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# PART 1

# ERA OF GOLD

## Golden Age

The seventeenth century is known as the Golden Age in the Netherlands, due to the Dutch dominance in mercantile, scientific, and artistic power. Within the realist tradition that marked this period, one painting seems to me especially symbolic of the articulation of themes that will be unfolded in this text. Ludolf Backhuysen's 1667 painting *Ships in Distress off a Rocky Coast* (FIG 1) shows three Dutch ships struggling in rough seas off a rocky shore. In the lower right corner of the painting the tip of a mast sticking out of the water suggests a recent shipwreck, while at the centre a huddled crew tries to control the sails of their vessel. The cargo ships depicted here are the *fluyt* kind, the same type used in the transport of commodities that enabled the enrichment of the Netherlands at the time. Rocks and stormy waves point towards the inhospitality of foreign lands, as they stand in contrast to the sand dune landscapes that dominate Dutch coastal areas. Backhuysen used to go sailing to observe changes in light and had a special pictorial interest in meteorological effects on the surface of the sea. The level of detail of the heavy clouds in the sky, their reflections in the water, and the surf spraying against the rocks are examples of the way the power of nature is materialised as the central element of the scene. In the upper left corner, the golden light that breaks a clearing in the dark barrier of the storm seems to condense

the spirit of overcoming any limitations. Dutch growth would heroically prevail over the most terrible forces, including natural ones, represented in the painting as an obstacle to be conquered by the colonial and mercantile expansionist impulse.

Right at the centre of the painting, on the main ship, a detail in red catches the eye. Under the horizontal mast the torso of a grotesque figure, a mixture of lion and demon, sticks out from the edge of the prow. It's a sculpture typically made of wood that follows an ancestral tradition of talismans. Since antiquity the Phoenicians, who were known for their maritime trade practice, painted eyes on the edge of their galleys, while the Egyptians carved figures of holy birds, and the Greeks sculpted heads of boars, which were placed on the front of their vessels. Sailors believed that to find their way at sea, it was essential that ships had their own sense of vision.

Thus, a tradition of bow figureheads developed in parallel to naval innovations. From the sixteenth century, they spread out along Atlantic navigations, aiding in the identification of ships by populations who were often illiterate. Their main function, however, was to protect ships from diseases, rocks, and storms. Dutch sailors believed that spirits inhabited these sculptures. Such beings, the *kaboutermannekes*, would guide the souls of the crew to the underworld in the

event of a shipwreck. Therefore, sinking without a figurehead meant being doomed to eternally roam the sea, a fate no sailor was willing to risk.

The figurehead tradition fell into disuse as wooden ship hulls were replaced by other materials, and the sculptures ended up in museums. Currently dozens of them can be found in the collection of the Amsterdam National Maritime Museum.

The museum is located on the east side of the city, on a small island called Kattenburg, known for its shipyards where slave ships and Dutch West India Company (WIC) boats were built. By the side of the museum stands a fountain composed of four figureheads cast in bronze that support a globe at its centre. Feminine forms blend with the bodies of horses and spew water jets on the globe, creating moving circles of water around the figurines.

The work was commissioned in the 1990s for the then headquarters of the Dutch Marine Corps, located next to the museum. A temporal parallel can be established by the proximity of the old figureheads, now in the museum, and these more recent ones, integrated into the daily life of the city. These figures in public space embody the current motto of the Dutch Royal Navy, inscribed on its coat of arms since 1946. In Latin it reads *Qua Patet Orbis*. Recently, Dutch military troops have been acting against maritime piracy off the coast of Somalia and in NATO operations in Afghanistan under this motto, which was originally used during Golden Age navigations in the seventeenth century. More specifically, it was the motto of Johan Maurits van Nassau-Siegen, also known as Maurício de Nassau in Portuguese, the Governor-General of the Dutch colony in Brazil (FIG 2).

*Qua Patet Orbis*, Latin for 'As far as the world reaches' or 'To the ends of the Earth', suggests the idea of a yet to be reached limit to the world, a possibility of going beyond the known, a horizon to be expanded and explored. The

motto represented, with exceptional precision, the project of the expeditions led by Nassau into Brazilian territory. Another interpretation, however, seems to sprout from that same idea of encompassing the whole world: a limit to the very project of reaching the world's limits. In other words, the ecological exhaustion which is the result of the continuous extractivist spirit of economic growth over the past centuries. How far does the world reach? It's precisely the parallel between expansion and exhaustion that I will try to establish in this text, starting from the colonial origins common to both capitalist and modern scientific practices. For this, the documentary images produced by Dutch scientists and artists in Brazil serve as a starting point for thinking about how colonial representations of nature relate to the ecological dilemmas and negationism faced by science nowadays. By focusing on these two distinct periods, I intend to observe the political and historical role of realism as the ballast of images of nature generated by science, in order to shed light on certain definitional impasses about the reality of climate issues.

### Point zero

With the Eighty Years' War the Dutch provinces secured their independence from the Spanish Empire in the first half of the seventeenth century, and developed the economic war plan known as *Groot Desseyn* (Great Design). This plan aimed at taking over Spanish and Portuguese possessions in Africa and the Americas in order to deplete the resources of the Iberian Union which had sustained the Spanish war effort. As a precursor to what is known today as 'following the money', the Dutch focused on Brazil and Angola to control the profitable sugarcane plantations and the commerce of slaves, thereby imprinting an influence on the development of the Brazilian northeast, in the current state of Pernambuco.

Dutch Brazil, as it became known during the colonisation period between 1630 and 1654, had Johan Maurits as its Governor-General from 1637 to 1644. Seven years, from the age of 33 to 40, were all it took for the prince of Nassau-Siegen to be immortalised with the nickname ‘the Brazilian’ upon his return to the Netherlands. Much of his reputation comes from the creation of an exotic imaginary, based on a vast collection of plant and animal species, paintings, and objects that were brought to Europe under his rule. Nassau, whose fame as a patron of the arts and sciences has been the subject of recent revisions, used the material culture gathered in the Dutch Brazilian territory to restore his political influence on the old continent. Through exhibitions, exchanges, and gifts to European nobility, his Brazilian collection circulated and became fragmented as the items were incorporated into other cabinets of curiosities.<sup>1</sup> It’s no wonder that the practice of collecting reached its peak in the sixteenth and seventeenth centuries, boosted exactly by transatlantic and transpacific voyages. In addition to artefacts and ornaments, plant, mineral, and animal specimens were removed from their original ecosystems and transplanted to other regions, starting an unprecedented process of species redistribution and biotope alterations, on a global scale.

During the Golden Age the Amsterdam port established itself as the main axis of circulation for items considered exotic. In one of his letters, René Descartes, who lived in Amsterdam in the 1630s, expressed his enthusiasm for “the arrival of the ships here, that bring to us abundantly all the produce of the Indies and everything rare in Europe.” In the same letter, Descartes wondered what other place on Earth “could one choose where all the commodities of life and all the

curiosities one could wish for were as easy to find as in this city?”<sup>2</sup>

Parallel to the commercial boom, naturalist and ethnographic expeditions spread around the New World. Their cataloguing practices served as crucial tools to guide the new paradigms of modern encyclopaedic knowledge towards notions of objectivity, neutrality, and universality. So the myth of a universal truth to be unveiled by European man was steadily built, in which it was believed to be possible to regard the laws of nature as seen through the eyes of God, from a non-situated and therefore universal point of view. It’s no coincidence that the anthropocentric maxim *cogito ergo sum*, coined by Amsterdam’s famous resident, was published in the same year Johan Maurits arrived in Brazil. By questioning the nature of the observable world, Descartes concluded that the only reliable source for truth is reason. Precursors of the spirit of their time, the Cartesian foundations helped outline the scrutiny of the natural world by Enlightenment thought, by proclaiming privileged access to absolute knowledge through distanced rationality.

By concealing the subjectivity and the place of enunciation of the one who thinks, science detached knowledge from the geopolitical positioning of the bodies responsible for its production and dissemination. In this way, an illusion of neutrality was systematically created for what conventionally has become the standard universal point of view, meaning the point of view of the European coloniser, called “point zero”<sup>3</sup>

2 René Descartes to Jean Louis Guez de Balzac, Paris, 5 May 1631, in Charles Adam and Paul Tannery (eds.), *Oeuvres de Descartes*, vol. 1, *Correspondance*, pp. 202-204 no. 33, Paris: Léopold Cerf, 1897 in Claudia Swan, *Rarities of These Lands: Rarities of These Lands: Art, Trade, and Diplomacy in the Dutch Republic*, Princeton University Press, 2021.

3 Santiago Castro-Gomez, *La Hybris del Punto Cero: Ciencia, Raza e Ilustración en la Nueva Granada (1750-1816)*. Bogotá: Editora Pontificia Universidade Javeriana, 2003.

1 Mariana de Campos Françaço, *De Olinda a Holanda: o Gabinete de Curiosidades de Nassau*, Editora Unicamp, 2014.

by Colombian philosopher Santiago Castro-Gómez. Through a perspective which conceals and places itself beyond positioning, modern science has legitimised its own status as a unified system, with the supposed authority that centres European thought on top of a hierarchy of peoples. In the name of universality other knowledges were denied, so that the bearers of reason became spokespeople for everyone. All manner of domination and violence arising from colonial expansion were thus justified and in time, as Ramón Grosfoguel pointed out, “we moved from the characterisation of ‘peoples without writing’ in the sixteenth century to that of ‘peoples without history’ in the eighteenth and nineteenth centuries, ‘peoples without development’ in the twentieth century and more recently, ‘peoples without democracy’ in the twenty-first century.”<sup>4</sup>

Colonial scientific expeditions such as the one led by Johan Maurits in Pernambuco therefore played a role that goes beyond their merely documentary character. They contributed to the foundation of a Eurocentric cultural hegemony and were complemented by subsequent museological practices, whose objective was to institutionally preserve and reproduce the ‘point zero’ of Western knowledge. Nowadays, European memory institutions find themselves hostage to *mea culpas* when confronted with their colonial pasts. Acrylic boxes pile up on reception desks requesting people to “leave your comment or suggestion here,” as a pacifying attempt to avoid getting rocks thrown at their vitrines. However, the attempts by European museums to incorporate dissonant narratives and open up to critique sometimes remind me of the strategy adopted by bus

4 Ramón Grosfoguel, *Para Descolonizar os Estudos de Economia Política e os Estudos Pós-Coloniais: Transmodernidade, Pensamento de Fronteira e Colonialidade Global*, chapter 11 in Boaventura de Sousa Santos and Maria Paula Meneses (eds.), *Epistemologias do Sul*, Edições Almedina, 2009.

companies in Rio de Janeiro. Despite calamitous driving habits, each vehicle has a sticker on the back with a phone number and the protocolic—if not provocative—question: “How am I driving?”

### Museological illusion

One of the institutions whose ethnographic collection is formed by items expropriated during colonial interventions is the Nationalmuseet (National Museum of Denmark), in Copenhagen. After crossing the central hall of the museum, which is wide and well lit thanks to its glass ceiling and metal structure, a wooden staircase leads to the first floor, where the permanent exhibition *Peoples of the Earth* begins. In the first room, the low ceiling and the walls painted black make the experience of the confinement of objects more evident. Twelve paintings with a bare minimum of space between them occupy practically all of the available area on the walls, while three freestanding vitrines fill the space. Right at the entrance a sign bears the title ‘Thinking of Brazil’ written in yellow on top of a dark and difficult to make out photograph. The image shows an old building photographed from above, and, because its roof is missing, the interior of its multiple rooms is visible. The building is the Museu Nacional (National Museum), the oldest Brazilian scientific institution, located in Rio de Janeiro. The photograph was taken shortly after fire destroyed 90% of its collection on 2 September 2018.

The institutional text presented on the sign conveys the commotion generated by the event: “Priceless heritage has been lost.” The Danish institution then shows its solidarity: “The fire has weighed heavily on the minds of those in and outside of Brazil, including here at the National Museum of Denmark. Some of the objects in our museum’s collection are from Brazil and are a reminder of the country’s rich culture and

history.” After reading the text, the visitor faces a room where portraits of indigenous, black, and *pardo*<sup>5</sup> people are displayed, as well as still lifes of tropical fruit and plant species. Surrounding vitrines contain feather art by Brazilian indigenous peoples. An ambivalent feeling may overtake the visitor who realises that the items on display were possibly saved from the fire because they were far from their country of origin. Two questions then arise: How did these objects get there? And what does the Danish institution fail to say when it refers to the presence of these objects as a mere ‘reminder’ of Brazil?

The set of artefacts in the room of the Nationalmuseet left Brazilian territory as a result of the Dutch invasions. Among the items displayed in Denmark, what stands out is one of the six still remaining Tupinambá mantles, woven with natural fibres and red ibis feathers. Museum records date the mantle’s entry in the collection to 1689, admitting that there is no solid knowledge about its provenance.<sup>6</sup> One of its latest visits to Brazil took place during the *Mostra do Redescobrimto* (Rediscovery exhibition), which took place at the Biennial Pavilion in São Paulo in 2000.<sup>7</sup> The occasion was the five hundredth anniversary of the Portuguese invasion, and among the visitors to the exhibition were two leaders of a small village in Ilhéus, Bahia. Nivalda Amaral de Jesus and Aloísio Cunha Silva, from Olivença village, who at the time were demanding that the Brazilian government acknowledge their people’s identity as descendents of Tupinambá peoples, following centuries of cultural erasure.

5 Translator’s note: *pardo* is a term used to refer to Brazilians of mixed ethnic ancestries and represents a diverse range of skin colours and backgrounds.

6 Mariana Alvim, *Das peças indígenas a fósseis: os itens culturais brasileiros que estão ou correm risco de ir parar no exterior*, BBC Brasil, São Paulo, 2 March 2018.

7 Armando Antenore, *Somos tupinambá, queremos o manto de volta*, Folha de São Paulo, São Paulo, 6 January 2000.

After being converted to Catholicism by Jesuit missionaries, losing their native language and being relocated to a rural area by powerful Bahian landowners, they began to reject their origins for fear of persecution and started to define themselves as *pardo* or *caboclo*.<sup>8</sup> However, one year after the exhibition, the Olivença Tupinambás were officially acknowledged as indigenous by FUNAI, the National Indian Foundation, and the process of demarcating their territory began. As part of the rediscovery of their identity, the desire arose in the indigenous representatives to prevent the return of their ancestors’ mantle to Denmark, which was nevertheless not possible. Despite the support of universities and other institutions, the Tupinambá descendents were unsuccessful in their claim for restitution. In reference to the item the Nationalmuseet reiterated its “long tradition of positive dialogues and global exchange,”<sup>9</sup> which allowed for the mantle to be on loan to the Brazilian exhibition, but a restitution process can only be initiated upon an official claim by the country, which, according to the museum, never occurred.

The question of the repatriation of cultural items is a complex one, because besides the legal matter of who legitimately possesses an object and who requests its return, the costs of returning the item and of preserving it in the future are also in question. “According to the rules of the UN and UNESCO, once the return is successfully negotiated, the country who filed the claim must pay for the expenses of the restitution. That means that the country must be willing to bring the object,”<sup>10</sup> ponders Luiz Carlos Borges, a researcher at the Museu de Astronomia e Ciências Afins (Museum of Astronomy and

8 Translator’s note: *caboclo* is a term used to refer to Brazilians of mixed indigenous and European ancestry.

9 Mariana Alvim, *Das peças indígenas a fósseis: os itens culturais brasileiros que estão ou correm risco de ir parar no exterior*, BBC Brasil, São Paulo, 2 March 2018.

10 Idem.

Related Sciences, MAST) in Rio de Janeiro. Many people are hesitant about the advantages of retrieving artefacts from abroad, even when they're fundamental to the scientific and cultural development of Brazilian heritage. The lack of resources for research and maintenance, and the lack of public interest ends up reflecting the priorities of the federal government, which treats scientific development as superfluous and akin to a luxury item in comparison to the socioeconomic conditions faced by the majority of the population.

It's interesting to observe the cyclical effect generated by colonialism. As Grosfoguel points out, there is a line connecting the 'peoples without history' of the past and the 'peoples without development' of the present. The abandonment and the obstacles faced nowadays by Brazilian memory institutions are in part a reflection of the successive reproductions of colonial power. This genealogy could be traced back to naturalist expeditions which pillaged native species and materials, thereby contributing to the consolidation of European hegemonic power and to the detriment of other forms of knowledge. Therefore, the ongoing presence of Brazilian artefacts in European collections, as in the case of the Tupinambá mantle in Denmark, can be read both as a cause and an effect of the economic disparity between research institutions. In this way, the image of the burned down National Museum of Brazil inside a room at the National Museum of Denmark reveals a political interdependence between those institutions, a relationship circumscribed to the power hierarchy built up over the last five centuries.

Faced with the geopolitical mirrorings produced by the photograph printed on the sign, we can perceive a form of masking in the way objects in the Danish collection are referred to as 'reminders of Brazil'. The museum uses the illusion of

transparency and institutional distancing to camouflage the agency of its political body, as if the Brazilian cultural items were vacuum packed. The authority of the museological discourse is also expressed in the title of the permanent exhibition, *Peoples of the Earth*. It implicitly proposes the possibility of encyclopaedic totality, systematised by a neutral apparatus, which fixates on objects while hiding subjects. On the other hand, the very idea of a permanent exhibition is called into question by the presence of the phantasmagoric image of the destroyed Brazilian museum. This evidence of the impermanence of architectural monuments seems to reveal how certain forms of preservation of modernity are disconnected from the very meaning of memory, exactly because they deem themselves to be artificially solid and static.

In a world as near as it is distant, indigenous cosmology reminds us that fire is a fundamental element of the cycle of life. When fire is well managed to open small clearings in the forest, it cleanses and creates conditions for new vegetation to thrive. This metaphor, mentioned by a Tupinambá leader shortly after the fire in the Brazilian institution, served as an inspiration for guidelines proposed by professor and anthropologist João Pacheco de Oliveira, curator of the ethnographic collections of the Museu Nacional do Brasil in Rio de Janeiro. In an interview with *Anthropology Today* magazine, he describes the colonial history of the Brazilian museum. The Museu Nacional was founded in 1818 as part of the Portuguese project of creating an identity for the nation that had welcomed the fugitive Portuguese royal family.<sup>11</sup> In this way its ethnographic collections have the same blueprint as European institutions, as they were formed from encounters between travellers from an aristocratic elite and indigenous

peoples. Pacheco de Oliveira points out that, for this reason, collectors had no knowledge of indigenous cultures and often catalogued items, their origins, and their functions incorrectly, which considerably hindered the process of identification afterwards. In addition, many pieces were added to the collection only because they aroused some kind of visual interest in the traveller. What presented itself as having an aesthetic value from a Western and foreign perspective, often didn't translate into historical or ethnographic relevance.

After the 2018 fire a possible new direction presented itself to the Brazilian museum. João Pacheco de Oliveira uses the term 'museological illusion' to refer to the vocation of memory institutions to generate empathy in visitors, in addition to the dimension of enchantment to be explored in the process of sharing knowledge. Colonial museums, according to him, constantly benefit from the illusion of authority and distance; because the *modus operandi* of how their collections were formed contributes to the exoticisation and fetishisation of their objects. Since most of the original collection of the National Museum was lost in the fire, the institutional challenge now is to create another kind of illusion: one that contemplates the narrative of indigenous peoples in a manner in which they choose to have their memories portrayed. Pacheco de Oliveira believes that the physical collection can be recomposed through the production and donation of new items, made by indigenous peoples specifically for the Museu Nacional, which would represent a radical change in collecting practice. However, as the expression itself suggests, the museological illusion is above all a produced illusion. Even the new guidelines proposed by the Museu Nacional would end up coming up against the inescapable limits of the museum's vocation as a historical tool of self-determination

for the modern subject. As Denise Ferreira da Silva points out, despite the efforts of postmodern anthropology to critically redefine its own discipline by questioning the fixity of the positions between subject and object, and deflating its own ethnographic authority, the difficulty of accepting the discourse of the other as a self-determined and "entirely historical vocalisation" persists. There is no way that the other is able to handle the scientific tools of modern reason without reaffirming the cultural difference that is established as a basic condition of any attempt to represent otherness. Despite institutional good intentions, Audre Lorde's famous words remind us that "the master's tools will never dismantle the master's house." The proposal, then, of creating space for indigenous peoples to represent themselves is still supported by another illusion, that of the transparency of the museological apparatus. By giving voice and agency to indigenous peoples, the museum indeed approaches them as subjects, but "subjects incarcerated in cultural difference,"<sup>12</sup> defined above all by an external rather than internal determination. Perhaps this is exactly the insurmountable limit which many memory institutions are confronted with today.

With regard to the repatriation of Brazilian artefacts in European collections, this doesn't seem to be the path Pacheco de Oliveira proposes to the Museu Nacional, since the repatriated items would have the same roots in colonial collecting. The curator's proposal is to request the transfer of digital files to foreign institutions, to create an online collection that could be shared with the people who produce these materials. In this way, the Museu Nacional's new narrative involves the recognition of its genealogy, its own institutional limits, and the creation of a positive illusion based on collaboration with indigenous

communities. To analyse the political effects produced by museological illusions, it's important to understand how the very notion of reality itself has been historically constructed from museological practices. Returning to the Dutch expeditions in Brazil, it's possible to see how ethnographic objects and images produced by artists and scientists in the seventeenth century acquired the status of documents and were instrumentalised by Europeans for the production of a new reality, which due to its novel existence was vulnerable to manipulation.

### Reality effect

Following the spirit of the time, during his tenure as governor of the Dutch colony in Brazil Johan Maurits van Nassau-Siegen organised a delegation of scientists and artists to register the fauna, flora, geography, and inhabitants of the New World. Painters Albert Eckhout and Frans Post joined naturalist George Marcgraf and doctor Willem Piso, and from that endeavour sprung hundreds of watercolour studies, oil on paper works, and paintings. This material was later compiled and used as a basis for woodcuts published in the book *Historia Naturalis Brasiliae*, the first encyclopaedic catalogue of Brazilian natural history, published in Amsterdam in 1648.

Albert Eckhout joined the entourage at age 27, as a portrait and still life painter at the court of Johan Maurits. His task was portraying the different ethnic groups found in Dutch Brazil, as well as the diversity of plant and animal species. Some of that material is now in the Nationalmuseet in Copenhagen, because it was given as a diplomatic gift by Nassau to Danish king Frederick III. This set of works includes portraits of Tapuia and Tupinambá peoples, portraits of African and *mestiço* (mixed) individuals, and compositions with fruit and

vegetables (FIG 3). Frans Post arrived in Brazil at the age of 25 as a specialist in landscape painting and was in charge of documenting local topography with panoramic views of Pernambuco state. His paintings and prints also show buildings, such as sugarcane mills, ruins, and military forts. Despite the descriptive character and the realistic style of both painters, certain aspects of their works raise an essential discussion regarding the levels of fidelity attributed to the documentary genre. It's common in Post's paintings, for example, to find African characters partying, dancing and interacting freely in the landscape as if they were masters of their own destinies, without any negative hint of slavery, as a way of highlighting the benevolence of Dutch rule in comparison to Portuguese rule (FIG 4). Another feature, also in Eckhout's still lifes, is the recurrent absence of the sun. The Brazilian northeastern sky is systematically represented as covered by heavy clouds, following the style used by Dutch painters at the time for the portrayal of the sky of their homeland. It is well known that only a few of Post's paintings were made on Brazilian soil, for more than thirty years after returning to the Netherlands and until his death, Post continued to paint Brazilian landscapes based on sketches, memories and notes taken there. Eckhout's paintings in Copenhagen, for their part, despite being signed, dated and in some cases marked with the word 'Brazil' in their margins, have also come under scrutiny for possibly having been painted in the Netherlands after the collapse of the Brazilian colony. Considering that seventeenth century painters didn't always sign their paintings, there is a hypothesis that this information was added at a later moment with the sole objective of attesting to the painting's credibility, since their Brazilian origin, defended by Johan Maurits in his diplomatic tour, surely raised their market value. Studies conducted by

the conservation team at the Nationalmuseum even indicate that the original dimensions of these paintings were larger than the current ones, therefore they might have been cut during their first restoration process in 1656. As a result of this intervention, signatures may have been added for administrative reasons.<sup>13</sup>

In any case, the documentary value attributed to the drawings and paintings produced by Nassau's entourage was historically reaffirmed because its authors were eyewitnesses of a territory hitherto completely unknown to the European public. The material must be understood as part of a tradition of images which, as early as the sixteenth century, circulated intensely throughout Europe through prints and portraits that testify to the existence of strange beings and animals, meteorological effects and events to which the public would never otherwise have had access. It was impossible for the public to make any comparison with the original beings and landscapes, which turned the images into material substitutes for the experience. Their truthfulness was sustained not only thanks to the absence of the original, but also thanks to subtitles that came to accompany the works. The earliest case of this is perhaps the famous drawing by Villard d'Honnecourt which depicts a lion and is accompanied by the inscription: *contrefais al vif*—'drawn to life'. Besides the French variation *contrefais*, it was common to find the Latin form *contrafactum* in the drawings' margins, or the Dutch *gheconterfeyt*, when the intention was on emphasising the likeness of a representation. At the same time, the terms *al vif* and *ad vivum* referred to the physical presence of the author in front of the portrayed situation, which conventionally came to attribute realism

to the work.<sup>14</sup> Thus, the terms came to function as veritable authenticity seals, so that some images could be read as documents, bearers of visual facts, while their inventive and artistic character was kept in the background. The promise of mimesis and testimony implicit in the expression *ad vivum* created a norm for images whose scientific ends trumped their artistic merit. The term began to circulate in correspondence and validated publications in the scientific community, especially accompanying natural history illustrations. No wonder it's included in the preface to *Historia Naturalis Brasiliae*, used by George Marcgraf to describe his method for producing drawings in Brazil (FIG 5).

The botanical representations of *Historia Naturalis Brasiliae* were created from contact with fresh specimens which, in turn, were also catalogued in the form of herbariums that preserved dry plants between sheets of paper. As early as the sixteenth century the Italian naturalist Ulisse Aldrovandi advocated for the importance of *ad vivum* representations, for which plants should be collected no more than one hour before being portrayed. The drawing should include its flowers and fruits, because then its three growth stages would be registered, making the representation more accurate for identification. The methodology described by Aldrovandi had a direct impact on the curriculum of pharmacological universities of the time. The realism of *ad vivum* reproductions gave students access to specimens even when the botanical gardens were closed during the winter. Watercolours and woodcuts, as faithful substitutes, gave autonomy to researchers facing unfavourable weather conditions and unsurmountable geographical distances.

13 Rebecca Parker Brienen, *Visions of the Savage Paradise: Albert Eckhout, Court Painter in Colonial Dutch Brazil*, Amsterdam University Press, 2006.

14 Peter Parshall, *Imago Contrafacta: Images and Facts in the Northern Renaissance*, *Art History*, Vol. 16, no. 4, pp. 554–579, 1993.

In addition to the impact the *ad vivum* representation method was making on European academia, the botanical drawing style used in the Brazilian catalogue also enabled the spread of indigenous knowledge in Europe. One of the herbal medicines found in Brazilian lands that most captured European attention after the Dutch expeditions was *Cephaelis Ipecacuanha*, known for its emetic properties, which was used as a natural purgative and an antidote for poison by the indigenous peoples. The preparation method of mashing the leaves during the night out in the open air and cooking them in water was recorded by Willem Piso in his section of the book. The illustration of the plant in the Brazilian catalogue shows two branches with leaves, inflorescences with buds and roots. The same species can be found on one of the pages of Marcgraf's herbarium, now preserved in the Copenhagen University collection. Despite the precarious condition of the specimen and the fact that the woodcuts published in *Historia Naturalis Brasiliae* are reproductions of original drawings, it's possible to get an approximate idea of the likeness proposed by the *ad vivum* technique by placing plant and illustration side by side (FIG 6, 7).

The vast majority of the more than 300 woodcuts published in *Historia Naturalis Brasiliae* reproduce drawings made by either Eckhout or Marcgraf, which evinces the difficulty of determining a clear limit between artistic and scientific practice at the time.<sup>15</sup> Although they ultimately drew the same specimens, Marcgraf and Eckhout produced fairly different representations, not only in terms of technique, but also because of their scales and styles. However, both Eckhout's oil studies and Marcgraf's watercolours sought to solve the same problem of accuracy inherent

to naturalistic representation. While Marcgraf prioritised the most archetypical descriptive style, Eckhout focused on the nuances of each element, seeking the realistic effect typical of the Dutch school of painting at the time. Most of Marcgraf's watercolours followed the small scale of his notebooks, striving for a more schematic clarity and including complementary notes, many of them handwritten by Johan Maurits himself (FIG 8). Eckhout, in addition to using a scale closer to real life size, used oils which allowed him to reach colour vibrations as vivid as the originals.

These images were produced in a context in which the Dutch expression *naer het leven*, translated from the Latin *ad vivum*, was already part of the linguistic repertoire of European art. At the same time, the expression *uyt den gheest* was used to refer to representations made from 'the spirit' or 'the imagination'. Although they were seemingly opposites, *naer het leven* and *uyt den gheest* were used in a complementary way in the description of the academic process of painting. First, the general traces of the drawing were captured in the presence of the subject matter to be portrayed and later the composition was refined at a remove from the original scene, based on the inventive intuition of each artist. This seemed to be the norm that naturalist painters followed, among them Albert Eckhout, which explains some of the inherent limits of the method as testimony. Eckhout first sketched his compositions with chalk and then filled them in with oil paint. Although most of his paintings look like he explored the Brazilian northeast with an easel under his arm, the lighting in many of his paintings actually reveals his method of working in the studio, to which he brought many specimens (FIG 9).<sup>16</sup>

<sup>15</sup> Rebecca Parker Brienen, *Visions of the Savage Paradise: Albert Eckhout, Court Painter in Colonial Dutch Brazil*, Amsterdam University Press, 2006.

The easy access artists and scientists of the Dutch delegation had to plant and animal specimens was due to the fact that many of them were readily available in the Governor-General's private collection in Pernambuco. By cultivating botanical gardens and zoos with species from many regions of Brazil, Africa, and the East Indies, Johan Maurits affiliated himself with an aristocratic lineage that nurtured a taste for exotic collecting and that used these collections as a symbolic exchange currency for political purposes.

It was during his stay in Brazil that Nassau financed the construction of his mansion in The Hague, the Mauritshuis, where upon his return to the Netherlands he installed his Brazilian collection in a cabinet of curiosities. The Mauritshuis location was strategically chosen as part of his power project, beside the *Binnenhof*, the traditional centre of Dutch politics since the fifteenth century.<sup>17</sup> His future neighbour Constantijn Huygens, diplomat and secretary to the Dutch prince, supervised the construction and sent news about its progress through correspondence. In one of these exchanges, Johan Maurits comments on the fame that the building had been gaining with its nickname *maison du sucre* (house of sugar), and then, after thanking his informant for his attention, he said goodbye, assuring him that he would not forget to send more brazilwood and sugar to pay for the expenses and completion of the work.<sup>18</sup>

After the collapse of the Dutch colony in Pernambuco, Mauritshuis served as a stage for the exhibition of Brazilian artefacts brought back by the delegation. The collection was divided into two categories: *naturalia* for natural

objects and *artificialia* for human creations. The naturalistic drawings, however, ended up blurring that line by challenging the boundaries between representation and reality. At the same time that curiosity cabinets became popular, optical experiments with microscopes and magnifying glasses introduced the relativity of scale in the observation of nature, opening up unprecedented dimensions to be explored by science. Vision itself thus became an object of investigation as it acquired ambiguous outlines between artifice and nature, and, in the Dutch context, artists and scientists assumed this ambiguity in their respective documentation of reality. A realist regime of representation was established and operated as a two-way lane: not only did pictorial images come closer and closer to reality, reality itself, when manipulated by optical instruments, presented itself more and more as an image.

#### **Sincere hand, faithful gaze**

“Insect also of the figure of a millipede, when observed through a magnifying glass; with this aid I could observe that it has six legs; two antlers, however, has the body, and its wings had a dark yellow colour with black transverse stripes.”<sup>19</sup>

In the pages of *Historia Naturalis Brasiliae*, George Marcgraf materialised a proposal imagined years before by Johan Maurits' neighbour in The Hague, Constantijn Huygens. In addition to his official work in the state service, Huygens played an important role as intellectual interlocutor during the Golden Age of the Dutch republic. He admired the scientific inventions of the time and, after trying out the microscope for the first time, described “the new

17 Mariana de Campos Françaço, *De Olinda a Holanda: o gabinete de curiosidades de Nassau*, Editora Unicamp, 2014.

18 Catalogue of the exhibition *Shifting Image: In Search of Johan Maurits*, Mauritshuis, The Hague, the Netherlands, 2019.

19 *Historia Naturalis Brasiliae*, text in Portuguese, p. 259, Museu Paulista: Imprensa Oficial do Estado de São Paulo, 1942. Quoted in Cláudia Philipp Scharf, *Libri Principis e as Ilustrações de Fauna do Brasil Holandês: Fatura, Técnicas, Materiais e Autores*, Universidade Federal da Bahia, Escola de Belas Artes, 2019.

theatre of nature” in his autobiography. Eight years before the Pernambuco expedition he was already speculating about the possibility “to portray the most minute objects and insects with a finer pencil, and then to compile these drawings into a book to be given the title of the New World.”<sup>20</sup>

Despite the enthusiasm that seems to signal an unconditional support for science, Huygens became a key figure for being able to sniff out problems related to the production of truth and the, already at this moment existing, manipulative character of images. When analysing another technological innovation of that time, the camera obscura, Huygens couldn’t help but notice a specific detail of its operation: the light rays reflected by the objects passed through the camera-opening and were projected upside-down onto a plane. Even though it was possible to correct the image by inverting its orientation, a notion of falsification present in the mechanism disturbed Huygens. When he told his wife about the ingenuity of the apparatus in capturing reality, there’s a sudden shift in his narrative as he starts to alert her about the dangers of the instrument. The camera suddenly passes from conveyor of truth to its exact opposite. In the eyes of the diplomat, seasoned by the hall of mirrors of politics, the inverted world produced by the apparatus presented itself as an index for the inversions between truth and lies, interchangeable according to the interests of men. This distortion, rooted in the image generation process, led him to mistrust the truthfulness of representations that claimed to be realistic, which were typical of his time.

From the seventeenth century onwards, the notion of mimesis became the central pillar of image production and of the Dutch pictorial gaze. The same gaze captured in paint, treading the fine

line between reality and representation, was also mathematically described by Johannes Kepler. He was the first to use the Latin word *pictura* in 1604 when referring to the formation of the optical image: “Thus vision is brought by a picture (*pictura*) of the thing seen being formed on the concave surface of the retina.”<sup>21</sup> Kepler’s strategy was to separate the physical problem of the formation of the image from the psychological issues of perception. The notion of a replica of the world was evident in the way the mathematician ‘de-anthropomorphised’ vision, analysing the image as a result of a strictly mechanical process in which the world reproduced itself in the eye through light. “The retina is painted with the coloured rays of visible things.”<sup>22</sup> The use of a pictorial vocabulary in the description of the optical model demonstrated a shift in approach, making Kepler the first to no longer probe vision for its representation of reality, but for the reality of representation.

Kepler’s proposal differed from the Renaissance perspective, which centres the observer and composed images of the world from a privileged point of view. According to Leon Battista Alberti’s model, the visible image was born from the intersection of the visual pyramid that started from an active eye with a pictorial plane that behaved as an open window onto the world. In this way, figure and observer were kept separate. This distance already pointed to the search for objectivity in the representation of nature, both by scientists and by painters. However, the realism of the Renaissance perspective was based on the idea of a ‘faithful gaze’ and ‘sincere hand’, capable of faithfully reproducing the images of the world.

Meanwhile, the radicality of the movement proposed by Johannes Kepler consisted of the attempt to maximise the degree of objective

20 Svetlana Alpers, *The Art of Describing: Dutch Art in the Seventeenth Century*, The University of Chicago Press, 1983.

21 Idem.  
22 Idem.

representation by kidnapping it inside the eye. The world could no longer be found outside, but instead was duplicated inside. By highlighting the observer's passivity at the moment in which an image is formed mechanically and independently on his or her retina, 'seeing' and 'representing' fused into a single surface. From the suppression of the subject's agency in this process, it was then possible to naturalise one's point of view. The possibility of accessing an exact reproduction of the world on the retina strengthened rather than abolished the transparent authority of the subject. In a dangerous mirror trick worthy of the best of Europe's magicians, Kepler made visionary subjectivity disappear from the imagetic constitution of the world. In doing so, he prepared the ground for a supposedly disinterested, depoliticised and neutral point of view, to serve as an alibi for explicitly political projects of reality construction.

In the arts, the seventeenth century Dutch school of painting developed as the expression of a movement which valued fidelity and image realism above the expressionist style of the painters. For this reason, oftentimes artistic decisions were mistaken for duplications of reality. The still life genre allowed for the virtuous development of the naturalistic 'impersonal' style and it is perhaps for that very reason that it became so popular during the Golden Age. Historical distance and the later advancement of photographic technology now allow us to understand the realism of these compositions as a pictorial style, unlike how it was received at the time. Through a thorough analysis of the flowers and plants portrayed in still lifes it is possible, therefore, to find evidence of distortions of reality, as well as traces of the colonial project, which at the time guided the Dutch perspective in the construction of the real.

Anna Ruysch's *Still Life of Flowers in a Glass Vase on a Stone Table Ledge* (FIG 10) depicts an extravagant flower bouquet accompanied by two butterflies and a snail. Tulips stand out among the species portrayed and are nowadays immediately associated with Dutch culture. At the time, however, they were rare and expensive flowers, because they needed to be imported from Asia and had only arrived in the Netherlands via Turkey around 1560.<sup>23</sup> The presence of tulips in the pictorial repertoire of the time can be read as one more index of the aristocratic interest in the exotic. In addition to foreign species, many of the materials used by painters came from afar. In the documentation of the West India Company, cochineal, brazilwood, and indigofera are among the most expensive materials brought from Brazil. They were used in the production of dyes for fabrics, and painters mixed them with linseed oil for the production of paint. Translucent reds were produced from cochineal by crushing the insects or from extracts of brazilwood bark. Dark blue was produced from the fermentation of the leaves of the Indigofera plant.<sup>24</sup> Following the analysis made by Abbie Vandivere, restorer of the Mauritshuis painting collection, material traces of colonial extractivism—remnants of dead nature—are revealed in the *nature morte* paintings, a genre that became a symbol of the Dutch Golden Age.

Another factor related to the fidelity of still life representations was pointed out by art historian Claudia Swan who, researching the specimens portrayed by Anna Ruysch, draws attention to the impossibility of such a bouquet having even existed. Despite the realism suggested by the painting, the lack of refrigeration at the time made

23 Lecture by Claudia Swan, *Rarities of these Lands: Tulips and other Exotica in the Making of Golden Age Holland*, Krannert Art Museum, University of Illinois, 2017.

24 Catalogue of the exhibition *Shifting Image: In Search of Johan Maurits*, Mauritshuis, The Hague, the Netherlands, 2019.

it impossible for such fresh tulips, hydrangeas and roses to coexist in the same vase. Because they bloom at different periods of the year, these flowers could never be seen at the same time, except in a painting. According to Swan, paintings such as these should be seen as visual fictions, created from a realistic language that encourages the observer to treat them as copies of reality.<sup>25</sup>

In analysing pictorial fictions created by a formal realist repertoire based on the aforementioned academic expressions of the time, *naer het leven* and *uyt den geest*, one senses that, although the painter may possibly have made observational studies of the flowers at different times of the year, it was through an imaginative leap that the final composition was completed. Considering that artistic individuality was partly sacrificed in favour of the realistic style, it would then have been during the process of image conception that Ruysch found the creative space to exercise her differences. Perhaps there lies, in the notion of authorship, one of the main factors of the separation of art and science. In both fields, the search for the objectivity of a record eventually bumps into the ghostly presence of an author. There is a conflict of interests in testimonies that deny authorship in the interests of impartiality, because in doing so they end up violating their own conditions of observation. Regarding this question, a legal dispute over the copyright of botanical illustrations is very enlightening.

In the sixteenth century in Strasbourg, a series of extremely detailed woodcuts signed by painter Hans Weiditz was published by Johann Schott in an edition that became quite influential in French pharmacological circles (FIG 11). Despite the success of the illustrations, some critics

accused them of being too precise and therefore not generic enough to accommodate differences between specimens of the same species. Still, the images were so well-received that they became a model of botanical representation, and for this reason were often copied. One plagiarist was the printer Christian Egenolff, who hired a craftsman to remake the original woodcuts, adapting them to the scale of his publication. The pirated versions presented minor variations in hand craftsmanship and were a quarter of the original size (FIG 12). When Schott heard about the copies, he sued Egenolff, and the legal records of both prosecution and defence can be read in light of the metaphysical limits of the representation of nature.

Johan Schott's accusation of plagiarism emphasised the unique value of the illustrations, as they were made live—*viel contrafeyish figuren*—by renowned painter Hans Weiditz. The implicit contradiction between authorship and the veracity of the botanical images portrayed *ad vivum* opened a breach for the plagiarist to raise a rather peculiar defence line: “And if indeed these herbs appear somewhat alike, your Graces should consider whether rosemary, asphodel, borage, or another specimen can be painted or portrayed in some manner or shape other than it truly is.”<sup>26</sup> For Christian Egenolff, the fact that Schott was the first to publish images of the specimens didn't imply the need to alter features of the plants in later representations. According to him, it wouldn't be reasonable to portray narrow leaves as broader just to avoid a resemblance to other reproductions. Following this rationale, he asked if he should also alter the text containing the pharmacological properties, describing a plant that warms the body as if it did the opposite. Ultimately, his line of defence, to a certain extent ironic, could be summarised in the

25 Lecture by Claudia Swan, *Rarities of these Lands: Tulips and other Exotica in the Making of Golden Age Holland*, Krannert Art Museum, University of Illinois, 2017.

26 Peter Parshall, *Imago Contrafacta: Images and Facts in the Northern Renaissance*, Art History, Vol. 16, no. 4, pp. 554–579, 1993.

following question: how can anyone be accused of plagiarising what is considered universal? How can anyone be accused of plagiarising nature itself? For image authorship rights to apply to depictions of nature, it would therefore be necessary to acknowledge that these images, considered extremely faithful, had some untruthful quality which made them particularly unique. Although it is believed he lost the case, Christian Egenolff's argument stretched the objectivity of Hans Weiditz' scientific illustrations to the limit. In order to preserve the veracity of the *ad vivum* representations, the prosecution should renounce its copyrights. Otherwise, they would be attesting in favour of the author's subjective partiality, which betrays the realism of the image.

What all these episodes have in common—from plagiarism to Johannes Kepler's optical model, by way of Anne Ruysch's still life and Constantijn Huygens' camera obscura—is the political dimension that opens up from the disappearance, suppression or masking of the subject in processes of documenting the natural world. The Dutch Golden Age was marked by the constant negotiation of the limits of knowledge by the fields of science, politics, and art through the same mechanism of invisibility. The perspective which abstains as a perspective, described as the 'point zero' by Santiago Castro-Gómez, materialised in the attitude of the artist who excludes themselves from their own work, the scientist who removes themselves from the data, and the historian who systematically erases any sign of their own enunciation in their text. Through a strategy of self-effacement by the documenting subject, nature seems to portray itself, in the same way that history seems to tell itself. A supposedly objective historical discourse 'would take place' when the historian 'lets' the facts speak for themselves. However, as Friedrich Nietzsche warned, "there are no facts

as such. We must always begin by introducing a meaning in order for there to be a fact."<sup>27</sup> The historian who claims to be objectively unbiased in order to inflate their authority is positing the following paradox: the fact, even if it doesn't exist beyond language, is posited as an object outside discourse. Its linguistic materiality would be a mere transcription of that impossible externality, that is, an accurate copy of the real.

Roland Barthes describes this paradox of historical discourses by stating that a "fact never has any but a linguistic existence, yet everything happens as if this linguistic existence were merely a pure and simple 'copy' of another existence, situated in an extra-structural eld, the 'real'".<sup>28</sup> According to him, a double operation runs through historical discourse. First it is the referent—an event to be narrated—that seems detached from discourse. Then, it is the signified—the concept produced by a narration—that seems to merge with the referent. In this merging, the discourse composed of three functions (signifier, referent and signified) assumes a two-term semantic schema. The signifier—the words of a narration—then seems to enter in direct contact with the event, and thus the discourse seems to "only express the real". Through this flattening, a historical narration ends up acquiring performative authority, since a false equivalence between fact and version of a fact was produced. Barthes called this historiographical mechanism the 'reality effect'. A 'really objective' representation, whether of nature or an event, would thus be one which has no trace whatsoever, not even a letter, given that ideal objectivity excludes materiality, and vice-versa.

27 Friedrich Nietzsche quoted by Roland Barthes, *The Discourse of History*. In: *The Rustle of Language*, University of California Press, 1986.

28 Roland Barthes, *The Discourse of History*. In: *The Rustle of Language*, University of California Press, 1986.

In time, discursive and image-based strategies for masking materiality ended up creating stylistic conventions, which came to be associated with a modern idea of objectivity. Faced with the dilemma of either annihilating the forms of mediation and thus losing one's own body, or maintaining the body and having access to a knowledge that is limited and conditioned to the body, the modern subject chose the middle path, which transformed modernity into a real ghost story. In the attempt to reconcile the irreconcilable, the modern subject created for itself an 'objective style' of rhetoric that reclaims impartiality in the act of taking position. This subject used different descriptive structures, associating itself with documentary and realistic genres in painting, literature, photography, journalism, and museology, thus creating a face for neutrality, from which an authority hitherto off-limits for any subject could be enjoyed. The performative authority of those who, by speaking, produce reality. This voice behind the enunciation is white, male, rational, always manifests itself in the third person, and infiltrates historical discourses through affiliation with the notion of universality.

It's possible, therefore, to affirm that modern scientific and historical discourse developed through a true politics of concealing bodies. To the extent that white bodies concealed themselves in normative rhetoric strategies, indigenous and black bodies were concealed by death. The same project that allows one to 'conceal oneself in reality' and the other 'to be concealed from reality' ends up establishing negative and positive values of invisibility among different bodies: those who disappear versus those who are made to disappear. Therefore, parallel with the pursuit for visibility of historical struggles and reparations for racialised bodies, the intimate relationship between the climate

crisis and the perpetuation of colonialism make it urgent that whiteness stops identifying itself as the position of universality and that its transparent fingerprints, left on the modern mechanisms of representation of history and science, are made visible.<sup>29</sup>

# PART 2

# HOUR OF EURO

## **The whole world is my hiding place**

Adrian Griffin is a scientist specialised in optics, who developed innovative research with camouflage technologies in the laboratory of his luxurious mansion. After faking his own suicide he starts using his invention, an invisibility suit, to maintain an abusive relationship with his wife Cecilia. The plot of the horror thriller *The Invisible Man* (2020), directed by Leigh Whannell, is based on the eponymous sci-fi novel by H. G. Wells published in 1897. The first Hollywood adaptation, however, is from 1933 and became famous at the time for its special effects. In the Wells novel, Griffin abandons medicine to dedicate himself obsessively to the development of a formula that alters the light refraction on objects, preventing them from absorbing or reflecting light. In the 1933 adaptation invisibility is achieved by manipulating Monocaine, a fictional drug extracted from flowers grown in India. The allusion to the exotic substance confers a certain magic aura to the scientific discovery, different from the technological version in the more recent movie. Another difference between the two film adaptations is the use of clothing as a scenic element that acquires opposite functions in the two films. While in the first adaptation the clothes outline the contours of Griffin's body, which only becomes invisible when he is naked, in the second film it's precisely the technology of the suit which guarantees the scientist's invisibility.

The analysis of both adaptations of *The Invisible Man* makes it possible to attribute different connotations to the disappearance of the male figure in Wells' story. The original plot goes against the utopian spirit that hovered over the technological advancements of the nineteenth century when the book was written. Following the lead of Mary Shelley's *Frankenstein*, the novel revolves around the destructive potential of scientific research and explores the stereotype of the scientist who is alienated by his own invention and who loses control over its effects. Driven by intellectual individualism and financial greed, Griffin wields the power conferred by his invention by terrorising, robbing, cheating, and killing. "An invisible man can rule the world. Nobody will see him come, nobody will see him go. He can hear every secret. He can steal, destroy, and murder!" prophesied the character played by Claude Rains in the first adaptation. At another point of the same film, when Griffin's girlfriend tries to dissuade him from his megalomaniac plan, he retorts: "Don't worry. The whole world's my hiding place. I can stand out there amongst them in the day or night and laugh at them!"

The main difference between the 1933 and 2020 versions is their narrative structure. The first film is narrated exclusively from Griffin's manic perspective and bases its horror on the classic form of the ghostly dematerialisation of the body.

The second film focuses on the psychological effects of the disappearance, following the trauma and abuse suffered by the character of Cecilia, played by Elisabeth Moss. If in the first film the invisible body is practically in every scene of the movie thanks to the scenic artifice of the clothing that makes it appear, in the latter film the viewer shares the wife's terrifying experience of not being able to locate her torturer. Camera movements are masterfully used to materialise the presence and the tension of imminent danger. The frequent use of horizontal panning and of frames showing empty backdrops suggest the movements of the invisible character. Abrupt changes from closed shots to open shots, with Cecilia sometimes appearing from the front, other times from the back, as well as the use of the subjective camera at unexpected distances, are resources that crystallise Griffin's point of view, always lurking. If Johannes Kepler's optical model separated the physical phenomenon of image formation in the retina from its effects on perception, we can see a similar distinction in the two films. While the former focuses on the construction of the image of the invisible man, the latter focuses on the part that Kepler neglected: the psychic consequences of the invisibility of male agency.

In the more recent film adaptation, Griffin is portrayed as a narcissistic, authoritarian and socially inept psychotic, characteristics that, when added up with his scientific knowledge, form the psychological profile of a withdrawn male, entrenched in the promises of his own rationality—promises that often end up externalised through cynicism and veiled resentment. This is evident right at the start of the movie, when the scientist decides to fake his own suicide. By concealing his own body he frees himself of any sense of responsibility. Through that operation of physical self-erasure, he authorises himself to no longer answer to social pressures that

seemed to have previously held him in check. Only when Cecilia finds out she's pregnant does Griffin decide to give up his invisibility, since the pregnancy itself has the power to act as a form of control and domestic curtailment. The suit, however, gave way to the concretising of what seems to be a typical obsession of the psychology of rational man, that is, the exercise of domination by proxy, meaning, without being present, keeping traces of subjectivity deliberately in secrecy. A not insignificant detail in the process of concealing Griffin's body is the fact that he's white, a feature that runs throughout Wells' novel by way of associations of the colour white with the notion of death.

In the novel's first paragraph Griffin is introduced to the reader in the midst of a snowstorm, an element that reappears throughout the plot and that alludes to the deprivation of life, coldness, and the pallor of corpses. In his first experiments the scientist makes a piece of white wool and a white cat disappear. In the 1933 film, Monocaine is described for its bleaching properties which takes the colour out of fabrics and ends up destroying them. Snow reappears at the end of the film with the key function of betraying the scientist's invisibility. While he is being pursued and leaving footprints, he is shot and dies. In the 2020 adaptation, once she is sure that her husband is not dead, Cecilia manages to lure him to the attic, where she pours a can of white paint over him, revealing part of his invisible body. Soon after, she follows the white drips on the floor to the kitchen sink, covered in the already diluted paint. At a later point, Cecilia uses a fire extinguisher and its chemical powder smoke to reveal a white body in the middle of the seemingly empty corridor. Finally, in the closing of Wells' novel, after being surrounded by townspeople, the invisible man is beaten to death and his lifeless body regains visibility, revealing Griffin's albinism. Albinism can be read in this context as a symbolic condition of denial, both psychic and epidermal.

The absence of skin pigmentation, combined with a psychological condition of megalomania, an obsession with power and oppression, moves towards a racializing socio-political dimension in the function of the colour white.

In her book *Towards a Global Idea of Race*, Denise Ferreira da Silva highlights how the two main weapons that produce global subjection, science and history, constantly ignore the racial aspect in the construction of the modern subject. According to the author, even with the claims of the 'death of the author' and the 'death of the subject' in postmodern criticism, which started to acknowledge the agency of the object in processes of signification, the ghost of the subject is still on the loose, acting as an invisible man, a transparent 'self' whose alibi continues to be the search for the universal. Transparency would then be the ontological premise that guides these same two principal modes of modern representation, science and history, towards the sovereign ruler of reason. For bodies that identify in universality, transparency acts as an internal guide, while for others, racial opacity acts as subjection.

The parallel between the ideals of transparency and power proposed by Ferreira da Silva are echoed in the 1933 movie adaptation of *The Invisible Man*. The bleaching function of Monocaine, the chemical substance used to make the scientist's body disappear, establishes a direct symbolic connection between the verbs 'to whiten' and 'to take aim' (both *alvejar*, in Portuguese). The Greek root *albus* in the words 'albino' and 'alvejar' has a second subcutaneous connotation between the colour white and position of power of the one who takes aim. Camouflage, as the art of disappearing in a landscape, therefore presents itself both in the film and in history as one of the most efficient modern tactics for the execution of plans and of people.

### **True, false, truly false and falsely true**

On a completely dark stage, the silhouette of a man dressed in a black suit, legs spread in 'V' and one hand resting on the other at hip height, appears in the foreground next to a microphone stand. The man is a bodyguard, his outline remains diffuse in the smoke that fills the stage. For almost fifteen minutes a sample with the sound of falling rain has been playing, whose repetitiveness gives the impression of white noise. After the pupil gets used to the low light in the room, it's possible to make out a figure walking from side to side at the back of the stage. A dry beat begins, together with a bass so heavy and loud it hurts. The figure starts to get closer and closer to the bodyguard, but smoke prevents any visual certainty. The approaching silhouette is that of London-born musician Dean Blunt, a black man, dressed in black from head to toe. He takes the microphone and stays in the dark for the entire concert, amidst the smoke and behind the bodyguard. In the final part of the show a row of white stroboscopic lights positioned away from the stage hits the audience, blinding them for some ten minutes. When the lights go out only the bodyguard is there, immobile and alone.

Blunt is known in the contemporary music scene for using interviews and performances to twist the expectations of an audience already addicted to the media-strategies of influencers and celebrities, whose self-images are built around visibility and sincerity, even if staged. Blunt, on the other hand, not only assumes but consciously instrumentalises his body's invisibility, reverting his status from subjected to subject. To do so, he takes every opportunity and public appearance to throw people off about his identity. In addition to his many pseudonyms, in interviews the musician talks about his past as a boxer paid to lose fights—which could explain his erratic singing style—, about robbing taxidermists, selling music on flash

drives pinned into apples, his affiliation to Islam and wrestling schools. The more radically diverse his positions, the more smoke gathers around his body, without anyone able to tell the truth from the lies. It's precisely because he frustrates the expectations of consistency and synthesis that he keeps his fans fascinated.

The success of this communication strategy can point towards a strange proximity between cultural avant-garde mechanisms and contemporary politics. The self-promotional insincerity of spewing absurd and conflictual information, exploited with a certain sly irony typical of avant-garde cultural niches, has been appropriated and used in their populist versions by political circles that employ the same discursive strategy to create veritable smoke screens on a supranational scale. The other side of that coin, as David Foster Wallace warned, is that "irony also tyrannises us."<sup>30</sup> And so, in order to understand how certain discussions seem to be off-limits nowadays, especially with regard to science and politics, I'll allow myself a long digression that moves through the entrails of a problem as enormous as it is unavoidable: the current devaluation of realism.

A Samsung ad introduces a new high definition TV model with the following slogan: "Reality. What a letdown."<sup>31</sup> The slogan appropriately captures the spirit of a time already far removed from the Golden Age, when realistic fidelity reigned. The idea that now reality itself is no longer enough, that it can be surpassed by technology, is one of the cultural markers of a time set by the *hour of euro*. A confession by a former White House aide clarifies how this project works. In 2004, after a story that criticised the Bush administration,

30 David Foster Wallace, *I de Ironia*, Revista Serrote, n. 6, 2010.

31 Quoted by Evgeny Morozov in *The Perils of Perfection*, The New York Times, 2 March 2013.

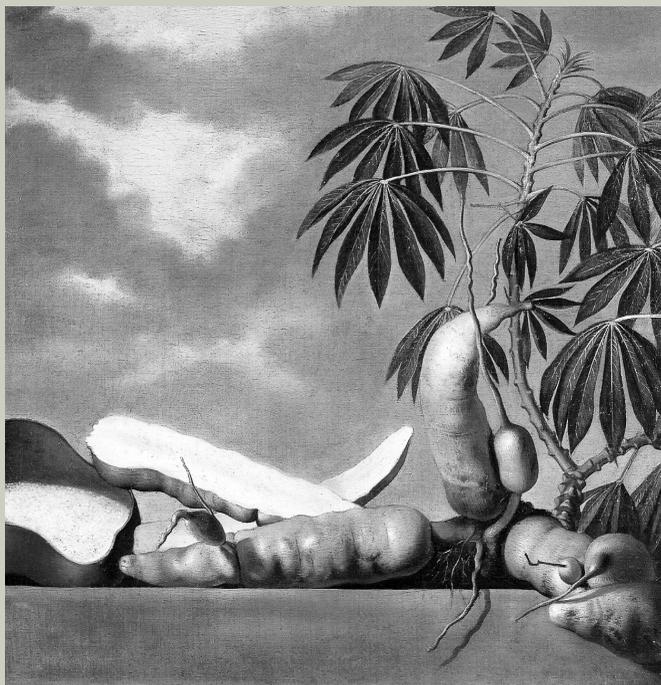
a New York Times reporter recounted a conversation he had with a government official: "The aide said that guys like me were 'in what we call the reality-based community,' which he defined as people who 'believe that solutions emerge from your judicious study of discernible reality.' I nodded and murmured something about enlightenment principles and empiricism. He cut me off. 'That's not the way the world really works anymore,' he continued. 'We're an empire now, and when we act, we create our own reality. And while you're studying that reality—judiciously, as you will—we'll act again, creating other new realities, which you can study too, and that's how things will sort out. We're history's actors... and you, all of you, will be left to just study what we do.'"<sup>32</sup> Considering the aide's words, it's notable that the English language has a single verb, 'act', which in Portuguese can be translated into the two verbs *agir* and *atuar*. The intersection of the semantic universes of theatre and politics, seen in words such as 'act', 'acting' and 'actors', reveals the performative character that political discourses assume in the construction of reality, in a kind of 'realpolitik of contemporary fiction'. In that sense, Ronald Reagan's experience as an actor during almost thirty years in Hollywood, where he also became president of the Actor's Guild, can't be dismissed when we consider the geopolitical stage movements necessary for the consolidation of neoliberal politics in the last decades. It's precisely this fold between 'acting' in the sense of taking action and 'acting' in the sense of playing a role, that gives birth to the approximation of avant-garde performance practices and the political discourses that mark the current phase of late capitalism.

The New York Times piece was published one year after the invasion of Iraq, the first war broadcast in real-time. The Pentagon PR department was

32 Ron Suskind, *Faith, Certainty and the Presidency of George W. Bush*, The New York Times, published on 17 October 2004.



**FIG 1.** *Ships in Distress off a Rocky Coast*, Ludolf Backhuysen  
(National Gallery of Art, Washington D.C.)



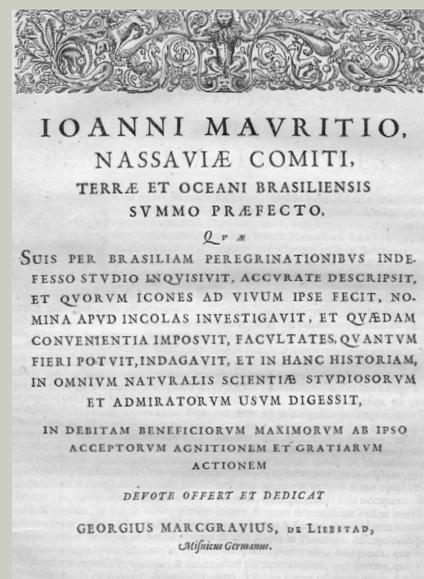
**FIG 3.** *Still-life of the Tropical Fruit Manioc*, Albert Eckhout  
(National Museum of Denmark, Copenhagen)



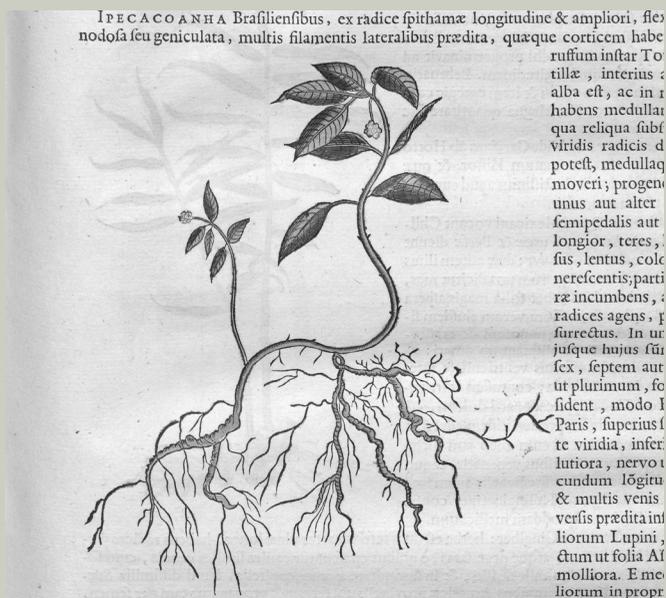
**FIG 2.** *Qua Patet Orbis*, celebration medal  
of Johan Maurits van Nassau-Siegen  
(Geotroyeerde Westindische or West  
Indies Company)



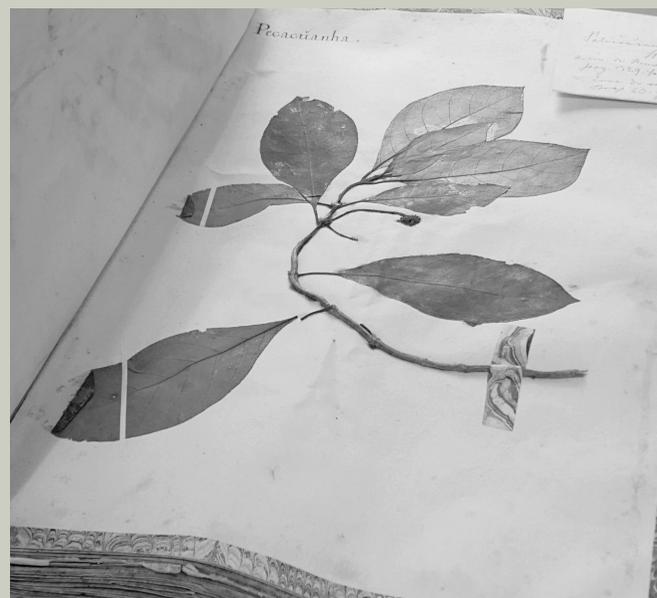
**FIG 4.** Brazilian Landscape with a House under Construction (detail), Frans Post (Mauritshuis, The Hague)



**FIG 5.** Preface by George Marcgraf, *Historia Naturalis Brasiliae*, Amsterdam, 1648



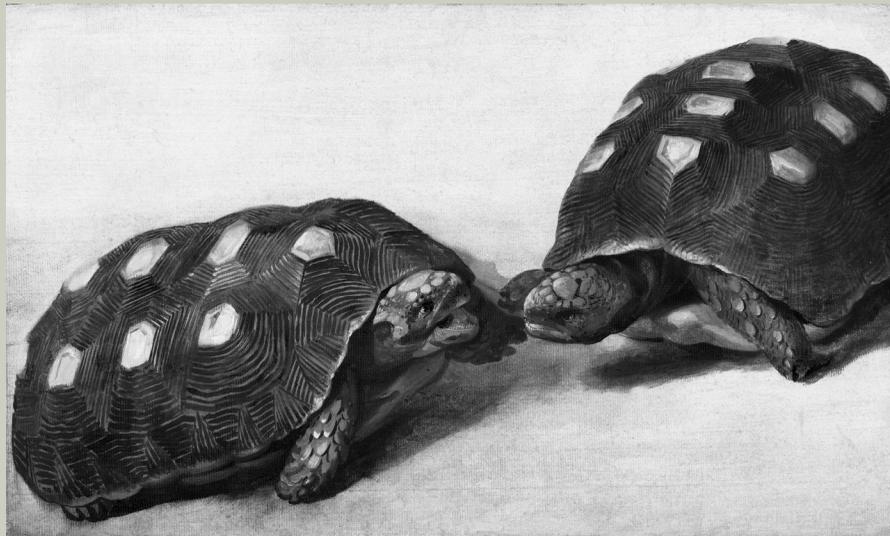
**FIG 6.** *Cephælis Ipecacuanha* woodcut published in *Historia Naturalis Brasiliae*, Elsevier, Amsterdam, 1648



**FIG 7.** *Cephælis Ipecacuanha* preserved in *Herbarium Vivum Brasiliense* by George Marcgraf, University of Copenhagen



**FIG 8.** Parrot, George Marcgraf  
(Jagiellonian Library, Kraków)



**FIG 9.** Study of Two Brazilian Tortoises, Albert Eckhout (Mauritshuis, The Hague)



**FIG 10.** Still Life of Flowers in a Glass Vase on a Stone Table Ledge,  
Anna Ruysch (Krannert Art Museum)



FIG 11. *Herbarum vivae eicones*, Hans Weiditz  
 FIG 12. *Kreutterbuch von allem Erdtgewächs*, Christian Egenolf

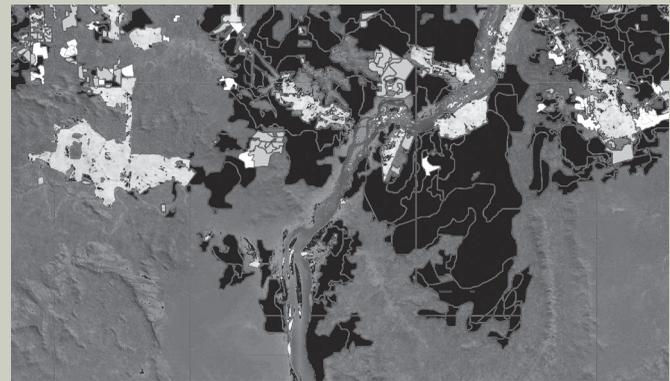
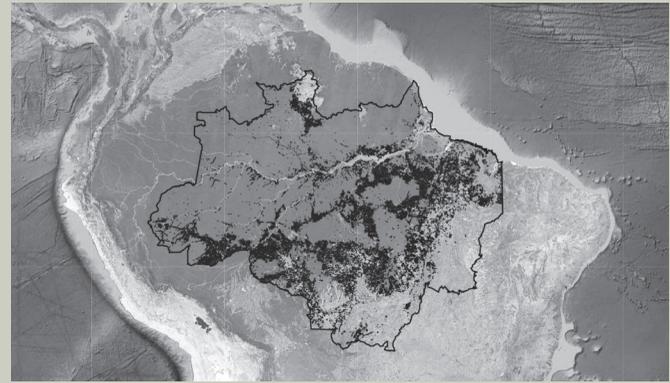


FIG 13, 14. Satellite images of deforestation alerts in the Amazon Forest (DETER, Terrabrasiliis Geographic Data Platform, 2021)

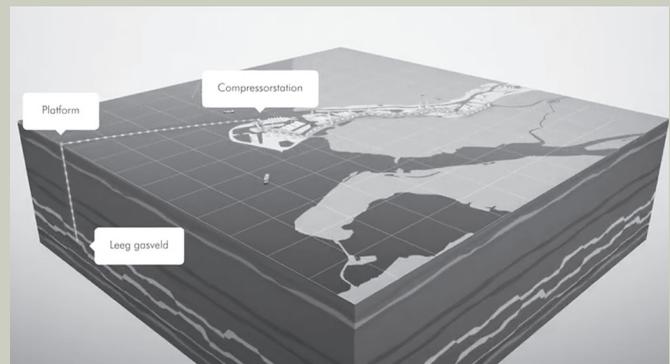


FIG 15, 16. Model of the Carbon Capture and Storage (CCS) Porthos project at the Port of Rotterdam, 2020

responsible for setting up a programme that enabled reporters to go to the battlefield with US military units on selected missions. The department also oversaw the construction of a press conference room in Qatar, a project which received input from illusionist David Blaine and from a former producer of the MGM and Disney studios.<sup>33</sup> The presence of a magician and a Hollywood producer in the communication centre of the war signals the age-old marriage between politics and invisibility practices, that has always drawn on camouflage techniques both on the battlefield and in the communication arena. The defining particularity of contemporary advertising was perfected as technological advances allowed politics to appropriate the language of reality shows. *Contrefais al vif* images, disseminated first by the TV industry and then by the internet, were pulverised once and for all with the popularisation of smartphones and their cameras. The possibility of recording events and broadcasting them in real time created the collective ‘reality effect’ needed to have the sensation that the viewer, as well as the historian, is always in direct contact with the facts. The eclipse Roland Barthes proposed with the flattening of referent and meaning helps us understand the performative dynamics of a political discourse associated with contemporary digital images, which in an illusory manner equates live streams to facts.

As mentioned, in the seventeenth century the terms *contrafactum* and *ad vivum* regulated the credibility of realistic representations through the authority of privileged individuals who had exclusive contact with the registered events and held the technical means of reproduction. If today all people are potential eyewitnesses with unrestricted access to cameras that can transmit live recordings of reality, the crisis of

33 Christian Salmon, *A Estratègia Hollywoodiana de George W. Bush*, *Le Monde Diplomatique Brasil*, 5 December 2007.

legitimacy about the status of realistic images is due in part to a lack of consensus regarding the new parameters that define credibility. One of the first minds that understood the particularity of this moment and thus introduced Big Brother logics to politics was Vladislav Surkov, a political technologist of the Russian government between 2006 and 2020. In that period Surkov held several positions in Moscow, from Chief of Staff to advisor to Putin, and analysts considered him one of the most influential craftsmen of the contemporary world. He was responsible for turning Russia into a country where “nothing is true and everything is possible.”<sup>34</sup> “My portfolio at the Kremlin and in government has included ideology, media, political parties, religion, modernisation, innovation, foreign relations, and...”—here he pauses and smiles—“modern art.”<sup>35</sup> A writer of poems and science fiction, Surkov is an aesthete who studied theatre direction, enjoys gangsta rap, and kept a picture of Tupac on his table. He is thought to be the author of the novel *Almost Zero*, published in 2008 under the pseudonym Natan Dubovitsky. Despite denying authorship, Dubovitsky penned the preface in which he describes the author as “hardly original”, “Hamlet obsessed,” and, as if with a wink, concludes by saying the book is the best he’s ever read. The plot is a satire of contemporary Russia, where the main character Egor is a PR specialist who jumps as high as the money tells him to jump. Previously, Egor worked as an avant-garde poetry editor, buying texts from poor marginal artists and reselling the rights to tycoons with artistic ambitions. The character’s childhood setting is the final days of the Soviet Union, characterised by disillusioned communism.

34 Peter Pomerantsev, *Nothing is True and Everything is Possible: The Surreal Heart of the New Russia*, PublicAffairs, 2014.

35 Peter Pomerantsev, *The Hidden Author of Putinism: How Vladislav Surkov Invented the New Russia*, *The Atlantic*, 7 July 2014.

Like the character, Surkov witnessed a terrifying sequence of changes in a short period of time: from the dissolution of the communist regime through liberal euphoria, economic disaster, the rule of the oligarchies and the mafia. In the 1990s, all people wanted was stability in a country where nothing stood up properly—thus believing in something, besides being naive, became simply impossible. After working in public relations for a TV channel Surkov went on to work for the Kremlin. During his years as a political broker for Putin he coined the term ‘sovereign democracy’ to describe a new kind of authoritarianism, which, unlike twentieth century repressive models, infiltrated all ideologies and antagonistic movements in order to neutralise them. Using concepts similar to those of the Theatre of the Absurd and the performing arts, he helped to definitively blur the boundary between reality and staging, between action and acting, in a society in which the belief in truth had been out of fashion for a long time already. As Chief of Staff, Vladislav Surkov started financing both extreme left- and extreme right-wing movements, playing one off against the other. He sponsored lavish contemporary art exhibitions with the most subversive artworks of Moscow while supporting fundamentalist orthodox groups who attacked the very same exhibitions. Through disorientation and the bombardment of conflicting information, public opinion was entertained by everything except what really mattered. Because of its constant shapeshifting, the chameleonic nature of the Russian government’s position was impossible to pin down and therefore impossible to stop. In the dystopian science fiction short story *Without Sky*, also signed by his pseudonym, Surkov describes “the first non-linear war”, in which there aren’t just two sides like in conventional wars, but multiple sides and all of them are against one other; so that a city, a generation or a gender can take a

distinct position and then switch sides in the middle of the battle. The idea is inspired by the movie *Stalker* by Andrei Tarkovski (1979), in which there is a territory called the Zone, where nothing is what it seems, everything is unstable and laws of nature change every minute: “Things will never be the same, that’s just the way it is.” Vladislav Surkov seems to be Tupac’s most unscrupulous fan and, if he got to know Dean Blunt, he would surely add a new picture to the frame on his table. Through an unexpected clash—London’s cool cultural machine spewing a vapour of irony and the smoke machine of Russian politics—Surkov seems to succeed in appropriating avant-garde performative strategies to maintain a conservative political base. The Russian political project understood that the only thing more powerful than being able to become invisible is not becoming invisible, yet managing to convince public opinion of the opposite. In this way it’s possible to be everywhere at the same time, opening up all contradictions. Leaving them in plain sight becomes the best hideout, a cynical rhetorical manoeuvre that ends up emptying out language, critical thinking and the media from inside. Truth is no longer a meticulously well-kept secret, it’s simply irrelevant.

To achieve this Vladislav Surkov hijacks the oxymoron, a figure of speech that brings together mutually exclusive words and concepts with opposite meanings, thus creating contortions in the fabric of reality, such as in the concept of ‘sovereign democracy’, or ‘conservative modernisation’. It’s a strategy that seems to be stolen straight from the pages of George Orwell’s *1984*, in which the control of language by a hyper-authoritarian government is described. In Orwellian ‘Newspeak’ words are suppressed in order to narrow the scope of thought of the population. Similarly, in concentration camps and in official documents, Jews were forbidden

to verbally refer to the dead as such; they could only refer to them as things or figures, which exemplifies the Nazi attempt to not only conceal the bodies but to conceal the concealment.<sup>36</sup>

Through ‘Newspeak’ Orwell introduced the concept of ‘doublethink’, a fictitious doctrine that makes the individual simultaneously accept two mutually exclusive beliefs as correct, even if they directly contradict the person’s own experience. This is a recurrent practice used by the Trump administration. Right from the start, at the inauguration ceremony in 2017, the White House press secretary accused the media of deliberately reducing the number of attendants, claiming it had been the largest audience present at an inauguration ceremony in the history of the United States—which was promptly disproved by photographs. Next, when campaign strategist Kellyanne Conway was questioned about whether the lie could affect the credibility of the presidential communication, she doubled down on the ‘newspeak’ by saying that the press secretary had only provided ‘alternative facts’ on the number of attendees and that the real number couldn’t be defined with certainty. Two months after that speech, she continued with the fairly common strategy of negationist rhetoric—first decontextualise, then oversimplify, then relativise using false symmetries: “Two plus two is four. Three plus one is four. Partially cloudy, partially sunny. Glass half full, glass half empty. Those are alternative facts.”<sup>37</sup> The nonchalance with which Conway tries to legitimise the relativity expressed in the verses of her quasi-poem is frightening, as she flippantly claims that it’s impossible to verify that Trump’s ceremony didn’t gather the largest crowd in 227 years of US presidency.

36 Débora Danowski, *Negacionismos*, Editora N-1, 2018.

37 Olivia Nuzzi, *Kellyanne Conway is a Stay: Not Your Star, Perhaps. But That’s the Point*, Daily Intelligencer, 2 February 2018.

A year later, Kellyanne Conway began to question the authority of fact-checkers because according to her, they select “what [they] think should be fact-checked... Americans are their own fact-checkers. People know, they have their own facts and figures, in terms of meaning which facts and figures are important to them.”<sup>38</sup> Attacking fact-checking and scientific data is unfortunately not an exclusively North American practice. In 2019 Brazilian President Jair Bolsonaro claimed that official data on the deforestation of the Amazon was false and that the director of the Instituto Nacional de Pesquisas Espaciais (National Institute for Space Research, INPE), responsible for the satellite images, worked for shady interests in the region. Accusing opponents of acting how they themselves act is another rhetorical strategy of negationist defence, since it’s absurd to think one practises the same thing one condemns. Not in negationist ‘doublethink’, though. Systematic accusations against scientific data and the dissemination of ‘alternative facts’ are principal propaganda tactics of a political group whose ultimate objective is to hollow out any substance that images and information might have in order to better manipulate them. Concerning image manipulation, the main point in Kellyanne Conway’s speech might be compared to a tool often used in image editing software such as Photoshop: the so-called Magic Wand. It allows for the selection of areas of an image in which pixels can be included or excluded through the increase or decrease of the tool’s tolerance level. By saying that people have “their own facts and numbers” and know how to choose which are important to them and which aren’t, Conway sheds some light on the power of individual decision. Inserting the element of decision in the truth equation, however, is immediately putting truth in a state of crisis. How does one decide which pixels enter

38 Charlie May, *Kellyanne Conway: The American People “Have Their Own Facts”*, The Salon, 2 February 2018.

and which ones are deleted in the construction of a worldview? How can one decide what's right and what's doubtful, what exists or what doesn't, if truth isn't considered to be an anterior parameter for decisions, but a posterior one?

According to philosopher Vladimir Safatle, it was first suggested in Hegelian thought that modern reason, for its critical force, could deteriorate traditional ways of life and make room for an emptying out of societal norms. According to Hegel, the greatest threat to modernity was the indeterminacy and the degradation of social bonds due to the weakening of conventions that regulate mutual expectations. Demands for rationality, autonomy, and criticism could lead to disenchantment and to legitimacy crises. Currently we witness the reverberation of religious views and political projects with messianic undertones that promise a kind of return to 'times that were charged with meaning'<sup>39</sup> as a possible solution to the modern dilemma and a restoration of an original truth. Because this restoration is a decision in itself, however, its transcendental status is automatically disqualified. In other words, for it to have the absolute effect desired by its followers, the truth of traditional ways of life should be anchored in some grounds that precede its ethical categories, since these are already derivatives of a consolidated worldview.

How do we decide what the parameters that precede and support our worldviews are? Philosopher Federico Campagna takes up that metaphysical question to suggest that we first of all decide aesthetically, not ethically. According to him, aesthetic criteria create an image of the world—albeit a diffuse, contingent, and subjective one—from which ethical problems about honesty and fidelity to a posterior truth

arise. Campagna therefore goes against the current of transcendental thought, admitting that any notion of truth is a consequence, not a cause, of decisions. By doing so, he brings the notion of responsibility for forms of life to the fore. There, in the denial of individual and political responsibility, lies the fertile field capitalised on by negationism. It infiltrates decisions, that are then portrayed as norms that precede a decision, meaning, decisions are masked as non-decisions. The helplessness generated by the absence of a transcendental motive is prone to being politically exploited when individuals refuse to arbitrate their own decisions and, searching for some kind of safety, delegate their responsibilities to third parties. Negationists do not deny the truth, but the absolute contingency of life, and that is why they are believers; they want to believe in something greater and intrinsically necessary that gives their actions meaning, even if in the process they need to neglect facts. We live among gradations of negationisms. Not everyone who searches for a transcendental necessity looks for it in conspiratorial or religious justifications. There are also those who prefer to give meaning to their worldviews through the secular necessities of culture, accumulation of capital, or intellectual and social recognition. Ultimately, by patching the hole left by the lack of absolute security with meanings that guide our ways of life—meanings that are imposed on the abstract enjoyment of a purely sequential existence—we move towards the problem of conserving traditions. Generally, the problem of tradition adds up to the set of forms of negation, because at its root it contains aesthetic decisions, and later ethical ones, accepted as non-decisions. Collective forms of denial are therefore also inherited and operate as social and imaginative markers that end up defining the spectrum of possibilities available to a generation, the range of what is or isn't possible.

29 While a somewhat simplistic reading of states of

39 Vladimir Safatle, *Cinismo e Falência da Crítica*, Boitempo Editorial, 2008.

negation, this gives us clues on how, for example, we 'let' the climate crisis reach a practically irreversible point without any substantial proposal being made in the last thirty years. Nowadays we deal with the effects of collective denial that go way beyond a movement strictly formed by flat-earth lunatics. Negationism can be read more broadly as the radical refusal to abandon belief, especially ideological beliefs that secure ways to maintain power and religious beliefs that secure moral norms. The immunological reaction of denial is potentialised when there's a crossing of these two regimes: when religious beliefs are politically exploited and ideological beliefs are religiously exploited. The threat of losing a transcendental ballast that never existed authorises the devaluation of any reality that stands in the way of this belief, and so a process of radical indeterminacy is stimulated in order to sell religious or political conservatism as the only path to the restoration of order. Faced with threats of disillusionment, the ego knows how to defend itself even if it needs to sacrifice its internal consistency to recover a sense of security.

Returning to Federico Campagna's proposition, by inverting the logic between decision and truth he approaches the advice Blaise Pascal gave in the seventeenth century to those incapable of believing or to those who weren't aware of the inverted mechanism of belief: if you have no faith, pretend to have it, kneel down, move your lips in prayer, follow the rituals, become a machine, act on the belief you don't have, and faith will finally come to you. According to Pascal, the staging of rituals generates the belief needed for the creation of a world sustained by a primary decision, the decision to have faith.<sup>40</sup> Wouldn't that be one of the possible definitions of fiction? Faced with the indifference of the real, couldn't fiction be a way to anchor

the creation of a world that necessarily depends on us to exist? Could fiction be the only way for us to fully insert ourselves and finally belong to reality? The intersection of the mechanisms of fiction and the bases of faith finds its best example in the history of theatre: in the episode of the conversion of the Catholic patron saint of actors, Saint Genesius. Genesius was an actor who lived in the third century, a time marked by the great persecution of Christians and the use of theatre as anti-Christian propaganda by the Roman Empire. Genesius took part in one of the plays that condemned religious rituals and graphically portrayed the torture and deaths of those who didn't abandon their forbidden faith. When he was playing the role of a Christian who was persecuted and killed, an unexpected clash of roles took place on stage. As the acts of the play progressed, Genesius, going through the Christian rites with utmost verisimilitude, ended up converting himself to Christianity on stage. When the play ended he refused to break character and was truly tortured and murdered right there on the same stage where he had roleplayed his own death just moments before. In becoming a martyr, he united theatre, religion, and political propaganda in a triad that is strangely familiar today.

It was Marxist philosopher Louis Althusser who suggested that the mechanism of conversion manifests itself exclusively in concrete and daily practices, whether ritualistic or habitual, which would precisely be the space where ideology, theatre and religion approach one another. According to him, the ideas of an individual appear in "... material actions inserted into material practices governed by material rituals which are themselves defined by the material ideological apparatus from which derive the ideas of that subject."<sup>41</sup> As in a Moebius strip, both the

40 Mladen Dolar, *The Comic Mimesis*, Critical Inquiry, Vol. 43, 2017.

41 Louis Althusser, *On Ideology*, Verso Books, 2008.

mechanisms of faith and ideology feed back materially from the repetition of physical actions that either occupy the position of cause or effect of belief. Therefore, as Pascal suggested, in order to believe one has to become a machine, repeat empty phrases and gestures like an automaton, which will then be given meaning and necessity as they are repeated.

During the Brazilian presidential elections in 2018, a video went viral on the internet after Jair Bolsonaro's campaign was accused of illegally using Whatsapp mass messaging to slander his opponents. The candidate was accused of using bots, robot-accounts programmed to replicate false content in non-official campaign media. The video showed the ironic reaction of fifteen Bolsonaro supporters who, one by one, in single queue, addressed the camera with their hands outstretched, while making mechanical movements and saying "I am Bolsonaro's robot". What this group of supporters was unconsciously conveying is how the decision to act like a machine is at the heart of the way ideological belief systems function. If the promotion of hate speech by Bolsonaro supporters still astounds those who are shocked by the content of the messages, it's because they seem to ignore the behavioural power of the ritual that sustains the robot's belief, namely, the automatised repetition within the form. While ethical values are placed in the background, it's the aesthetics of the Bolsonaro discourse that reinforces the decision to believe and invites new conversions.

The phrase repeated by the supporters also calls attention to their similar behaviour on social media, where false and hypothetical information is automatically shared as true. Who needs bots when there is a belief system operating at full throttle? This robot behaviour is also largely explained by media illiteracy resulting from the

uncritical appropriation of new communication technologies by older generations. The indiscriminate acceptance of media leads to a dangerous sense of transparency, as if the content was presented without any mediation. This is not only due to the low level of schooling in the case of the Brazilian population, since even individuals with access to college level education have difficulty recognising the framing techniques used in the dissemination of images and information. Media literacy needs to be seen as a collective process of self-defence, crucial to any attempt to re-establish dialogue in politics.

The framing techniques that have always been used by theatre and political propaganda to create an immersive effect in the audience fit the social media algorithms like a glove. Designed first and foremost to satisfy the commercial interests of the contemporary advertisement industry, algorithms show ads that are tailor-made for each user profile. The more consistent and well-defined the profiles are, the better the fit and the more lucrative the ads. This operation makes only certain profiles reach the individual, those which are owned by certain users that share the same aesthetic universe. Human or programmed bots enhance the consensus effect even more. This means that everything that is outside the scope of the user preferences, everything that is dissonant, is kept out of the user's visual reach. That's one of the reasons why political positions are often justified as being a matter of taste, especially when political arguments are disguised as consumer rights. The flood of convergent content mixed with targeted ads appears in timelines that deliberately unfold like endless scrolls, which creates the sensation that if something doesn't reach the user, it's because it doesn't exist. But perhaps the most harmful effect of social media algorithms is the homogenisation of user behaviour. By embracing language quirks and

forms of expression that seem consensual —parallel to a constant process of comparison, a search for validation and dopamine reward—, algorithms end up reaffirming a certain group psychology to the detriment of other possible forms of social behaviour, slowly reducing the subjective horizon of individual imagination. It's the structure of the algorithms itself that establishes the conservative vocation of social media because of its reaffirmation of desires and opinions, which can partially explain the greater traction in digital engagement of people with a right-wing ideological bias. However, Genesisus' conversion has shown us the edifying power of mechanical gestures, regardless of the political spectrum. These days ideology seems to operate through daily microdoses, maintained by the automatised rituals of anxious fingers that incessantly unlock their cell phone screens and unconsciously refresh their social media feeds.

As a kind of realisation of Vladislav Surkov's vision, social media has enabled non-linear narrative wars in which everyone has secured their right to position themselves circumstantially, exercising freedom of speech as an alibi for narcissism. Personal truths and 'self-proclaimed'<sup>42</sup> truths pile up, and are disseminated in a way that stimulates users to over-identify. The incorporation of front-facing cameras in smartphones in the early 2000s and its popularisation at the end of that decade due to the massive adherence to social media revolutionised both the way of recording life and the way of doing politics. If in previous centuries truth was tied to the objective attempt to suppress the subject, nowadays events are always registered in the background, with the camera focused on the authors in the foreground. The power that previously sought legitimacy through concealment, by not owning what it really is,

nowadays operates through successive practices of self-revelation. The primacy of the search for anonymity made way for the selfie, and, with that, forgeries came to be read only as authorial idiosyncrasies. An example of this phenomenon is the attention given to the crude and irreverent manners of Jair Bolsonaro by his supporters as a way of justifying his lies. According to many of them Bolsonaro truly doesn't mean what he really says, he is just constantly misinterpreted because of his temperament. This means that for hardcore Bolsonaro supporters it's essential that there is always an acceptable degree of distance between intention and enunciation, so that it's possible not to take literally what is said, and at the same time not to interpret this distance as a discursive incoherence. Such interpretative suspension takes place as a consequence of the exhaustive use of irony—a tool previously used by critics and currently appropriated as a strategy for the perpetuation of power.

Irony is the revelation of an explicit contradiction between intention and enunciation, commonly used to say something different from what one really means. Its success necessarily depends on the recognition of the other, otherwise such a contradiction would just become a misunderstanding. Accordingly, irony reveals the speaker's hidden agenda to those who share the same references or are predisposed to understand that certain contradictions between thought and word were deliberately planted in the discourse. Ironic laughter, as a sarcastic form of deconstruction, has historically acquired critical force against those who occupied positions of power, as they had the most to hide. Because they used to try to keep up appearances and hide internal contradictions between actions and justification mechanisms, powerful figures were disqualified from the expository and vexing character of irony. But then what happens when

42 Eliane Brum, *Bolsonaro e a Autoverdade*, El País, 16 July 2018.

this strategy of critical revelation is appropriated by power itself, which then starts to disqualify itself?

Contrary to what one might expect, the power increases. The strategy of ironic laughter that always keeps the value of its own enunciation in check transforms power into parody. “And herein lies the oppressiveness of institutionalised irony, the too-successful rebel: the ability to interdict the question without attending to its subject is, when exercised, tyranny,” said Foster Wallace.<sup>43</sup> It is through the appearance of a lack of legitimacy, meaning, through the induction and maintenance of a self-imposed crisis through self-mockery, that power is perpetuated. Faced with the complete mockery of its conduct, exposing contradictions and arbitrariness, power becomes immune to criticism.

According to Vladimir Safatle, the power of authoritarian political discourses, as well as the power of the contemporary capitalist system itself, resides precisely in that capacity for shielding, that is created by the distancing of an order that doesn’t seem to take itself that seriously. These regimes use absolute parody and irony to not only empty their social spheres of values, but also deliberately preserve that which no longer has any legitimacy within their own mechanisms.<sup>44</sup> In this way, by ironically revealing the lack of legitimacy in the bowels of power that they themselves inhabit, in a kind of institutional breaking of the fourth wall, political leaders such as Jair Bolsonaro and Donald Trump forge a false notion of honesty from inside the ruins of democracy. The construction of buffoonish political characters, whose lack of seriousness is translated into ridiculous, obnoxious, and crass speech, has become a

powerful strategy of revelation that proposes to finally show that everything is just an empty game of appearances. Hence, the power of the image of the politician who claims to be anti-establishment without letting go of his power position. The politician that plays the role of non-politician is willing to do practically anything to maintain their character, even imploding the structure that legitimises their own power. This creates the distance that’s typical of a representation-within-a-representation, in the breach between action and acting where power moves like a pendulum, sometimes dodging responsibility in the blind spot of action, sometimes exercising authoritarianism through acting. The buffoon politician is recognised by many as the only one capable of exercising the virtue of speaking the truth, because he laughs at himself and reveals a feigned absence of faith in the position he occupies. The only terrifying truth that can be expressed between the lines of his public performance is that it’s not necessary to believe in what is said, and precisely because of that, no performative contradiction is liable to be identified as such.

In his studies on the process of applying absolute irony to social conduct, philosopher Vladimir Safatle points towards contemporary cynicism as a ‘reflexive ideology’, that is, an ideological position that contains its own negation. In this way, the truth, even when it is revealed through cynicism—or revealed only for that reason—is always already emptied of its transformative value. It is an ineffective, sterile truth which, however, remains extremely important only because of the hollow performative character of its revelation. When Bolsonaro repeats the following biblical verse all over the place: “you shall know the truth, and the truth will set you free,” he does it because he knows better than anyone that under a reflexive ideology there’s nothing less effective than revealing the truth.

43 David Foster Wallace, *I de Ironia*, Revista Serrote, n. 6, 2010.

44 Vladimir Safatle, *Cinismo e Falência da Crítica*, Boitempo Editorial, 2008.

Even so, what reaffirms the belief of his followers is exactly the empty gesture that is repeatedly reproduced on social media, in Whatsapp groups, and in messianic memes by anxious fingers that wait, from refresh to refresh, for an imminent liberation that will never come.

The power of parody resides in the impossibility of telling the performative effects of action and acting apart from one another. The difficulty of dealing with the representation of an actor-politician or a clown-politician is similar to the difficulty one comes across when faced with the figures of the actor-priest or the politician-priest. If a priest on stage performs the rites of baptism on another actor, will that actor have been introduced to the Catholic doctrine or not? If a priest uses the church altar as a political platform, are the believers indoctrinated by ideology or faith? If a politician uses the pulpit to preach Bible verses, will his or her electors be inspired by faith or ideology? The overlap of theatrical fiction, religious conversion, and political propaganda, that is, of distinct regimes of representation based on conventions, performances, and material rites, ends up creating powerful anomalies of belief that blur the defining limits of a secular democratic state and—especially in the Brazilian political context—takes us back seventeen centuries, to the Roman Empire of Genesisius.

The phenomenon of cynicism therefore depletes a model of criticism that is powerless, even in the face of classical insincerities such as hypocrisy and bad faith. We can also associate hypocrisy with many of the attitudes of the buffoon politician who camouflages the specificity of his vested interests to the public with an apparent universal virtue. Bolsonaro resorts to this form of insincerity when he claims that, for the sake of transparency, the voting system in Brazilian elections should be altered to paper voting only.

Only a faithful audience seems unwilling to break with the enactment of moral virtue. It's precisely the desire to go along with the 'faithful' character that characterises the public's bad faith. Bad faith is a lie one tells oneself, a kind of self-hypocrisy, rooted in the desire to not want to know. In other words, it's a kind of self-negation. There is, however, a paradox at work, because only something that one knows very deeply is capable of being kept out of the reach of knowledge. Bad faith, as the term suggests, is above all, faith, and therefore operates in the void of uncertainty.<sup>45</sup> This means that being aware of one's own faith is courageously acknowledging that what one believes in is nothing but a bet, and therefore cannot be counted on as a certainty. Bad faith, as one of the forms of negationism, is a resource of re-affirmation and anchoring in belief, in which the subject hides the fragility of profoundly intimate bets from themselves. This negative force that sustains the negationist belief is most accurately summarised in Theodor Adorno's comments on fascist mentality: "It is probably the distrust of the fiction of his own 'group psychology' that makes the fascist masses so merciless and unshakable. If they stopped to reason for a second, all the performance would go through the air and they would be left in a state of panic."<sup>46</sup> And as Safatle sums it up: "fascism would have been nothing more than a great game of masks or even a great carnival parody"<sup>47</sup>.

### **Nature Morte**

What separates the temporal conceptions of 'age' and 'hour' is evidently the notion of scale. The first is used to frame periods in time defined by

45 Idem.

46 Theodor W. Adorno, *Freudian Theory and the Pattern of Fascist Propaganda*, The Essential Frankfurt School Reader, p.137, 1982.

47 Vladimir Safatle, *Sobre Um Riso Que Não Reconcilia: Notas a Respeito da "Ideologia da Ironização"*, A Parte Rei, n. 55, 2008.

significant changes in order, whether historical or geological, and also ends up being casually used in the denomination of cycles of culture in which the mania of grandeur prevails. The concept of ‘hour’ is tied to setting the rhythm of everyday life, the pace of sociability, economy, and language. For a long time these two scales seemed to operate independently, each with their own horizon of visibility, despite the fact that one was structurally contained within the other. The separation follows a certain operational pragmatism, since the hours of human chronology become insignificant in comparison to the span of time opened up by an era.

We’ve grown up with the idea that individual or collective actions that unfold in social, economic, or language realms would eventually impetuously dissolve in the ocean of time. Discoveries such as the radioactive decay of isotopes that make it possible to date fossils and rocks that are billions years old have corroborated concrete signs of planetary indifference towards humans. For historians up until the middle of the twentieth century, changes on Earth occurred slowly and could be measured in millions of years, while a few centuries were enough to radically alter the forms of life in a given society. In this way, interactions between the history of nature and the history of humanity apparently occurred so slowly they could be understood as practically static and timeless.<sup>48</sup> However, through a confluence of measurement technologies, climatological research and recent environmentalist conceptions, it became possible to verify actions undertaken on an ‘hourly’ scale, whose effects invade the ‘era’ scale. In addition to increasingly more common environmental crimes, the impact of human activity on physical processes on Earth

began to be systematically measured, and so humankind stopped occupying the position of mere ‘biological agent’ to ascend to being a ‘geological force.’<sup>49</sup> Such a radical regime change reflects a historical shift in the very notion of nature—the passage from the old theatrical conception of the world to an understanding of the planet as a living and mutable organism.

In the early Enlightenment, still in the seventeenth century, Constantijn Huygens made scientific and diplomatic contributions in which he described the ‘new theatre of nature’ which had opened up through the latest optical devices of the time. This new theatre was documented in naturalistic drawings, such as the series that George Marcgraf published in four volumes under the title *Theatrum Rerum Naturalium Brasiliae*. In addition to the Shakespearian metaphor of the world as a theatre—*theatrum mundi*—which was widespread in seventeenth century Europe, the theatrical universe acquired an almost pedagogical function for the understanding of nature. The etymological root of the word ‘theatre’ comes from the Greek *theaomai* and suggests an attentive gaze, the spectator’s contemplation. This emphasis on visuality is relevant to understanding the drastic shift in Western positioning in relation to the natural world.

In the ancient conception of divine theatre, nature became a stage with God as author and director of the show, leaving humans with a place in the audience. This analogy was already present in the first century BC. In the writings of Philo of Alexandria, the process of the creation of the world was equated with a scenic play: “In the same way, the guide of the universe, like an organiser of games and feasts, intending to call man to a feast and a spectacle, arranged in

48 Dipesh Chakrabarty, *O Clima da História: Quatro Teses*, Revista Sopro, no. 91, 2013 / *The Climate of History: Four Theses*, Critical Inquiry, no. 35, 2009.

advance what could serve these two ends, so that in coming into this world, he would find straight away the banquet and the most holy theatre, the first filled with all that the earth, rivers, sea, and air produce for one's enjoyment; the other full of spectacles of all kinds, presenting surprising realities, striking qualities, admirable movements and choruses, in harmonious arrangements."<sup>50</sup> Philo of Alexandria laid the foundations for two strangely contemporary views of nature. The first refers to the concept of a banquet where the served menu is "all that the earth, rivers, sea, and air produce," which nowadays proliferates as a global all-you-can-eat restaurant chain. The second refers to the harmonious and admirable character of the show produced especially for passive contemplation by the audience, who watch the progression of acts from their chairs as the sublime gives way to the tragic.

During the Renaissance, the theatre of nature acquired even more static and compositional qualities, stimulated by the creation of a point of view to which a privileged vision of the world was presented. German astronomer Philip Melancthon describes "this whole most beautiful theatre" from the early sixteenth century and lists its scenic elements: "the sky, lights, stars, air, water, earth, plants, animals, and other bodies of the world are created with such art, (...) arranged according to compassion and order, being manifest witnesses of God the Creator."<sup>51</sup> From the development of the Renaissance perspective the immobile eye was instituted, which observes the world based on an optical model that superimposes a geometric grid of infinite, constant and homogeneous space on nature. With its focus on the natural world, this conception of space lent itself to mapping the divine and reducing it to a

formula capable of reproducing the unthinkable, namely, God's own creative ingenuity. According to Erwin Panofsky, it was through the Renaissance perspective that ancient theocracy gave way to modern 'anthropocracy.'<sup>52</sup> With its dotted lines, it allowed the human mind to represent an infinite, expandable, and homogeneous reality beyond the limits of the 'window' through which the world was framed. Thus, theatrical conception stabilised nature as a harmless and distanced spectacle, the kind that ensured the actors wouldn't embarrass anyone in the audience by demanding any type of interaction. The anthropocentric Renaissance gaze was marked by contemplative inaction, by an elusive distance that evaded any eye contact coming from the stage.

With the idealisation of a static, constant and immutable scenery, nature ended up acquiring a mere 'backdrop' function. Human agency, on the other hand, performed on other stages, in the courts and theatres of the law. The audience only started to interact with nature after becoming aware of a possible meta-theatricality. If before the world was observed from the boxes of the divine theatre, the knowledge produced about it could indeed be exhibited and dramatised in worldly theatres. On the stage created by God, the stages created by men. For example, in the first anatomical theatre in Padova which opened in 1595, science tried out the drama of the dissection of corpses in front of an audience of people who crowded the circular grandstands. Perhaps it's not a coincidence that the theatrical metalinguistic innovation of one stage staged upon another gained popularity around the same time, with as its most famous example *The Mousetrap*, the play within a play performed by the characters in *Hamlet*. Scenic compositions, arrangements of natural species on walls, and displays of cabinets

50 Ann Blair, *The Theater of Nature: Jean Bodin and Renaissance Science*, Princeton University Press, 1997.

51 Idem.

52 Giulio Carlo Argan, *História da Arte Italiana*, vol. 2, Cosac & Naify, 2003.

of curiosities also employed theatricality to attempt to create a view that, in a single glance, encompassed the notion of the whole of the natural world. It was the early embryonic phase that laid the foundations of the necro-aesthetics that would later, through animal taxidermy in dioramas and frozen representations of still lifes, spread around natural history museums. Books and encyclopaedias with the expression *theatrum naturae* in their titles multiplied throughout the seventeenth century, also in an attempt to present ordered totalities of different areas of natural knowledge. The distant gaze of the Renaissance and the encyclopaedic impulse that followed, ended up creating and simultaneously depending on a condition of 'stable nature,' which had up to that moment seemed tameable because it underwent changes which were imperceptible compared to the leaps of humankind. However, systematic attempts to fix and freeze nature, which continue in the present day, have proved to be insufficient and improbable, giving way to a new conception that presents the natural world as a living organism endowed with agency, which responds in rising intensities to the impacts of the geological human force of the last five centuries.

One of the primordial questions posed today in the 'theatre of proofs' of empirical knowledge is that its drama no longer seems to entice the majority of the spectators, especially in the climate crisis context. The theatre of science is dealing with the apathy of an audience that insists on the stability promised by the divine theatre up to this day. On the other hand, a portion of the audience seems to have assimilated and naturalised the transformative inevitability of the natural world and is maybe going too far in the attempt to take God's former place as directors of the spectacle—this time an opportunistically anthropocentric one. I'm referring to those who defend the idea that the only way to repair the

human impact on the planet is by pushing it even more. In the current scenario, climate challenges primordially reflect disputes between dissonant views on what nature is, what it represents and who represents it. In the face of innumerable contemporary conflicts, scientific discourse finds itself trapped between those who believe too little in science and those who believe too much in it, between the deniers and the people who reaffirm anthropogenic impacts, between negationists and techno-utopians.

Starting from the close historical relationship between scientific and colonial practices, the geographic mirroring of representations of nature traced in this text leads to the current climate challenges and how these have been met both in Brazil and in Europe. On the one side we see the explicit impetus of deforestation of the Amazon by an extreme right-wing government. On the other side, a growing number of geoengineering projects that present technological accelerationism as a miraculous reconciliation between maintaining economic growth and mitigating climate change. What both have in common is the reluctance to compromise the foundations of a capitalism that has been entrenched by lobbyists of all sorts, willing to finance the production of scientific papers in their favour, as well as anti-climate and pro-green capitalism campaigns. In this scenario of the co-optation of scientific discourse by political and economic interests in the fossil fuel, agrobusiness, and construction industries, on top of the anti-scientific propaganda of government apparatuses, climate scientists find their work gets stuck between a rock and a hard place.

For centuries science produced its knowledge from notions such as universality, impartiality, and objectivity. Notions that, because of the affiliation of scientific research with colonial enterprises, proved to be idealisations that were

convenient to Europeans. Even so, the Western scientific perspective is historically based on the search for neutrality in the 'point zero' that could guarantee the universality of a supposedly non-situated and disembodied knowledge without any influence of a social body. Because it intended to preserve the distance and the authority of the figure of the scientist, built according to the model of the 'invisible man', science as discipline necessarily had to deny any kind of political intentionality. If the political agenda of their practices was made explicit, scientists would be undermining the foundations of the objectivity of their own research field. Although a minority hide their real agendas to cater to the vested interests of industries that have a lot to lose from the publication of data on climate destruction, the majority of scientists try to draw a limit around their practices immediately before any prescription of measures leaks from the scientific field into the fields of politics and economy. However, the impasse in current public debate has put more and more pressure on the scientific community to admit once and for all that research on climate change necessarily challenges the consolidated ways of life under neoliberalism.

While climate studies point to the need for coordinated action between governments to regulate the impacts of industry, the neoliberal model pulls in the other direction, emphasising minimal state intervention, free trade, individual interests and national sovereignty as inalienable values. The more adapted one is to neoliberal logic, the less one tends to acknowledge the human factor in climate change. For that reason ideological positions, not scientific ones, are taken to be the main filter of acceptance or denial of climate change as a real phenomenon.<sup>53</sup> In other words, what moves public debate

are deliberations that constitute individual forms of life and have nothing to do with the scientific realm itself. US president George H. Bush couldn't have made it clearer when, in the middle of the Earth Summit Eco-92 in Rio de Janeiro, he declared that "the American way of life is non-negotiable." It is one of the reasons that justify hesitations scientists feel about engaging in arguments with those who deny or minimise the climate crisis: they don't want their research data to be reduced to political opinion. It is the first major pitfall: if they take the data in their research to their logical conclusion, climatologists inevitably enter the political realm, which puts into question the notions of objectivity and impartiality which historically have been foundational to the scientific vocation. The second pitfall is a result of the first and can be converted into the million-dollar question for the scientific community: how to get involved in the public debate on climate without mixing scientific arguments and ideological rhetoric?

In one of his 2013 lectures Bruno Latour focuses on theatre and mentions his collaboration with Pierre Daubigny in the conception of the play *Gaia Global Circus*. Through the clash between the characters Virginie and Ted, one a climatologist and the other a climate sceptic, Latour explains the traps faced by science in what he calls the 'climate pseudo-controversy.' The main strategy for negationists in the dispute for credibility is flattening scientific proof to the level of ideological arguments, since this establishes a false symmetry that the debate is held between two specialists. The negationist doesn't seek to respond to the scientist with better arguments, since his success depends only on the audience regarding the 'pseudo-controversy' as a legitimate discussion, performed as a democratic exercise in the judicious clash of ideas. With this discursive equivalence science is defeated even before the

53 Mark A. Maslin, *Why I'll Talk Politics with Climate Change Deniers But Not Science*, The Conversation, 2016.

conversation starts, because as Latour puts it, “the very organ of reason, open debate, becomes, in this case, the organ of manipulation.”<sup>54</sup>

If climatologist Virginie accepts the invitation, she will find herself uncomfortably responding at the ideological level; if she refuses, she will embody the arrogance that many see in the scientist as the holder of dogmatic truths. Faced with that impasse in the play, the Virginie character breaks away from the civility expected from the distanced scientific position and in a flash of fury declares war on the negationists.

According to Latour, to break the trap imposed by negationism the scientific community needs to admit that yes, it does have a political agenda, or rather, it has always had a political agenda, which would also imply in retrospect recognising the effects of its affiliation with colonialism. According to the author, “there is no reason for [climatologists] to keep claiming that they are not in the game, as if they were speaking from nowhere and behaving as if they didn’t belong to any earthbound population.” He offers some advice to the scientific community: “If your adversaries tell you that you are engaged in politics by taking yourselves as representatives of numerous neglected voices, for heaven’s sake answer ‘Yes, of course!’ If politics consists in representing the voices of the oppressed and the unknown, then we would all be in a much better situation if, instead of pretending that the others are the ones engaged in politics and that you are engaged ‘only in science,’ you recognised that you were also in fact trying to assemble another political body and to live in a coherent cosmos composed in a different way.”<sup>55</sup> The fear of compromising objectivity with partisanship can be overcome if science starts to assume it is an institution

that answers to a validation system of its own, distinct from the one that nation states and their fragmentary logic respond to. Confessing to the earthly epistemological limit of scientific discourse wouldn’t make it less objective, on the contrary, it makes it even more credible, as it would once and for all break with the idealisation of an impossible impartiality. In the face of the recent attacks on scientific credibility, there is no better opportunity for science to reconfigure its authority, no longer anchoring it in the coloniser’s transparent political body, but in the muddy body of the colonised, that is, the body of Earth itself.

In Brazil, a dispute similar to the one between Virginie and Ted happened in 2019 when the former director of the Instituto Nacional de Pesquisas Especiais (National Institute for Space Research, INPE), physicist Ricardo Galvão, and then Environment Minister Ricardo Salles met on a television show.<sup>56</sup> The *mise en scène* also counted on the participation of the president of the Brazilian Agribusiness Association, Marcelo Brito, and on journalist Renata Lo Prete. At the time, Ricardo Galvão had just been dismissed as director of INPE after accusations by Brazilian president Jair Bolsonaro that satellite images showing an increase in Amazon deforestation had been falsified with the aim of harming him politically. In the distribution of roles Galvão represented the scientific community and Salles the negationists; Brito represented free trade and Lo Prete democratic mediation. But the configuration of speakers itself already tells us something about the way the conversation was going to go. Why invite an agribusiness representative and not include one of the indigenous communities living in the deforested areas?

54 Bruno Latour, *Diante de Gaia: Oito Conferências Sobre a Natureza no Antropoceno*, Ubu Editora, 2020.

55 Idem.

The main reason Galvão was fired was the publication of data from the DETER programme, a monitoring system based on medium resolution satellite images designed to detect deforestation spots in real time and issuing alerts to federal authorities about environmental crimes in progress. Although the Environment Minister gave a technical speech to justify the crisis that resulted in the dismissal, the federal government's accusation was that the former director was linked to international NGOs and responded to foreign interests, which compromised national sovereignty in the Amazon. Throughout the debate, as he witnessed the objectivity of his position as a scientist being questioned, Galvão displayed the same rising discomfort as the Virginie character. He nevertheless took the opposite attitude, trying to preserve civility and all the time reaffirming his scientific suitability. "I'd like to say that there's no political issue," he said before giving examples of disagreements between INPE and previous governments to prove his political indifference. "Firstly, not to give the impression that I'm making a political speech, this same proposal [discontinuing satellite monitoring] was made by former president Lula. He wanted to remove the DETER system from INPE..." The physicist's rationale focused on proving his impartiality, which only generated a growing frustration in him because the very context of the debate 'among specialists' did the disservice of assigning credibility to Salles' flimsy and opportunistic malleability.

To avoid political discussion Ricardo Galvão resorted to the opposite extreme—the universality of scientific discourse. "One thing that any leader of a country has to understand is that when it comes to scientific matters, there is no higher authority above the sovereignty of science. There is no such authority! Neither military, nor political, nor religious." That was enough: Galvão had taken the bait and was now gradually dragged

towards the trap set by Ricardo Salles, who promptly replied: "The problem is when ideology is disguised as science." Galvão replied to the provocation by doubling down on the authority of scientific discourse, sounding even more dogmatic. Just like the negationist character in the play, the minister was performing for an audience, exposing the scientist's vehemence as the arrogant expression of those who "profess an absolute knowledge of environmentalism," and concluded: "what we have been seeing for a long time is science allowing itself to say this, this and that. (...) You, sir, place scientists above citizens." Check-mate.

Ricardo Salles extracted the confession of scientific superiority from Ricardo Galvão by extrapolating the notion of absolute truth from his words and then discrediting scientific discourse as a whole by reducing it to a mere inflated opinion of arrogant individuals. The physicist, in turn, was cornered and could only watch on as his words were distorted, either as ideological bias or dogmatism. Ricardo Galvão knows better than anybody that science will never present itself as a holder of absolute knowledge. In the scientific method nothing is 'forever', everything is 'for now'. At the heart of its functioning is the rotation of theories that debunk each other successively so that a phenomenon may be described in the best possible way. Through this discursive system science guarantees the possibility of improving and correcting knowledge based on judicious standards that evolve over time. Exactly because of that there will always be a margin of uncertainty, even if reduced with each new finding, and this has never been an obstruction to the production of valid knowledge. To a certain extent Ricardo Salles is right in stating that scientists cannot claim to hold absolute knowledge, not even in matters of climate change. It's precisely that blind spot which supplies the most efficient communication

strategy for climate change deniers. Climate change has been studied for decades, reaching 97% consensus on its anthropogenic origins and its risks to all life on the planet. The dissonant 3% in scientific studies are used in negationist rhetoric as an allegation that if there is no consensus among scientists, it's not possible to consider their studies as proven, and so their claims have no validity.<sup>57</sup> Negationists extract from this loophole the malicious insinuation, although technically correct, that science can't be sure of anything. The attempt to transform the impossibility of absolute certainty which is typical of the scientific method into a generalised uncertainty is a case of bad faith. The credibility of scientific studies on the climate is questioned on the basis of this misrepresentation, and from the benefit of the doubt the absurd premise is extracted that any alternative hypothesis has as much legitimacy, as it would also share the impossibility of absolute proof.

It's possible to perceive how negationist politics becomes very pragmatic. Any suggestions of lunacy only serve as varnish for the rebranding of extractivist interests, repackaged since the colonial period. The current Brazilian federal government's effort to dismantle scientific institutions can be observed in the retaliation suffered by INPE, with budget cuts that made it impossible to pay the electricity bill of the supercomputer that is responsible for the weather and climate forecast in the country. The supercomputer, which received the suggestive name of *Tupã*,<sup>58</sup> used to provide weather forecasts on droughts as well as climate calculations and simulations for the coming decades. In 2021 it had to be turned off and substituted for another, less powerful one. The new computer is no longer able to make long term

predictions about the climate crisis, projections that were shared with the Intergovernmental Panel on Climate Change (IPCC) for the production of its reports. Ensuring the impossibility of generating future estimates on the climate seems to be the solution adopted by the Brazilian government to eliminate its alarming signs.

“The most important thing is that when it comes to perception and reality, what wins in the world today is perception.” With this statement Marcelo Brito, president of the Brazilian Agribusiness Association, summed up the television debate. Given the choice of attacking the problem and attacking the image of the problem, the negationist strategy will always go for the second option. In a scenario of deforestation and fires that for the first time transformed whole regions of the Amazon forest into a source of greenhouse gas emissions rather than a natural absorber,<sup>59</sup> the government's main preoccupation has been how to reverse Brazil's negative image for foreign investors. That's why the discussion on the production of satellite images of Amazon deforestation is so sensitive. Daily alerts of changes in forest coverage are issued to the government environmental inspection agency, based on images that show completely deforested areas or areas in process of degradation due to logging, mining or fires. The aforementioned DETER system complements the performance of another programme, PRODES, which uses images in higher spatial resolution to calculate annual deforestation rates. These images are then analysed by specialised photo-interpreters who, with the help of so-called ‘exclusion masks’ which cover up areas deforested in previous years, map the annual index (FIG 13, 14).<sup>60</sup>

57 Angela Condello and Tiziana Andina (eds.), *Post-truth, Philosophy and Law*, Routledge, 2019.

58 *Tupã* means ‘Spirit of thunder’ in the Tupi language.

59 *Amazonia as a Carbon Source Linked to Deforestation and Climate Change*, *Nature* 595, 14 July 2021.

60 Coordenação-Geral de Observação da Terra, Metodologia Utilizada nos Projetos PRODES e DETER, Programa de

In the methodology used to capture these images it is possible to observe a genealogy in common with the *ad vivum* techniques of documenting nature that were used by science at other moments. Different from the seventeenth century, new real time images have replaced the eyes and hands of naturalists with sensors and processing softwares that use algorithms and digital models to ensure the topographic correction and cartographic consistency of the images. Even so, with all the technological advancements in capture resolution that will enable smaller and smaller areas to be mapped, satellite images will always be confronted by the limits of representation, no matter how accurate they may become. The physicist Marcelo Gleiser attributes these limits to an unavoidable 'empirical incompleteness',<sup>61</sup> in other words, the scientific knowledge of physical reality will always be bounded by the material limitations of instruments. Drawing a parallel between the images produced by seventeenth century naturalists and images captured by contemporary satellites in the Amazon, we can question what the political implications of documentation practices of nature are and how the credibility of these images has been built and questioned during these two moments in history. Apart from the different levels of precision, in both cases the *ad vivum* scientific images seek to establish criteria of realism that define the parameters of what can be considered 'real' in their respective times.

With the critical distance postmodernism introduced to the fields of art, historiography, and ethnography, the realism of the images produced by naturalists in the past can be

Monitoramento da Amazônia e Demais Biomas, Instituto Nacional de Pesquisas Espaciais, 2019.

61 Marcelo Gleiser, *Empirical Incompleteness and the Search for a Theory of Everything*, Physics Today 63, 2010.

relativised through the deconstruction of the supposedly neutral authority of its authors, as well as through the colonial affiliation that conditioned the production of the documents. Today it's possible to say that the credibility of satellite images is questioned for similar reasons, even though those reasons express obscure intentions. As demonstrated by the insinuations made by the negationist minister and directed at the physicist during the televised debate, attacks on scientific data and images aim to expose the political agency of science, which remains veiled by the ancient transparent mask of objectivity. "The problem is when ideology is disguised as science," accused the minister. From the premise that political exemption on the part of science is impossible, negationist discourse produces a biased form of sincerity that 'unmasks' the supposed impartiality of the scientific community. However, the fact that scientists do occupy political positions in no way invalidates science, but rather contributes to the historical understanding of the limits of knowledge production. That may be the main difference between valid criticism and the low-level political attacks that proliferate in extremist circles. By sabotaging the credibility of scientific data, the negationists try to frame science as just another lobby among many, thereby camouflaging their own political and economic interests. As mentioned elsewhere in this essay, the negationist rhetoric accuses its opponents of doing exactly what they themselves do, since at first sight it would seem counterintuitive for public opinion to assume such gross internal incongruity between actions and justification mechanisms. No wonder that almost two years after the television debate Ricardo Salles was removed from the Ministry for the Environment, following accusations of granting undue favours to illegal loggers in the Amazon.

The lobby against the climate change movement is primarily responsible for the disinformation campaign that disguises economic and political interests as scientific discourse. An emblematic example was published in 2015 which revealed that the largest oil and gas companies in the world—among them ExxonMobil, Southern Company, the American Petroleum Institute (API), and the foundation of the ultraconservative Koch brothers—had payed 1,25 million dollars to fund the work of a single researcher, Willie Soon, known for minimising human impact in his studies on climate change.<sup>62</sup> Academic papers are produced and published in journals that don't require peer review, and articles are published in the press that distort the idea of democratic journalism by giving visibility to dubious and therefore minority opinions, attributing them with more credibility than they deserve and thereby establishing false symmetries.<sup>63</sup>

In this scenario, the change of attitude within the scientific community itself that Bruno Latour suggested proves crucial to stop falling into some of the traps that block effective action in relation to the climate crisis. According to the author, the first step is to assume that doing science is doing politics. In this way, scientists would be able to actively contribute to the coming together of a new, heterogeneous political community that could oppose the old notion of Humans as *anthropos*. In other words, Human with a capital 'H', the universal subject that is supposedly the antithesis of Nature with a capital 'N', which would be static and tameable. By defining in this manner who its allies and its enemies are, this new political body formed by scientists would make

62 Suzanne Goldenberg, *Work of Prominent Climate Change Denier Was Funded by Energy Industry*, The Guardian, 21 February 2015.

63 Naomi Oreskes and Erik M. Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth from Tobacco Smoke to Global Warming*, Bloomsbury Press, 2010.

conflicts about the end of the world explicit, local, and grounded, with a name and an address. As Débora Danowski and Eduardo Viveiros de Castro stated, the end of the world must be understood as a metaphysical and mythical problem, imposed by planetary environmental collapse and rigorously formulated by the empirical sciences of climatology, geophysics, and oceanography under the name of Anthropocene.<sup>64</sup> By recognising that it is immersed in war, the scientific community has the opportunity to join what Bruno Latour called the 'the Earthbound people', or peoples of the Earth, thus distancing itself from the modern tradition inaugurated by the first naturalists.

The naturalist tradition, according to Bruno Latour, is formed by invisible Humans, those who make their bodies disappear in order to sustain the knowledge produced, who proclaim to be spokespeople for the universal and hide their position for fear of compromising their authority. Scientists who are allied with the Earthbounds, on the other hand, share the premise put forward by Donna Haraway, according to which there is no disembodied knowledge. They have a position and therefore they have opponents. As they commit to a historical self-criticism that revises the modern and scientific distinction between human and nature, they see the quality of their contributions increase instead of diminish. Because they follow guidelines proper to the scientific method, they may assume a different position regarding geopolitical conflicts than that of nation states. This is a position that is no longer distinguished by the notion of universality, but by the capacity to include new agents, some of them non-humans, in the political composition of conflicts. Their authority is inherently political, because they represent agents without a voice

64 Débora Danowski and Eduardo Viveiros de Castro, *Há mundo por vir? Ensaio Sobre os Medos e os Fins*, Cultura e Barbárie Editora, Instituto Socioambiental, 2015.

in the climate crisis. In this way, they aim to ally themselves with other forms of resistance, with other peoples of the Earth, especially those who have much to teach because they already lost their world more than five centuries ago. The year 1492 marked the beginning of the end of the world for the native peoples of the Americas. It is estimated that the Amerindian population, more numerous than the whole population of Europe at the time, decreased by 95% in the first 150 years following the invasion of the continent. In addition to the effect of viruses brought by ships, especially smallpox, the exploitation of forced labour, killings, and new legislation completed the job of eliminating roughly one fifth of the entire planet's population on the American continent alone.<sup>65</sup> The impact of the genocide of indigenous peoples in the sixteenth and seventeenth centuries has even been proposed as the starting point of the Anthropocene. Geographers and climatologists Simon Lewis and Mark Maslin suggested the year 1610 as the date when the first anthropogenic effects associated with colonialism and the transoceanic trade began to be noticeable on a planetary scale. The hypothesis known as *Orbis Spike*, which traces a symbolic line between the genocide of indigenous peoples and the change of a geological era, undoubtedly places Lewis and Maslin in the Latourian category of Earthbound scientists. According to an article published by *Nature* magazine in 2015,<sup>66</sup> more than a century after the invasion of the Americas, the population decline on the continent contributed to the massive reforestation of the American territory, which could be measured by the drastic drop in the CO2 levels in the atmosphere in 1610 and resulted in a fall in

temperature at the time, a period that became known in Europe as the Little Ice Age. Several critics oppose that hypothesis due to insufficient stratigraphic and technical data that could solidify the time frame. Nevertheless, Lewis and Maslin's achievement consisted of introducing into the scientific debate the political character of the considerations that establish the demarcation of a new geological era.

If the New World was considered *terra nullius* by the European invaders, a no man's land, a world without people, it was both because the people that lived there had literally been exterminated and because the survivors didn't meet the requirements to be considered Human. The indigenous survivors became 'peoples without a world', resisting as refugees in their own lands. As Danowski and Viveiros de Castro pointed out: "The genocide of the Amerindian peoples—for them, the end of the world—was for Europeans the beginning of the modern world: without the dispossession of America, Europe would have been nothing more than the very back of the backyard of Eurasia, the continent which sheltered, during the so-called 'Middle Ages', civilisations such as Byzantium, China, India, the Arab World, which were immensely richer than European civilisation. Without the plundering of the Americas, there would be no capitalism, nor, later, the industrial revolution, nor even, perhaps, the Anthropocene." Despite the massacre, there are currently around 370 million indigenous people spread around seventy countries in the world, who don't recognise themselves or are not recognised as citizens of the nation states where they live.<sup>67</sup> This piece of information helps to understand the modern genesis of Humans

65 Charles C. Mann, *1491: New Revelations of the Americas Before Columbus*, Vintage, 2005.

66 Simon L. Lewis and Mark A. Maslin, *Defining the Anthropocene*, *Nature* 519, 11 March 2015.

67 United Nations Permanent Forum on Indigenous Issues, *Who are indigenous peoples?*, <[http://www.un.org/esa/socdev/unpfii/documents/5session\\_factsheet1.pdf](http://www.un.org/esa/socdev/unpfii/documents/5session_factsheet1.pdf)>.

as a group of individuals who recognise and are recognised, are owned and belong to the notion of territory governed by a metaphysical order that only became commonplace in international relations in 1648.

At the time, the Thirty Years' War ravaged several European peoples because of religious and cultural conflicts. Aiming to end the hostilities, an assembly was organised in the German region of Westphalia and a new regime of relations between countries was established. The regulatory principle became that of sovereignty, with each state having the power to govern its own laws and citizens based exclusively on internal logics. The solution found to end the war of all against all was to attribute to the state a force capable of making its citizens bend to internal rules, in exchange for belonging and safety. The invention of a supreme authority, called Leviathan by Thomas Hobbes, played the role of an artificial machine, a secular god that substituted the gods responsible for all the bloodshed. The absolute power of each state over its own territory thus reached the level of an irrevocable order of modernity and became a founding principle of the Human world. Although the new Leviathan of the Market disputes the power of states with the consolidation of neoliberalism, territories still respond to those seventeenth century laws.

It's precisely this pact at a global level that seems to crumble when faced with complexities that know no borders. The climate crisis and the current Covid-19 pandemic show "the multiple organ failure of the cosmopolitical government of the Moderns."<sup>68</sup> It's at least ironic, not to say problematic, that the know-how of how to

"postpone the end of the world"<sup>69</sup> of the so-called Humans now befalls those same indigenous peoples who had their world destroyed by the one which is currently in decomposition. Perhaps the first lesson to be learned from indigenous communities, without placing any hope for heroic redemption in them, is that when we confront the collapse of scales and the rationing announced by the Anthropocene, these are exactly the communities best prepared for how to deal with future challenges. "The only thing that grows indefinitely is cancer."<sup>70</sup> This phrase from indigenous thinker Ailton Krenak serves as a warning in the midst of technological accelerationism. Slowing down and decreasing are still considered retrograde paths, accused of naive localism, hippie nostalgia, or pure and simple setbacks. The truth is that stepping on the brakes requires courage and not everyone is willing to take the risk of being left behind, even while acknowledging the abyss that awaits them ahead. The psychological condition that best defines these times of social media and climate collapse is the "fear of missing out", even when it's about missing the end of the world. That's why it's so tempting to believe in the possibility of infiltrating the enemy's bowels, following the flow of progress, to then try and subvert the order and provoke some kind of change from within. That seems to be one of the promises of left-wing accelerationism, which believes itself to be smarter than its right-wing counterpart because it deliberately leans on the foundations of capitalism, to improve labour conditions through the new Leviathan of technological innovation. Its adherents believe that post-human world will be fairer, while right-wing accelerationists imagine that a post-human world will be more

68 Débora Danowski and Eduardo Viveiros de Castro, *Há Mundo Por Vir? Ensaio Sobre os Medos e os Fins*, Cultura e Barbárie Editora, Instituto Socioambiental, 2015.

69 Ailton Krenak, *Ideias Para Adiar o Fim do Mundo*, Companhia das Letras, 2019.

70 Ailton Krenak in a talk with Aparecida Vilaça, Rádio Batuta podcast, 2019.

exclusive. For them, technological acceleration will make it possible to drive capitalism to its maximum potency, to reach the long-awaited biological differentiation of the *homo billionarius* species. Until that day arrives, they promote the technological continuity of modern progress as the only way to mitigate climate change. Massive geoengineering projects are multiplying all over Europe, promising an impossible reconciliation between neoliberal logic and environmental preservation. In the Rotterdam port there is a project, still in the early fundraising stage, which aims to bury the CO<sub>2</sub> produced by local power plants under the North Sea by 2024, using the empty craters from which all the natural gas was once extracted (FIG 15, 16). In addition to the unprecedented risks this poses to the marine ecosystem in case of leakage, this enterprise takes advantage of legislation which is still in development and which is unprepared to deal with those responsibilities which go beyond the ‘hour’ scale of the law and move into the ‘era’ scale of permanent maintenance of an underground reservoir. There are no specific laws yet that address projects of this nature. According to Dutch civil code, the liability period for environmental crimes varies from five to a maximum of thirty years after the discovery of the damage. After that, any liability expires, which shows the lack of a legal structure that can deal with projects of such magnitude.<sup>71</sup>

Researcher Marisol de la Cadena made a diagnosis which is highly necessary given the risks of geoengineering. She quotes the title of Michel Serres’ book *Appropriation Through Pollution* to summarise what seems to be the ultimate and reckless destiny of the Human:

71 Sanne Akerboom, Svenja Waldmann, Agneev Mukherjee, Casper Agaton, Mark Sanders and Gert Jan Kramer, *Different This Time? The Prospects of CCS in the Netherlands in the 2020s*, Frontiers in Energy Research, 4 May 2021.

“Polluting is possessing, it is excluding others from access to the resources which the polluter appropriates.”<sup>72</sup> This is the logic of the ‘anthropo-not-seen’, of Humans who bestow on themselves the power to eradicate those whose notion of humanity is not restricted to the human species. Faced with the war of scales, accelerations and cosmologies, the world of the ‘anthropo-not-seen’ convulses in an attempt to keep its sick body on its feet, coughing up immune responses in the form of more and more vicious ultra-conservative attacks aimed exactly at the specialists of the end-of-the-world. This animosity ultimately triggers a radical metaphysical dispute over what exists and what doesn’t exist in this world, or rather, what we ‘decide’ exists versus what we ‘decide’ does not exist.

Federico Campagna analyses the building blocks of the Human world, that is, the world-building of Westernised modernity, with the notion of ‘absolute language’. According to this conception, everything that exists must be capable of being described by some form of language—mathematical, scientific, financial, algorithmic, etc. Consequently, everything that is not describable by language doesn’t exist in this world or has an inferior existential value.<sup>73</sup> In other words, the founding premise of modernity—that existence and language coincide—necessarily excludes all that can’t be uttered and everything that escapes well-defined categorisations from the Human world. In the language used by Human narrators, the norm that dictates the tone and rhythm of description is the law of non-contradiction. This principle has become the standard of coherence for everything that can exist in this world, which guarantees

72 Marisol de la Cadena, *Natureza Incomum: Histórias do Antropoceno*, Revista do Instituto de Estudos Brasileiros, n. 69, 2018.

73 Federico Campagna, *Technic and Magic: The Reconstruction of Reality*, Technic’s Cosmogony, Bloomsbury Press, 2018.

the voices of the narrators an ever-forward-moving cadence, maintaining the beat of logic and the time of modern reason at every step. As such, Humans built a grid-shaped thought that organises identities in mutually-excluding binary arrangements, rudely separating nature from culture, human from non-human, masculine from feminine, black from white, local from foreign.<sup>74</sup> For that reason, any form of life that doesn't respect this arrangement is one of two things: either it is doomed to sub-existence or it must be abolished. Contemporary ultra-conservatism seems to be a defence mechanism of the law of non-contradiction, reacting when they are confronted with fluid gender and sexuality identities; the same goes for cosmologies that reorganise human agency through the personification of non-humans.<sup>75</sup> The simple fact that these groups demand to exist exposes the fragility of the logic of non-contradiction in the world. In a regime of absolute language there is no space for ambiguous otherness to flow through the limits of mutually exclusive identities. The algorithmisation of life based on data surveillance by big tech companies is nothing more than the continuation of that same regime of absolute language. What is at stake in the contemporary war between Humans and Earthbounds is the linguistic, metaphysical and mythical power that defines what can and what cannot exist and be imagined, whether in augmented or diminished realities, in this or in the next world.

<sup>74</sup> Federico Campagna, *Prophetic Culture: Recreation for Adolescents*, Bloomsbury Press, 2021.

<sup>75</sup> Idem.

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