

## **Lessons from Evolution: a transdisciplinary approach from art**

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**ABSTRACT – Lessons from Evolution: a transdisciplinary approach from art.** The paper discusses the transdisciplinarity between the fields of knowledge and the contribution of visual arts to teaching natural sciences. The author's own video artwork *Evolutions in 3 Lessons* is presented, in which stories related to the theory of evolution and colonialism are intertwined, seeking to offer a complex view of the relationship between white humans, non-white humans and non-human animals. It is concluded that the teaching of science allied to the sensitive perception provided by art can contribute to the constitution of a plural world in which respect for otherness and communication between the fields of knowledge occur in a more integral and collaborative way, without ceasing to the complexities of each area.

**Keywords: Evolution. Art. Natural Sciences. Education. Post-Humanism.**

**RESUMO – Lições da Evolução: uma abordagem transdisciplinar a partir da arte.** O artigo discute a transdisciplinaridade entre os campos do saber e a contribuição das artes visuais para o ensino das ciências naturais. É apresentado o trabalho artístico em vídeo *Evoluções em 3 Lições*, do próprio autor, no qual se entrelaçam histórias relacionadas à teoria da evolução e ao colonialismo, buscando oferecer uma visão complexa da relação entre humanos brancos, humanos não-brancos e animais não-humanos. Conclui-se que o ensino das ciências aliado à percepção sensível proporcionada pela arte pode contribuir para a constituição de um mundo plural em que o respeito à alteridade e a comunicação entre os campos do saber ocorra de forma mais íntegra e colaborativa, sem deixar de lado as complexidades de cada área.

**Palavras-chave: Evolução. Arte. Ciências Naturais. Educação. Pós-Humanismo.**

## Introduction

The specialization<sup>1</sup> of knowledge, already initiated at the base of the humanist project of the Renaissance period and reaching its peak throughout the 20th century, made art and science increasingly seen as completely opposite fields of knowledge, without any possibility of dialogue. In the most exacerbated views, art would deal purely with the expression of feelings, without a connection with reality, while science would assume a rationalism with positivist contours, without any trace of subjectivity or political inference. Criticisms of the neutrality of science have been woven through different theoretical strands, mainly since the 1960s; however, in the last decades of the 20th century and the beginning of the 21st century, such criticisms gained depth and resonance, particularly in the work of authors linked to the so-called post-humanism, in its most diverse meanings. The need to establish transdisciplinary knowledge had already been pointed out by Edgar Morin (1993) at the end of the 20th century, when he presented himself as a “smuggler of knowledge”. More recently, authors such as Donna Haraway, Bruno Latour, Viveiros de Castro, among others, have intertwined the fields of anthropology, natural sciences, history, sociology, art, communication, economics and politics in order to summon critical sense in approaches to knowledge, questioning the epistemologies promoted by the white man throughout history and calling for the inclusion of living beings previously seen only as objects of study and not as protagonists (blacks, indigenous people, non-human animals, plants, fungus etc.).

Donna Haraway (2008), for example, refers to non-human animals as “companion species”, whose development took place together with man, in a “becoming with” (Haraway, 2008), in which species mutually influence each other and it is from the dependency relationship between them that the world is constituted, and not only through the preponderance of one species over the other. Likewise, Viveiros de Castro (2015) points to the need for anthropology to question its Eurocentric point of view, leading it to consider other subjectivities and proposing the discussion of other ways of conceiving the world, other points of view such as those founded in “Amerindian perspectivism”. Bruno Latour (1994) also points to the need to think about science in the context of its political and socioeconomic responsibility in the face of the epistemological condition in which it is produced in contemporary times. Although it is not possible, within the scope of this article, to approach Latour’s thought in detail, it is worth mentioning the intricacy between transdisciplinary scientific thought and its sociopolitical implications, already pointed out by the author in *Jamais Fomos Modernos* and later deepened in other writings.

Science has been treated by these thinkers no longer as knowledge totally free of subjectivity or ideological posture, but as a thought that must constantly question itself in order to insert itself in a transforming and responsible way within society. This is not a case of baseless scientific denialism; on the contrary, these thinkers call for the search

for an even broader and deeper knowledge, which does not discard the complexity of contemporary phenomena and their socio-political, technological and cultural implications. In the field of education, these new epistemological conceptions represent a challenge for pedagogical methodologies, which should not promote compartmentalized and technicist teaching, but propose the formation of an individual who is critical and aware of its role in the world.

In this sense, art can effectively collaborate for the emergence of new perceptions in science teaching, bringing out questioning and investigative sensibilities and enabling the student to understand the insertion of that scientific knowledge in the world that surrounds him, revealing its complexity and intertwining the fields of science. to know. In the specific case of biology, art was already present at the dawn of the discipline, if we consider the importance of scientific illustration in the constitution of morphological knowledge of animals and plants. One cannot overlook the importance of images for the constitution of the thought of Alexander von Humboldt and Bonpland, or Von Martius and Spix, just to name a few.

Nowadays, the relationship between art and biology is still relevant, even if it has gained new nuances and complexities. The controversial field of bioart, for example, is known, in which artists use techno-scientific procedures to create hybrid beings or simply question the ways in which science is inserted in contemporary society. We can also remember several artists who make direct reference to botanical illustration, taxonomy procedures or methods of exhibiting animals in natural history museums, displacing them from their scientific context and re-presenting them in a poetic or ironic way, giving rise to questioning versions of our relationship with other beings and their framing as objects of study devoid of feelings and subjectivities. Other artists also focus on the history of science, evoking the Eurocentric context in which it was produced and proposing anti-colonialist narratives, awakening new perspectives on interspecies and racialized relationships.

As a contribution to the discussion of these issues, I present, in this article, an artistic work of my own in which stories related to the theory of evolution and colonialism are intertwined, seeking to offer a more complex view of the relationship between white humans, non-white humans and non-human animals. The work consists of a video in which different interspecific narratives are mixed: the imprisonment of ravens in the Tower of London over the centuries due to superstitions about their magical power in maintaining the British Empire; Darwin's passage through Tierra del Fuego and his perception of the local indigenous people; and the coexistence of these indigenous people with sea lions that today are threatened due to global warming.

The approach to this artistic work in this article is purposely carried out in an essayistic way and in the first person, as befits the research methodology in visual arts. The artist's speech is not considered disturbing here, but an effective contribution to the creative process that engenders the work, which is not closed to the constitution of a sin-

gle meaning, but which presents itself as an open and plurisign work, whose objective is to evoke sensations and sensibilities regarding the relations of alterity between humans and non-humans in a post-colonial and critical perspective. In this way, the following text reconstitutes the artwork *Evoluções em 3 Lições* (2012), proposing a poetic and reflective narrative about the issues it engenders.

**Image 1 – Frame from the video *Evolução em 3 Lições***



Source: *Evoluções...* (2012).

## **Evolutions in 3 Lessons**

### *Lesson 3*

Going to the end of the world to find the look of the other to see yourself. The other who is not people, but an animal, and a strange animal. Sea lion. And birds, cormorants. Animals I had never seen live, only on television shows. There they were, living their lives indifferent to us tourists, who only had a few minutes to be there. They weren't animals trapped in zoos; this time, we were the ones trapped in the boat that took us to their habitat. The meeting took place in Ushuaia, the southernmost city in Patagonia Argentina, also known as the End of the World. A mythical place, at the end of the map and with the most impressive and beautiful nature I've ever seen.

He had been invited to present a work at the III Bienal del Fin del Mundo, held there. However, the natural beauties, such as the end of the Andes Mountain Range, which can be seen around the city, the sea and the landscape of incredible colors, the different and beautiful vegetation and the possibility of seeing such special animals in their natural environment, proved to be much more exciting than any artistic exhibition. Seeing the families of fur seals sunbathing under stone islands, diving into the deep blue water, moving with their peculiar bodies and living their lives in their own time and space was a feeling I will never

forget. I wanted to retain them in images, capture them in photographs and videos, which, although they could not replace the feeling of being there, could at least help trigger memory processes when our bodies could no longer inhabit that time-space. The views could one day become a “pure block of sensations”, as Deleuze (2013) would say; finally turn into art.

Even though I didn't know what I would do with those images, when they would stop being simple recordings and become poetic, I started filming those other beings, who were now so close. I noticed that even though they were absorbed in their own lives, every now and then someone would look at me. Little did I know about these animals. Only what everyone knows: that they were threatened by climate change and marine pollution. I also learned later that this species had once served as food for the indigenous people who inhabited *Tierra del Fuego*.

**Image 2 – Frame from the video *Evoluções em 3 Lições***



Source: *Evoluções...* (2012).

*Lesson 2*

The natives who inhabited *Tierra del Fuego* were sighted for the first time in 1624 by the Dutch navigator Geen Huygen Schapenham, but only later were they better known, having been described in the 19th century by expeditions commanded by the Englishman FitzRoy. They were nomadic indigenous people, who lived in canoes in the coastal region of Ushuaia and rarely went ashore. They had no fixed accommodation, they lived in the sea, hunting sea lions and birds for their food. Despite the intense cold in the region, they lived naked, wrapped in the fat extracted from sea lions and whales. Sometimes they covered themselves with fur. To keep warm at night, they also used to light fires inside their own canoes. This was the fire seen by Europeans, which gave rise to the name of *Tierra del Fuego*<sup>1</sup>.

In general, they were called indigenous *fueguinos*, because they lived in *Tierra del Fuego*. Although there were several *fueguinos* ethnic groups, one of the most important was the so-called *Yagan*. The *yaganes* inhabited the sea coast around Ushuaia. Its population today is totally extinct. Many of them got sick in contact with white people and also due to lack of hygiene. Because they were not used to washing, since they lived naked, they started to acquire several diseases from the moment they were forced to wear western clothes. Many fell into the addiction of drink, which they were not used to. The processes of evangelization, to which they were submitted by the European colonizers, contributed to the dissolution of their habits and social organization (Canclini, 2009).

Some of them became well known for having been taken to Europe to receive Western education and then returned to their homeland in order to help in the colonization process. At that time, it was quite common to capture humans in distant continents to be exhibited in Europe. There are several notorious cases, from indigenous or Africans who started to live in the courts, to those who were exhibited in real human zoos for the amusement of the population. The fate of the *fueguinos* natives, however, proved to be different, as Commander FitzRoy took care to prevent them from becoming simple exoticisms, as he intended to return them to their homeland after they had learned the rudiments of European culture. However, this sociological educational experience, which should have helped to impose the white man's domination over the indigenous people, proved to be a great failure.

The fact occurred in the 19th century and had the famous participation of the English commander FitzRoy. In 1830, the famous ship *Beagle* arrived in the region of Ushuaia, commanded by Parker King, with FitzRoy as his second commander. After having one of their whaling boats stolen by the *fueguinos* natives, the *Beagle* crew captured 4 indigenous people, who FitzRoy decided to take to England, to have English lessons, to know "[...] the simple truths of Christianity" and to learn "[...] the use of common tools, a little farming and gardening" (FitzRoy<sup>2</sup> apud Taylor, 2009, p. 49). The natives were baptized with English names, which referred to the conditions in which they were captured. York Minster was the first to be captured and was named after a famous English cathedral of the same name, whose shape resembled that of a rock where he had been captured. Boat Memory was thus baptized because he was the Indian who most remembered the events that took place in the theft of the whaling boat. Jemmy Button owes his name to the mother-of-pearl button that had been offered to him to lure him to the *Beagle*. Among those captured, there was only one female member, the girl Fuegia Basket, whose name referred to the improvised basket that English sailors had to use as a boat to return to the *Beagle* after capturing their boat (Taylor, 2009, p. 48-49).

Soon after arriving in England, the Boat Memory Indian died in reaction to a vaccine he received. The others remained there for about a year and a half, receiving education in a monastery and even being introduced to the king. At the end of 1831, FitzRoy left for America again,

with the aim of continuing the exploratory voyages of the new continents and returning the *fueguinos* to Tierra del Fuego. It is on this return trip that Charles Darwin will join them and make his first contacts with these natives. Darwin makes several mentions of the natives in his diary, comparing them to wild animals, although not all of his comments about them are negative. In 1832, the Beagle finally arrives in Tierra del Fuego and Darwin recounts his first encounter with the natives in their original environment: "I would not have believed that there is such a difference between the civilized and the savage. It is greater than that between wild and domestic animals, inasmuch as there is in man more power of improvement." (Darwin<sup>3</sup> apud Taylor, 2009, p. 104).

Seeing the *fueguinos* returning to their homeland after having received some lessons from English education, Darwin noted in his diary: "They have enough common sense to perceive the immense superiority of civilized habits over their own, but I fear that they will soon regress to these." (Darwin<sup>4</sup> apud Taylor, 2009, p. 62).

In fact, as soon as they returned, in a short time the *fueguinos* natives went back to living like their other native companions. York Minter and Fuegia Basket soon ran into the woods and fled. Jemmy Button remained for a while living with the white missionaries of the small village, but a few years later he was described by Captain FitzRoy, who returned to the place, as having returned to his Indian habits. He was naked, with disheveled hair and miserably thin. It is said that around 1860, Jemmy Button would have been one of the leaders of the revolt that massacred a series of settlers in the Tierra del Fuego region.

The failure of the educational experience with the *fueguinos* indigenous people contributed to the sharpening of racial prejudices between Europeans and non-Europeans. If, on the one hand, the supposed superiority of European culture was not able to correctly "educate" the "savages", on the other hand, this fact could be seen as a clear proof of their inferiority, which would approach animals.

If, on the one hand, Darwin's considerations about "savages" may be derogatory when bringing them closer to animals, on the other hand, Darwin's evolutionary theory places all of us in front of a new paradigm regarding animality: that of that we share a common animal ancestor, as we are all descended from apes in some way. By stating this, to some extent, Darwin breaks with the idea that we would be direct copies of the gods and, therefore, superior to animals. On the contrary, we humans would also be animals; however, on a slightly more evolved scale than the other.

It is not a question here of making a judgment on Darwin, but pointing to the controversial consequences that his thinking represents. Even if his character presents inconsistencies, one cannot deny his invaluable contribution to science, as well as the epistemological revolution generated from his theories, which shook the relationships between men, their beliefs and animals.

**Image 3 – Frame from the video *Evoluções em 3 Lições***



Fonte: *Evoluções...* (2012).

### *Lesson 1*

Men, their beliefs and animals. Although constantly subjugated by man, non-human animals often represented mythical and extraordinary forces, being symbols of superior powers, unreachable by the human species. All societies feature animals in their mythologies and superstitions. Even today, in a world dominated by science and supposed rationality, many of these beliefs remain.

An interesting example is the significance of the ravens that live in the Tower of London. The Tower of London is a fortress that began construction in the 11th century, with the aim of frightening those who did not follow British laws and intimidating foreigners, demonstrating the power of the British reign. The past of prisons and torture that the Tower of London represented, today has been replaced by its tourist exploitation. The place is one of the most visited by tourists from all over the world, and also houses part of the collection of royal jewels.

Legend has it that the crows residing in the Tower should never leave it, because if one day they ran away, the tower would fall, and the kingdom too. For this reason, nowadays at least 6 crows are always kept on site, which have their wings cut so they don't escape. During the day, the crows are released in the garden and can be seen by tourists visiting the Tower and at night they are collected in their cages. Each raven has a name and there is a British government official in charge of looking after them, who is named after Ravenmaster, the master of ravens.

Although this legend is very old, it was in the 17th century that the presence of crows was made official by the British reign. At the time, astronomer John Flamsteed (1646-1719) used the tower to carry out his scientific observations and complained to King Charles II that the crows were disturbing his research. Fearing the omens that threatened



his kingdom, if the ravens were removed, the king decided that the ravens should always be kept there, and who would have to move would be the Royal Observatory, directed by Flamsteed.

Interestingly, in this case, superstition won out over science, which was less frightening to the kingdom than the supernatural power of crows. It is also curious to realize that, even many centuries later – with all the scientific development and the decrease in beliefs –, the legend is being perpetuated until today, and the presence of crows is not completely spontaneous, since they are kept there thanks to the clipping of its wings. Crows have now become tourist attractions, feature prominently on the Tower of London website and are depicted on souvenirs for sale to tourists. This fact immediately reminds us of John Berger's writings about the objectification process to which animals are subjected in contemporary society, with their mythical past replaced by marketable and touristic symbols.

### *The Artist as Traveler in the Past and Present*

It is quite common these days for artists to produce works based on their travels. Moving from one country to another is much easier today than it was years ago, and there are several possibilities that arise for contemporary artists to participate in artistic residencies, hold exhibitions abroad and present their work at congresses. Being in an unknown place sharpens the perception for those who seek to observe what often goes unnoticed in everyday life. Getting to know a new environment, seeing new landscapes and learning new habits is undoubtedly very stimulating for artistic creativity. In truth, the figure of the traveler-artist is not new. Since the beginning of the great navigations, it was common for an artist to accompany expeditions to document the fauna and flora of the new continents. This participation of the artist in the recognition of the territory and in the formation of science was greatly intensified in the 18th and 19th centuries. When looking at the unknown and at the peoples and animals that inhabit other continents, the artist approaches the anthropologist and the scientist, carrying out an investigation that is not necessarily linked to the rational discovery of science, but that can reveal the sensitive aspects of environments visited. Travel as a starting point for the development of an artistic work even played a role in the construction of a notion of Brazilian national identity in the modernist era, as can be seen from the writings of Mário de Andrade (2019) in *O Turista Aprendiz*. Even if the activity of the contemporary artist has been very different from that of the traveling artists of other times, in the sense that their works are not necessarily documentary and representational and that the conditions in which the contemporary artist travels are very different from those of his ancestors, still thus, it is possible to perceive the poetic results that these trips can provide.

It was within this context that I came into contact with the stories I had previously narrated. While there was not necessarily a direct con-

nection between the stories of the Tower of London ravens and fur seals and the indigenous *fueguinos*, the fact that I had made trips to these places in the same year and been impressed by their stories made me imagine a guiding thread that could intertwine them and thus generate new perceptions about the relationships between the white man, the indigenous people and the animals. After all, in each of these stories there were elements of estrangement from the other and subjugation of one by the other. Ravens, despite their mythical power, were captured and remain in the custody of the white man to perpetuate their traditions and function at the same time as a tourist attraction. The *fueguinos* natives were also captured by the white man and taken to London, who knows, they even met the ravens of the Tower of London. The natives were also described as wild, almost animals. And sea lions were once hunted by indigenous peoples for subsistence, as well as by whites, and are now seen as tourist attractions. Even though the indigenous *fueguinos* have now been exterminated, fur seals still remain in Tierra del Fuego, although it is not known for how long. All these stories, in some way, are interrelated through the difficulties of living with the other, whether man or animal.

The figure of Darwin seemed to me a fundamental character to intertwine these stories. Your journey aboard the Beagle serves as a link between British reality and the landscape of Tierra del Fuego. His significance as a representative of western scientific rationality interested me a lot, mainly because of his own contradictions and his estrangement from other native men that he didn't know. In the same way, it seemed strange to me that, even nowadays, when we are dominated by technical-scientific rationalism and by economic power, birds' wings are still clipped to guarantee the perpetuation of beliefs. It is also curious that the sea lions that were hunted by the indigenous *fueguinos*, who in turn were exterminated by the white man, subsisted on their own indigenous predators, who disappeared before their prey.

All these facts and reflections led me to produce the video *Evolução em 3 Lições*, in 2012. The work is not a documentary and does not seek to clearly tell all these issues. Instead, what is intended is to sensitize the viewer to the intricate relationships between white and non-white men and animals. The viewer may or may not have prior knowledge of these stories, but will be able to reflect on these issues anyway. Although there is a narrative character in the video, determined by its division into three chapters that make up the "lessons" of evolution, its narrative is neither chronological nor logical, but rather poetic. Some creative strategies were used in order to entangle the spectator in a fragmented narration, which, however, is repeated in a similar way in each of the three lessons.

Lesson 1 opens with an ancient map of Great Britain appearing, offering clues as to where the action takes place. Below are images of some of the crows in the garden of the Tower of London, although the location is not identified in the image. Crows are the main subject of the picture: they walk, jump and peck in the grass. In the lower part

of the image, however, some shadows of moving humans can be subtly perceived. In fact, these are the shadows of the tourists at the Tower of London, watching the crows. Humans, therefore, only appear as shadows until this moment.

The background music of these images is *Wassermusik*, by Handel, composed in the 18th century and which had its premiere performance in London, in 1717, for the court of King George. The music is quite imposing and contrasts with the prosaic scene of the funny real crows. It is a contemporary song from the time when the Tower of London's protection of crows was made official. As the video develops, little by little, some phrases appear that introduce its narrative. The phrases appear in different positions of the visual field of the image, sometimes approaching the crows, sometimes approaching the shadows of the humans, thus creating an intersemiotic relationship between the visual and verbal languages, generating different possibilities of interpretation. The narrative takes place entirely in the past, referring to the language of fables. There are terms that are deliberately dubious in the text, which become more explicit according to their position in the image. For example, the pronoun "they" sometimes refers to ravens and sometimes refers to humans, who appear as shadows. According to the location of the sentence in the visual field, one can have a different interpretation of the subject of the action.

The basic text that appears in Lesson 1 is repeated with some variations in later lessons. However, its meaning changes according to the image to which it refers. Thus, there is the feeling that history is repeating itself, although the situations and characters are different in each of the "lessons". Throughout the development of the video, the text becomes increasingly fragmented and vague, so that, in the last lesson, only a few words remain from the original text, which no longer form complete sentences, but only imply meanings in their relationships with the images.

The full text of the first "lesson" is as follows:

[...] they lived on an island  
they believed  
if they fled the island  
your world would disappear  
then they were captured  
and had their wings clipped  
they were white  
and black  
they believed in evolution  
they weren't wild (Evoluções..., 2012).

This certain lack of definition of the subject to which the pronoun "they" refers, which changes according to the position it occupies in the image, causes some confusion in the viewer, who may think that the story refers to both men and crows. This lack of definition is accentuated throughout the development of the other "lessons" in the videos,

which make the relationships between men and animals more and more intricate. There are some ironies and provocations in the relationship between text and image. One of them is the phrase “they were white and black” (Evoluções ..., 2012), which may refer to racist issues, but which, in this chapter of the video, is just a description of the men and the crows. The same phrase will be repeated in the second chapter of the video, however, referring to the black and white image of a *fueguino* indigenous painted with white stripes.

There is also a certain irony in the phrases “they believed in evolution” and “they were not wild” (Evoluções ..., 2012). In the first lesson, these phrases appear in the transition from images of crows to noisy images of crowds of tourists invading the fast-paced Tower of London. Also with these images, the image of Darwin appears superimposed, who seems to ask for silence in front of the agitated crowd of tourists<sup>5</sup>. The phrase “they weren’t savages” (Evoluções..., 2012) seems incongruous given the uncivilized attitude of contemporary tourists. In the second “lesson” of the video, the phrase “they were not savages” (Evoluções..., 2012) appears precisely over the image of the *fueguinos* indigenous people, suggesting that the indigenous people themselves did not see themselves as savages, but as humans.

The second “lesson” in the video is made up of black and white photographs of *fueguinos* indigenous people superimposed on images of water, captured in Ushuaia Bay. There is no music, just the ambient sound of rushing water and wind. The sensation is one of fluidity, distance, memory and disappearance. The images of the indigenous people always appear in transparency, as if they were disappearing like ghosts in the flow of water. The same sentences from Lesson 1 reappear here with some modifications and deletions, generating new interpretations. This time, those captured were the indigenous people instead of the birds. But they didn’t have wings. And your world would disappear.

Among the images that overlap the water, one of them stands out for presenting portraits of two important characters in history: Darwin and the *fueguino* indian York Minster. In the montage performed, both seem to look at each other, face to face. Darwin’s portrait is photographic, while the Indian’s is an illustration. There is no photographic record of the indigenous people captured by the Beagle crew, only engravings. It is interesting to note that although it can be seen from York Minster’s features that he is a *fueguino* indian, in his portrait he is wearing western clothing.

The end of Lesson 2 is a bit abrupt. The images are engulfed by the brightness of a fade out with a white background. The final sound resembles thunder or an explosion, referring to disappearance. The noise gives way to silence, in which Lesson 3 is introduced, of a more melancholic character.

In Lesson 3, there are images of sea lions and birds that live on the islands of Ushuaia Bay, interspersed with isolated words that appear against a white background. Unlike the other lessons, in which the

text overlaps the images, here, it appears in the interval between them, marking a more cadenced rhythm in which the images constantly appear and disappear. The images are all in slow motion, giving a choreographic and dragged atmosphere to the animals' movements. You no longer see the presence of humans, only animals. Elements of domination can be seen among them, such as the presence of an alpha male who scares away other smaller fur seals. There are also some marks of blood on the rocks, which it is not known if they come from fights between the animals themselves, the capture of other smaller animals or the action of predation by man.

Background music is fundamental to the poetic composition of these images. This is the song *El Cant dels Ocells* – The Song of the Birds, in Catalan – in arrangement for cello by Pau Casals and interpreted by cellist Benedict Kloeckner. The song originates from a Christmas song from Catalan folklore. In Spain, Pau Casals' version is generally used as a requiem at the wake of important deceased persons. It is a very powerful, reflective and solemn song. The bass sounds of the cello and the slowness of its progress can be associated, in the video, with the sounds emitted by the fur seals and their slow and heavy movement. The video editing takes into account the paused cadence of the music to slowly introduce the words that punctuate the images. It is no longer possible to constitute a linear reading of the narrative. What is intended here is to cause a poetic immersion in a sound-visual-verbal conjunction that makes sensitivity emerge. The song ends as something in suspension and the video continues in silence for a few more seconds, at which point one of the animals looks us directly in the eye.

The video does not offer answers, it only raises questions and difficulties about the relationships between men, their fellow men and animals. Understanding the other is not an easy task, whether it is another human or non-human animal.

## **Anthropology, Natural Sciences and Art in Dialogue**

Seeking to understand the other has been, over time, the task of anthropology in the case of humans, and biology in the case of animals and plants, although these areas often mix and complement each other. Observations about the unknown, human or non-human, were made by the same scientists at the beginning of the development of modern science. Alexander von Humboldt, for example, described the landscape, geography, animals and plants, as well as indigenous peoples and their customs at the same time. In Brazil, the expeditions of botanists Von Martius and Spix, among others, stand out, which in addition to documenting the local flora and fauna, also gathered cultural artifacts of the indigenous peoples. Darwin, in a way, although he concentrated on the study of biology, he also reflected on the *fueguinos* peoples and the Australian aborigines. Just as he made anthropological observations about non-European whites, such as Brazilians and Argentines, which were noted in his field diaries.

Anthropology, as a science, begins to gain ground after these exploratory expeditions and is, since its inception, the study of peoples foreign to Europeans. It is born, therefore, within a Eurocentric point of view, which has only recently been contested. Studying the other, whether animal or human, is actually a matter of building an identity of oneself. Man, in order to define himself, seeks a differentiation from animals, since, throughout the history of philosophy, man is an animal with something more. When confronted with other men who differ from him, the “savages”, it is necessary to seek other forms of differentiation that update his notions of identity.

Anthropologist Eduardo Viveiros de Castro brilliantly presents this issue:

Man’s burden: to be the universal animal, the animal for whom there is a universe. Non-humans, we know - but how the hell do we know? – are ‘poor in the world’; not even the lark... As for non-Western humans, one is quietly led to suspect that, in worldly matters, they are at best only modestly endowed. We, only we Europeans, are the complete and finished humans, or rather the grandiose unfinished ones, the fearless explorers of unknown worlds (plus ultra!), the accumulators of worlds, the millionaires in the world, the ‘configurators of worlds’. As can be seen, Western metaphysics is fons et origo of all kinds of colonialism – internal (interspecific), external (between specific), and if they could eternal (timeless). But the wind turns, things change, and alterity always ends up eroding and making the most solid walls of identity crumble. (Viveiros de Castro, 2015, p. 27).

In this passage, Viveiros de Castro refers to the comments that Giorgio Agamben (2004) makes about Heidegger’s thought, returning to it in a very critical way. In seeking to differentiate between men and animals, Heidegger elaborates his theory by saying that animals would be “poor in the world” (Weltarm) and humans would be “shapers of worlds” (Weltbildend). To these distinctions, Viveiros de Castro ironically adds the counterposition that non-Western humans would be “modestly endowed” with the world, while Europeans would consider themselves “millionaires of the world”. Such a statement calls into question the historical tradition of anthropology, which Viveiros de Castro intends to rethink based on new parameters. The author also wonders how we could be sure that animals would be poor in the world, after all? The difficulty of putting oneself in the place of the other, whether human or non-human, must be questioned by philosophy. If in the cases of animals it is even more difficult, at least in the case of humans, anthropology must strive to understand the other not only through the description of their habits, but from the attempt to understand their ways of thinking.

In another excerpt from his book *Metaphysics Cannibals*, Viveiros de Castro (2015) pleads that anthropology should “think differently” – referring to Foucault’s “*penser autrement*” -, “[...] think another mind,

think with other minds” (Viveiros de Castro, 2015, p. 25). This means trying to get rid of their Eurocentric prejudices to delve into the thinking of non-Westerns, a task that anthropologist Viveiros de Castro dedicates himself to in his studies of Amerindians.

The author introduces the interesting concept of “perspectivism”, based on indigenous thought that serves to anchor his anthropological theory. According to him, the Amazonian indigenous people have a different way of thinking about the relationship between body and soul. While the Europeans in confrontation with the “savages” would doubt that they had a soul, bringing them closer to animals, the indigenous people doubted that the Europeans would have a body, possibly being gods whose soul was only temporarily incarnated in a body. For the indigenous people, souls could present themselves in different ways, sometimes inhabiting the bodies of animals, vegetables, minerals and even artifacts and objects, sometimes revealing themselves as meteorological phenomena, as simple spirits of the dead or as gods (Viveiros de Castro, 2015, p. 43). If souls can thus wander and have a subjectivity that is not tied to a body, “[...] all animals and other components of the cosmos are intensively people, virtually people, because any one of them can reveal itself (transform itself into) a person” (Viveiros de Castro, 2015, p. 45-46)

According to Amerindian thought, what would be common between humans and animals, therefore, would not be animality, as Westerners think, but humanity. This means that a monk seal or a bird, for example, would not see the world as animals, but as humans, because they have a soul, and their way of seeing the world is what is valid for them as a person at that time. Other animals would therefore see themselves as humans, while they see men and other animals as non-humans. for the indigenous,

[...] animals see their food as human food (jaguars see human blood as corn beer, vultures see rotting flesh worms as roasted fish, etc.), their bodily attributes (fur, feathers, claws, beaks, etc.) adornments or musical instruments, their social system as organized in the same way as human institutions (with chiefs, shamans, parties, rites...) (Viveiros de Castro, 2015, p. 45).

Each being has, therefore, a capacity to occupy a point of view from its own perspective. Viveiros de Castro calls this way of thinking perspectivism, since subjectivities would be able to embody different points of view and thus face the world from their different perspectives, which could be sometimes human, sometimes non-human. This conception of thought could then overcome the old Western dichotomies that always see human/non-human, civilized/savage, culture/nature, etc. Instead of opposing thinking, which includes denial as an identity construction process, what the author proposes is a complex thinking of multiplicity, which goes against ethnocentric narcissism and seeks to blur the dividing lines between traditional categories of thought. Vi-

veiros de Castro states that “[...] it is not a question of erasing contours, but of folding them, thickening them, skewing them, iridescent them, fractalizing them” (Viveiros de Castro, 2015, p. 28).

In a way, I share this search in the work *Evolutions in 3 Lessons*. By proposing a narrative of disappearance and domination, which is repeated throughout the film, referring at times to Westerners, at times to indigenous peoples, at times to animals, I intend to adopt different perspectives to understand these beings and make the complexity of their relationships skewed. Although one can recognize, in the video, a certain sequence of domination, which starts with the white man subjugating animals and the indigenous people, passes to the indigenous people subjugating other animals, and ends in the very struggle for survival among animals, the work is not simply intended to list a hierarchy of culprits, but rather point to the insoluble questions in which all these beings are intricate in their relationships. If the fact of looking at the other to see oneself is part of our inevitable process of identity construction, on the contrary, this process cannot be based on a simple narcissistic description, but rather take advantage of the possibility of contact with the other to broaden its perceptive awareness and respect other points of view, other perspectives.

The task of seeking to project oneself into other perspective and perceptive states is not an easy one. Our imprisonment in the self often makes this process difficult. For the indigenous people, only shamans would have the possibility of accessing other perspectives, projecting themselves into the subjectivities of the other, human or non-human. Shamans would have the ability to access the supersensible and transform themselves into other beings, reaching their perspectives. In our western world, access to the supersensible is generally attributed to religious rites, even though most religions are based on a single perspective, which excludes those who are not faithful to it. We can remember the “truths of Christianity” that should be taught to the indigenous *fueguinos*.

Access to the supersensible, however, is not exclusive to religions, but a possibility that is also sometimes attributed to art. The shamanic aspect of art and its connection with the spiritual world is at the heart of its foundation. It is quite frequent for the artist to seek, through imagination, to make non-existent worlds and thoughts visible, projecting himself into other perspectives, embodying characters or showing solidarity with other beings, visualizing relationships that have not yet been seen. Looking at the other, at the unknown, at the stranger is what fascinates artistic creation. Dislocating his body to other landscapes, experiencing other affections in the confrontation with alterity and traveling to discover other worlds are the artist’s tasks. Allow me to borrow here the notion of perspectivism for artistic thought. Assuming new perspectives and making them visible to the observer, the artist is able to sensitize the gaze of the other. Your survival as an artist depends on the look of the other, and it is this look that must be respected, even if there are difficulties in understanding it. The artist is a traveling being;



his soul, a tourist of affections and perceptions. We can learn more than three lessons from evolution. Perhaps there is not a single evolution, but evolutions, in different perspectives and sensitive states. To understand the world more deeply, we need to look between the spaces of multiplicity and dwell in the interstices of time, travel under the awareness of the interrelationships between beings. Sometimes, it is necessary to go to the end of the world to meet the gaze of the other.

Education is undoubtedly one of the main activities capable of promoting this meeting of perspectives and the sharing of knowledge. Bringing together the sensitive perception freely provided by art to the structured pursuit of knowledge that science offers us can certainly contribute to the formation of critical and empathetic individuals, who consider the importance of the presence of the other, regardless of race, color, origin or species. . The search for the constitution of a plural world in which respect for otherness and communication between the fields of knowledge occurs in a more integral and collaborative way, without leaving aside its complexities, is the main lesson that we must learn from evolution.

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## Notes

- 1 The information on the Fuegian indigenous people presented here is based mainly on reports from the book *Indios Fueguinos: Vida, Costumbres e Historia*, by Arnoldo Canclini (2009) and also on information collected by the author of the article on visits to museums in Ushuaia, Argentina.
- 2 FITZROY, Robert. *Letters to His Family from HMS Glendower, Hind, Thetis, Ganges and Beagle from 1816 to 1852*. Cambridge: Cambridge University Library, 1991. (Correspondence). Available in: <https://archivesearch.lib.cam.ac.uk/repositories/2/resources/8063>. Acesso em: 2 abr. 2022.
- 3 DARWIN, Charles. *The Voyage of the Beagle's Journal of Researches into the Natural History and Geology of the Countries Visited during the Voyage of HMS Beagle round the World, under the Command of Captain Fitz Roy, RN*. London: John Murray, 1845.
- 4 DARWIN, Charles. *The Voyage of the Beagle's Journal of Researches into the Natural History and Geology of the Countries Visited during the Voyage of HMS Beagle round the World, under the Command of Captain Fitz Roy, RN*. London: John Murray, 1845.
- 5 The image of Darwin asking for silence is, in fact, a photographic montage used on the exhibition posters at the Natural History Museum in London. It is a digital manipulation based on an original photo from 1881, and widely disseminated on the internet to publicize the exhibition. (Pero..., 2009).

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