, by author Albert Wendland, suggests that science fiction requires that its content should simply give "an impression

of accuracy"[23], "should *appear* likely"[24], should "only [read] *as if* realistic"[25]; science fiction does not necessarily have to be steeped in an idealistic reflection of plausibility.

Consequently, if science fiction is "only 'rhetorically' based on science and technology"[26], and "scientific plausibility becomes a *literary device* in SF"[27], *Renaissance* surely fulfills it. Upon meeting Dr. Nakata, the last surviving member from a research team working for Avalon in 2006, Karas discovers that the team was using progeria as a means to an end; their experiment, entitled the "Muller protocol", Dr. Nakata explains, was actually a "very simple protocol: our goal was immortality". How the protocol was found remains unexplained, yet the results of the experiment are presented in a scientifically objective manner through past reports. The reports, created by Dr. Nakata, show children with triangular shaped scars at the backs of their heads, and explains that the protocol was terminated after attempts at treating the children through "genetic manipulation" were unsuccessful; the lack of success resulting in the loss of 9 children (with 5 beginning to mutate before expiring), suffering from degeneration of the heart, lungs, and brain. Accordingly, the protocol does fulfill the requirement of a science fiction novum, having "at least one factor of estrangement from the basic narrative world…by a discourse, which naturalizes that factor by rooting it in a scientific episteme"[28], only the immortality protocol is presented as a given rather than described using an exhaustive amount of realistic or imagined scientific jargon.

Two dominant attitudes towards immortality are expressed in the film through figures of scientific authority. To Dr. Muller, who originally discovered the protocol but destroyed it, immortality "would be too dangerous" in the hands of a corporation that would be given "the power over life and death forever". Dr. Muller further explains, that the protocol "would be madness" because "without death, life is meaningless". He considers it his personal mission to keep the protocol out of the hands of the public. In contrast, to Ilona Tasuiev, who rediscovers the protocol, immortality is a personal achievement – a means to become wealthy, famous, and remain young forever – to go down in history as the scientist who gave the world what they have "always been waiting for". The debate that ensues proves to be a familiar theme expressed throughout the science fiction genre: the debate over the effects of technology and technocracy.

Although Dr. Muller does not necessarily champion a technocracy – he does not explicitly advocate for a technocracy to "hold certain scientific

discoveries and technological innovations until they deem that the rest of humankind is ready for them"[29] – he does certainly seem to question "humanity's general incapacity to utilize technology wisely"[30]. Neither does he question his own wisdom, which can be said to come from the position of a technical elitist.

However, it is clear that Dr. Muller's does not speak from the position of a scientist when he advocates for destroying the immortality protocol, especially in comparison to Dr. Nakata, who justifies the experiment by claiming that they were trying to help "condemned" children. Rather, he speaks from personal experience. In relation to his brother, Klaus – one of the patients from the original experiment who Dr. Muller successfully gave the immortality protocol – and in working at a clinic for the needy, Dr. Muller warns, "genetic research is fraught with peril; research is a constant battle-lose sight of your goal, you lose your way". Further, he advises, "contact with the real world gives you perspective".

Likewise, as one who is supposed to be speaking from a position of rationalism, Ilona does not advocate or deny a technocracy, which could threaten the "liberty" of the masses, but rather speaks only from a position of self-satisfaction – completely oblivious to morality. Thus, the debate over technology and technocracy remains unresolved because of the confusion between objective science and subjective morality. Consequently, it is the value-charged world of film noir that has to determine the results of the scientific debate. Although film noir often offers a "vision of a corrupt society"[31], *Renaissance* goes against the genre, which often centers on "individual crisis and domestic issues"[32] and focuses on "institutional evil"[33] through the embodiment of Avalon.

Representing an institution, the VP of Avalon, Paul Dellenbach, is as removed from every-day Parisians as his tall arched office in Paris' remote business district. Avalon delivers its chilling message to Parisians through ubiquitous billboards (cf. Fig. 11-3): an old woman changing to a young woman spouts, "I like being beautiful. I like staying fit. That's why I like Avalon. With Avalon I know I am beautiful. And I am going to stay that way. Avalon. For a better world"; another promises, "Health. Beauty. Longevity. Avalon – we're on your side for life". Being at the head of a conspiracy to harm anyone who gets in the way of finding his prized protégé, responsible for the deaths of sick children in search for the immortality protocol – not to mention living as a self-confessed man who sleeps with his secretary, his wife, and his sister-in-law but never his

researchers – it is highly suspect as to whether the head of Avalon, Paul Dellenbach, or the corporation itself really is "working hard to improve everyone's quality of life" or simply just their own. As such, the criminal underworld that Karas is distantly connected to seems like a den of sanctity compared to the ruling elite of the sky.

Figure 11-3: *Renaissance* (2006, Christian Volckman). © Miramax. Courtesy of Photofest, Inc.

With this backdrop in mind, at the middle of the debate is the noir hero, Karas, the moral thermometer. Intensely vulnerable to feelings of personal responsibility, and principles of right and wrong, Karas is treated as a moral, rather than a technocratic, leader who will guarantee that technology and technocracy "will remain on a proper course"[34]. Both Dr. Muller and Bislane rely on Karas to be their savior. To Bislane, Karas is her personal savior; he is her last hope to see her sister again, as she begs Karas, "promise me you will bring her home". Yet to Dr. Muller, Karas is not only his personal savior, but also the world's savior, being the "last chance" to stop Ilona and her quest to expose the immortality protocol. Accordingly, the resolution for the good of all in the sacrifice of one lies in Karas' realization that "Avalon will turn [Ilona's] dream into a nightmare" and culminates in Karas' decision to shoot the young scientist whose views are associated with madness and not reason nor wisdom.

In conclusion, the dualistic tendencies of French science fiction and American film noir complement one another in a unique way in *Renaissance* that allows the film to express fully the realistic and fantastic tendencies of both genres. The marriage between the two genres results in

a film that is actively didactic from the traditions of both French science fiction, which is often used "as a vehicle for proselytizing the need for political confrontation and social reform"[35], and American film noir, which, like French science fiction, "largely reflect[s] the troubled tenor of [its] times"[36]. Finally, the combination of the two genres in the film, through style and content, "[bestow] upon the reader an estranged perspective, a new set of eyes"[37]; through this new perspective, the reader obtains a "renewed attention"[38] by which he or she "[comes] to know or understand his or her own world better"[39]. Although this understanding is expanded utilizing science fiction's evaluative possibilities of the scientific method to explore what *may be*, exercising this knowledge remains confused in shades of gray; as such, it is only film noir's ethical framework that can present a world as it *should be*, making right and wrong black and white.

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Chapter Twelve

Métal Hurlant: First French Science Fiction Comic Magazine

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The seventies were a period of intense creation. Genres were renewed; a number of authors joined forces under one banner and began the production of their own newspaper, creating new editorial structures. May 1968's break off in the comic book world was expressed by the mass desertion of authors from the newspaper *Pilote*. The concept of self-management was king. When authors left Dargaud Publishing to create their own illustrated magazine, they did so with their own funds. This period's turmoil reveals authors who wanted to create a magazine with an indelible, visionary spirit. Nikita Mandryka, Claire Bretécher and Marcel Gotlib, with *L'Écho des savanes*, Jean-Pierre Dionnet, Philippe Druillet and Jean Giraud, a.k.a. Mœbius, with *Métal Hurlant* (later published in the US as *Heavy Metal*), managed to make their magazines undeniable icons of French comic book history, even though their journey was chaotic.

Métal hurlant shows that there are great science fiction authors and sharp critics in France. French science fiction comics were emancipated from literature and became caught up with their English counterparts, in part, thanks to the work of Mœbius. In fact, the whole adventure of *Métal Hurlant* could illustrate the French distinctiveness of French science fiction comics. I will argue that the specificity of French science fiction comics lies in the care for details and the endeavor to create rich visual universes. The proving of this statement will require studying the specifics of French comics, its codes, its content, its openness to authors and chroniclers, its templates, its thematic special editions and projects. The success of French science fiction comics grew from that initial point and

garnered many other magazines and specialized fanzines in the process.

The birth of French science fiction comics

The Anglophones were the undeniable masters of literary science fiction at a time when the latter's French counterpart was less recognized and appreciated, in the seventies and eighties (Michel Jeury, Jean-Pierre Vernay and Pierre K. Rey). Some disheartened authors took a new direction, others published tediously long series in bad publications (the *Anticipation* magazine or the Gore collection of Fleuve Noir). In French comic books, science fiction was timid, a secondary character, but a few pioneers offered adventures. Publishers were not particularly interested, with the exception of Eric Losfeld. Then the magazine *Métal Hurlant*, specializing in science fiction comics, arrived on the scene in 1975.

Assessments and pioneers

In the fifties, specific media were created to foster this new literature. Hachette launched the collection "Rayon fantastique" in January 1951, Fleuve Noir publishing unveiled the "Anticipation" collection in September of the same year, Maurice Renault created the magazine *Fiction* in 1953 and Denoël introduced the collection "Présence du futur" in 1954. Science fiction was booming at the time because it was propagated more through short stories in magazines than through novels. This explains the proximity of comic books and science fiction and fantasy short stories in specialized French publications. In the area of comics, *The Pioneers of Hope* (*Les Pionniers de l'Espérance*), a philosophical tale by Raymond Poïvet and Roger Lécureux, had been a science fiction comic from 1945 (in *Vaillant)*, to 1973 (in *Pif*) – which took over from the former in 1969. The physical and mechanical notions in it were far-fetched, considering that the comic's setting was in the 1950s, barely 5 years ahead! *Pif* publishes Jean-Claude Forest and his *Mystérieuse, matin, midi et soir* (editors' translation: *Mysterious in the morning, at noon and in the evening*) in 1971, an adaptation of Jules Verne's *Mysterious Island*. These two pioneer series invented new worlds with a French perspective, slowly moving away from the influence of the translated American science fiction comics that were popular in the 1930s, like *Flash Gordon*.

In the magazine *Pilote*, Pierre Christin and Jean-Claude Mézières published *Valérian* as early as 1967. In 1970, Philippe Druillet drew *Lone Sloane* for *Pilote*, with a diffracted page layout that gave a new dimension

to science fiction. The first episode was published as a comic book at Eric Losfeld publisher in 1966. From Druillet's overflowing imagination were born convoluted scenarios that immersed the reader in an extravagant world. *Hypocrite*, by Forest, appeared in 1972s *Pilote*, following a 1971 publication in *France Soir*. In 1973, Jean Giraud, under the pseudonym Gir, published two full stories with *Pilote*: *La Déviation* (editors' translation: *The Deviation*) and *Il y a un prince sur Phénixon* (editors' translation: *There is a Prince on Phénixon*), which are considered the beginning of his science fiction illustration career. Druillet drew *Yragaël ou la fin des temps* (editors' translation: *Yragaël or the End Time*) with a scenario by Michel Demuth. Last, *Ergün l'Errant*, (editors' translation: *Ergün the Wanderer*), by Didier Comès, was published the same year, with a rich and masterful scenario in a colorful science fiction universe; 1974 also witnessed the birth of *Chroniques SF*, where Gir collaborated with Druillet. Undeniably, there was a lot of new potential for science fiction ready to emerge in the decade preceding the foundation of *Métal Hurlant*. Many of these artists had a formation in classic drawing and predecessors like Hergé, the creator of Tintin, influenced all. With Hergé, the bar was set very high in terms of quality and especially in creating believable backgrounds.

Forest is the author of *Barbarella*, published by Losfeld, which created *Terrain vague* (editors' translation: *Sketchy Ground*) in 1950s Paris. Losfeld took a late interest in the ninth art, and published few comic books (most of which were set in a science fiction universe); but he considered comics a literary object worthy of attention. Labeled as erotic, *Barbarella* is nonetheless an essential French graphic heritage. *Barbarella*, by Forest, rendered artistic what was considered trivial. Published in 1962's *V Magazine*, the story challenged ideologies. Women's placement in SF had been neglected for decades, and so comic book heroes were all male. Barbarella represented an ideal woman, free, unique and modern, with a perfect body offered to viewers, placed in a fantasy world that accentuated its curves. Losfeld published the first adventures of Barbarella in December of 1964. The editor's role in the breakthrough story of adult comics is significant. He braved censorship. The comic book was banned from publishing, and then censored. In 1965, a new 'dressed up' edition came out. Eric Losfeld then published *Jodelle* and *Pravda the Overdriver* (*Pravda la survireuse*) from the Belgian artist Guy Peellaert, a series known for its pop colors and "yé-yé" tendencies, followed by Paul Cuvelier's *Epoxy* and Jean Van Hamme, and Philippe Caza's *Kris Cool*, where the hero progressed into a carnal, sensuous world. Taking part in the

adult comics phenomenon, French science fiction now had a number of feminine figures – largely exploited for their bodies – as well as sex and violence: themes long absent were now re-elected in many genres. Paper feminine heroes soon took over the pages and covers of *Métal Hurlant*.

The coming of Les Humanoïdes associés

In 1975, authors with a passion for this underrepresented genre left *Pilote* to create *Les Humanoïdes associés*, a publishing house dedicated to science fiction comics and literature. On the 19th of December 1974, the group was created by Philippe Druillet, Jean-Pierre Dionnet, Mœbius, and Bernard Farkas, financial director at Nathan – a French publisher. Two main projects were born from this fusion of minds: The re-edition of *The Horny Goof* (*Bandard fou*), by Mœbius, and the release of a science fiction quarterly with hyperrealist graphics: *Métal Hurlant*. The title was given by Nikita Mandryka. Étienne Robial of *Futuropolis* drew the logo and did the page layouts. The first covers acted as a laboratory of sorts for the title. The magazine included a color notebook from the very first issue. The first issue saw the publication of *Arzach, by* Mœbius, a title that disrupted all the acquired principles of comic book narration, *Les Armées du conquérant* (editors' translation: *The Armies of the Conqueror*) by Dionnet and Gal; *Split, le petit pionnier de l'espace* (*Split, the Little Space Pioneer*), by Mœbius; *Approaching Centauri* (*Approche sur Centauri*), by Mœbius, with a scenario by Druillet; *Agorn by* Druillet, as well as an American comic: *C. Do Pey* by Corben; an article on Dionnet's science fiction and an article by Major Grubert. The first issue of *Métal Hurlant* has neither summary nor editorial, only full (short) stories. A unique magazine in its conception and operation, *Métal Hurlant* published the works of the protagonists as well as those of like-minded American authors, such as Richard Corben; they abided by these operating standards for several years without straying from their editorial pact. It was specified on the cover that this "quarterly" was "for adults only". This does not mean that the magazine would simply offer more explicit sexual content. To conquer this new niche of readers, the team decided to offer a much higher quality of drawing. This feature is obvious on the splash page of the magazine. From the very beginning, *Métal Hurlant* was showing care for details and was boldly exploring new universes.

As early as the second issue, Dionnet established the chronicles *À toute berzingue* (editors' translation: *Full Speed Ahead*) from 1975 to 1985, which offered fresh information on comic book events, magazines and

fanzines, as well as *Confessions d'un lecteur fou* (editors' translation: *Confessions from a Crazy Reader*), which was re-titled *Le Retour du Mange-Livres* (editors' translation: *The Return of the Book-Eater*) from the following issue onward, and which dealt with new science fiction publications (novels, general or artistic works). This title remained until 1977 when it changed to *Fils du Mange-Livres* (editors' translation: *Son of the Book-Eater*) or *Bateau-Livre* (editors' translation: *Boat-Book*), to pay homage to the French poet Arthur Rimbaud. The editorial team for these chronicles welcomed – from the seventh issue onward for *Mange-Livres*, and from the ninth issue onward for *À toute berzingue* – the authors Pierre Couperie, François Rivière, Marc Duveau, and Philippe Manœuvre, etc. who proved that there are indeed great comic book authors and sharp critics hidden in France. Mandryka, Alexis, F'Murr, and Gotlib offered humorous stories from the very first issues. The publication's renown and the demands of the readership imposed a bimonthly publication from the sixth issue onward, in March 1976, then a monthly one from the ninth, in September. *Métal Hurlant* magazine was evolving quickly. Dionnet became a businessman and positioned himself accordingly as long as the magazine was published. The strictly SF/Fantasy editions of the magazine lasted until December 1977, which is to say for twenty-four issues. French "savoir-faire" was put to good use.

Métal Hurlant, a French tradition science fiction comic

Métal Hurlant's twelve years of publication were turbulent, from the prohibition of underage sales to the multiple editorial changes. Despite this, a new and charismatic breeze was blowing thanks to significant authors and striking stories. New ground was being broken; a new identity in French science fiction was being established.

The spirit of the magazine

At a time when the first follow up stories were appearing, *Métal Hurlant* was banned from sale to minors (during the Summer of 1979). A 1949 law, modified in 1961, was brought up, which stated, "that all comic books are children comic books". The ban was lifted for the 27th issue of March 1978 for reasons as obscure as those that put it into effect. Already, the fact that comics were destined to an adult audience was creating issues. Rules were broken, literally. Among other events worthy of mention during the first years of the monthly publication, we find a dossier on the *Necronomicon* illustrated by Giger in issue 21, the diversification of the

columns in *Mange-Livres*: *Le Fils du Mange-Livres*, *La Nuit du Goimard*, *Au Sang pareil*, *Metropolis*, *Blietzkrieg* (editors' translations: *The Night of the Goimard, Without a Bloody Equal*), etc. Their authors came from various backgrounds. Jacques Goimard was a professor at the Sorbonne, François Truchaud translated the *Conan* series, Pierre Benain was a journalist at *Rock & Folk*, Marc Duveau created science fiction anthologies, François Rivière was a scenarist, Stan Barets was a librarian at *Temps Futurs*. These authors were in stark contrast with the tone of the magazine ten years later. The magazine's model and formula changed from the 51st issue onward, as Philippe Manœuvre took the position of editor-in-chief:

> *One goes with the other: the model adopts a vulgar aspect of advertising design, articles worthy of celebrity tabloids inundate the pages, they print Milady 3000, a Z series space opera by Magnus. The cover itself, with its black margin, is obviously a plagiarism of the Pilot model between the issues 521 and 627 (October 1969 to November 1971).*[1] (Lecigne, 1981, p.52)

Métal Hurlant goes through one of the darkest moments in its history. From issue 57 onward, the magazine part of *Métal* diversified, extending to all areas: rock music, fantasy, movies, TV, crime novels and images. In 1981, a chronicle on the advertisement *Pub en stock* (editors' translation: *Ad in Stock*) was run by Jean-Luc Fromental. A dossier on David Lynch's *Elephant Man* was published in issue no. 63 in May. From issue 68 onward, *Métal Hurlant* became "The Dreaming Machine" ("la Machine à Rêver") as an homage to the movie of the same name – which premiered the 4th of November 1981 – with a dossier on the director Brad Balfour. *Métal Hurlant* now boasted a new model. The magazine gained "in professionalism while giving up none of its originality. The model is beautiful and there are always these surprising pages, true food for the soul and eyes, which are authored by those Stéphane Rosse, Max, and other Michel Pirus"[2] (Groensteen, 1986, p.62). 1982 is the year when doodle jokes (gags stop) invade the pages thanks to the contributions of Tramber and Jano, Francis Masse, Franck Margerin, Dodo, and Ben Radis. In 1983 issue no. 83, most of the comics were drawn in 3D. Issue no. 86 was an homage to Hergé. In June 1984, *Métal Hurlant* celebrates its 100th issue with lacklustre short comics. *Métal Hurlant* was beginning its downfall. But why? Was the team out of steam? Was there no more ground to be broken? Lecigne had very little hope regarding editorial mechanisms during the eighties: "From the moment when a magazine is purely a support for prepublication, when it offers about the same content as the

comic books one can find in a bookstore, it has put one foot in the grave."[3] (Poussin/Marmonnier, 2005, p.144). On the 114th issue, Dionnet announced that he was leaving the management of *Métal Hurlant* in favor of Fromental. The flagship chronicle *À toute berzingue* disappeared after issue no. 117. The editorial of issue no. 121-122 from the summer of 1986 announced a big change for the new school year: *Les Humanoïdes* sold to Hachette. Claude Gendrot became the new editor-in-chief. The table of content still featured the usual authors. The initial goal of the magazine was to increase the quantity and quality of French science fiction, and that goal was now accomplished. Maybe it was now time for new projects to be initiated.

The comics and authors published

Twelve years of publications being so heavy in content, the majority of comics selected were follow up stories. Macedo experimented with airbrushing in *Selenia* as early as the 7th issue in 1976, at the time when Mœbius published the first stories of *The Airtight Garage* (*Le Garage hermétique*). Jean Giraud adopted the pseudonym of Mœbius to differentiate his realist work from his science fiction illustrator activities. He wrote and drew stories that disrupted established comic book creation patterns. The production of the author, made up of variations, had no nexus. Heterogeneous and spiritual, it cannot be read in a linear fashion. The alternations and style combinations create a succession of divergent graphic treatments. This non-static perspective bonds with the need for demarcation between science fiction comics and literature. His drawings, emancipated from realism, brought strength to the genre. Bilal was on the cover of issue no. 13 in 1977 yet worked very little for *Métal Hurlant,* rather preparing stories of the cycle *Légendes d'aujourd'hui* (editors' translation: *Today's Legends*) with Pierre Christin for *Pilote* at the time. F'Murr published the first stories of *Jehanne d'Arque* from the 15th issue onward, an anachronistic and teeming tale; Paul Gillon published *The Castaways in Time* (*Les Naufragés du temps*) from the 17th issue on; Druillet, *Gail* – the sequel to *Lone Sloane* – from the 18th issue on. The Schuiten brothers created *Carapaces*. Some authors became recurrent, such as Voss, Denis Sire, Nicole Claveloux, Luc Cornillon, Frank Margerin, and Olivia Clavel. In the 1978 issue no. 25, Daniel Ceppi published an adventure-themed series: *À l'Est de Karakulak* (editors' translation: *Eastward from Karakulak*), a tale "of a modernized classicism"[4] (Lecigne, 1981, p. 45, trans. by Anton Iorga). In issue no. 34, Jeronaton published *Champakou*, a quirky strip of South American

inspiration on "primitive" peoples. In 1979, traditional comics blended in with fantasy, science fiction and adventure-themed tales: A new episode of *Blueberry*, *Jérémiah* by Hermann, the sequel to *Candice at Sea* (*Blanche Epiphanie*) by Lob and Pichard, etc. Jean-Michel Charlier collaborated with Mœbius as Gir for the western *Jim Cutlass*. *Métal* fostered curious titles: *La Difficile Carrière de Monsieur Thémistocles* (*The difficult career of Mister Themistocle*), a color tale by Buzzelli in issue no. 42; *Aux Médianes de Cymbiola* (editors' translation: *At Cymbiola's Medians*) by Renard and Schuiten; *Privé à vendre* (editors' translation: *Private Investigator for Sale*) by Loustal and Paringaux. *Bloodstar* by Corben was launched in issue no. 47. *Salammbô* by Druillet began in issue no. 48, a free adaptation of the famous French writer Flaubert's story. In 1980, Hugo Pratt published *Fort Wheeling,* which dealt with 18th century wars in North America, inspired by Milton Caniff's style. With issue 58 began *The Dark Incal* (*L'Incal Noir*) by Mœbius and Jodorowsky, satirical "space opera", which was continued as *The Light Incal* (*L'Incal Lumière*) the following year. The scriptwriter Rodolphe began working for *Métal* on short tales with Serge Clerc, Robert Crumb, Caza, etc. In 1982, Arno and Jodorowsky created *The Adventures of Alef-Thau* (*L'Alef-Thau*), which began in issue no. 79, and covered the initiatory rites of a stump-child to regain his physical and intellectual integrity. Lorenzo Mattotti arrived in July, 1983. Claude Renard published *Yvan Casablanca*. Issue no. 101 got favorable reviews with the start of *Cyrrus*, by Andréas, the "deconstructor" of narratives, who cut up and collaged narratives with great complexity. *El Borbah,* by Charles Burns, was published from 1985 onward: A private eye with a wrestler's appearance in a universe of dwarves, robots, mad scientists, and hybrids. The creation was complex, as was the number of authors who took part in this adventure. *Métal Hurlant* was not only a science fiction magazine, but it opened its doors to other projects of great scope. Furthermore, by opening its pages to foreign authors, the magazine was showing that French science fiction was now ready to claim a status equal to that enjoyed by American and British science fiction.

Pushing the limits of science fiction

Projects birthed within *Les Humanoïdes associés* were daring. Whether they were related to new press titles (feminism, humor, or rock), special issues or movies, *Les Humanoïdes* were pioneers linking comics with all other art forms, making them permeable and transmediatized.

The influence of Métal Hurlant

The first experiment is that of a feminist quarterly between 1976 and 1978: *Ah! Nana* (editors' translation: *Hey! Babes*). Created by the "Humanoïd Women" ("femmes humanos": Wives, authors), it was banned after nine issues. In 1977, *Les Humanoïdes associés* prepared *Métal Hurlant'*s American sister*: Heavy Metal*, which hoped to bring French comics to America. This magazine, which is still published today, was definitely severed from *Les Humanoïdes* by the end of the eighties. In 1983, *Les Humanoïdes* suggested two new titles: *Casablanca,* which became *Métal Aventure*, directed by Fromental (eleven issues until 1985), and *Rigolo* by Manœuvre (thirteen issues until 1984). Quickly scuttled, their material was reinvested in *Métal Hurlant*.

The first special issue of the French magazine was published in September 1978. This alternative 33rd issue was dedicated to Howard Philips Lovecraft, with a cover by Giger; another special issue was published in December. This concept was appealing to readers: Special issues were released quarterly, then biannually in 1980, but eventually simply became one-time events. Most of these special issues were dedicated to sci-fi themes (films, robots, future, animals, etc.). In June of 1979, a special issue with no comics in it titled *Alien* covered the release of the new Ridley Scott movie. In March of 1982, another special issue was published, entitled *Conan the Barbarian* (*Conan le Barbare*), also without comics. The ultimate special edition, alternate issue no. 112, entitled *Humor & Holidays* (*Humour et vacances*) was released in June of 1985. Nonconformity was the norm and it was the very nature of those involved in the magazine to scout always the unexplored paths.

Les Humanoïdes created a vast array of activities, all more or less related to science fiction. They influenced a few publications in the eighties: *Ère comprimée* (editors' translation: *Compressed Era*) (American & Spanish comics), from éditions Campus in Bayonne (42 issues, 1979-1986), *Fantastik*, from the same publishing house (34 issues, 1981-1986), *Epic*, from éditions Arédit in Tourcoing (12 issues, 1983-1987), *Orbites*, from Nouvelles Editions Oswald (N.E.O.), offered by subscription and presented as a book (four issues, 1982). Science fiction strongly inspired fanzines: *Écume* in Bourg-en-Bresse, which had three issues made up of amateur comics and publications based on fantasy in 1981; *Futurs,* with science fiction comics, which had six issues in 1978, and three in 1981; the monthly *Neutron* (seven issues, 1980); *S.F. Rivages* in Montpellier who, in 1983, published special issue addendums by young cartoonists,

Tiens! T'auras du bouquin! (editors' translation: *Here! Have a Book!*) in Argenteuil, which offered a critic on comics and science fiction (14 issues, 1979-1980), as well as the single 1976 issue of *Sortilèges stories*, featuring fantasy comics; and *Surréel*, with SF comics of little interest. At the time when *Métal Hurlant* disappeared, none of these were yet published. However, science fiction in France, especially in the medium of comics, was now solidly established.

The end of a legend

Another important element should be mentioned in the history of *Métal Hurlant* and of *Les Humanoïdes associés*: The aggressive policy of repurchasing the publishing house begun in 1980 by the Spanish printer Litoprint and its manager José Maria Aracil. Bought by Salvador Soldevila and Hachette in Fall 1985, they were then transferred to Alpen Publishers, Swiss buyers, in January 1989. Alpen Publishers was a subsidiary of Source Holding, a Swiss group founded in 1984. Among the other subsidiaries of this group, we found advertising and communication agencies, and specialized bookstores in the process of repurchasing various other stores, such as the old bookstore les Maîtres du Monde on rue Monge in Paris, to be rechristened *Métal Hurlant*. This is, however, strictly as a catalog and not as a journal. Resurrecting *Métal Hurlant* was not considered. Fabrice Giger, the general manager of Alpen, exhibited a great interest in the productions of *Les Humanoïdes* and wanted an aggressive editorial strategy put in place: "(…) I do not understand that a series, such as Alef-Thau, by Arno and Jodorowsky, still has not been republished in the US: It represents everything Americans have been waiting for"[5] (Groensteen, 1988, p.32). One year later, Alpen Publishers group did as they had promised. The managers earned money and reinvested it in the comics department at a time when it was experiencing problems. Alpen also acquired part of the Dargaud catalog, whose albums had been scrupulously chosen in order to bring together all the bestselling works and best titles for the image of the publishing house. The transformation of the global cultural field offered a new path to the comics industry. French science fiction was flourishing, even if nostalgic readers only cared to cite the greatest names of the *Métal* era.

The last issue, no. 133, was published in July of 1987. *Métal Hurlant* had lasted twelve years and had experienced a slow agony due to its self-managing and the progressive takeover of the editorial project. According to Thierry Groensteen, *Métal* was a "*magazine as annoying as it was*

indispensable"[6] (Groensteen, 2006, p. 64, trans. by Anton Iorga). A few additional issues between 2002 and 2006 confirmed that after 1990, comics were not alive in magazines anymore but rather only in books and albums. The magazine, as a democratic and popular support mechanism, opened its pages to the creation of science fiction for a few masterpieces and the unveiling of the great names of French tradition comics. It now embodies – for nostalgic readers as well as for exegetes – the dynamic era when science fiction comics were reinventing themselves. *Métal Hurlant* introduced French science fiction comics before they were naturally accepted and integrated into popular culture.

Métal Hurlant was a laboratory for an exuberant science fiction in the medium of comics owing to a dynamic group of fans of the genre. In France, the magazine constituted a school not only for comics, but also for the representation of science fiction. Artists, authors, and editors met and re-invented science fiction according to the trends of the moment. The choices made by Jean-Pierre Dionnet were simple and diversified and that was indubitably an asset for the magazine. Since nonconformity became the norm, science fiction departed from the academic typologies thanks to a new breed of artists who were eager to walk paths never visited by their predecessors. The decisive contribution of *Métal Hurlant* lay more particularly in the broadening of possibilities regarding graphic techniques, colors, storytelling, as well as the politicization of the themes. The feminine figure became more and more erotic while the masculine figure was thrown down from his pedestal. Stories were no longer about heroes, exploring instead the daily life of characters stuck within their psychic reality or their flaws. The artists taking part in the *Métal Hurlant* adventure, along with those contributing to the emergence of adult comics, became famous thanks to their bold new inventions both in narration and representation. Underground trends, inspired by American artists like Crumb, broke into the pages of the magazine with new ideas on rock, drugs and violence: All subjects that were barely explored until then. *Métal Hurlant* – published in the same format as an adult magazine, like *Paris-Match,* that offers a mix of news and entertainment – was the driving force for unprecedented progress in the domain of French science fiction. The *Humanoïdes associés* was such a new a publishing house that, in the first few months of existence, the members had no idea where they were heading. Instead of constituting a constraint, the situation led to a complete liberation of the minds. The scenarist Rodolphe defined the enterprise of *Métal Hurlant* as a crusade that "waged war against a purring and crumbling culture"[7] (Poussin/Marmonnier, 2005, p. 62). The magazine

signals a definitive breakthrough in France of a genre that was mostly successful with Anglo-saxons. The French were then able to catch up with productions of an exceptional quality. The science fiction proposed by *Métal Hurlant*, emblematic of the seventies, was nothing less than an about turn for artists and scenarists, an opportunity to re-invent themselves and change the codes of the medium of comics before being recuperated and normalized by society.

Translated by Anton Iorga.

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Notes

1 *L'un va-t-il avec l'autre : la maquette adopte un aspect vulgaire de design publicitaire, des articles dignes de Paris-Match envahissent les pages, on passe Milady 3000, space opéra de série Z signée Magnus. La couverture elle-même, avec sa marge noire, est un plagiat pur et simple de la maquette de Pilote entre ses numéros 521 et 627 (octobre 1969 à novembre 1971).* Translation by Anton Iorga.

2 "en professionnalisme sans rien abdiquer de son originalité. La maquette est belle et il y a toujours ces pages surprenantes, véritables rafraîchissements de l'œil et de l'esprit, que signent les Stéphane Rosse, Max et autres Michel Pirus." Translation by Anton Iorga.

3 "À partir du moment où un journal est un pur support de prépublication, qu'il donne à peu près la même chose que le contenu d'albums qui vont se trouver en librairie, il a mis un pied dans la tombe." Translation by Anton Iorga.

4 "d'un classicism modernisé." Translation by Anton Iorga.

5 "[…] je ne comprends pas qu'une série comme Alef-Thau, de Arno et Jodorowsky, n'ait pas encore été replacée aux États-Unis : elle représente tout ce que les Américains attendent. " Translation by Anton Iorga.

6 "magazine aussi énervant qu'il était indispensable." Translation by Anton Iorga.

7 "rentrait en guerre contre une certaine culture ronronnante et vieillotte." Translation by Sylvain Rheault.

CHAPTER THIRTEEN

CARTOON ROBOTS VERSUS FRANCE (1945-1980)

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George Bernanos (1888-1948), famous French writer and aggressive polemicist, wrote *France against the Robots* (*La France contre les robots*) in 1944. Contrary to what the title suggests, this is not a work of science fiction but rather a satirical essay, which questions the benefits of industrialization and predicts a dark future for the inhabitants of France if nothing is done to counter the propagation of the "Machines". In fact, Bernanos is expressing the disgust of the intellectual elite towards the destruction caused by World War II, considering that even after World War I the lesson had still to be learned. This distrust of machines seems to have left a visible imprint on French science fiction comics in the years following WWII, of which the robots are a prime example.

A robot, as conceptualized by Karel Capek (1890-1938) in his 1920 play R.U.R. (Rossum's Universal Robot), has two essential qualities: It is a machine and it has a humanoid appearance. Robots are one of the most popular themes of science fiction generally speaking, but French science fiction comics seem to be an exception, at least until 1980, in that regard. Still, in the post-WWII period, we find robots in the works of Franquin (1947) and Hergé (1952) as well as in the series *Tif and Tondu* (*Tif et Tondu*) (1968). Other robots also appear later on in the series *Blake et Mortimer* (1971), *The Vagabond of Limbo* (*Le Vagabond des Limbes*) (1975), *Exterminator 17* (*Exterminateur 17*) (1976) and a few others. Overall, we notice that these robots seem to have had nothing but destructive roles; hence, it is this bias against robots that the present article seeks to analyze.

Fig. 13-1: *The 'Manitoba' No Reply* (*Le Manitoba ne répond plus*) p.23 (1952, Hergé). © Moulinsard s.a.

During the same era, on the other side of the globe, more specifically in Japan, representations of robots were presented from a completely different angle. In Japanese comics, robots are depicted as being useful and good, and are immensely popular protagonists. This stark contrast between both cultures is a golden opportunity to conduct a comparative study. In comparing historical, aesthetic, and even religious aspects of these two cultures, it should be feasible to shed light on the factors, which contributed, on the one hand, to the birth of this Japanese fascination for robots, and on the other, to France's distrust of them.

The time period we will examine begins in 1945, which is to say the end of World War II. France and Japan had both suffered grievously from the devastation caused by war machines, and civil populations of both countries had directly witnessed the extensive destructive effects of weapons. In a way, we can say that both nations had experienced similar destruction during WWII[1].

The year 1980 will be our *terminus ante quem*. This is the year when the invasion of Japanese animated films and mangas was at its peak in France. Thanks to the influence of popular Japanese culture, the perception of robots seems to have been altered in post-1980 France, as we can see in the series *Ulysses 31* (*Ulysse 31*), co-produced by France and Japan between 1981 and 1982. We will thus assume that during the 1945-1980 time period, French popular culture developed relatively independently from Japan's.

After having presented a sample of the most typical French and Japanese robots, this article will analyze the representations of robots by comparing, among other things, the size of the mechanical bodies, the deformation techniques at work in the creation of the robots when compared to a human body, and their aesthetic inspiration. The article will then broach the perception of machines in France and in Japan, taking into account such factors as history and religion.

1. Franco-Belgian robots sample

Choosing representations of French robots was an arduous task, since French comic book robots are a rare occurrence. Here are four robots, which we can consider as representative of the 1945-1980 time period in French Europe.

There is the character of *Radar the Robot* (*Radar le robot*) (fig. 13-2), created by André Franquin (1924-1997) in 1947 for a special issue of *Les Aventures de Spirou*. Radar, a mad scientist's creation, tries to eliminate the characters Spirou and Fantasio, believing that they have killed his creator.

Hergé, the most famous Franco-Belgian author, invented a nameless robot (fig. 13-1) in the comic book *The 'Manitoba' No Reply* of the series *Jo, Zette and Jocko*, published in 1952. Created by a megalomaniacal scientist, the robot proceeds to destroy everything in his path when the monkey Jocko fiddles with his remote control.

In 1968, Will and Maurice Rosy publish *Le Réveil de Toar* (editors' translation: *The Awakening of Toar*), the 12th comic book in the series *Tif and Tondu*. Tif and Tondu investigate a village's legend, which states that a lord had terrified villagers in the Middle Ages with a mechanical giant. This is a very rare example of a giant robot created in Europe, with a noted borrowing from European armors for the visual conception of the robot.

The latest representative robot of this period is the brainchild of French Jean-Pierre Dionnet (scenario) and Enki Bilal (drawings): The comic strip *Exterminator 17,* which was first pre-published in 1976 in the magazine *Métal Hurlant* (later published in the US as "Heavy Metal"), a pioneering science fiction cartoon magazine in France. Its protagonist is a robot who is programmed to be a soldier but who – following unique circumstances – acquires a conscience and henceforth attempts to free his killer-robot comrades from their enslavement.

Fig. 13-2: *Radar the Robot* (*Radar le robot*) p.40 (1947, André Franquin). © Dupuis. Courtesy of Mediatoon.

It is important to note that French robots usually have, as creators, either mad scientists or malevolent tyrants. Furthermore, in opposition to their Japanese counterparts, of whom we will soon speak, French robots are never a series' protagonists, even if the odd album may occasionally be titled after a robot's name. Robots in France only appear episodically in the adventures of heroes to whom they are nothing more than a new enemy to vanquish. They are simply machines. Like tanks or bombers, robots cease to be threatening only upon their destruction.

2. Japanese robots sample

There are hundreds of robots in Japanese comics and mangas, and so the sample of four robots, which we offer, simply represents the most typical and popular ones.

In 1952, just as Japan finally regains its sovereignty following American occupation, Osamu Tezuka began his famous series *Astro Boy* (*Tetsuwan Atomu* in Japanese). Inspired by Disney's style, Tetsuwan is to this day the most beloved robot in all of Japan.

> *In a 1986 article in the* Journal of the Robotics Society of Japan*, Tezuka explained that he created Atom to be a type of twenty-first century reverse "Pinocchio," a perfect robot who strove to become more human (i.e. emotive and illogical), and also to be an interface between two different cultures – that of man and that of machine*. (Schodt 75)

Moreover, a new CGI animated film featuring the child robot was produced in 2009, fifty-seven years after the birth of that character. The longevity of Tetsuwan is most likely due to the fact that the little robot is an ideal "interface" between humans and machines, a theme that is still relevant today. In Tetsuwan's universe, another theme is fundamental: Tolerance. When Tetsuwan sees robots treated like slaves, he does his best to free them from their bondage. Humans and machines are meant to be equal.

In 1969, Fujiko Fujio created a children's series called *Doraemon*, which was published up until 1996, a thirty-seven year run. Doraemon is a robot dog of extra-terrestrial origin with unique powers: He can produce from his pocket anything that people desire, causing all sorts of wacky situations for Nobita Nobi, the little boy who adopted him. Interestingly, the Nobi family considers Doraemon to be a full-fledged member of the family, even though he is a robot. Thanks to its popularity not only in Japan, but also overseas, Doraemon was officially declared a national cultural emblem by the Japanese government in 2004.

In 1972, Go Nagai brings the series *Tranzor Z* (*Mazinger Z*) (1972-1974) into existence. Nagai is also the creator of the *Ufo Robot Grandizer* series (1975-1976), which became extremely popular in France once adapted into a cartoon called *Goldorak*, from 1978 onwards. Even if this is not the first instance of a giant robot[2], Frédéric Schodt explains in his work *Inside the Robot Kingdom* that Mazinger-Z played a crucial role in the

creation of what we might literally call a mythology of robots in Japan.

> *But the man-robot symbiosis that Mazinger Z symbolized helped solve an old problem in robot fiction − the problem of personifying the machine while still preserving its mechanical identity. When the robot became, like a car, a machine that could be jumped in and driven, it had a powerful appeal to young boys. When animated, and when toy companies began issuing faithful reproductions, the Mazinger Z series became a smash hit.* (Schodt 83)

The giant robots controlled by teenagers became extremely popular; those series were exported the world over, particularly the metaseries *Gundam*, created in 1979 by Yoshiyuki Tomino, which still exists to this day. By-products, including comic books, are so numerous, and *Gundam*'s popularity in Japan is such that it would be a serious oversight not to include it in our sample. Schodt discusses here the secret of its success:

> *The difference between Gundam robots and others was the level of mechanical detail and the aura of realism. [...] His robots [Kanda's] are armor, or protection, with an emphasis on beauty in function and shape.* (Schodt 88)

The net worth of the "Gundam" trademark in 2008 was estimated at 626 million US dollars. It is perhaps not quite the billion dollars, which Superman was worth in 2004, but it is nonetheless a significant sum for a country whose population is but a third of that of the United States. It must be noted that this is a series, which was originally produced for TV rather than for magazine comics. Two "life-size" statues of the famous robot, approximately 18 meters tall, have been erected in Japan. Such an extravagant homage is no doubt a strong testimonial to the popularity of this character.

It must be added that all the Japanese robots that were presented in this sample, are the protagonists of their series, which, additionally, bear their names, something that France has never seen. These series, which have lasted a very long time, have been adapted for TV and movies, and merchandise – inspired from them, such as toys and backpacks – is infinitely diverse. We will now compare French and Japanese robot representations in order to better illustrate the disparity of certain perceptions.

3. Robot representation

All the robots that have just been presented have a human-like appearance. Doraemon may have been inspired by a dog, but he stands up and keeps his head straight like a human. Using the human body as a point of reference, one can make observations on size and deformations, as well as sources of inspiration.

3.1. Sizes

Taking the human body as reference, we notice three main robot sizes: Small, akin to a pet; human size; and gigantic – the latter type varying from the size of a small plane to that of an aircraft carrier.

Small robots, such as Doraemon, often have limited functions, which helps to make them seem apparently harmless. These robots are akin to humanity's favorite pets, such as dogs or cats. In French comics, we find very few small robots. There is the robot spider in the short story *L'Araignée qui volait* (editors' translation: *The Stealing Spider*) in the 1973 *Spirou* magazine, which was re-edited in the 4th album of the *Yoko Tsuno* series titled *Electronic Adventures*. Note that the spider is certainly not a human-friendly creature. It seems that French culture, in the time period studied, refuses to see a machine as a domestic animal. The Japanese have no such qualms, and will later create robot dogs for children as well as the tamagotchi (1996), a portable video game, which consists in feeding and playing with a virtual pet.

Even if Tetsuwan Atomu arouses the sympathy of the public due to his small stature, it must nonetheless be classified as a human-size robot. In fact, the majority of comic book robots are human-sized. Among the sample of French robots, three are of human size. We will further explore this mimicry later on.

As for giant robots, they usually do not possess an autonomous conscience and require a pilot. As Schodt explained earlier, the association of a human with a robot allows for the insertion of a soul in the machine. Giant robots, whose size is comparable to that of giant Buddha statues, appear as gods walking among men. The pilot, getting into the cockpit of his robot, wears an armor, which will make him a warrior god. Henceforth, the adventures take place on another plane, where regular humans have no place. In French culture between 1945 and 1980, giant robots are

extremely rare. Other than Toar, who is little known, there comes to mind the giant robot in the animated movie *The King and the Mocking Bird* (*Le Roi et l'oiseau*, 1952) by Paul Grimault. Strangely, when he finally stops his rampage, the robot sits down, adopting the pose of Rodin's thinker, as though he wanted to reflect on the futility of his destructive actions.

3.2. Deformations

A normally constituted adult has a head to body ratio of 1 to 6 or 1 to 7. For children, this ratio is somewhere between 1 to 4 and 1 to 6. One of the deformation techniques, which caricaturists often use, consists in increasing the size of the head and reducing the body, thus infantilizing the portrait. Looking at Tetsuwan, we notice that he bears the proportions of a normal child, his body being 4 times the height of his head. Doraemon, however, has a 1 to 2 ratio. These caricatural proportions instantly situate Doraemon in the comedic genre. At the other end of the spectrum, the heroic proportions give far more importance to the body than to the head. The statues of Greek gods have a head to body ratio of 1 to 8. Let us also mention that in *How to Draw the Marvel Way* (1978), it is recommended that superhero drawings have a ratio of at least 1 to 8½. Japanese robots like Gundam present deformations with ratios as extreme as 1 to 12, or even more. Giant Japanese robots then, belong most definitely to the heroic genre.

French robots, in contrast, do not feature any deformations associating them clearly with a caricatural or epic genre. If Hergé's robot is drawn with a big head, Radar, for his part, has a small one. In fact, French robots closely mimic human proportions. It seems that for the French, the mechanical aspect of the robot is a symbol of alterity sufficiently powerful that it precludes any other deformations.

3.3. Sources of inspiration

For young boys in Japan, samurai and samurai armor images have always had a romantic air about them, and so have insects. (Schodt 84) These are, according to Schodt, elements of inspiration manga creators incorporate into their robots' appearance. Giant robots seem directly inspired from ancient Japanese stamps featuring samurais. On the other hand, Tetsuwan −who can fly− has aerodynamic shapes similar to those of an airplane or a rocket. These are machines, which, similarly to robots, are very attractive to young boys.

As far as the French sample goes, the sources of inspiration do not seem to have anything in common. If the robot Toar is reminiscent in its conception of medieval European armors, Hergé's robot, for its part, reminds us of Polynesian statues, such as those on Easter Island. Radar looks like a metallic skeleton, thus associating its representation with the idea of death, while the Exterminator 17 has all the appearances of a human being. It seems that French cartoonists do not seek to make their robots appealing to young boys. Their robots, physiognomically, appear as enemies to humans.

4. The perception of machines

4.1. History's influence

In the first half of the 20th century, the French took part in two world wars. As for the Japanese, they went through the Russo-Japanese war in 1905, as well as through the Second World War. France was occupied by Germany from 1940 to 1944. Japan was occupied by the Americans from 1945 to 1952. Although the war experiences of both these countries are more or less comparable, the historical interpretation of them, on the other hand, differs, particularly in relation to technological progress. In assessing the wars, the French came to the conclusion that technological progress only increased the number of war victims. The Japanese, for their part, concluded that industrialization and technological progress led to victory. Therefore, after its loss, the Japanese society invested much in technological developments.

> *The key to a prosperous future lay in the promotion of science, the mastery of advanced technology and managerial techniques, and the production of high-value-added manufactures.* (Dower, 537)

The Japanese government, while the entire country was still under American occupation, had decided to focus the educational system on industrial needs.

> *The educational system would be mobilized to produce students competent in statistics and the gamut of technical skills required for an advanced industrial society.* (Dower, 540)

Japan, considered a Third World country after the war, is now third in the world for its gross national product. To this day, the Japanese society has an insatiable appetite for new technologies, as is attested by the

numerous electronic gadgets exported by the land of the rising sun.

On the other side of the globe, the industrial revolution, coupled with imperialist conquests, had given France and other European nations a feeling of unconditional optimism towards machines. This optimism permeated the universal exposition in Paris in 1889, with its gigantic gallery of machines. However, the First World War would soon show that though machines can expand production and increase efficiency, they could also bring destruction on a scale never before seen. This destructive potential literally fell out of nowhere onto the French soldiers hiding in the trenches, as this excerpt from a "poilu's"[3] letter attests:

> *Indeed, everywhere we clash against machines. It is not man-to-man combat, it is man against machine. A barrage with asphyxiating gases and twelve machine guns, that's more than enough to obliterate the attacking regiment.*[4] *(Parole de Poilus* 63)

Henceforth, war and machines would be inseparably linked in the French's minds. Indeed, in English "mitrailleuse" is translated as "machine gun", a composite word, which perfectly expresses the new and intimate relationship between weapon and machine.

> *The industrial civilization itself is based upon a system which closely abides by the operating rules of machinery: the system is perfectly hierarchized, mechanized and optimally efficient. It is no wonder that Giono calls it "the civilization of the machines", which is inevitably drawn "towards war", obviously opposite to the "peasant civilization" which tends towards peace.*[5] (Badr, 65)

Jean Giono (1895-1970), in his writings, went so far as to say that the mere usage of machines leads to war. Whatever the case may be, machines have become a symbol of mass slaughter, and the use of modern weaponry – such as large calibre canons, machine guns, planes and tanks – has brought about a radical change in the human beings' role on the battlefield. From the new war's perspective, the machines are the fighters, and man is their servant.

> *Despite the effort to romanticize Tommy Atkins, or the French* poilu*, or the German* frontschwein*, on such a battlefield, the soldier was less a modern version of a chivalric knight than a military version of a factory worker, doing his coglike part in the military machine.* (Braudy 385)

Wars are now waged by interposed machines (artillery, planes, etc.) in

whose service men are placed (gunmen, pilots, etc.). Indeed, do we not name the soldiers according to the weapon they serve? Think for example of rifleman, grenadier, gunman, machine gunner, gunner, artilleryman, bombardier, and tankman, etc.

The visceral distrust of the French towards "Machinery", of which Bernanos was speaking, has only amplified since the Second World War, even more destructive than the First. Following two devastating wars, the French had clearly grasped that a modern war is not won with courage and determination but rather with industrial production capacity and technological advancements. From that point on, in the context of the popular French culture, which would inspire comic strips at the conclusion of World War II, it was no longer possible to imagine a human-like machine without making it a creature bent on destroying humanity.

4.2. Religious influence

A rare cultural phenomenon, the Japanese simultaneously practice two religions, namely Buddhism and Shintoism. If, in Buddhism, only living creatures have a spirit, in Shintoism, spiritual manifestations are omnipresent.

> *Most statements about religion and robots are inspired by Japan's tradition of animism. Animism is the belief that anything in the natural world – not just living things – can have a conscious life or soul. It exists in Buddhism but is especially strong in Shinto.* (Schodt 196)

According to Shinto philosophy, animals and Nature, including sources, rivers, and unusually shaped stones all possess a spirit. The same applies to machines. Therefore, when a Japanese company receives new mechanical equipment, such as trucks or machine-tools, they get a Shinto priest to bless them. The katana, a traditional Japanese sword, also has a soul; the same goes for all weapons, particularly for large warships, whose superstructure is sometimes reminiscent of a pagoda. From this perspective, robots are no exception, and they can even be associated with protective divinities in the collective unconscious.

> *In the context of Japanese history and of the Japanese relationship to technology, giant warrior robots are closer to being an antidote for a deep-seated fear of elemental destruction, a high-tech version of the Nio, the twin Deva Kings whose giant, muscled forms stand at the gates of Buddhist temples and protect the faithful from evil.* (Schodt 90)

If Shinto religion seems to have played a determining role in the creation of a positive perception of machines in Japan, Catholicism, on the other hand, has contributed in an opposite fashion. In Christian culture, only human beings have a soul. Objects do not, and neither do animals, since only humans have access to paradise after death. Additionally, human interventions in God's natural plan, such as science or contraception, are considered aberrations. In this context, the creation by man of a machine with human-like pretences is nothing less than heretic.

Conclusion

Our initial objective was to understand why robots in French comic books between 1945 and 1980 only had destructive roles. As a partial answer, what we found for that time period is that while Japanese comic book robots were very diverse in sizes, functions, and assumed protagonist roles, which were interwoven with the social fabric, French comic book robots, minus a few notable exceptions, were present only in the guise of antagonistic humanoid machines programmed to destroy humanity. We must note as well that Japanese cartoonists focus all their efforts on refining the aesthetics of their robots in order to cater to their young male readers, while French ones do not seem to bother with that aspect. In France, for the creators as well as the public, the simple fact of being a machine constitutes the absolute criteria of otherness. It is thus unnecessary to try to hide or attenuate the robot's otherness.

France and Japan both experienced terrible devastation during the Second World War. Learning from this bloody conflict, Japan henceforth saw technology as a solution to war, and robots as saviours. France stood in polar opposition, identifying war technology as the fundamental problem, seeing robots as symbolic of all the negative aspects of machines and of the civilization that produces them. Finally, while the religions of Japan accepted the idea that a machine may have a soul, Catholicism, which was the main religion in France at the time, rejected this concept as heretic. To sum it up, we could say that from 1945 to 1980, in Japan, the robot was welcomed as a new member of the family, while in France it became the dangerous stranger all should beware.

What is most striking when we compare the productions of both countries is the abundance of robots in Japanese comics and their scarcity in French ones. It seems that instead of robots, French series such as *Yoko Tsuno* or *Valérian and Laureline* rather explore science fictional themes,

such as space and time travel. This perhaps might be explained by the rich historical past of France. A comparative study of these themes would certainly be an interesting venture.

Translated by Anton Iorga.

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Notes

1 War, for Japan, had begun with the invasion of Manchuria in 1937 and had intensified on the 7th of December, 1941, following the attack of Pearl Harbour.

2 The first instance would be Tetsujin 28-go, by Mitsuteru Yokoyama in 1956.

3 "Poilu" being a nickname given to French soldiers in the Great War meaning "hairy" as soldiers in the trenches would not have the opportunity of shaving.

4 *En effet, partout on se heurte aux machines. Ce n'est pas homme contre homme qu'on lutte, c'est homme contre machine. Un tir de barrage aux gaz asphyxiants et douze mitrailleuses, en voilà assez pour anéantir le régiment qui attaque.* Translation by Anton Iorga.

5 *La civilisation industrielle est, elle-même, basée sur un système qui suit, à peu de choses près, les règles de fonctionnement de la machine: le système est parfaitement hiérarchisé, mécanisé et rentabilisé. C'est à juste titre que Giono l'appelle "la civilisation de la machine" qui se dirige inévitablement "vers la guerre", en opposition bien entendu avec la "civilisation paysanne" qui va vers la paix.* Translation by Anton Iorga.

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