

Documentaries and environmental catastrophe: Requiem for an inhospitable world

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Lessons of Darkness, Werner Herzog, 1992 © Werner Herzog Filmproduktion - Potemkine Films

"Man of nature is the leader and king"
Nicolas Boileau, *Satires* (1657)

"Mankind, which in Homer's time was an object of contemplation for the Olympian gods, is now one for itself. Its self-alienation has reached such a degree that it can experience its own destruction as an aesthetic pleasure of the first order." [1] These prophetic words were written by Walter Benjamin in 1935 and still resonate today in a world unsettled by environmental disasters that lead to a build-up of torrents of spectacular images which compete amongst themselves. Pandemics, tsunamis, floods, heat waves and droughts are now a part of the daily media life of our modern societies which helplessly watch these apocalyptic events

unfold successively before their eyes while the media stoke the fire of collective anxiety about imminent total collapse.

The frightening dimension of the notion of the Anthropocene stems from the glimpse it gives man of his own finiteness while sketching a horizon constructed on the expectation of disaster, like a point of no return. It seems to condemn man to contemplate images of the inexorable process of his own destruction. Over the last two decades, the many films devoted to the environmental crisis portraying the multiplicity and globality of the issues involved - global warming, industrial pollution, the management of food, water or waste, etc. - reveal both the central place the subject now occupies in public debate and the genre's capacity to document and stage the crucial turning point where the world finds itself.

However, it would be wrong to limit these films to the narrow confines of a trend or a new genre. Throughout the century of the Anthropocene, which is also the century of cinema, documentaries have provided echoes, alerts, testimonies about and archive records of the tortuous relationship between man and the environment. This article represents a search for images of the Anthropocene depicting the disfiguration of the Earth, the deregulation of nature and the chaos of humanity. It thus provides a necessarily brief and selective overview of the history of documentary film in an attempt to grasp how the genre has shaped the imaginary dimension of ecological catastrophes.

1 - The spectacle of the sublime

Although debate on the subject is still ongoing, the pioneers of Anthropocene theories pinpoint the start of this new era at the time in the 19th century when Western societies chose capitalism, industrialisation and mass exploitation of fossil fuels. To find traces of the first images of the Anthropocene, we could thus go back to the invention of cinema which was the fruit of the industrial revolution and technical progress of the time or more precisely to the Lumière brothers' work - the first films made using the Cinematograph by operators. This aimed to record and portray the great spectacles of the world. Between 1896 and 1899, the photographer Alexandre Michon filmed burning oil wells on the Balakhani-Sabountchi plateau, a few kilometers from Baku. This region of the Caucasus Mountains was one of the two main nerve centers of the era's nascent oil industry along with Pennsylvania. The black gold rush produced its first tycoons like the Nobel family who invested massively in these vast oil-producing areas. These were the jewels of the Russian empire which produced more than half of the world's oil at the dawn of the 20th century. What can be seen in the still shot of *The Oil Gush Fire in Bibiheybat*? There are swirling flames and black smoke rising into the sky from minaret-like derricks. At the foot of the central derrick, we see a man walking and then going out of frame.



The Oil Gush Fire in Bibiheybat, Alexandre Michon, 1899 © Association des Frères Lumière

When viewing these images are we shocked by the disaster of a landscape in flames or are we captivated by a kind of exaltation of progress? Are they a critique of oil pollution or, conversely, do they magnify the spectacle of the inevitable march of capitalism in a whirlwind of flames and smoke? A film is naturally anchored in the cultural context of its era and this was a time when the new phenomena of industrialisation were seen as attractions. It is safe to assume that these images - which were presented with great pomp at the 1900 Paris Exposition - fascinated viewers above all because they were spectacular. Also, the press of the day praised the region's development and prosperity to the skies. [2] The powerful flames and the thick smoke billowing from them call more for a vision that is both infernal and soothing because the wide shot used puts viewers at a distance that both protects them and invites them to embrace the phenomenon in all its proportions. This kind of distance is both specific to the cinematography device and a vital condition of the representation, acting as a protective screen. It means viewers can shift from the initial shock of the spectacle of nature unleashed to reassuring thoughts of their own survival guaranteed by their position behind that screen. The man who is seen apparently calmly walking at the foot of the central derrick is tiny in this vast

setting that absorbs him and tends to suggest the situation is an everyday occurrence that is under control and ultimately no real threat.

These hypnotic images rely on the fascination of nature being unleashed and the ambivalent feelings that such a spectacle generates - awe and stupor, exaltation and melancholy, dread and delight. The paradox of this "delicious terror" was described as "sublime" by the Irish philosopher Edmund Burke in a seminal essay establishing this as an aesthetic category on a par with beautiful or picturesque images in 18th century romantic literature and paintings. [3] Burke, and indeed Europe as a whole, saw the Lisbon earthquake of 1755 as a turning point. The earthquake was followed by a tsunami and violent fires that turned the Portuguese city into a gigantic tomb and is considered to be the first global catastrophe in modern history. The event's impact can be gauged from the many accounts and engravings that circulated in Europe and the New World at the time. People's accounts of the Lisbon ruins and visual representations created an emotional landscape that meant everyone could experience the spectacle of faraway ruins from a distance. These also fuelled the imagination of writers, poets and philosophers who were disturbed and moved by the catastrophe. [4] This event also shattered the optimism of the Enlightenment - let us recall Voltaire's verses calling "philosophers who cry all is well [to] contemplate the ruins of this world" [5] - and served to renew debate about human responsibility because this was a disaster that could no longer be interpreted as divine punishment. Immanuel Kant denounced the "guilty indiscretion of wanting to discover divine intentions" in the spectacle of Lisbon's ruins and the "extravagance of seeking the origin of evil thousands of miles away when it can be found so close to us". [6] He evoked the sublime as a "negative pleasure" experienced in two phases. Firstly there is a feeling that scares spectators confronted with an object that exceeds the capacities of their imaginations and secondly this pleasure reassures us as soon as spectators become aware of their own limits. "Nature excites the Ideas of the sublime in its chaos or in its wildest and most irregular disorder and desolation, provided size and might are perceived" Kant wrote in his *Critique of Judgement*. [7] The philosopher from Königsberg considered the sublime to mark the limits of representation. This new awareness of his own finitude means man can conquer or rather *rationaly* take possession of nature.

"The sublime of the Anthropocene and its staging of a humanity that has become a telluric force mark the historical meeting of the natural sublime of the 18th century and the technological sublime of the 19th and 20th centuries," writes the historian Jean-Baptiste Fressoz. [8] Technology is continually progressing which means documentary and fictional images can amply exploit this grammar of the spectacular which reactivates the same psychological levers aiming to create a state of shock. "The cinematographic image must have a shock effect on thought, and force thought to think itself as much as thinking the whole. This is the very definition of the sublime" wrote Gilles Deleuze. [9] The decision to exploit the potential of cinema to serve the physical power of an environmental phenomenon

actually has a dual effect. Firstly, it invites us to experience the landscape through our imaginations while preparing us to perceive reality through an aesthetic shock. Secondly, there is a risk that the spectacle dissimulates the environmental cost of events portrayed by the images through the shock these generate. In other words this actually prevents any thought process thereon, thus relegating the ecological reality to the background.

2 - Environmental symphonies

The documentary was invented at the beginning of the 20th century and became the prime location to teach people about the world. The pioneers of the genre were explorers and the adventures portrayed in their films were of clear ethnographic value. The spectacle of nature reveals itself in wild, indigenous and sublime variations. In *Nanook of the North* (1922), one of the first feature-length documentaries, Robert Flaherty aimed to show individuals fighting for survival against the cold and snow. The American filmmaker's camera showed nature as both majestic and implacable. The challenge facing his protagonists consisted of living and actually surviving in harmony with nature through a heroic resistance that was dramatised for the film. The same idea runs through *Grass, a nation's battle for life* (1925), made in Iran by two of the future creators of King Kong. *Grass* features a nomadic people's transhumance through the Zagros mountains. They have to overcome the perils of the extreme hazards of nature - sandstorms, droughts, crossing a torrent or a snowy pass.

When the Ukrainian director Victor Tourine filmed the construction of the railway linking Turkestan to Siberia, his aim was to subdue a telluric force rather than fighting against it. He was in the vanguard of Soviet cinema and his film *Turksib, The Steel Road* (1929) was a "red western" that served the propaganda of the new Soviet Union's first five-year plan. [10] From the vast Kazakh plains to the Siberian forests, the construction site is the story of a race against time and inhospitable nature. The film shows man waging a real "war against the primitive" through images of the Soviet officers who managed the construction or the anonymous faces who worked 'en masse' under their supervision. One of the title cards that punctuate the narrative and the interactions between landscapes and men reads "The austere earth is broken, torn apart by the work of man". This conquest of nature is embodied in the enchanting lyrical celebration of the powerful machines responsible for subduing it. The threatening beauty of landscapes has nothing of the sublime. Instead this is revealed in the rhythm of the blows of picks and shovels that turn the earth over, the explosions that deform the territory and the dramatic shots framing the train, a miraculous machine that opens up a horizon of unknown virgin lands while connecting people. *Turksib, The Steel Road* glorifies the victory of man and his machines over nature and thus reveals the capacity of documentaries to put the "technological sublime" to the service of a national narrative.

In the 1930s the first films that specifically explored environmental issues emerged at the crossroads of these aesthetic, technical and political influences and the documentary won its spurs. In the United States, several disasters added to the distress and poverty of millions of Americans whose lives had already been disrupted by the Great Depression. Newsreels showed images of repeated droughts, dust storms, floods or erosion which together seemed to portray an actual apocalypse. After years of conquest and abundance, such images overturned the founding myths of America and called for new narratives. This was indeed one of the objectives of the "new deal" so cherished by Franklin Roosevelt. To carry out their major projects, the champions of the New Deal encouraged artists to rethink the meeting of man and his territory. Photographers, painters and filmmakers were subsidised by the government and formed a vast aesthetic movement at the service of a new lexicon for the whole nation. Two documentaries by Pare Lorentz, *The Plow That Broke the Plains* (1936) and *The River* (1937), which were produced in this ephemeral framework, focused for the first time on human responsibility.



The Plow That Broke the Plains, Pare Lorentz, 1936 © Franklin D. Roosevelt Presidential Library and Museum

In *The Plow That Broke the Plains*, which evokes the Dust Bowl that devastated the Great Plains of the American Midwest, the journalist and critic [Pare Lorentz](#) broke with the myth of the frontier and its legendary pioneers to instead depict American environmental history as a story of actual decline. Right from the film's prologue, it paints a paradisiacal portrait of the Great Plains and presents itself as "a picturization of what we did with it". [Lorentz's](#) reading of the event

provided a contrast to newsreel images that interpreted the disaster as a natural calamity or photographs that captured the devastation and misery. Instead he defined the disaster as the product of American history rather than as a purely natural phenomenon. The first sequences are a eulogy to the natural balance of the ecosystem that prevailed before humans arrived. These sequences anchor the film in the vast landscape of the plains. This vision was based on new scientific theories like those of the botanist Frederic Clements, who makes the Great Plains the archetype of a "*climax community*" where all living organisms can coexist in a stable manner. The film then goes on to show how farmers and their steel tractors ignored and even destroyed this ecological reality. As a farmer works the land in the picture, the commentary directly addresses him as a warning: "*Settler, plow at your peril!*" He blames the war the United States entered in 1917, equating the earth-grinding tractors with tanks - symbols of the massification of the automobile industry - and then the speculative frenzy of the 1920s for turning prairies into a wasteland and provoking the rage of nature. The powerful winds and dust storms that assailed people and drove them into exile represent the culmination of fifty years of mass exploitation of a space that therefore seemed doomed.

The Plow and *The River* (1938), both provide similar demonstrations of the catastrophic and recurrent flooding of the Mississippi River and the two films' aesthetics are based on the interdependence of man and the environment. Onscreen, the latter is depicted as an overall ecological fabric in which man is just one of many biological agents. The use of wide-angle panoramic lenses gives viewers a holistic vision of the territory. [Lorentz](#) refuses to focus on an individual or a group, unlike newsreels or photographs which tend to favour such portraits. His narrative derives from man and the environment's shared history and the way the film's editing intertwines these two elements enables the dramaturgical force to unfold. As Raphaël Nieuwjaer states, "in these films, the environment is neither the background to human actions nor material to be exploited nor even a generous or capricious deity. It modifies itself and thereby changes the quality and nature of the possible interactions with it." [\[11\]](#)

[Pare Lorentz](#) combines this ecological vision with a text in free verse chanted like a biblical poem. The religious rhetoric is accompanied by the lyricism of Virgil Thompson's musical composition and gives the film's damning commentary the feel of a political sermon. Finis Dunaway considers it to be in the tradition of Puritan jeremiads and the spiritual fervour that pervaded the New Deal reformers who saw the possibility of redemption in this doom-mongering portrayal. [\[12\]](#) Like *The River*, *The Plow*'s narrator judges those who have sinned against nature and condemns them to suffer its fury. His sermon accuses them of having destroyed the natural balance of the Great Plains and fostered the erosion of the valleys the Mississippi River flows through. And yet, these two films do not end on the same note. The first is apocalyptic - the dead trees in *The Plow* offer no possible way out which further broadened the gap between this film commissioned by the Federal government and the Hollywood film industry which

had depicted environmental disaster as a pretext for man's heroic triumph over adversity up until then. [13] Conversely, in the final third of *The River*, man finds salvation in the sublime dimension of technological advances. Archive footage reveals the efforts made by the Tennessee Valley Authority (TVA) to resurrect the land, conserve its resources and restore its natural balance. The film's shots portray the monumental dimension of the gigantic dams as marvels which nature itself produced to heal the deep wounds of the American landscape. Technological innovation thus becomes the instrument of renewal and the way it is depicted reinforces the idea of a nation cleansed of its ecological sins. "*We had the power to take the Valley apart, we have the power to put it together again*" as the commentary put it. While *The Plow* refused to offer the viewer the satisfaction of a possible redemption, *The River* glorifies man's mastery over nature thanks to the sublime dimension of technology.

The Land (Robert Flaherty, 1942) was the last film commissioned by the American federal government and is the final part of a trilogy that could be described as "environmental symphonies" in reference to the urban symphonies whose composition and editing influenced the genre. [14] Robert Flaherty's film also has a supporting commentary and an orchestral soundtrack that dramatizes the spectacle of devastation. It follows the narrative structure designed by Pare Lorentz which is now archetypal in this kind of environmental documentary. The film initially depicts a spectacle of nature in harmony before human industrialization arrives to disrupt it. The consequences of the disasters provide many twists and turns and the ending suggests two alternatives - disaster or salvation. However, whereas Pare Lorentz established the great plains and the river as his main characters, Flaherty focused on the men, women and children who peopled this tragic page of American agriculture. His story is no longer woven into the reconstruction of history but into the present of the dispossessed farmers forced into exile. Their silent anxious faces recall the photographs of Dorothea Lange and Walker Evans whom the narrator met on his journey through Depression-era America. Flaherty's camera shows us the erosion of the soil caused by the intense mechanisation of agricultural practices which prefigures the erosion of society as a whole - the victim of the economic, social and racial consequences of the destruction of the land.

The Land marks the apogee of the New Deal and also reveals how ambivalent this policy's attempt to reconcile the environment and technology actually was. Throughout the film machines were portrayed as a destructive but also a necessary force. They are uncontrollable, overbearing and the source of a dystopian vision of a disembowelled, overwhelmed land with its thousands of displaced families. Machines are responsible for the decline of the American land but conversely they hold the keys to its resurrection. Flaherty was convinced of the need for technological progress and its potential to regenerate the landscape, as were Lorentz and his financial backers. He lets his questioning about the future of the men who have been dispossessed of their jobs by machines shine through with

gentle irony. The faces of these migrants become those of a civilisation which was disappearing like the communities [Flaherty](#) filmed throughout his career. Thus the film finds its resolution in the mastery of these machines capable of saving American society from decline. "*We are saving the soil. We are saving the soil. With our fabulous machines, we can make every last acre of this country strong again*" proclaims the commentary over aerial shots of landscapes reconfigured by New Deal scientists and planners. From his plane, [Flaherty](#)'s camera shows us an ordered and regulated miniature world where the federal authorities project their dream of controlling nature. The filmmaker exploits new cinematographic techniques which even influence his approach. His aim was to provide a vision of a future centred on a rediscovered balance deriving from the technological management of nature.

3 - The technological age

These films were the first to make humanity aware that it was actually capable of destroying itself by modifying the environment it needs to survive, but the Second World War marked a new turning point. For the first time, the conflict's global nature drew on logistical, industrial and energy capacities playing a decisive role in the shift towards the Anthropocene. The historians [Christophe Bonneuil](#) and [Jean-Baptiste Fressoz](#) considered the war to have been at the origin of the "Great Acceleration" of the 1950s because it prepared the industrial, technical and legal framework required to pave the way for the mass consumer society. Above all, they pointed out that "the war created a state of exception which justified and encouraged a 'brutalisation' of the relationship between society and the environment." [\[15\]](#) The atomic bombs dropped on the cities of Hiroshima and Nagasaki on August 6th and 9th 1945 provided the clearest proof of this by making the suicide of humanity and its environment a very real prospect. For the first time, the irreversible contamination of the atmosphere by the products of nuclear fission tangibly threatened a global ecological catastrophe. The famous aerial photograph of the nuclear mushroom cloud taken from the Enola Gay bomber with a simple Kodak 25 camera that was published in the press on August 11th left an indelible mark on people's consciousness and imagination.



The Atom Strikes!, Us Army Signal Corps, 1946
- <https://www.youtube.com/watch?v=R85Kbe-kHeI>

Furthermore, the cinematographic images were elaborated with great care and filmed with varying degrees of success. Above all they were used by American propaganda with dual objectives - to accentuate the atomic explosion's spectacular symbolic power while concealing the images of its consequences as far as possible. This helps us understand the early declassification of images of the first nuclear explosion in history, which occurred in the New Mexico desert on July 16th 1945. Images of this were filmed using three cameras set up nearly ten kilometres from the impact and these were even used in October in the fictional film *Shadow of Terror* (Lew Landers, 1945) which anticipated the importance the bomb was to have in Hollywood disaster cinema. [16] Thus, it is easier to understand the recently revealed confusion about media use of aerial images of the Nagasaki atomic explosion which were considered more spectacular and impressive than those of Hiroshima. [17] At that time, the American government wanted to use the shock of the explosion to cause the maximum psychological impact to force Japan to surrender, while ensuring international recognition of its superiority because of its use of the ultimate weapon.

The spectacularisation of the aerial images of the explosions is especially striking because it relegated the disasters that took place on the ground to off-camera background events. *The Atom Strikes!* (1946), one of the first films to report on the consequences of these events, is revealing in this respect. This medium-length film was produced by the Signal Corps film department for military personnel, like all the documentaries in the "Army-Navy Screen Magazine" programme directed by [Frank Capra](#), and was kept secret for a long time. In the early days of the American military occupation of Japan, independent journalists, filmmakers and photographers were banned from entering the bombed cities.

Other footage was filmed by the Japanese but was eventually confiscated and censored by the American authorities like all rushes shot after the bombings. The footage was only released to the general public very gradually several decades later. [18] *The Atom Strikes!* is made up of images filmed by military operators who came to accompany the group of American experts in charge of assessing the effects of the atomic attacks in the two devastated cities in September 1945.

The film opens with shots of the Trinity atomic test with sound designed for the occasion. The film refers to "the strongest explosion ever observed on Earth" and the camera shows the long seconds the explosion lasted before suddenly moving upwards with a brusque gesture conveying the astonishment of the camera operator to show the imposing cloud of smoke that pierced the sky. The film then reveals the city of Hiroshima which had been turned into a field of ruins. Soldiers guide viewers through the devastated military and civilian buildings, bridges and roads while the commentary denounces the Japanese structures' inability to resist the power of the atom. The few charred trees that were still standing adorn these images of desolation. No victims or injured people are referred to or shown. It was as if the city had never been inhabited. There is only one witness testimony - from a Dutch philosophy professor who was two kilometers from ground zero. He estimates the number of victims at over one hundred thousand before legitimising the use of the bomb to end the war. The last third of the film evokes the Nagasaki explosion from the same perspective. While filming the radioactive cloud's development from one of the observation planes, the cameraman films a circular tracking shot around the immense clouds of the nuclear plume. The bomb exploded at altitude so the commentary minimises the effects of radioactivity on the population of Nagasaki and instead focuses on the considerable material damage it caused. One of the last sequences shows a handful of Japanese people feverishly rebuilding their homes before the image of Trinity's fiery explosion reappears. The film focuses on the spectacle and devastating power of the atomic explosion while totally ignoring those killed. The survivors and the soils subjected to the still unknown after-effects of radiation also remain invisible. This consciously adopted standpoint is in line with President Harry Truman's belief that the two bombs would have saved lives, in this case those of the thousands of American soldiers who would otherwise have been forced to land in Japan. For many years, the absence and anonymity of the victims were to shape an ambivalent image of nuclear power between Promethean omnipotence and an apocalyptic catastrophe with irreversible and invisible damage.

"Mechanical civilisation is about to set upon its ultimate phase of barbarism", wrote Albert Camus. "A choice must be made, in the near or not too distant future, between collective suicide or the intelligent utilisation of scientific conquests." [19] The 1950s were marked by the start of the Cold War, the arms race and the prospect of a "nuclear winter" caused by a possible atomic war. Propaganda films like *You Can Beat the A-Bomb* (1950) and *Survival under Atomic Attack* (1951) reflected this anxiety in the United States, recycling the spectacular

images of Trinity and Nagasaki. They thus prepared Americans for a possible attack. The specter of the hydrogen bomb began to haunt people's imaginations and the American President Eisenhower launched his "Atom for Peace" slogan in 1954 to advocate peaceful applications for nuclear energy. In France, the strategist Camille Rougeron published a monograph presenting some of these applications which aimed "to modify the course of rivers and the climate, melt glaciers, build underground energy plants and exploit inaccessible minerals." [20] The very real catastrophe was thus censored and disguised as an emblem of peace which served man's technological domination over nature.

Two Oscar-winning scientific documentaries marked their era by highlighting new ways of contemplating the spectacle of nature, particularly underwater life. The first, [The Sea Around Us](#) (1952), was an adaptation of the best-selling book of the same name by the American biologist Rachel Carson. Her following works - like *Silent Spring* (1962) which denounced the use of pesticides - helped contribute to the development of new narratives through the popularisation of science, thus sowing the seeds for the emergence of the environmental movement. [The Sea Around Us](#) was directed by [Irwin Allen](#), who was to be nicknamed the "master of disaster" a few years later for his disaster films. It is a composite of Technicolor images from many different marine and underwater expeditions. This film's appeal essentially relies on these wonderful hitherto unseen images revealing ocean life for the first time. However, it essentially fails to integrate them, as Rachel Carson attempts to do in her book, into a much broader narrative combining scientific discovery, technocratic control and industrial expansion to serve the new relationship that needs to be established between the natural world and modern civilization. However, the film's final sequence includes a prophetic announcement. The commentary evokes a "secret, documented scientific theory" by which the ongoing melting of the ice caps since the turn of the century was raising the level of the oceans. This threatens to cover half of the Earth's surface with water. We see heavy chunks of icebergs dramatically collapse into Arctic waters as the commentary asserts that global warming is a threat to human life for the first time. However, this speculative discourse of looming catastrophe remains confined scientists braving nature's dangers at their peril to a celebration of their heroic efforts.

[The Silent World](#) (1956) played a pioneering role in the history of popular oceanographic documentaries and portrays the same spirit of scientific conquest. [21] This film directed by [Louis Malle](#) and [Jacques-Yves Cousteau](#) combined a dual cinematographic and scientific approach to bring new filming equipment (an underwater camera enclosed in a waterproof housing) and modern diving techniques ("Aqua-Lung" or the autonomous diving suit [Cousteau](#) patented in 1946) to the screen. [The World of Silence](#) was the first documentary to win a Palme d'Or at Cannes before going on to win an Oscar the following year. It explores the depths of underwater life through its portrayal of the adventures of the Calypso divers - "underwater supermen who meet secret,

deep and immemorial connivances within ourselves" as André Bazin wrote in his eulogistic review. [22] The beauty of the images are impregnated by the abundance of life but beyond this dimension the expedition reveals several sequences of human destruction such as the dynamite explosion of a coral reef causing agony to fish or the massacre of dozens of sharks that the crew justified in the name of scientific experimentation. Even leaving aside the fact that Calypso's travels were financed by oil companies, we have a much more critical view of these scenes fifty years later which in itself testifies to the evolution of environmental awareness. In the context of the film, nature is still seen as a nurturing mother with inexhaustible resources. It posits the idea that, although scientific exploration could only be achieved by destroying the environment, this is justified because of the tangible idea of man's superiority over nature which is subject to his will and thirst for knowledge. It can also be excused by the need to discover sensational images intended to captivate the general public. In this sense, the film joins the first major documentary series like Disney's *True Life Adventures* produced from 1948 to 1960 or CBC's *The Nature of Things* which began in 1960. These all made entertaining television series from the spectacle of wild nature and how it was managed scientifically.

4 – The 1968 decade : struggle and experimentation

On December 24th 1968, nearly a billion television viewers - a quarter of the world's population - contemplated the planet via their television screens. The visions of the "Earthrise", filmed in orbit by the Apollo 8 astronauts, and then of the "blue marble" filmed in 1972 changed our very relationship with our world. "For the first time, the Earth has the chance to see and meet itself in the same way as man sees his reflection in a mirror," wrote the philosopher Günther Anders, the visionary author of *The Obsolescence of Man*. [23] This image caused a veritable shock wave and accompanied the emergence of global awareness of our planet's vulnerability at the moment man had acquired the technological capacity to reduce it to ashes. It was to become the popular icon of the first Earth Day in 1970 at the time of the first large-scale environmental protest with over 20 million Americans in the streets. It led to the creation of the US Environmental Protection Agency (EPA) and the adoption of the *Clean Air, Clean Water, and Endangered Species Acts* in the United States.

The Vietnam War catalysed the protest movement of 1968 and also played a role in the emergence of this kind of ecological awareness. The systematic destruction of the tropical forest and cultivable areas became a strategic objective for the American army, which followed up its firebombs and napalm attacks by spraying more than 80 million litres of synthetic herbicide defoliants (Monsanto and Dow Chemical's "Agent Orange") on South Vietnam, eradicating almost 20% of its territory. It was in this context that the concept of ecocide was invented at the Conference on War and National Responsibility in Washington (1970). [24] This was also the period of the far-reaching Meadows report on limits to growth (1972)

which called for rational management of the world's population and resources by setting out the ecological consequences of economic growth. This environmental revolution was characterised in the same decade by 47 international conventions being signed and by the first UN conference on the human environment in Stockholm (1972). This institutional context favoured the development of a vast network of non-governmental organisations dedicated to environmental problems (*Friends of the Earth, the World Wildlife Fund, Greenpeace, Earth First!*) accompanied by a profusion of new films associated with communication and education. EKOFILM, the first international environmental film festival, saw the light of day in Prague in 1974. This was the first in a long list of festivals that were to enable environmental documentaries to flourish and spread while featuring a wide diversity of approaches.



Minamata - Kanjasan to sono sekai, Noriaki Tsuchimoto, 1971 © Zakka Films

In the era of *ciné-tracts* and film collectives like Iskra and the Medvedkine groups in France, Ogawa Pro in Japan or Cinegiornali Liberi in Italy, the camera became a weapon of counter-information. It both showed and gave a voice to social and environmental struggles. The camera conveyed a cause with the intention of provoking debate and having an impact thus becoming an integral part of the action it filmed. The documentary [*Minamata – Kanjasan to sono sekai*](#) ([*Minamata – The Victims and their World*](#), Noriaki Tsuchimoto, 1971) first screened at the Stockholm Conference reveals the traumatic dimension of environmental issues. It broke the silence surrounding one of the biggest industrial pollution scandals in history in which heavy metals, particularly mercury, were released into the bay of the Japanese city of Minamata from 1932 onwards by a factory belonging to the

Chisso company, the flagship of the Japanese petrochemical industry of the era. From 1956 onwards, several thousand fishermen and their families were diagnosed as victims of "Minamata Disease" after having eaten fish or shellfish which led to them suffering strange neurological, sensory and motor symptoms. The work of the activist filmmaker [Noriaki Tsuchimoto](#), the former vice-president of the radical student organisation Zengakuren, is inseparable from this event. He made seventeen films between 1965 and 2004 which together represent a masterly documentary overview of the Minamata environmental disaster while testifying to the long-term struggles suffered by the victims of mercury's toxic effects. [Tsuchimoto](#) was deeply disturbed by the media's rejection of the victims during his first visit in 1965. Their suffering was something neither the company that was the region's main employer nor the State in its frantic growth drive wanted to see or hear and thus he actually questioned whether it was even possible to report on this environmental tragedy. The violence of the images of bodies that no longer respond and put up with the camera's voyeuristic presence disturbed the way he considered his role, his relationship to reality and the status of his images. [\[25\]](#)

Five years later when he returned to Minamata, such ethical questions underpinned an approach that could be described as symbiotic. The film emerged from the immersion of the filmmakers in the daily lives of those filmed struggling with their poisoned environment rather than solely from the author's point of view. It is an intimate journey into the world of the victims with filmed portraits. Their voices shape the narrative with the exception of rare interventions from doctors or the filmmaker himself. [Tsuchimoto](#) entered the frame to establish a form of equality with the protagonists who unveiled themselves to the camera's gaze alongside him. He shared his images with them which revealed them in the full diversity of their relationship with the sea through fishing and the preparation of the fish that both feed them and kill them. He filmed them in their interaction with the living, in their complex relationship with an environment altered by an invisible presence and in the intimacy of their family relationships - between yesterday and today's generations, between healthy and sick individuals and in the continuity of their threatened lives. Despite the absence of synchronised sound, the testimonies firmly anchor the story in the victims' struggle for recognition and compensation which culminates in the stifling cries of one of the victims faced with the indifference of the president of Chisso. These are images of a social and political struggle destined to last for a long time which [Tsuchimoto's](#) work was to accompany - not without a certain degree of difficulty - in Japan and above all abroad where it contributed to the evolution of legislation and justice through being screened in communities affected by the same invisible evils. [\[26\]](#)

Whether filmed with a handheld camera or the camera providing a testimony, such documentaries are all defined by the urgency of speaking out and doing something about these environmental disasters. The anthropogenic origin of such disasters is no longer in doubt, as shown by the gigantic oil spills caused by the

Torrey Canyon (1967) and Amoco Cadiz (1978) shipwrecks off the coast of Brittany. When a grounded supertanker spilled thousands of tons of oil off the coast of Portsall (a small port on the north Finistère coast), the filmmaker [René Vautier](#) gave a voice to the committees that denounced the lies of politicians which had been relayed by the media (*Marée noire et colère rouge*, 1978). [Nicole](#) and [Félix Le Garrec](#) followed in his footsteps by giving voice to the anger, revolt and despair of local residents and the village fishermen who had sounded the alarm but were not listened to. The images in *Mazoutés aujourd'hui* (1978) focused on the extent of the damage and the exhaustion of the villagers who tried to clean up the beach with the means at hand. The Breton filmmakers' purpose was to film the traces of the disaster but they also underline the true incomprehension and distress that emerge from the intimate discussions they filmed. As viewers, we witness the emergence of an ecological consciousness that is now moving into the political arena.

« *Mazoutés aujourd'hui, radioactifs demain* » was a slogan printed on stickers and shouted in the streets of Plogoff, the small commune in Finistère where the state had decided to build a nuclear power plant. [Nicole](#) and [Félix Le Garrec](#) documented the struggle to avoid the disaster in their film *Plogoff, des pierres contre des fusils* (1980). During the six week-long public enquiry aimed at deciding the fate of the project, the filmmakers created a portrait of a resistance movement which became increasingly united and determined. Through a day-to-day chronicle in the homes of various people and above all at the heart of an extremely brutal confrontation with the forces of law and order, the film enabled viewers to learn about a struggle in which nothing was a foregone conclusion rather than simply revealing an emerging ecological consciousness. The anonymous protagonists of this struggle which involved all generations - from children to the elderly and especially women - trusted the filmmakers with freely expressed points of view in full awareness of what was at stake for the present and future they were fighting for. The threat hanging over this rural territory seems absent but in fact the film is shot through with it. The texture of the 16mm film helps convey images embodying the contrasts between the military armada that invaded and disturbed the bucolic landscapes and their defenders' slingshots. This is felt in the violence of these repeated assaults which are often portrayed by still images when the film ran out which the soundtrack masterfully embellished to enhance the overall resonance. The film was based on the closeness the filmmakers established with the protestors who quickly understood that these images were part of their struggle and were even necessary for them to manage to carry on morally, tell the story and create a lasting memory of events. The massive level of involvement in the moment and the population's intense determination finally got the better of the project. On the day of the victory, herds of sheep from Larzac arrived to graze and seemed to be symbols of a convergence of the anti-nuclear and country people's protest movements at the site intended to be concreted over.



Fata Morgana, Werner Herzog, 1969 © Werner Herzog Filmproduktion - Potemkine Films

In contrast to direct cinema anchored in reality, this was an era of radical experiments and dreams of civilisation. [Werner Herzog's](#) entire oeuvre is shot through with his search for a new grammar of images capable of transfiguring reality to reveal a form of "ecstatic truth" as he himself wrote. [\[27\]](#) "The images of the society in which we live are no longer enough," the filmmaker said in an interview broadcast in 1979. "If we don't find the right images and the right language for our civilisation to express them, we will die like the dinosaurs. We recognise that energy shortages, environmental crises, the nuclear issue or global overpopulation threaten our society. But issues of this magnitude have not been sufficiently understood because we feel an absolute need for new images." [\[28\]](#) *Fata Morgana* (1971) portrays this crisis of representation by exploring the mirage of our civilisation on the planet. The film borrows commentary extracts from the *Popol Vuh*, a sacred text from Mayan mythology which tells the story of the world's creation as a succession of catastrophes, and oscillates between a biblical poem and science fiction. The story is structured in three chapters - Creation, Paradise and the Golden Age - and each involves recurring thematic visual patterns that reflect the cyclical relationship between man and nature. The result is an allegorical story with a level of incompatibility which is doomed to absurdity and self-destruction.

The distortion of the landscapes under the cumulative effect of the heat, framing and editing all lend the film the appearance of a hallucinatory fairytale. The way the background setting is staged, the length of the shots and the rhythm of the musical composition all combine so that the story transports us to another dimension from the logbook of a journey through Africa that it initially seems to be. As Eric Ames points out, the film is "an exploration into the paradoxical nature of the cinematic image, which confronts the spectator with a space of referentiality that is also fleeting and inaccessible (...) [Fata Morgana](#) initiates a process of mythologizing the landscape as an internal space, which is also emphatically a documentary representation of the material world." [29] The optical effects shake up the way we perceive these transformed and anthropomorphised landscapes as in the case of the shots of sculpted dunes which resemble female bodies carried by the wind. Herzog's aim was to transform a straightforward representation of landscapes into a demonstration capable of provoking the consciousness of the spectator invited to mystically and imaginatively experience the infinite he or she represents in the immensity of unchanging nature. From the light of this, Alan Singer has called the filmmaker's intention to give the viewer the illusion of having transcended history as "ironic sublime". [30] The beauty of the landscapes is brutally dirtied by the full-on and very real traces of man's passage which bear only the seal of destruction, obsolescence and fall - ruins, industrial wastelands, corpses of animal, carcasses of planes or tanks half-buried in the sand, all abandoned in the elasticity and abstraction of the landscapes. Time has had its effect and transient and fleeting human modernity seems to leave behind only the wastes of a lost paradise. Twenty years before [Lessons of Darkness](#) (1992), which was mentioned earlier, [Fata Morgana](#) had already provided a kind of archaeology of the decadence of humanity by intentionally blurring our perception of reality to question the ways we inhabit and impact the environment.

[Koyaanisqatsi](#) (Godfrey Reggio, 1982) followed on from [Fata Morgana](#)'s experimental writing to the point of making explicit reference to this in the choice of certain shots. It takes as its starting point the premise of a crisis of language distorted by political or religious leaders and opinion-makers, and devalued by the advent of our technological civilisation. The approach deployed in the first opus of what was to become a trilogy is non-verbal, mystical and meditative, relying essentially on the relationship established between the image, Philip Glass's musical compositions and the viewer. [31] The title of the film is taken from the Hopi Native American culture and translates as "life out of balance". This indigenous reference is fully in line with postcolonial thinking and announces a reversal of values between a harmonious and primitive vision of nature and the destructive and alienating vision of our modern civilisation. The whole purpose of the story is to demonstrate the extent to which modern civilisation, absorbed as it is by the frenzy of urban life in industrialised countries, has created an irreparable chasm between humanity and nature which has been desacralised to benefit dehumanising technology.

Like [Fata Morgana](#), the contemplative aspect of [Koyaanisqatsi](#) reveals another facet of the environmental documentary form that certain authors have described as "eco-apocalyptic". [32] One of its characteristic features is that it portrays the planet as a character in its own right. The film plays on hyper-speed and slow-motion images to exploit an arsenal of visual techniques considered avant-garde at the time like the intervalometer or time-lapse. This provides viewers with a renewed vision of a mechanical civilisation transformed into a living organism, like a new form of nature that seems to have replaced Nature itself through destruction and technical progress. In this way, the film renews the tropes of the urban symphonies beloved of [Dziga Vertov](#) or [Walter Ruttmann](#) by projecting an environmental sensibility. These techniques have been appropriated by popular culture and even trivialised later in music videos or advertising which seems ironic given that the film denounces mass consumer culture as a destabilising force. Despite this, [Koyaanisqatsi](#) has even more resonance today because it induces the idea that human beings in the Anthropocene era have become a technologically overpowered species that has distanced itself from the living environment.

5. From 2000s onwards, green goes mainstream

With the fall of the Berlin Wall, the specter of a nuclear confrontation between the two blocs gave way to ecological anxiety. Media coverage of the Three Mile Island (1979), Bhopal (1984) and above all Chernobyl (1986) disasters heightened public awareness of the environment at the same time as increased international scientific cooperation on issues linked to the atmosphere, the stratospheric ozone and greenhouse gases took off spectacularly. At the 1992 Rio 'Earth Summit', more than 100 political leaders drew up an ecological action plan, making sustainable development, climate and biodiversity core issues for debate. [33] Environmental concerns were thrust to the forefront and are now found in science fiction, horror and animation films, westerns and melodramas. The digital revolution, the democratization of the means of recording reality and the emergence of cable television and other platforms which have massively multiplied the number of broadcasters and thus documentaries, more than any other genre, have become a source of both testimonies and valuable archives.

There has been a rich growth of environmental documentaries since the beginning of this century and the majority are part of the major tendencies that have characterised the long history of the form. [An Inconvenient Truth](#) ([Davis Guggenheim](#), 2006) was an international success that helped make global warming and its human origins a mainstream issue for the general public. It is symptomatic of the complexity inherent to the genre involved in putting forward a scientific discourse using the narrative strategies specific to documentary cinema. The former American vice-president Al Gore represented the film with his omnipresence on the screen and in the narration which is in the form of a conference speech. His aim seems to have been to present this alarming situation

in educational and citizenship-based terms but in fact turns into an aspiring 'high priest' taking over even the voices of everyone he meets - scientists and politicians alike. Al Gore's discourse is far from the poetic and incantatory verve of [Pare Lorentz](#) but does echo it. It is shot through with the same biblical tone and plays on the ecological sin of American society which is guilty of the way it treats the environment to the point of threatening it with extinction. The spectacular images of recent ecological traumas support this professorial approach while provoking an emotional shock in the spectator and illustrating the crusading narrator's demonstration. The success of the film will generate numerous debates within the scientific community and to an even greater extent in political circles - as much about the veracity of the facts the film presents as about a documentary's capacity to have an impact and influence the public sphere.



Earth, Nikolaus Geyrhalter, 2019 © Autlook Filmsales

[Nikolaus Geyrhalter](#)'s cinema is in contrast to this argument-based register and is actually more in line with [Godfrey Reggio](#) contemplative and reflective logic. Among other things, the Austrian director's filmography is essentially underpinned by the question of the relationship between man and machine and sketches out a kind of geography of the Anthropocene. Examples worthy of mention are [Pripyat](#) (1999), a black and white portrait of the contaminated zone around Chernobyl, [Our Daily Bread](#) (2005) which reveals the other side of the industrial backdrop of the major agri-food companies through a succession of still and slow tracking shots without commentary or music, [Homo Sapiens](#) (2016) which gives a sublime portrayal of the ruins of our humanity through a narrative situated in the echoes which resonate between such deserted sites. [Earth](#) (2019) focuses on the Anthropocene's effects on the places where its most tangible

manifestations occur, namely where man is disturbing the surface of the planet in proportions which are even more disproportionate than Nature itself. The director films gigantic excavation sites at ground level and while flying over immense open-air mines, aiming to convey the scale of the phenomenon and to reveal the mechanics of the mutilation of the landscape in their entirety. Man and the environment are never separated - the narrative's driving lies in the interaction between man and this matter which he is at one with, as if he himself were a component of the machine he is working on.

The extent and temporality of the Anthropocene cannot really be measured. This means that the search for images portraying it inevitably leads us to project the field of future possibilities and its dystopian echoes into the madness of reality. In this respect, Asia represents a vast field of experimentation, as do filmmakers such as [Wang Bing](#), [Yung Chang](#) and [Jia Zhangke](#) whose work concentrates on the Anthropocene and the fictions it gives rise to. For example, in *Behemoth* (2015) [Zhao Liang](#) gave the gigantic industrial landscapes of Mongolia the appearance of a post-apocalyptic world. The story is a loose adaptation of *The Divine Comedy* and travels through the Hell of mines and steel mills, the Purgatory of sacrifice and suffering and Paradise incarnated in the huge ghost town of Ordos. The journey becomes an allegory guided by our own reflections wandering in a setting which has clearly been broken by the destructive forces of the monster we ourselves created. The film suggests there is no other way out of the eco-apocalypse. Others, like *Into Eternity* ([Michael Madsen](#), 2010), directly play on the codes of science fiction to question the transmission of this heritage to future generations through the issue of the storage of nuclear waste. The director uses the words of scientists, theologians and workers to articulate the oppressive sublime of the gigantic Onkalo landfill cave in Finland and to address an imaginary audience that might discover the site in several tens of thousands of years. The traces we leave behind and what they convey about the limits of the present are at the centre of this anticipatory narrative.

Finally, we should not forget that the apocalypse can also be a vector for rebirth. Given what they see as an oncoming catastrophe, certain documentary films propose alternative visions based on the principle that the collapse of our current world would necessarily lead to the creation of a new world. This movement involves works that could be seen as belonging to a form of cinema we might call "prospective" and which shows, as Dominique Noguez puts it, that "the world could be different from what it is by stressing the arbitrary nature and false 'naturalness' of this world" rather than trying to make people dream and create more alienation". [34] Examples of films of this kind which experiment with individual and collective solutions follow - *Nos Enfants nous accuseront* ([Jean-Paul Jaud](#), 2008), *Nous resterons sur Terre* ([Pierre Barouquier](#) et [Olivier Bourgeois](#), 2009), *Solutions Locales pour un Désordre Global* ([Coline Serreau](#), 2010), *Pierre Rabhi, au nom de la terre* ([Marie-Dominique Dhelsing](#), 2013), *Demain* ([Cyril Dion](#) et [Mélanie Laurent](#), 2015), and *Qu'est-ce qu'on attend ?* ([Marie-Dominique](#)

[Robin](#), 2016). These films attempt to establish a defence against an imagined apocalyptic future and revive one of the fundamental principles of discourse regarding the Anthropocene. This principle, which is often forgotten when faced with the mass disasters around us, is that man is a major geological force capable of action and of influencing the course of events. As such, it is up to man to take charge of the fate of the planet on which he lives. This challenge is set for those working in the human sciences who need to find answers to socio-ecological changes and also for filmmakers aiming to transmit their own experience of the Anthropocene through imagination.

Conclusion

Almost a century after [Oil Gush in Balakhany](#), two documentaries which portray a similar form of spectacular images are the focus of critical discourse. *Fires of Kuwait* (David Douglas) and [Lessons of Darkness](#) ([Werner Herzog](#)) were both filmed on the still burning ashes of the Gulf War against the devastated backdrop of the Kuwaiti desert where oil wells set on fire by retreating Iraqi forces burn in a firestorm. The first film focuses on the heroic efforts of firefighters from all over the world to bring the fire under control. *Fires of Kuwait* was shot in IMAX, the largest existing image format, and was originally claimed to be a spectacle - an "experience" intended for gigantic screens. This hyperbole about the fires' enormity and hypnotic power helps establish the film as a titanic combat between man and nature. This is all the more the case because such hyperbole takes up over two thirds of this medium-length film with the narrative only dealing with the disaster's environmental consequences during the last ten minutes. The film then ends with the resurrection of the territory thanks to the courage of the firemen. The film's message as conveyed through its commentary certainly denounces the economic and environmental cost of the fires but the choice of this non-standard format along with imbalances in the narrative structure considerably reduces this documentary's impact by reducing it to an entertaining technological feat that takes precedence over any thought process.

The same year that *Fires of Kuwait* was nominated for the Oscar for best documentary, [Lessons of Darkness](#) received a much more hostile response. [35] [Werner Herzog](#)'s film is also a direct archetypal invitation to the sublime sphere of the Anthropocene, this time in a more poetic and meditative dimension. The film begins with the quotation "*The collapse of the stellar universe will occur – like creation – in grandiose splendor*" which is attributed to Blaise Pascal although the filmmaker was later to confess to having invented it himself and the film aims to portray a kind of beauty in an apocalyptic spectacle. [Herzog](#) plays on the apocryphal dimension to elevate spectators to the spiritual dimension of this object divided into thirteen tableaux with a mythological dimension and impact. The first sequences announce the film as being detached from its context. Indeed the narrator never actually refers to Kuwait by name and, although he includes the testimonies of some of the victims brutalized by the Iraqis, the war is finally only shown in a few minutes of archive footage of a night-time infrared bombing.

Conversely, spectators are invited to immerse themselves in "a planet in our solar system" which the filmmaker regards from an external, foreign, even extraterrestrial standpoint. The film wavers between documentary and science fiction and does not actually tell the story of the oil wells, preferring metaphysical thought about the very nature of the spectacle of destruction. The sublime dimension is used to serve this process through an almost mineral treatment of the landscape, the movement of flames and oil geysers along with intermingled sounds and lights.

Films documenting the disruption of nature's laws by human activity all acknowledge the failure of our modern world to guarantee its own continuity for the greatest number in the best possible conditions. Environmental documentaries thus stoke a mental climate of fear and insecurity fuelled by the threat of global collapse. Anxiety about impending disaster requires consciences to be awakened and as such these films' duty is to call for collective and individual involvement. From this standpoint in which the risk of the situation becoming uncontrollable prevails, the spectacular dimension backed up by increasingly powerful technological means necessarily plays a role in the intensity of this imagined or real threat. More than ever, the same aesthetics of shock that Walter Benjamin saw emerge with the advent of photography and cinema are used to accustom the public to the very real experience of the disaster now playing out before our very eyes.

"The Anthropocene is based on a culture of collapse specific to Western nations, which have admired their own power by fantasising about the ruins of their future for two centuries." wrote the historian [Jean-Baptiste Fressoz](#). [36] Since the origins of the form, environmental documentaries have mirrored the anxieties of our societies as the very idea of nature as creating man's destiny has been replaced by ecological imperatives. This eco-apocalyptic dimension enables the form to reinterpret the past of our ecologically damaged societies and to ask questions about the future. As the world undergoes a profound shift in the present and future, such films reveal the image that post-industrial societies construct of themselves, as well as the places and roles societies assign to man and nature. *"I do not think that the end is imminent,"* [Werner Herzog](#) once said, *"but one thing is clear: We are only fugitive guests on our planet. Martin Luther, the reformer, was asked: "What would you do, if the world came to an end tomorrow?" and he replied: "I would plant an apple tree. I would start shooting a new film."* [37]

François-Xavier Destors

As a filmmaker, François-Xavier Destors explores the memory of mass-crimes, genocides and ecocides. In Rwanda he directed his first feature-length documentary film [Football Rwanda, Fields of Memories](#) (2014). His second feature-length is about Norilsk, a former gulag which became one of the most polluted cities in the world ([Melting Souls](#), 2018).

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NOTES

[1] Walter Benjamin, *The Work of Art in the Age of Its Technological Reproducibility*, Apple Books, 57, 1935

[2] There are few echoes of the destructive forces involved, nor any sign of an eco-critical interpretation of this event apart from an article that compared the Baku oil centre to "a sort

of lake city, but where pure water in the shade of luxuriant greenery is replaced by thick, stinking waves which birds and beasts flee and in the vicinity of which plants no longer grow and trees die', in *Le Monde illustré*, Paris, February 16th 1901, p.117

[3] Edmund Burke, *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful*, Paris, Éditions Vrin, Bibliothèque des textes philosophiques Collection, 1757

[4] Alexandre Regier, "Foundational Ruins. The Lisbon Earthquake and the Sublime", in *Ruins of Modernity*, Julia Hell, Andreas Schönle, Duke University Press, Durham and London, 2010, 820-862

[5] Voltaire, *Poem on the Lisbon Disaster* (1756) in *Œuvres complètes de Voltaire*, published by Garnier, 1877, tome 9, 470-479

[6] *Ensaio de Kant a propósito do terramoto de 1755*, (translation by Luís da Silveira), Lisbon, 1955, Câmara Municipal de Lisboa, p. 22 e 53) quoted by Ana Cristina Araújo, "La mémoire tragique du désastre de Lisbonne de 1755", in *Les narrations de la mort* (dir. Régis Bertrand, Anne Carol & Jean-Noël Pelen), coll. Le temps de l'histoire, Presses Universitaires de Provence, 2005

[7] Emmanuel Kant, *Critique of Judgement*, 1790, Khodoss, p. 42-43

[8] [Jean-Baptiste Fressoz](https://mouvements.info/sublime-anthropocene/#_ftn6), « L'Anthropocène et l'esthétique du sublime », Revue Mouvements, Septembre 2016, <https://mouvements.info/sublime-anthropocene/#_ftn6>. This historian is also the author of *L'apocalypse joyeuse. Une histoire du risque technologique* (Paris, Seuil (coll. L'Univers historique), 2012), of *L'Événement Anthropocène. La Terre, l'histoire et nous* (Paris, Seuil, 2013, with [Christophe Bonneuil](#)), or more recently *Les Révoltes du ciel. Une histoire du changement climatique XVe-XXe siècles* (Paris, Seuil, 2020, with Fabien Locher).

[9] Gilles Deleuze, *Cinéma 2, L'image temps*, Les éditions de minuit, Paris, 1985, p. 206.

[10] Kleespies, I. (2018). Riding the Soviet Iron Horse: A Reading of Viktor Turin's *Turksib* through the Lens of John Ford. *Slavic Review*, 77(2), 358-389. A specific feature of Victor Tourine's career is that he trained in the United States at the Massachusetts Institute of Technology then in Hollywood.

[11] Raphaël Nieuwjaer, « *Pare Lorentz, essais de cinéma environnemental* », Images documentaires n°99/100, 2020, 59

[12] Finis Dunaway, *Natural Visions, The power of images in American environmental reform*, Chicago University Press, 2005

[13] For example, in the same year (1936) the fictional film *San Francisco* (W.S Van Dyk) starring Clark Gable was released. Here the Battle Hymn of the Republic is sung while the city devastated by the 1906 earthquake is rebuilt.

[14] These include *Berlin: Symphony of a Great City* ([Walter Ruttmann](#), 1927), *The Man With A Movie Camera* ([Dziga Vertov](#), 1929), *Rain* ([Joris Ivens](#), 1929) and the little-known documentary *Powódź (Flood)* by Polish filmmakers [Jerzy Bossak](#) and Waclaw Kazmierczak which is about the Vistula river breaking its banks in spring 1947. The images are carried by the musical orchestra as there is no commentary and they reveal the spectacle of the disaster

live as it unfolded and get right to the heart of man's turbulent relationship with nature. This film was the first to receive the Cannes Film Festival Grand Prix for best documentary.

[15] [Christophe Bonneuil](#), [Jean-Baptiste Fressoz](#), *The Shock of the Anthropocene: The Earth, History and Us*, Verso Books, 2016, 151. The two historians refer to the concept of "brutalization" introduced by George L. Mosse in his works on the First World War.

[16] Let us cite H el ene Puiseux's book, *L'apocalypse nucl eaire et son cin ema* (The nuclear apocalypse in cinema, Cerf, 1987) among other reference works.

[17] An investigation by the German public broadcaster Deutsche Welle published in August 2020 found that the famous video footage of the bombing of Hiroshima, which has been used for decades in media and documentaries around the world, actually shows the bombing of Nagasaki. The first false use of the Nagasaki footage was in a military film entitled *E-6 10 SEC (Inside The Enola Gay)* dated 1945. See < <https://www.lemonde.fr/big-browser/article/2020/08/25/ces-images-de-l-explosion-d-hiroshima-qui-n-en-etaient-pas>.>

[18] Miles of film were confiscated and even destroyed because of the censorship of the American authorities. It was not until 1970 that some of the images shot by the Japanese (Nippon Eiga-Sha) were broadcast on television (*Hiroshima-Nagasaki* 1945, produced by Erik Barnouw . Other documentaries include *Prophecy* (Susumu Hani, 1982) and *Dark Circle* (Chris Beaver, 1984), which used the Kodachrome and Technicolor footage shot by Lieutenant Daniel A. McGovern for the first time, and more recently *Original Child Bomb* was produced (Carey Schonegevel, 2004) which features both American and Japanese archives. Greg Mitchell, *Hiroshima Film Cover-up Exposed. Censored 1945 Footage to Air*, The Asia-Pacific Journal, Vol.3, Issue 8, 2005

[19] *Combat*, August 8th 1945

[20] Camille Rougeron, *Les Applications de l'explosion thermonucl eaire (Applications of the Thermonuclear Explosion*, Paris, Berger-Levrault, 1956) cited by [Christophe Bonneuil](#), [Jean-Baptiste Fressoz](#), *op. cit*, 153

[21] We may also cite *Sesto continente (The Sixth Continent*, 1954) directed by the Italian Folco Quilici.

[22] "There is a derisory aspect to criticism of *The Silent World*. After all, the beauties in the film are above all those of nature and it would be just like criticising God. At best, from this standpoint, we are entitled to say that these beauties are indeed ineffable". Andr e Bazin, 'Le Monde du Silence', France Observateur, p.38, March 1956.

[23] G unther Anders, *Der Blick vom Mond. Reflexionen  uber Weltraumfl uge*, Munich, C. H. Beck, 1970, 12, cited by Sebastian Vincent Grevsm uhl, *La Terre vue d'en haut. L'invention de l'environnement global (Planet Earth seen from Space. The Invention of the Global Environment*, Le Seuil, 2014)

[24] Barry Weisberg, *Ecocide in Indochina. The Ecology of War*, Canfield Press, 1970, 4

[25] "Why am I allowed to film, for whom and by what right? (...) This experience is not the fruit of literature or of imagination. It is about the victims, their world and we are committing

the cold-blooded atrocity of showing what we should not be allowed to see in the film. Noriaki Tsuchimoto, "Statement on Minamata - The victims and their world", in *Of Sea and Soil: The Cinema of Tsuchimoto Noriaki and Ogawa Shinsuke*, Sabzian, Courtisane & Cinematek, 2019, 117

[26] Justin Jesty, « Making Mercury Visible. The Minamata documentaries of Tsuchimoto Noriaki », in *Mercury Pollution, a Transdisciplinary Treatment*, edited by Sharon L. Zuber & Michael C. Newman, CRC Press, 2012, 139-160.

[27] « *There are deeper strata of truth in cinema, and that there is such a thing as poetic, ecstatic truth ... [this] is mysterious and elusive, and can be reached only through fabrication and imagination and stylisation* », he wrote in his Minnesota manifesto in 1999. Kirsten Moana Thompson. *The Cinema of Werner Herzog: Aesthetic Ecstasy and Truth (Directors' Cuts)*, Brad Prager, Columbia University Press, 2011

[28] Roger Ebert and Gene Walsh, *Images at the Horizon: A Workshop with Werner Herzog*, Chicago: Facets Multimedia, 1979, 21

[29] Eric Ames, « *Herzog, Landscape and Documentary* », in *Cinema 48*, n°2, 2009, University of Texas Press, 59-60

[30] Alan Singer, « Comprehending appearances : Werner Herzog's ironic sublime », *The Films of Werner Herzog: Between Mirage and History*, Timothy Corrigan, Methuen, 1986, 183-208

[31] *Powaqqatsi* (1988) focused on the state of transition of under-industrialised countries while *Naqoyqatsi: Life at War* (2002) dealt with war and violence in modern civilisations.

[32] John W. Martens, *The End of the World: The Apocalyptic Imagination in Film & Television*, Winnipeg: J. Gordon Shillingford, 2003 ; Charles Mitchell, *A Guide to Apocalyptic Cinema*, Greenwood Press, 2001.

[33] The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 and its mission is to study the impact of human activity on climate change. Two years earlier, the International Council of Scientific Unions (ICSU) officially launched the International Geosphere-Biosphere Programme (IGBP), the institutional heart of global ecology and the systems approach to planet Earth, the well-known "Global Change".

[34] Dominique Noguez, *Le Cinéma, Autrement*, Paris Union Générale d'Éditions, 1977, 62

[35] The 1992 premiere in Berlin ended in boos from the audience and the film being accused of immorally and speculatively aestheticising the atrocity of the Gulf War.

[36] [Jean-Baptiste Fressoz](#), « *L'Anthropocène et l'esthétique du sublime* », op. cit

[37] *I do not think that the end is imminent, but one thing is clear: We are only fugitive guests on our planet. Martin Luther, the reformer, was asked: "What would you do, if the world came to an end tomorrow?" and he replied: "I would plant an apple tree. I would start shooting a new film."* - Interview de Werner Herzog par Roger Ebert,

<https://www.rogerebert.com/interviews/werner-herzog-tell-me-about-the-iceberg-tell-me-about-your-dreams>