

Scale: Temporal

*Towards a History on
the Side of Animals*

Éric Baratay

Université Jean Moulin Lyon 3

HUMANIMALIA 16.2 (Summer 2026)

Abstract: The temporal scale of animal behaviour, the fact that animals adapt, change, and generate histories over time, remains one of the most systematically neglected dimensions of the disciplines of both history and ethology. This paper traces the intellectual and historical roots of that neglect from Aristotle, through dominant Christianity, to the adynamic frameworks of twentieth-century behaviourism and Lorenzian ethology. It argues that, while the spatial scale of behavioural differences within a species is now well recognized, time continues to be considered a neutral backdrop rather than a real factor in animals' lives. Recent developments, however, including Japanese ethological work on macaques in the 1950s and Jane Goodall's biographical and sociological analysis of chimpanzees in the 1960s, suggest that a properly temporalized animal history is now genuinely possible. The paper makes a methodological proposal: that historians and ethologists work in tandem, cross-referencing documentary sources with ethological knowledge rather than subordinating one to the other. This would open animal research at the scales of species, social groups, and individuals to questions of behavioural periodization, cultural transmission, and biographical singularity. Animals, in short, are no more outside time than they are outside space.

Keywords: *Animal history; behavioural plasticity; temporality; ethology; biography; periodization; human–animal relations.*

Bio: Éric Baratay is senior member of the Institut Universitaire de France and Professor of contemporary history at Jean Moulin University Lyon 3. He initially studied human ways of thinking about and treating animals: *L'Église et l'animal* (1996), *Zoos* (1998, with Élisabeth Hardouin-Fugier, Engl. trans. *Zoo: A History of Zoological Gardens in the West*, 2002), *Et l'homme créa l'animal* (2003), *Bêtes de somme* (2011). Since then, he has focused on the animal perspective of this history, seeking to understand how animals have experienced it: *Le point de vue animal. Une autre version de l'histoire* (2012), *Bêtes des tranchées. Des vécus oubliés* (2013), *Biographies animales* (2017, Eng. trans. *Animal Biographies*, 2022), and *Cultures félines (xviii^e–xx^e siècle). Les chats créent leur histoire* (2021, Engl. trans. *Feline Cultures: Cats Create Their History*, 2024).

Email: eric.baratay@univ-lyon3.fr

We will be discussing the behavioural variability of animals, not between species, whose differences have long been noted, accepted, and observed, but within a species, between individuals and groups, which has long been minimized, neglected, or even denied. These are not regular variations, such as the alternation of days and nights or of the seasons, but variations resulting from adaptation to specific, particular circumstances or contexts: adjustments of an individual, social, or species-specific type, of greater or lesser intensity, of more or less widespread distribution, of greater or lesser duration.

Although the behavioural plasticity of many species is now accepted, little thought has yet been given to its extent and scope over time, with the past often being confused with the present, and old situations assimilated to present ones, which are taken as benchmarks. As a result, historical differences are overlooked, minimized, or denied, and we are quick to claim, without proof, that earlier observers were obviously mistaken if they contradict contemporary knowledge. This is because the main recent historical studies show that behavioural flexibility operates strongly over time, and that the behaviour of a species, its groups, and its individuals undergo multiple adjustments in relation to various factors. These adjustments lead to modifications which constitute singularities that are variations around the potential of each species, or to innovations whose scale and complexity prevent their reduction to mere random fluctuations feeding natural selection. This, however, is still the instinctive reading of many eco-ethologists who seek consistency with evolutionary interpretation.

In fact, behavioural variations create individualities, sociabilities, and particular cultures, which are more or less durable in space but also in time. These variations create a history and geography of behaviour, with parallel and successive periods, clusters, and cultures, independent of or bound up with environmental and human situations, which themselves vary over time and space.¹

1 See for more details Baratay, *Animal Biographies; Feline Cultures*.

Behaviourist ethologists and ecologists increasingly emphasize the cultures, sociabilities, and individualities distributed across today's world. But they are too quick to forget that the animals they are observing come from another epoch, and are often content to limit themselves to Western animals in environments, including human ones, which we know were not the same in the past. Ethologists play down the fact that what they observe are therefore often states of a particular moment or era, some of which did not exist before.



First of all, let us look at the reasons for the long-standing neglect, or even disavowal, of behavioural variation within a species, so that we can understand where we are coming from (Westerners at the beginning of the twenty-first century, scientists and citizens), and what we need to change in our minds, and therefore in our questioning, our approaches, our observations, and our readings. Because it really is a question of how we look at things, in fact of representations forged long ago, handed down across the ages, feeding a Western culture which is not total, but which is dominant. The aim here is not to give a history of conceptions from Antiquity to the present day, but simply to highlight a few milestones, above all among naturalists.

Let us start with ancient Greece, which played a fundamental role, because some of these conceptions were adopted by the Romans and then by a dominant Christianity, and passed down through it to Western zoology and philosophy. The Greeks associated species more with space than with time. They did not think in terms of evolution, but rather in terms of variations within a species. The history of species was thought of as a succession of generations produced by Mother Earth before they took over their reproduction in identical form, and thus stabilized.

Aristotle, the Primate of Naturalists, believed in the identical progression of bodies in each species, in differences in behavioural capacities according to the quality of the soul and, within these degrees, in learning, cunning, and intelligence— but at the individual level, as incessant variations in space, without historical consequences. He

only sketches out a few ideas about a change in the natural character of a species, making exceptions only of horses and dogs, as a result of human action.² History, in fact politics and culture, are reserved for humans, who have *logos*. This view was echoed by philosophers, even Plutarch, who nevertheless affirmed the use of reason, learning, and cunning in animals, but reserved these for individual variations without consequence over time.³

Although Christianity imposes a linear notion of time that is distinct from divine eternity and conflated with sacred history (creation, fall, redemption, final judgement), this does not apply to animals, which were all created (the wild and the domestic) in a perfect manner at the time of Genesis, and are therefore immutable in number and behaviour. Spatial and temporal behavioural variations are not unknown. They abound in the lives of the saints, for example, when a wild animal softens and begins to serve. But whether real or fictitious, all this remains individual, temporary, and the fruit of the finger of God, or of the devil.⁴

It was within this cultural framework that the naturalists of the sixteenth century moved, rediscovering the idea of the creative extravagance of nature in their reading of ancient texts, a wildly proliferating creation, an unguided, ungoverned, free play.⁵ These naturalists thus perpetuated a kind of “presentification” of species, which remained in place until the eighteenth century, when the scientific revolution took effect. This revolution established the idea of a concrete, natural, and no longer merely sacred linear time, imposed by physics⁶ and imported into zoology, notably by Buffon, who drew up a history of the presence of species and their geographical distribution as the earth evolved, contradicting the biblical idea of an unchanging creation. A veritable history-geography of animals was thus created, but between species. Within each species, permanence remained

2 See Aristotle, “History of Animals”, book 9, ch. 1, 2, and 36.

3 Plutarch, *Trois traités*, 42, 166–79.

4 See Baratay, *L'Église et l'animal*.

5 See Céard, *La nature et les prodiges*; Bäumer, *Geschichte der Zoologie*; Pinon, *Livres de zoologie*; Enenkel and Smith, *Early Modern Zoology*; Glardon, *Histoire naturelle*.

6 See Bouton and Hunemaux, *Temps de la nature*.

the order of the day because of “instinct”, even if Buffon admits individual fluctuations and temporary adaptations to the environment.⁷

In the same period, Charles-Georges Le Roy was one of the few to mention not only the intelligence but also the perfectibility of animals, which implied a history and geography of individuals and groups within a species. Le Roy spoke out against the idea of instinct, convinced that animals have sensations and memory, and therefore a knowledge of the past, which form the basis of an intelligence that is specific to each species. He insisted on individual differences within a species, based on intelligence, but, above all, based on learning and instruction throughout life, and therefore on the experience they acquire as a function of “circumstances”. So, to understand animals properly, Le Roy maintains that we need to follow the entire history of individuals, to see how they are driven by needs and passions, how they cope with circumstances, how they are enriched by experience, and how they innovate. He is not far from the notion of the history of individuals and the biography of animals, a genre that was indeed born in literature at the same time, in England and then in France. Nor is he far from a history of each species when he writes that “what we regard as entirely instinctive in animals may simply be a habit acquired long ago and subsequently passed down from generation to generation”,⁸ which presupposes a history of adaptations over a long period of time. However, his hierarchical representation of living beings, which was common at the time, compromises the idea of the perfectibility of animals, as each species remains assigned to its place. Only humans experience progress (a favourite idea of the Enlightenment) because of capacities deemed superior.

The intuition could have been developed with the first ideas of transformism, but it was weakened by the cultural representation of living beings, which translated into philosophical and scientific convictions. Thus, Lamarck wanted to establish the origin and development of species because “nothing is constantly in the same state

7 Buffon, *Histoire naturelle*, vol. 9, 2–25, 51, 56, 70–80.

8 Le Roy, *Lettres philosophiques*, 107–08.

on the surface of the earth”, which led him to reject their permanence. Since transformation comes from ways of living and “circumstances”, he rejects the identity of behaviours between members of a species, placing the emphasis on individuals and their diversity of attitudes and ways of existing according to circumstances.⁹ However, because he is certain of a pyramidal organization of animals, he also insists that changes in behaviour are widespread among human beings, but are limited and slow as we descend towards the lower animals, and that it takes several thousand centuries to transform species. He therefore sets aside the history of their attitudes, which cannot be observed over this span of time. He privileges the physical transformation of species and concentrates on a history-geography between species.

In *The Origin of Species* (1859), Darwin arrived at the idea of a history of the behaviour of a species, but he too considered it difficult, if not impossible, to observe: “Familiarity alone prevents our seeing how universally and largely the minds of our domestic animals have been modified by domestication.”¹⁰ “It is, no doubt, extremely difficult even to conjecture by what gradations many structures have been perfected.”¹¹ Hence his insistence on the mechanism of transformation and on clearly visible spatial diversity. This does not prevent him from hoping for “far more important researches [...] based on a new foundation, that of the necessary acquirement of each mental power and capacity by gradation.”¹² In other words, a history of capacities and behaviour, in order to throw light on the origin of man.

It is for this purpose that, in *The Descent of Man*, Darwin insists on the strong “variability of the faculties” of the individuals of a species, who thus “differ greatly in every mental characteristic”.¹³ This leads him to envisage the possibility of learning, among apes or among domesticated animals under human impulse, and of adaptations

9 See Lamarck, *Recherches*, 13–18, 34–56, 64–86, and 90–101; quotations on pp. 17 and 97. Cf. Laurent, *Naissance du transformisme*; and Guyon, *Lamarck, philosophe*.

10 Darwin, *Origin of Species*, 215.

11 Darwin, *Origin of Species*, 460.

12 Darwin, *Origin of Species*, 488.

13 Darwin, *Descent of Man*, 36.

or isolated inventions, or even to think that “instinctive actions may lose their fixed and untaught character, and be replaced by others performed by the aid of the free will”.¹⁴ But these ideas come up only in passing, and are put forward only cautiously in order to remain within the prevailing cultural credo. Above all, they are limited by the pyramidal representation that is deeply rooted in him, granting only a little intelligence, mainly to the superior animals, and many instincts, especially to the inferior ones.

Darwin thus only brushes against the idea of a behavioural history of a species, but does not pursue it. Not only because he thinks it impossible to do, but because he sees it as linear, with a high degree of stability between each event (domesticated animals have been like that ever since domestication), and not as a fluctuating, jagged history in which the expression of behaviour varies from one era to the next or from one group to another. Darwin’s followers fall into this in-between category.

But these considerations were swept aside in the twentieth century, which preferred structures to dynamics. Behaviourism considers that each animal is configured by an invariant process (stimulus–response) which, depending on the circumstances, gives rise to particular individuals and behaviours, and therefore to great diversity, but not to any trend. Personal development (ontogeny) is valued, while the history of the species (phylogeny) is neglected. By contrast, the so-called objectivist school of Konrad Lorenz considers that most behaviours are innate, that they define the species, and that all its individuals are similar in space and time.¹⁵ These adynamic conceptions of time and space are then supported by a number of philosophers, notably Martin Heidegger, for whom only humans can shape the world, and therefore have a history and a geography, whereas animals are “poor in world”, without *logos* and self-awareness, and therefore outside time.¹⁶

14 Darwin, *Descent of Man*, 37.

15 See Lorenz, *Trois essais*, 10–11, 67–68, 177, 198.

16 Fontenay, *Silence des bêtes*, 660–67.

A deconstruction of these postulates began to emerge in the late 1950s, remained very marginal until the 1980s, when it became frequent. At first, it concerned birds¹⁷ — the individual variability of songs within a species, the existence of dialects and traditions from one group to another — and also monkeys, specifically the direct observation, in Japan from 1953 onwards, of a macaque choosing to soak her sweet potatoes in water and gradually passing on this culinary invention on to her relatives (which constitutes a rupture in time and space).¹⁸

This was also Jane Goodall's undertaking, as she set out in 1960 to observe chimpanzees and discovered variability in space and time. Individual variability, due to differences in personality and capacity, which led her to sketch the history of individuals and then to undertake biographies for her thesis. Variability too in groups, which are unstable and therefore fluctuate, with contested hierarchies and forms of social ascent, which led to an animal sociology which should to take us towards a social and political history. Variability also stems from adaptation to a changing environment, in different ways for different individuals and groups, which would be the subject of animal psychology, sociology, and ethnology. Variability, finally, with the presence of communities that differ in their way of life, with good relations or conflicts between individuals or between communities, which should lead to a political and cultural ethnology, geography, and history. Moreover, Goodall goes so far as to envisage a history of chimpanzees, in relation to changes in behaviour, such as the grooming of subordinates, which has "become ritualized over the centuries so that today the chimpanzee usually gives a mere token touch or pat in place of grooming his submissive companion."¹⁹

This behavioural flexibility is at the origin of the notion of culture, put forward by the Japanese as early as 1959 and contested until the 1990s, but which has since been established as a set of enduring behavioural differences between one group and another within

17 Kreutzer, *L'Éthologie*, 64–99.

18 Kawamura, "Sub-Culture Propagation"; cf. Matsuzawa and McGrew, "Kinji Imanishi".

19 Goodall, *In the Shadow of Man*, 246.

a species. At the same time, ethologists have conducted sociological, ethnographic, geographical, and cultural studies of animals, all of which have the spatial dimension in common.

This background helps us understand why the spatial dimension has been recently rediscovered and has since been the focus of the most research, both in the field and in the laboratory. Originally conceived by the Greeks, it has often remained present in our Western culture, even if its development has been greatly downplayed, or even denied, due to its implications for animal capabilities. No doubt because it can be integrated into other spatial dimensions (mountain ranges, plants, humans), because it is concrete, easier to see, observe, think about, and evoke for purposes that are not only scientific, but also, and equally, literary, moral, religious, and philosophical. In the end, it was only really denied at certain periods, notably the Cartesian seventeenth century, which exerted a strong influence on naturalists, and the behaviourist-objectivist twentieth century. The proximity of this latter episode explains the difficulties in breaking out of this prohibition at the end of the twentieth century, and the fact that all the complexities and riches of the spatial have yet to be explored.

To understand why, conversely, the temporal dimension is still neglected, even forgotten, we must not ignore the long-standing difficulty in visualizing this time in concrete terms, especially in a linear manner, when it appears circular, made up of repeated sequences that almost cancel each other out, whereas the spatial dimension is more easily concretized through the differences between places. Nor should we deny the genuine difficulties faced by today's naturalists in taking time into account, whether in relation to animals or humans. Dian Fossey, despite being a long-term observer, speaks of the difficulty of observing over a long period of time because of the fleeting nature of animals and the haste of humans. All the more so because expeditions like Goodall's or Fossey's no longer exist, both because they required these researchers to sacrifice part of their careers, even their lives, and because material conditions have deteriorated significantly in many places. The scientific and financial

orientations of current research favour short stays with rapid returns, where the spatial is better studied than the temporal. Study conditions should be modified to develop the temporal dimension.

However, this oversight is part of a long refusal to take time into account, not just because time is less concrete and harder to grasp. Paying attention to time in animals, accepting change, means granting them a history and the capacities that make it possible (memory, choice, strategy, politics, etc.), reserved for humans since at least Aristotle and even long denied to human populations who were considered barbaric or primitive and without history until recently. Granting a history is not an innocent gesture, but a philosophical and political one, because of the implications it entails. More than the underestimation of space, the denial of time has had considerable effects on human representations of animals—who are considered instinctive, natural, and material—and on the conditions accorded to them. Moreover, even when it is considered, time is not perceived as a *factor* of differentiation within a species, unlike space, which is concretized as a diversity of environments, which are essential factors according to behavioural ecology. Although time is essential for a change to take hold, and the spatial dimension cannot unfold without it, it is all too often judged as a simple *locus* of differentiation, of no interest in itself.

Contrary to this, we need to emphasize two aspects: through the many changes in environments (physical, plant, human) that it has undergone, time has offered and enabled many behavioural changes, now forgotten; it is therefore not a *neutral* place but an *active space* for change, and it is also a *real factor* in animal adaptations and variations. As we have seen, naturalists have considered this issue, but have abandoned it, either in search of timeless mechanisms (like natural selection) or because they were unable to study it properly. This is a problem that palaeontology and genetics have resolved for the very long term, but which remains unresolved for the short and medium terms. So much so that while today's ethologists are beginning to take this dimension into account, they reserve it for... the future, proposing methods of observation over several

animal generations to come, thus avoiding having to use historical sources, which is beyond their expertise, and instead using instruments and protocols that suit them.²⁰

II

We must therefore focus on analysing the spatio-temporal dimensions *from the side of animals*, i.e. the construction, dissemination and originality of attitudes (specific, social, or individual) in time and space, the transformations, fluctuations, localizations, and periodizations of these behaviours, as well as the factors involved, because classic evolutionary pressure alone cannot account for them when they unfold over short or medium time scales.

History must be at the forefront when addressing the temporal dimension. It is, of course, necessary to consider the influence of animals, their real roles as actors, to better understand our history. But we must not stop there. At a time when numerous ethological discoveries are proving the diversity and richness of animal capabilities, it is time to take the side of these living beings who are also actors and who deserve to be studied for their own sake, in particular in order to discover *their* history, which will be to some extent related to ours, and to some extent independent of it.

The first step is to study the lived experiences of animals—that is, the physiological, psychological, and behavioural ways in which they experience and perceive the conditions, circumstances, and events of their lives. This, in turn, enables us to better understand their relationships with humans, to reintegrate them (humans) into the world, and to better measure the effects of their actions.

To do this, we need to take an interest in the “animal side” of things, to cross over to their side.²¹ This means trying to place ourselves alongside them in order to adopt their geographical point of view, to understand what they experience, what they go through, how

20 See Whiten, “Cultural Panthropology”, 96–98; McGrew, “New Theaters of Conflict” 173–75; Miklosi and Topál, “What Does It Take?”

21 See Bailly, *The Animal Side*.

they act and react. It also means trying to discover their psychological point of view, what they see and feel. This requires empathy and adaptation. It is not a matter of becoming an animal—that is obviously impossible. It is a matter of intention, of an effort at projection, of method. Naturalists have done this, and now ethologists are doing it by affirming the need to engage with the animals' point of view, just as ethnologists have long tried to do with human populations. The impossibility of stepping completely outside the human point of view (or human civilization), and the limited access we have to animals (or other humans) must not deter us. It allows us to decentre ourselves, which in turn reveals many aspects that were hitherto unsuspected or else neglected, downplayed, or even disavowed.

All of this means rehabilitating animals who have long been devalued by a Western conception formed during Greco-Roman antiquity, then adopted by the dominant version of Christianity and then developed by philosophy and science. This conception suggests that animals have limited capacities and are largely passive in relation to the world. By contrast, we need to take into account the recent revolution in ethology which proves that animals are sentient beings capable of feeling, experiencing, reacting, and adapting; ethology (the science of animal behaviour) also emphasizes, for a growing number of species, their strong cognitive abilities, their personal behaviours, their sociabilities, and their individual and social cultures. Animals are genuine actors, living in strong relationships with each other, whilst also influencing humans and the relationships they have with them. And, once again, for a growing number of species, these are individuals with singular characteristics, with distinct personalities, even subjects with their own strategies.

Crossing over to the animals' side requires us to revise the definition of history as "the science of men in time".²² This definition was developed in the first third of the twentieth century to broaden the scope of history to the study of all aspects of human life, so as to move it beyond the realm of events alone and to make it a human

22 Bloch, *Historian's Craft*, 47.

science on par with others. It is now necessary to broaden this definition, which has become too restrictive. It must be extended to include animals and even other living beings, and thus be defined as “the science of living beings over time”. This would enable us to examine the histories of living beings—in this case animals—at the very least those for which historical sources exist, allowing historians to practise their profession and apply their expertise.

At first glance, it may seem paradoxical to use human records to trace the actions and behaviour of animals. All the more so given how fragmentary, sporadic, and biased those records are, since humans are interested only in a few species, breeds, and individuals, and only in a few aspects of their lives which even then have only been partially recorded, retaining only what they were able and willing to observe and perceive, interpreting and distorting the evidence with their imaginations, their interests, and their convictions about a particular species, society, era, and individual animals. But these problems apply just as much to human history. Historians must always contend with the bias inherent in testimonies, must always decipher the cultural frameworks at play, and must often rely on intermediaries—such as judges or notaries for medieval peasants, or men for the women of Greek antiquity—because these individuals did not, or rather could not, bear witness for themselves. In our case, the difficulty is greater, involving a leap across species lines rather than merely across lines of ethnicity, social class, or sex. But it is not radically different.

Historians need the support of the life sciences in order to read and analyse records properly: ecology, to assess the influence of environments; physiology, to estimate states; and, above all, ethology, to decipher behaviour. In practical terms, this involves cross-referencing documentary information with current scientific knowledge or hypotheses, particularly those drawn from ethology. The aim is not to validate or invalidate historical evidence with ethological knowledge, as ethologists may be tempted to reject or distort historical evidence according to their biases regarding a particular era, society, scientific discipline or individual. The aim, rather, is to bring together

different perspectives and situated knowledges: those of humans in the past—who may just as easily have overlooked a particular aspect as they may have observed things that we are no longer able, or willing, to see today, and who may therefore possess knowledge that we no longer have—with those of contemporary ethologists, who may know more and better than people did in the past but may also misunderstand, forget, or overlook this or that aspect because they do not fully grasp historical situations.

The most immediate version of *history according to animals*—and the easiest to identify and trace—is that of their involvement in major events in human history. Indeed, many animals, whether domesticated or captured, have been involved in a wide range of activities, and there is a wealth of documentation on the subject, which focus primarily on humans of course, but which also, on the margins and with varying degrees of relevance, mention these exploited beasts. It is often possible to turn these accounts around, to read them from the animals' point of view, to glimpse how they experienced these human events, physically and mentally, to highlight their adaptations, their resistance, their complicity, and their suffering, and to establish how these experiences influenced their relationship with humans and the behaviour of humans.

Thus, the historian must piece together the lived experience of animals engaged in agriculture since their domestication from the Neolithic period, their use for breeding, and subsequently their enlistment in agricultural labour—in the case of cattle and horses. Their role was fundamental, but what did it mean for them to be penned, fed, herded, milked, shorn, harnessed, saddled, and so on? There is a long and vast history here to be brought to life, which could not have failed to have an impact on humans. The same is true, from Antiquity onwards, of cows, oxen, dogs, donkeys, mules, horses, and others beyond the West (llamas, dromedaries, camels, elephants...) who were enlisted to turn millstones, wheels, and machinery, to pull carts, trains, or passenger vehicles, to carry loads, haul goods along waterways, and so on. Their experiences differ and vary according to the nature and evolution of the uses to which they were

put. Many animals have also had to take part in human entertainment, increasingly so over the centuries, whether as riding horses since the invention of horsemanship; as “wild beasts” to be hunted down; as dogs, horses, and birds of prey used for hunting; or as exotic curiosities captured, exhibited, or abused; or dogs, cats, birds, fish, and others kept as pets. There are also horses, camels, dogs, elephants, and birds forced to serve in armies and to fight in various successive wars.

Yet these lived experiences vary over time because environments change and human activities evolve. Thus, the way animals are used may change, as in the case of farm cattle when they were also put to work or, conversely, when they were (re)dedicated solely to the production of milk or meat from the nineteenth century onwards. The lived experience of a war horse pulling a chariot in antiquity differed greatly from that of one serving as a saddle-less mount for light cavalry, or, later one heavily laden with a caparison and a knight in armour during the Middle Ages. Each of these constitute a different historical period for the animals in question.

The same is true when a situation, a type of work, a circumstance, or a lived experience emerges, establishes itself for a time, and then disappears, as with horses enlisted to pull urban trams in the nineteenth century or mining trains between the 1820s and 1960s, or with the many small monkeys carried as mascots on sailing ships between the seventeenth and nineteenth centuries, or adopted into families and humanized between the 1850s and 1960s. The intensity of conditions, behaviour, and lived experience can also vary over time, for example in the case of elephants, gorillas, and wolves, who were hunted more or less intensively, or in the case of the wolves who, especially in the seventeenth century, sometimes man-eaters, because their numbers were too high in an increasingly deforested European environment where prey was in decline.

Like humans, animals thus live through historical periods, determined by their environment—both ecological and man-made—or by their own actions. It is important to identify, delimit and characterize these periods in order to gain a better understanding of the animals’

perspectives and to grasp their own histories more fully. Whilst this periodization will certainly vary from species to species and from place to place, it can already be sketched out in certain cases.

Take dogs, for example: they are far from having known the same environments, the same conditions, and the same lived experiences over time. Most of today's dogs are companion animals, but for a long time this type of dog was in the minority, right up until the interwar period, and even non-existent at certain times. A far cry from the multi-purpose dogs of the pre-Roman era, who were at once refuse collectors, guardians, hunters, companions and... eventually ended up as meat, before being turned into rugs or clothing. Nor are they anything like the stray dogs who populated towns from Roman antiquity right up to the early twentieth century, who were tolerated because they acted as scavengers, living alongside humans but not with them, leading independent lives, often in packs, at times perhaps outnumbering the human inhabitants. For the number of dogs has certainly fluctuated constantly, altering the nature and intensity of their relationship with humans and therefore of their own lives. Versatile dogs in the Gallic world; more numerous, more diversified and specialized dogs in the Roman period; dogs predominantly kept as pets since the mid-twentieth century: one can see that even just in France there have been very different eras in canine history.

But we must certainly not think that animals pass through the ages whilst remaining the same, always identical, passively enduring a succession of conditions and lived experiences. In reality, they change in order to adapt, constrained by environmental pressures, human actions (selection, training, etc.) and their own acquisition and transmission of knowledge. These changes may be physical, both for free-living, so-called "wild", animals, and for domesticated animals whose size, weight, build, and capabilities have varied greatly over time depending on the circumstances. There is little resemblance between the transhumant pig of the Ancien Régime—small, black, muscular, and vigorous—and its current successor in industrial workshops: tall, pale, obese, and short of breath. Cattle, horses, dogs, and many

others have also undergone constant transformations, often taking the form of breeds adapted to a particular era and subject to change over time. Mine horses—powerful but stocky, neither too tall nor too long to move through the tunnels without bumping their heads on the ceiling or scraping against the walls when turning—were little known before and have since disappeared.

The changes are also behavioural. The cows of the days of transhumance, left in large numbers and for long periods far away, in forest or pasture, or today's cows, left to their own devices in industrial barns, are highly sociable with one another while remaining aloof from their equally reserved human keepers, which leads to accidents and mutual mistrust. By contrast, cows from periods characterized by small herds, small barns and pastures surrounding the farms forge a strong relationship with their peasant farmers, based on mutual understanding. Our modern dogs, who provide intense companionship—arguably the strongest ever known—exhibit distinctive behaviours that have been selected, instilled, but also learned, gradually acquired between the nineteenth and twentieth centuries as their relationship with humans deepened. Having been socialized more often with their human owners than with their own kind, they have become more attentive, begun to look, listen, and detect human gestures, words, and emotional states more closely, to communicate more through the eyes, adopt more easily legible postures and appropriate barks, and become anxious, even depressed, when separated. All this has occurred at the same time as their owners have also changed, becoming closer, more caring and attentive, more observant, talking to them much more, stroking them, playing with them, walking them, travelling with them, etc. This bears no relation to the stray dogs of the past, mistrustful of humans (who were then very distant too), little inclined to approach them, let alone to try to understand them, and who showed anxiety at a human's approach, not their departure. We should therefore not mistake the attitudes of our dogs today for those of the Dog, which has never existed, and which is only ever manifested in different forms, distributed across time and space... just like humans. The same applies to all domesticated animals, such as the cat,

whose new Western variant — the “cat-dog”, which is affectionate, demanding, playful, attentive, and anxious about separation — did not exist before.

This also applies to “wild” animals, however difficult it is for us to realize. We can see it clearly in contemporary changes that are easier to observe, such as the foxes who have been moving into towns since the twentieth century, or the European beavers who are re-colonizing rivers, adapting to an increasingly humanized environment, approaching and even forming bonds with human—who, in turn, are proving more tolerant than in the past... within certain limits. In fact, the necessity for animals to adapt to ecological and man-made conditions, or face extinction, requires constant fluctuations over time (and space) in their behaviours and social interactions. These must be highlighted in order to build a history of behaviours, their formation, transmission, transformation, and their temporal (and spatial) evolution.

Up to now, we have considered the history of animals at the level of groups of this or that particular species. But it must also be considered at the level of individuals. All the more so since many historical sources refer only to individuals, because this is often how humans encounter animals. Moreover, most of the major ethological discoveries since the 1950s have been made by focusing on individuals, because individual differences reveal the diversity and richness of capabilities and behaviour, the complexities of social interactions, adaptations and innovations, as well as the transmission of customs, leading to the creation of local cultures.

The personal experiences of this or that human have come to be seen as legitimate within the human sciences, as a means to understand that person’s inner life, their way of living through an event, a phenomenon, an era, and their reactions, which may have influenced the surrounding context. This approach must be applied to animals by way of historical biographies, but we must distance ourselves from the anthropomorphism of literary biographies which have been in vogue since the end of the eighteenth century and which attribute human capacities to animals, thereby masking their

originality and richness. We must also distance ourselves from the anthropocentrism of the rare biographies of real animals, which often deal only with the humans who surrounded them.

For the time being, “famous” animals, whether domestic or free-living, are the most readily accessible, because they have given rise to a large number of accounts. When analysing these accounts, we must draw on the concept of reconstitution, as it has become standard in palaeontology, prehistory, and archaeology, where a few remains and clues serve as the basis for reconstructions of humans, gestures, and buildings, which are, of course, hypothetical, but also carefully considered, verified, and by now indispensable for observing, understanding, and stimulating questions and further research. Naturally, such reconstructions can only ever be partial, focusing only on the aspects hinted at by the evidence, and partial in another sense too, since they are based solely on what faculties are currently granted to this or that animal.

The aim of these biographies is to give an account of what an individual experiences, goes through, and feels at a given moment, or throughout their life, and thus arrive at a history embodied in flesh and blood. It is also a matter of paying attention to personality, singular experience, relationships with others, transformations over the course of a lifetime, as well as to representativeness and the animal’s place in the history of the group or the species. Indeed, individuals embody, and thus enable us to identify, behavioural and cultural differences at a given moment, changes from one generation to the next, and distinct periods in the history of animals.

All these aspects do indeed form a history on the side of animals, an animal history with its own dynamics, that is to say, its accelerations, its ruptures, its changes, its periods, and its continuities. Animals are no more “natural” or immutable than humans. They are no more a part of the earth’s scenery than we are; a scenery that, incidentally, is not a mere backdrop to history, but rather has a history of its own. So-called “wild” animals are no wilder than “wild” humans, whom we also wanted to merge into “wild” nature. Domestic animals were not created as they are today, unchanged and unchanging.

They have all changed a great deal, because they all evolve within an unstable environment with which they have to come to terms, to which they adapt on their own or under external pressure. We therefore need to take an interest in the incessant adjustment of animals to their environmental conditions (ecological and human), and the fluctuation of their appearance, attitudes, and social interactions in space and time, in order to build a history of species, their groups, and their individuals—a history of conditions, lived experiences, behaviours, and cultures.

Acknowledgements

This is a translation of the paper that was presented via Zoom on 24 May 2024 as part of the Animal Scales seminar series, co-hosted by UCL Anthropocene and the Centre for Critical Global Change, Goldsmiths. The paper draws on work published elsewhere in French, in particular, “Pourquoi penser le temps et l’espace?”, the introduction to *Les animaux historicisés*, edited by Éric Baratay (Éditions de la Sorbonne, 2024), and “Pourquoi et comment se placer du côté des animaux?”, the introduction to *Une histoire animale du monde*, likewise edited by Éric Baratay (Tallandier, 2025). Grateful thanks to Nick Millet for help with the translation from French to English. The translation has been further edited by Kári Driscoll.

Works Cited

- | | |
|--|--|
| Aristotle. “History of Animals.” Translated by d’Arcy W. Thompson. In <i>The Complete Works of Aristotle</i> , edited by Jonathan Barnes, vol. 1, 774–993. Princeton University Press, 1984. | Baratay, Éric. <i>L’Église et l’animal</i> . Rev. ed. Cerf, 2015. |
| Bailly, Jean-Christophe. <i>The Animal Side</i> . Translated by Catherine Porter. Fordham University Press, 2011. | Baratay, Éric. <i>Feline Cultures: Cats Create Their History</i> . Translated by Drew S. Burk. University of Georgia Press, 2024. |
| Baratay, Éric. <i>Animal Biographies: Toward a History of Individuals</i> . Translated by Lindsay Turner. University of Georgia Press, 2022. | Baratay, Éric, ed. <i>Une histoire animale du monde. À la recherche du vécu des animaux de l’Antiquité à nos jours</i> . Tallandier, 2025. |
| Baratay, Éric, ed., <i>Les animaux historicisés. Pourquoi situer leurs comportements dans le temps et l’espace?</i> Éditions de la Sorbonne, 2024. | Bäumer, Anne. <i>Geschichte der Zoologie</i> . Vol. 2: <i>Zoologie der Renaissance – Renaissance der Zoologie</i> . Peter Lang, 1991. |
| | Bloch, Marc. <i>The Historian’s Craft</i> . Translated by Peter Putnam. Knopf, 1959. |

- Bouton, Christophe and Philippe Hunemaux, eds. *Temps de la nature, nature du temps*. CNRS Éditions, 2018.
- Buffon, Georges-Louis Leclerc, Comte de. *Histoire naturelle*. Paris 1754.
- Céard, Jean. *La nature et les prodiges. L'insolite au XVIe siècle*. Droz, 1977.
- Darwin, Charles. *The Descent of Man, and Selection in Relation to Sex*. 2 vols. London, 1871.
- Darwin, Charles. *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life*. London, 1859.
- Enenkel, Karl A. E., and Paul J. Smith, eds. *Early Modern Zoology: The Construction of Animals in Science, Literature and the Visual Arts*. Brill, 2007.
- Fontenay, Élisabeth de. *Le Silence des bêtes. La Philosophie à l'épreuve de l'animalité*. Fayard, 1998.
- Gardon, Philippe. *L'Histoire naturelle au XVIe siècle. Introduction, étude et édition critique de La nature et diversité des poissons de Pierre Belon (1555)*. Droz, 2011.
- Goodall, Jane. *In the Shadow of Man*. Rev. ed. Photographs by Hugo van Lawick. Introduction by Stephen Jay Gould. Houghton Mifflin, 1988.
- Guyon, Jean. *Lamarck, philosophe de la nature*. PUF, 2006.
- Kawamura, Shunzo. "The Process of Sub-Culture Propagation among Japanese Macaques." *Primates* 2 (1959): 43–60. <https://doi.org/10.1007/BF01666110>.
- Kreutzer, Michel. *L'Éthologie*. PUF, 2017.
- Lamarck, Jean-Baptiste. *Recherches sur l'organisation des corps vivants* [1802]. Fayard, 1986.
- Laurent, Goulven. *La Naissance du transformisme. Lamarck entre Linné et Darwin*. Vuibert, 2001.
- Le Roy, Charles-Georges. *Lettres philosophiques sur l'intelligence et la perfectibilité des animaux* [1764]. Paris, 1808.
- Lorenz, Konrad. *Trois essais sur le comportement animal et humain*. Seuil, 1974.
- Matsuzawa, Tetsuro and William C. McGrew, "Kinji Imanishi and 60 Years of Japanese Primatology." *Current Biology* 18, no. 14 (2008): R587–R591. <https://doi.org/10.1016/j.cub.2008.05.040>.
- McGrew, William C. "New Theaters of Conflict in the Animals Culture Wars: New Findings from Chimpanzees." In *The Mind of the Chimpanzee: Ecological and Experimental Perspectives*, edited by Elizabeth V. Lonsdorf, Stephen R. Ross, and Tetsuro Matsuzawa, 168–78. University of Chicago Press, 2010.
- Miklósi, Ádám and József Topál. "What Does It Take to Become 'Best Friends'? Evolutionary Changes in Canine Social Competence." *Trends in Cognitive Sciences* 17, no. 6 (2013): 287–94. <https://doi.org/10.1016/j.tics.2013.04.005>.
- Pinon, Laurent. "Les Livres de zoologie de la Renaissance. Objets de mémoire et instruments d'observation (1460–1605)." PhD Diss., Université de Tours, 2000.
- Plutarch. *Trois traités pour les animaux*. Translated by Jacques Amyot. Introduction by Élisabeth de Fontenay. POL, 1992.
- Whiten, Andrew. "A Coming of Age for Cultural Panthropology." In *The Mind of the Chimpanzee: Ecological and Experimental Perspectives*, edited by Elizabeth V. Lonsdorf, Stephen R. Ross, and Tetsuro Matsuzawa, 87–100. University of Chicago Press, 2010.