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EXTINCT SPECIES IN FRENCH PREHISTORIC FICTION AT THE TURN OF THE NINETEENTH CENTURY

MARC GUILLAUMIE

This paper deals with what has been called “prehistoric fiction”,¹ that is, the novels and images (engravings, films, comic strips, statues) supposed to recreate Prehistoric life. Since the prehistoric period is a time that has not left us any written trace, novelists and scriptwriters (and to a certain extent artists) have been faced with different problems than those experienced by authors of historical novels. And yet, despite a small amount of material available, “prehistoric novelists” have managed to build a world based almost entirely on the imagination. If imaginary, the fictional worlds are not arbitrary, however. My aim here is to show that the creator’s freedom is very limited. It is limited by the obvious concern with scientific accuracy, on the one hand, and the need to portray an acceptable and understandable world capable of being *sold*, and which respects the feelings and generally accepted ideas of the time when the work is published, on the other hand. Extinct species have become emblems of these fictional worlds: as prototypical examples, mammoths appear on most covers of illustrated prehistoric novels, for instance.

Well before the advent of the prehistoric novel, spectacular creatures unearthed by palæontologists were very fashionable. In the 1820s in England Mary Anning (1799–1847) looked for and sold fossils, anticipating the “hunt for fossils” that was to make some prospectors wealthy in the United States at the end of the nineteenth century. During the 1830s scientists, such as the Englishman Henry de la Beche (1796–1855), the German Georg Goldfuss (1782–1848) or the Frenchman Emile Le Puillon de Boblaye (1792–1843), published pictures that were sometimes copies.² Richard Owen (1804–1892) in England and Georges Cuvier (1769–1832) in France saw pictures of strange extinct animals

become widespread among the cultivated general public. The reconstructions made by Benjamin Waterhouse Hawkins (1807–1894) for the Crystal Palace dinosaur park in Sydenham, or the great French popularisers, such as Louis Figuier (1818–1894), illustrated by Edouard Riou (1833–1900),³ Camille Flammarion (1842–1925), illustrated by Georges Devy and the same Riou,⁴ as well as Henri du Cleuziou (1833–1896), illustrated by Auguste Tilly (1840–1898) and Devy,⁵ or even Riou, who also illustrated Jules Verne’s *Voyage au centre de la Terre* (1864), are so many examples of the circulation of palæontological images at the time.

Books popularising extinct worlds and creatures reproduced these illustrations.⁶ Artists, such as Paul Jamin (1853–1903), and the sculptor and doctor Paul Richer (1849–1933),⁷ provided well-documented pictures of people and extinct animals. They prefigured the highly successful works of Charles R. Knight (1874–1953)⁸ and Zdenek Burian (1905–1981), which were repeatedly reproduced or plagiarised.⁹ But it was above all the mass media that circulated scenarios and images, placing them firmly in the public’s imagination. Initially great use was made of high-quality pictures of dinosaurs, in particular by the *Penny Magazine*.¹⁰ Caricatures of Charles Darwin as a pre-human creature first appeared in 1860, long before Darwin spoke about “the descent of man” (1871). Then a plethora of films appeared, from *Gertie the Dinosaur* (USA, 1914) to *One Million Years B. C.* (UK, 1966). In France and everywhere else, children’s books featured “prehistoric animals”. All these images provided the model of what would become the world of prehistoric fiction, characterised by (sometimes comical) characteristics, like gigantism or predation.

However, pictures of extinct animals alone do not make a prehistoric novel: however effective images might be, a plot is necessary, and it is difficult to imagine a plot without involving a human character. With mammoths and sabre-toothed tigers or even dinosaurs, an ape-man is thus a compulsory figure of the prehistoric novel.

The publication of Charles Darwin’s *On the Origin of Species* in 1859 served as a pretext: the ape-man was already in people’s minds and Darwin (in spite of himself) gave the “seal of approval” of the sciences to the fantasy. Clémence Royer, who translated Darwin’s works into French from 1862 onwards, welcomed the new theory enthusiastically: she believed that this theory had confirmed her own ideas. Before 1859, Royer had already given lectures on the monkey man.¹¹

The first real wave of prehistoric novels was published in French¹² in the 1870s. However, it was during the following forty years in France,

Belgium, England and the United States, that this subject gave rise to works of fiction which would strike the readers' imagination for decades to come. In 1876, Elie Berthet¹³ first showed the fight between mammoths and the "Giant Cat". In 1884, his short story, "Un Rêve", portrayed an *amphicyon* and—most significantly—a hairy "Tertiary Man": this was the famous "missing link" that the scientists were looking for. However, Berthet located his novel in Paris while they were no longer looking for him in Europe. Was this a mistake or a literary necessity? In his preface Berthet stated his absolute commitment to science; but he nonetheless went beyond it and he even freed himself from it. What he was interested in was spectacular scene-setting, and not the spreading of knowledge.

Some time later, H. G. Wells, Rudyard Kipling, Arthur Conan Doyle and above all Jack London¹⁴ also portrayed primitive humans, in a world often haunted by extinct monsters. Ernest d'Hervilly (1839–1911)¹⁵ staged a fight between his young hero and frightening creatures, most of them anachronistic or imaginary. I will return to this later on but it is worth mentioning Félix Regamey's (1844–1907) illustrations which showcased these strange animals.

For the French, unlike the English, the model of the prehistoric novel was almost unique, represented by J-H Rosny Aîné's (1856–1940) *La Guerre du feu*.¹⁶ This work, a relative latecomer in the prehistoric novel genre, presented a wide range of extinct species: mammoths, aurochs, giant deer, cave lions and cave bears. Several species mentioned are still living in distant climates (tigers, hyenas, saiga antelopes, jackals, etc.) and the same is true for types of vegetation (catalpa, terebinth, etc.).

Yet certain species are unclassifiable: are the "Blue-Haired Men" large apes or Hominidae? The author is unclear on this point and it is difficult to decide. Rosny also portrays human species or supposed "races" that are imaginary or no longer exist: Kzamms, Wahs, Red-Dwarves and even Oulhamrs have no equivalent in the modern world. With regard to these "races", which are perhaps the closest to our species (the hero of the novel being) one of them, the novelist informs readers in the first pages: "Although their type seemed to bring them close to our inferior races, any comparison was, in fact, illusory".¹⁷

It is possible to see here the main features of prehistoric exoticism: the climactic accumulation and contrasts I mentioned earlier, the strange and gigantic creatures, and the issue of predation.

The extinct species depicted in prehistoric novels share certain aspects with modern ones, but are, at the same time, fundamentally different from them in many respects. Prehistoric novels must feature human characters

reasonably comparable to modern-day man so that the reader can identify with the hero; but they must also be as beastlike as possible. Everything about the hero is subject to this dual-tension: hair, muscles, noises, instinct, habits, and look, are those of animals and yet the reader must, at all times, be able to make out the beginnings of human feelings, language, societies and techniques. From this point of view the idea that Neanderthal man is another human species was a godsend for prehistoric novelists: nineteenth-century scientists made Neanderthal man an intermediary stage between monkeys and men. However, science ironically allowed prehistoric novelists to dream about something completely different from man—in other words (paradoxically) a non-human man! (There is no doubt that if one day a greater relationship between Neanderthal man and Homo Sapiens than had previously been believed were to be confirmed, then novelists, somewhat disappointed, would fall back on the Hominidae of Florès or Denisova).

Mammoths and elephants presented the same differences as did Neanderthal man and Homo Sapiens: bigger, hairier, far more powerful (in fiction); they were elephants seen through the prehistoric prism, a sort of *parallel realisation* of the elephant essence. The same is true of the woolly rhinoceros, cave bears, cave lions and cave hyenas, and the giant deer, in comparison with modern animals.

Gigantism is another feature of prehistoric exoticism, deriving from stereotypical palæontological imagery: prehistoric times were violent and disproportionate;¹⁸ furthermore, the landscapes attest to this, marked by volcanoes, glaciers, jungles and huge rivers. As mammoths were not large enough for him, Rosny, in *Le Félin géant*¹⁹ (the sequel to *La Guerre du feu*) introduces *elephas antiquus*, an even more terrifying ancestor.

Moreover, the prehistoric period was dominated by predation. The heroes were constantly confronting ferocious animals or cannibals. The “prehistoric animals” featured in children’s books tore each other to bits endlessly, repeating the model that had been seen in the illustrations of Louis Figuier’s or Camille Flammarion’s books with well-documented variations. (This fantasized violence of the prehistoric period, unlike what certain scientists say today, is neither naive nor “popular”: its origins were scientific).

Very old stereotypes were repeated beneath a scientific façade. Authors depicted the fight between the megalosaurus and the quadruped iguanodon (the latter with a horn on its nose) between the 1830s and the 1860s, or bipeds without horns later on, or the combat between the tyrannosaurus and the triceratops in books about “prehistoric animals”, or lastly the fight between giant cats and mammoths illustrated in Elie

Berthet's novel, with the constant pitting of a mobile carnivore against a heavily armoured herbivore, as a representation of a fight between a leaping, bloodthirsty and powerful creature and another representing stability.²⁰

Such portrayals of extinct animals and humans cannot be explained by naivety or ignorance. Here the case of Ernest Hervilly is symptomatic. After a long and very detailed introduction, illustrated by pictures from collections in the Saint-Germain-en-Laye museum, the novelist offers a series of frightening descriptions: a mammoth is devoured by dinosaurs and *pterodactyls*, two-metre wide bats hiding in a covered alley, etc. These are, of course, the scenes preferred by the illustrator.

The case of Rosny is clearer still: the writer, a friend of Emile Borel and Paul Langevin, a contributor to several reviews and scientific societies, was regarded as a philosopher of science. In addition to his novels, he wrote two essays on the prehistoric period. It is difficult to consider him as naive. However, in his novels, there are several extracts proving his flamboyant attitude towards the sciences. It was the previously mentioned *elephas antiquus* living in the world (archaic, it must be said) of *Le Félin géant*, "perhaps one hundred thousand years ago".²¹ This unexpected *elephas*, as if this were not enough, was accompanied by a *machairodus* and a *felis spelaea*. Stranger still was the appearance of this "giant cat", not only in the sealed-off world of the novel of the same name ("*félin géant*": a sort of prehistory *en abyme*), but even in *La Guerre du feu* and in other prehistoric novels written by Rosny, all supposed to take place at a later time.²²

Moreover, from the middle of the nineteenth century, there was no longer any debate about the polygenesis of the human species. Darwin had brushed it aside in just a few words in 1871.²³ Rosny, however, highlighted it from his first prehistoric novel (*Vamireh*, 1892) to his last (*Helgvor du Fleuve Bleu*, 1930). It can even be said that the Gwahs in *Helgvor*, with their pointed, moving ears were less human than the Tardigrades featured in *Vamireh*, whose name however suggests that they shared similarities with the Sloth (a giant Sloth which was discovered at the end of the eighteenth century) and about which Rosny said that they had "entered into the *external* passages of human species".²⁴ through a phenomenon of convergence, they had a vaguely human look to them. Rosny was more cautious and less explicit in his following prehistoric novels: he left it to his readers to guess that the Wahs in *La Guerre du feu* looked like batrachians, the Kzammms were similar to gorillas, and the Red Dwarves to foxes or jackals.

Thus, lack of knowledge does not explain the violence of the extinct worlds that prehistoric novels portray. But neither is it a taste that the authors assumed: all the prehistoric novels written at the end of the nineteenth century bear the same peaceful and progressive message. The “races” would cooperate one day, man would become more humane and animals would form alliances with him. Violence would disappear little by little: this is what these prehistoric novels proposed; the last paragraph of the novels almost always ended with these promises.

If scientific knowledge and a progressive discourse was almost always part of the narratives, then what could explain the rough anachronisms, the violent scenes and the use of extinct monsters? In order to find their origin it is necessary to study the deep structure of the story and the ideology of an era. In fact, the loss of this violent world, fierce and free, revealed a deep trauma. Rosny often expressed a bitter nostalgia: the finest and strongest animals no longer existed; man had been emasculated by civilisation; beasts had been degraded by thousands of years of slavery and terror. This feeling was shared by all prehistoric novelists: readers did not delve into the prehistoric period without somewhat experiencing childhood fears, obscure desires of power and a morbid fascination for violence. The devouring featured in prehistoric novels is similar to what may be found in the bloodiest fairy tales.

Furthermore, the spectacular competition (therefore predation) was an unavoidable ingredient of these works of fiction: due to the lack of individual characters or stories based on reality (as historical novels do) prehistoric novels featured “races” and species as real characters. The individual characters are only avatars of these divinities, or empty masks hiding the real actors. This explains the strange presence of the giant cat that casts a shadow of sadness over Rosny’s prehistoric novels; it is always indicated as the last survivor of its species. Its sole purpose, to be precise, is to disappear. In order to be effective, prehistoric novels portray the triumph of a species, its extinction, or its ability to change, which for the human “races” could be a social, technical or spiritual “transformation”: the vast field of the social pseudo-Darwinism opened up through this.

Prehistoric novels were not only not Darwinian, but often illustrated anti-Darwinian scenarios.²⁵ They never showed genuine *métis*; they exploited the Darwinian notion of “reversion” and that of “the law of balance of growth” (Geoffroy Saint-Hilaire); they portrayed *overly* developed organisms; very favourable environments, which remained so for a long time despite Malthusian laws, etc.

However, late nineteenth-century prehistoric novels matched the evolutionary ideology advocated by Herbert Spencer (1820–1903). This ideological capture of Darwin’s biological theory, this vast extended metaphor comparing societies to organisms, and which would give rise to a supposed “social Darwinism”, supported, in this period, the efforts of conquering nations and classes. Thus, there can be no doubt that the human species dreamed up by the authors of prehistoric novels, or the pseudo-races that they imagined were the distorted reflection of real people.

The best authors avoided an overly visible racism, however. Moreover, the disappearance of the real primitive “races” seemed inexorable to them, and just as sad as the extinction of giant lions. But are the Red Dwarves in *La Guerre du feu* not a discrete reference to the “Yellow Peril”? The Kzamms, whose name (for French speakers) sounds German, are large and fierce, but their degree of evolution is equivalent to that of the tribe of heroes: they were rivals from a technical point of view. Lastly, the Wahs, a human species that was *too* developed represent the risk of degeneracy which threaten civilised peoples. What had once been their strength (technical and moral) was to prove their weakness at a later date: their more efficient arms meant they no longer fought hand-to-hand and were therefore massacred.

It is clear here that Rosny had almost nothing to say about the prehistoric period. The prehistoric novel’s conjectural pseudo-humans displayed by all the other authors (Rosny is emblematic) show us something else: standing behind the Kzamms were the ferocious Prussians. Terrifying pictures of gorillas, these frightening creatures that the traveller Paul Belloni du Chaillu (1835?–1903) had made fashionable in the 1860s and which the sculptor Emmanuel Frémiet (1824–1910) portrayed in all its violence in 1887 appeared, just as illustrations of black cannibals, refusing to embrace the benefits of colonisation. For the first publication of *La Guerre du feu* serialised in the magazine *Je sais tout* (1909), the illustrator Manuel Orazi (1860–1934) gave the Kzamms the look of Zulu or Kanak “savages”.

More generally, prehistoric fiction embodied *all* dominated categories or identities. Not only savages, colonised peoples or convicts, but also peasants and workers who were described as stupid and dirty. A few authors made the comparison explicit. Angry children were included as well. And so were women: cruel, crafty, and unable to control their impulses. This was also applied to individuals in crowds, alcoholics, born criminals, madmen, etc. The theme of the re-emergence of archaic

features, the monkey-man plays a major role in the vast anthropological literature of the time.

However, things still remained ambiguous, and the writers were sometimes less simplistic than contemporary scientists: savages represented free men. The monkey-man's conquest of its own humanity was an epic. Its enemies, the extinct gigantic animals, were a match for his bravery.

As a result, extinct species functioned as a mirror-like projection of the hidden strength that lay deep in man. The fighting scene between cave bears (never proven, but described thousands of times in prehistoric novels or represented in pictures, dioramas, or "prehistoparks") illustrated the antagonists at the most critical moment: pounding out of the cave, the bear, standing upright, exhibiting his fearsome claws, roars at the hunter whom is on the point of attacking. A wounded victim is often seen lying on the ground. In these illustrations the hero seems to transcend his weak human nature. He is not afraid to take on a frightening caricature of himself, overcome the animal inside him, and magically take on his strength.

The different uses made of extinct species by prehistoric fiction are important and various. Extinct species are emblematic, foreshadowing the general atmosphere and illustrating the taste for exoticism. Prickly scales, giant teeth, claws and strange horns undoubtedly express childhood fears, and perhaps even reflect the collective unconscious. Lastly, it represents, metaphorically, the inner strength of man, which, uncontrolled, becomes an enemy force: the *Alien*, the *Horla*.

Differing greatly from historical novels, prehistoric novels continued to fly the banner of science. But their links with science were pernicious. It would be wrong to believe that this was specific to the nineteenth century, that the progress made by palæontology has altered this fictional strategy, and that today we can at last read documented and "serious" prehistoric novels. Rosny was very accurate and careful; his anachronisms were not unwarranted in any way. They were not mistakes. Today, nineteenth-century prehistoric novels *appear* naive because the epic tone no longer corresponds to contemporary sensitivity: only Rahan is left to confront the cave bears. But the mammoths and sabre-toothed tigers are still here, thanks to the "Prehistoric shamans".²⁶ The twenty-first century is producing many prehistoric novels superficially marked by anti-racism, feminism, non-violence and ecology. The ideological environment has changed, but not the ideological function of fiction.

Fiction is subject to strict constraints, but not akin to those suffered by science. Science suggests and checks, it asks new questions: fiction

exhibits, it imposes *answers* compliant with generally received ideas. The palæontologist attempts to understand *organisms* and questions nature; fiction revives *monsters*.

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Notes

¹ Marc Angenot & Nadia Khouri, “An International Bibliography of Prehistoric Fiction”, *Science Fiction Studies* 8 (1981): 38–53.

² Jean Le Loeuff, “Les Reconstitutions de dinosaures”, in *Bulletin de la Société d’études scientifiques de l’Aude*, 45 (1995): 11–25.

³ Louis Figuier, *La Terre avant le déluge* (Paris : L. Hachette & Cie, 1863).

⁴ Camille Flammarion, *Le Monde avant la création de l’homme* (Paris : Marpon & Flammarion, 1886).

⁵ Henri Du Cleuziou, *La Création de l’homme et les premiers âges de l’humanité* (Paris : Marpon et Flammarion, 1887).

⁶ A. Hyatt Verrill, *Les Etranges Animaux préhistoriques* (Paris : Payot, 1953).

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- ⁷ Philippe Dagen, “Le ‘Premier Artiste’”, in *Romantisme*, 24 (1994): 69–78.
- ⁸ Emmanuelle Huet, “Des Dinosaures en représentation”, *La Lettre de l’Office de coopération et d’information muséographiques*, 77 (2001): 3–8.
- ⁹ Nowadays some Cuban postage stamps reproduce images created by Burian, without any mention of his name: that is only one example among many.
- ¹⁰ Le Loeuff, “Les Reconstitutions de dinosaures”, 19.
- ¹¹ Clémence Royer, “Préface de la première édition” (1862), in Charles Darwin, *De l’origine des espèces par sélection naturelle ou des lois de transformation des êtres organisés*. Trad. Clémence Royer (Paris : Ernest Flammarion, 1935), xxi–xxii.
- ¹² “Chronologically, the earliest books of prehistoric fiction appeared first in France”, Angenot & Nadia Khouri, “An International Bibliography of Prehistoric Fiction”, 38.
- ¹³ Elie Berthet, *Romans préhistoriques : Le Monde inconnu* (Paris : Dentu, 1876) (contains three short novels); Elie Berthet, *Paris avant l’histoire* (Paris : Furne, Combet & Boivin, 1884) (a new edition, to which was added a short story: “Un rêve”).
- ¹⁴ Herbert George Wells, “A Story of the Stone Age” (1897); Rudyard Kipling, *Just so Stories* (1902) (contains two stories of parodic Prehistoric Fiction); Jack London, *Before Adam* (1906–1907); Jack London, *The Strength of the Strong* (1908) (and many other tales, not strictly prehistoric narratives—lost worlds); Arthur Conan Doyle, *The Lost World* (1912).
- ¹⁵ Ernest d’Hervilly, *Aventures d’un petit garçon préhistorique en France* (Paris : Librairie mondaine, 1887).
- ¹⁶ J.-H. Rosny Aîné, “La Guerre du feu” [1911], in *Romans préhistoriques* (Paris : Laffont, 1985): 203–337.
- ¹⁷ Rosny Aîné, “La Guerre du feu”, 207.
- ¹⁸ On semantic variations, such as mammoth/mastodon/monster, see Pascal Tassy, *L’Invention du mastodonte : Aux origines de la paléontologie* (Paris : Belin, 2009).
- ¹⁹ J.-H. Rosny Aîné, “Le Félin Géant” [1919], in *Romans préhistoriques* (Paris : Laffont, 1985): 339–452.
- ²⁰ Alchemists had also used the imagery of the dragon fighting an elephant to represent the fight between the principle of Fixity and Volatility.
- ²¹ Rosny Aîné, *La Guerre du feu*, 204 (epigraph). The giant cat (“*Le Félin géant*”) is supposed to live a few years after that time.
- ²² Scientists believed that *machairodus latidens* was extinct at the beginning of the Quaternary period, and that *felis spelaea* was typically a “Chellean” animal: Gabriel & Adrien de Mortillet, *La Préhistoire : Origine et antiquité de l’homme* (Paris : Librairie Schleicher frères, 1910): 357–8. J-H Rosny Aîné knew the book very well. His idea of “one thousand years” too, is not in accordance with the scientists, who were very careful about dates: Gabriel & Adrien de Mortillet, *La Préhistoire*, 663.
- ²³ Charles Darwin, *La Filiation de l’homme et la sélection liée au sexe* [1871], trad. Michel Prum (Paris : Syllepse, 1999), 272.

²⁴ “entré dans les voies *externes* de l’humain”, J.-H. Rosny Aîné, “Vamireh : Roman des temps primitifs” [1891], in *Romans préhistoriques* (Paris : Laffont, 1985), 17–97, 75 (Rosny himself italicized the word “*externes*”).

²⁵ Marc Guillaumie, “Rêver la préhistoire : Pseudo-darwinisme, idéologie et fictions” (paper presented at the seminar “Littérature et darwinisme”, INRP Lyon, France, December 16, 2009); “Roman préhistorique et darwinisme : Amour impossible, ou mariage blanc ?” (paper presented at the conference “Positivisme, scientisme, darwinisme dans la littérature et les sciences sociales”, University of Grenoble, France, June 18, 2008); *Le Roman préhistorique : Essai de définition d’un genre, essai d’histoire d’un mythe* (Limoges : PULIM, 2006): 153–202.

²⁶ Jean Clottes & David Lewis-Williams, *Les Chamanes de la préhistoire : Transe et magie dans les grottes ornées* (Paris : Seuil, 1996). Shamanism and human incarnations of animal spirits are important in the series by Jean M. Auel, *Earth’s Children* (1980–2011) (6 vol.) and in “graphic romances” (comic strips) by Emmanuel Roudier, *Vo’hounâ* (Toulon : Soleil, 2002–2004) (3 vol.) and *Neandertal* (Paris : Delcourt, 2007–2009) (2 vol.).