



DRINKING WATER AS A LUXURY? From René Dumont's warnings in the 1970s to current water crises throughout the world

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"In an age when man has forgotten his origins and is blind even to his most essential needs for survival, water along with other resources has become the victim of his indifference."

Rachel Carson²

Resumo:

A água representa 72% da superfície da Terra e, no entanto, os seres humanos e outras espécies podem carecer deste elemento vital se as coisas não mudarem. Está ameaçada pelo aquecimento global, que causa cada vez mais secas e incêndios florestais, e pela poluição em todo o mundo. O alerta do agrônomo e militante ecológico francês René Dumont, feito em 1974, de que um dia não poderíamos mais beber um copo d'água porque o mundo teria falta de água, infelizmente poderia se revelar verdadeiro. Este artigo gostaria de mostrar que beber água pode se tornar um luxo. O livro de Fred Pearce, *When the Rivers Run Dry*, evoca tragédias hídricas em todo o mundo: o "Vale Infeliz" do Paquistão, a "tragédia das planícies aluviais" do Lago Chade, a "anarquia colossal" da Índia, o "envenenamento dos poços de paz na Palestina," o Mar de Aral, todas as "barragens que causam inundações", escassez de água na Etiópia e noutros lugares: milhares de pessoas no mundo não podem beber um copo de água ou irrigar as suas colheitas devido à poluição, desvios de rios, barragens, desflorestação e outras ações que se multiplicaram no Antropoceno. Para conscientizar as pessoas são necessários livros científicos, poesias, cartas ou canções. Com o exemplo da antropóloga Nancy Scheper-Hughes explicando que no Brasil a destruição da floresta tropical para a cultura da cana-de-açúcar foi acompanhada pela poluição dos rios pelas usinas de açúcar, que causaram a morte de muitos bebês, gostaríamos de mostrar as ameaças à água e as suas consequências trágicas, mas também como as coisas podem ser revertidas. Como ela também mostra, a luta da população, juntamente com a conscientização das pessoas em todo o mundo, fizeram as coisas mudarem. A ficção e a não-ficção mostram-nos esses efeitos dominó. Muitos são negativos, mas também existem positivos. O conto de Jean Giono, *O homem que plantou árvores*, e *Unbowed*, de Wangari Maathai, mostram que a ausência de árvores leva à

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² Rachel Carson, *Silent Spring* [1962]. Boston, New York: A Mariner Book, Houghton Mufflin Company, 2002, 39.

secagem dos rios, mas, pelo contrário, quando as árvores são plantadas novamente, a água volta. O objetivo deste artigo é, em primeiro lugar, sublinhar a influência da ação humana nos problemas hídricos no mundo e suas consequências, mas também mostrar que as coisas podem mudar a partir do momento em que as pessoas tomam consciência e mudam os seus pontos de vista e comportamentos.

Palavras-chave: Tragédia hídrica. Escassez de água. Poluição das águas.

Abstract:

Water represents 72% of the surface of the Earth and yet humans and other species can be short of this vital element if things do not change. It is threatened by global warming causing more and more droughts and wildfires and by pollution everywhere in the world. The warning of the French agronomist and ecological militant René Dumont gave in 1974, that one day, we would no longer be able to drink a glass of water because the world will be short of water, could unfortunately prove to be true. This article would like to show that drinking water can become a luxury. Fred Pearce's book, *When the Rivers Run Dry*, evokes water tragedies all over the world: Pakistan's "Unhappy Valley," Lake Chad's "tragedy of the Floodplains," India's "colossal anarchy," the "poisoning of the wells of peace in Palestine," the Aral Sea, all the "dams that cause floods," water shortage in Ethiopia and elsewhere: thousands of people in the world cannot drink a glass of water or irrigate their crops because of pollution, river diversions, dams, deforestation, and other actions that were multiplied in the Anthropocene. To make people aware, scientific books, poetry, letters or songs are all necessary. With the example of anthropologist Nancy Scheper-Hughes explaining that in Brazil, the destruction of the rainforest for the culture of sugar cane was accompanied by the pollution of rivers due to sugar factories, which caused the deaths of lots of babies, we would like to show the threats on water and its tragic consequences, but also how things can be reversed. As she also shows that the population's struggle, along with people's awareness all over the world made things change. Fiction and nonfiction show us such domino effects. Many are negative but there are also positive ones. Jean Giono's tale *The Man Who Planted Trees* and Wangari Maathai's *Unbowed*, show that the absence of trees leads to the drying of rivers but on the contrary, when trees are planted again, water comes back. The aim of this paper is first to stress the influence of human action on water problems in the world and their consequences but also to show that things can change from the moment when people are aware and change their points of view and behaviors.

Keywords: Water tragedy. Water shortage. Water pollution.

In 1974, during the Presidential campaign in France, René Dumont said, while drinking a glass of water: "one day, we will no longer be able to make this gesture because the world will be short of water." Most of the population did not believe him. Yet René Dumont, the first ecological candidate to the French Presidency of the Republic, an agronomist, an active militant and traveller, specialized in the problems of agriculture in

Southern countries, knew agricultural problems quite well. When reading Fred Pearce's book, *When the Rivers Run Dry*, in which the author analyses water tragedies, we can see that René Dumont was unfortunately right: Pakistan's "Unhappy Valley," Lake Chad's "tragedy of the Floodplains," India's "colossal anarchy," the "poisoning of the wells of peace in Palestine," the Aral Sea, all the "dams that cause floods," water shortage in Ethiopia and elsewhere: so many people in the world cannot drink a glass of water or irrigate their crops because of pollution, river diversions, dams, deforestation, and other actions that were multiplied in the Anthropocene. When we drink a glass of water in our industrialized countries, do we think about all those who have no drinkable water, who have not even water at all, and must walk miles away to fetch a jar of water, all those who had drinkable water once and have none now because of our ways of life, because Coca-Cola company in India or other companies use it for their financial benefits, or because of wars and conflicts or because the earth trembled? Anthropologist Nancy Scheper-Hughes explains¹ that in Brazil, the destruction of the rainforest for the culture of sugar cane was accompanied by the pollution of rivers due to sugar factories, which caused the deaths of lots of babies. Yet she also shows that the population's struggle together with the world's awareness made things change. Such domino effects, either negative ones or positive ones, can be seen in fiction and non-fiction: Jean Giono's tale *The Man Who Planted Trees* and Wangari Maathai's *Unbowed*, show that the absence of trees leads to the drying of rivers and on the contrary, when trees are planted again, water comes back. The aim of this paper is first to stress the influence of human action on water problems in the world and their consequences but also to show that this is not a fatality and that things can change from the moment when people are aware and change their points of view and behaviors. Songs can sometimes have more power than speeches. Thus a song by French singer and poet Pierre Perret, "Vert de colère",³ sums up the anger of all those who try to denounce the pollution and human distractions threatening the waters and soils of the world.

A glass of water to warn the world

When I thought about water, two pictures crossed my mind: the living river of my grandmother's village in Spain and the flood devastating the village, which I discovered then

³ <https://www.youtube.com/watch?v=IRLBWAmx6UQ>
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at the age of 7; and René Dumont in his red pullover, during the 1974 Presidential campaign in France, drinking a glass of water and saying that one day, we would no longer be able to make this gesture because the world would be short of water. Many times in his books, René Dumont warned people about the damage we cause on the planet and its inhabitants and the necessity to change very quickly.⁴ I was lucky enough to meet him, and he wrote to me in his book *Un monde intolérable*: “Fight the good fight.” It’s the same words Scott Slovic wrote on a book he gave me years later, *Going Away to Think*, a book that, like René Dumont’s gesture, warns us. In that seminal book, the presence of water is striking: the ocean waves in Mexico, the rain and the torrent in the Experimental Andrews Forest when the author made the experience of being “out of time,” the water which Indian people were deprived of because of Coca-Cola company and his fight to make them aware of that, a dream telling about a stone in the river and the water flowing around the thinker. Water to understand one’s place in the world, to understand oneself. Connections...

René Dumont’s glass of water is the first image I had, as a warning engraved in my memory. And just after that first image, I thought about my first visit to my ancestors’ village in the Valley of Aran, in Spain, in the Pyrenees. The little girl I saw a sight she would never forget. The village was brown, all mud, after a flood that had destroyed it a few months earlier, on 3 August 1963. This was my discovery of the valley of my roots, this was my discovery of the two rivers flowing through the village: Arties, “the village between two rivers” This was my discovery of how the waters of life can become torrents of mud and destruction often because humans have transformed nature cut trees and thus let water invade plains. There are so many places in our world now where there is a similar sight of mud everywhere villages and cities destroyed by floods because of climate change or because of broken dams. So many murdered rivers too.

The cup of coffee, the monster and the murdered river

⁴ Among his many books, we can mention: *Les Leçons de l'agriculture américaine*, Paris: Flammarion, coll. “La terre, encyclopédie paysanne”, 1949; *Révolutions dans les campagnes chinoises*, Paris: Le Seuil, coll. “Esprit”, 1957; *Terres vivantes. Voyage d'un agronome autour du monde*, Paris: Plon, collection Terre humaine, 1961 (text written from 1959 to 1961 from notes taken in the field since 1956); *L'Utopie ou la Mort !*, Paris: Le Seuil, coll. “L'Histoire immédiate”, 1973; *Agronome de la faim*, Paris: Robert Laffont, coll. “Un homme et son métier”, 1974; *À vous de choisir : l'écologie ou la mort. La campagne de René Dumont et ses prolongements. Objectifs de l'écologie politique*, Paris: Pauvert, 1974; and many others.

René Dumont's glass of water on the one hand and on the other hand, a bottle of coca cola or a cup of coffee: the simplest gestures we make in everyday life like drinking something that seems quite safe can be read as a warning; a warning about water that is polluted and about people deprived of drinkable water everywhere in the world; industrial companies are often linked with that pollution; and even coffee and the sugar in it remind us of the pollution caused by sugar factories.

This is what is developed by anthropologist Nancy Scheper-Hughes in her investigation showing the relationship between our industrialized behavior and extreme misery causing lots of babies' deaths.⁵ The beautiful introduction of her book *Death Without Weeping. The Violence of Everyday Life in Brazil* [1992] is entitled "Connection"; she reveals the connection between that unbearable situation in Brazil and the small piece of sugar that we put into our coffee. For everything stems from the damage done by cane plantations and cane factories. Sugar plantations increase misery and sugar factories poison water and the land: they bring death. The relationship between sugar industry and all the damage done on the area was revealed to her by a painting: when she was a child, this work of art made her aware of the destructive role of sugar. In the prologue, Scheper-Hughes describes the sugar factory dominating the landscape in terms of monstrosity: it is a monster she saw in the painting in which she first discovered that place generating misery in the whole area. The painter was Morris Kish. When she was a child she had been invited to the place where he was painting.⁶ It is in one of his paintings that she discovered the "Domino Sugar refining factory:"

But what I remember most of all in those huge surprise canvasses were the men of Berry Street and South First and South Second all rushing and converging together on the front gates of the **black monster** that dominated our landscape, the DOMINO SUGAR refining factory, which we knew only as the "Sugar House." Those of us who grew up at the foot of the factory—adults and children workers and not—all responded to the movements of the **beast**. We woke to its shrill whistle, its humming and clangings were a permanent backdrop to our conversations, we breathed its

⁵ Another version of this analysis is developed in Françoise Besson, *Ecology and Literatures in English. Writing to Save the Planet*, Newcastle Upon Tyne: Cambridge Scholars Publishing, 2019.

⁶ Morris or Maurice Kish was born in Dvinsk, then in Russia (now Daugavpils, Latvia) in 1895. It was a poor Jewish city and a centre of Jewish culture. He immigrated to New York when he was a teenager. Thanks to Nancy Scheper-Hughes's prologue, we know that he was living "on South Third Street in the Williamsburg section of Brooklyn" and was a painter and a poet. (See http://www.askart.com/artist_bio/Maurice_Kish/103127/Maurice_Kish.aspx, accessed July 27, 2017).

foul fumes, and finally we went to bed to the comforting sound of foghorns guiding ships and their precious cargo to its docks. The crude block of brown sugar coming from the tropics (darkest Africa, we imagined, for what did we on South Third Street in Brooklyn know?) would be **purified and whitened**, while our flats were **dirtyed and darkened** by the **damnable** Sugar House soot. (Scheper-Hughes, xi-xii, emphasis mine)

The anthropologist's childhood memory presents us with a factory linked with monstrosity and hell. She opposes the whiteness of the sugar to the darkening of the people's homes. Alliterations musically emphasize the darkness brought to the place by the factory ("foul fumes," "dirtyed and darkened," "damnable") and she plays on an intertext connecting the sugar factory with the presentation of the new industrial town in England as presented by Dickens in *Hard Times*, where the imaginary city Coketown is darkened by the ashes—"brick that would have been red if the smoke and ashes had allowed it."⁷ The children's "imagined darkest Africa," followed a few lines further by "a descent into a Brazilian heart of darkness" (xiii), adds a Conradian intertext equating the industrialization of sugar destroying Brazilian populations with the ivory trade destroying Africa. The prologue sets the hard story that the anthropologist is going to tell—starting with the birth of a child so tiny that she cannot look at the poor baby that is dead, like hundreds of other babies—in a world of art and imagination. She uses a poetic language while reminding readers of writers denouncing the evils brought by the industrial revolution (Dickens) or by colonization (Conrad). She presents us with a world of misery where women go and fetch water polluted by the factory. She says that "there was a single source of running water" where "Alto women lined up twice a day (between 4:00 and 6:00 in the morning and again at night)." She adds that "[t]hose who arrived late or at the end of the long line [...] were forced to fetch water at the banks of the chemically and industrially polluted Capibaribe River, which ran through the town carrying debris from the sugar factories as well as from the local hospital and the tanning factories of Bom Jesus" (9). Together with the pollution of the water, misery obliged women to work either on the plantations or at the homes of rich people and so they "had to leave their babies (even newborn) at home unattended or watched over by siblings, sometimes barely more than babies themselves. These constraints on infant tending, imposed by the economic realities of Alto life, contributed to an exceedingly high infant and child mortality" (10). Nancy Scheper-Hughes shows us the terrible situation of the Alto before telling us the tragic story of the

⁷ Charles Dickens, *Hard Times*, Book 1, chapter 5.
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women she accompanied and helped. Mingling her experience with Brazilian women, her readings of anthropologists and ethnologists' researches, she starts from imagination as if she saw there a means of reinventing this world. However tragic the stories, however dark the painting, she says that "these lives, these faces, although pained and as fleeting as photos, have also been touched with beauty and grace" (xiii). Her book is a book of awareness. She wants readers to become aware of the misery that destroys hundreds of lives and yet is not a fatality. The anthropologist presents us with facts. The writer gives us keys to change things, to reverse the movements of the domino sugars. Her book ends on celebration: "The goal of the *moradores [inhabitants]* of the Alto de Cruzeiro⁸ is not resistance but simply existence. And in the context of these besieged lives I find human resilience enough to celebrate with them joyfully and hopefully, if always tentatively" (532).

Nancy Scheper-Hughes's book is named a book of hope; it is a letter sent to the rest of the world to make people understand the connections existing between life in our rich countries and misery among those who work and live and die for us to be able to put sugar into our coffee, the plantations of which have destroyed native forests while the factories have killed rivers and babies. Nothing is separated and the horror described by the anthropologist is not a mere report. It is a cry of hope suggesting that things can change. And they have changed. She shows the radical change that occurred, in an article she published in 2013:

I saw infants and toddlers who were plump and jolly, and mothers who were relaxed and breastfeeding toddlers as old as three years. [...] Powdered milk, the number one baby killer in the past, was almost a banned substance. [...] Then, beyond the human factor, environmental factors figure in the decline in infant mortality in the shantytowns of Timbaúba and other municipalities in Northeast Brazil. The most significant of these is the result of a simple, basic municipal public-health program: the installation of water pipes that today reach nearly all homes with sufficient clean water. It is amazing to observe the transformative potential of material conditions: water = life! [...]. (Scheper-Hughes, "No More Angel Babies")⁹

⁸ Alto de Cruzeiro, **Alto do Cruzeiro** is a shantytown in **Brazil's** municipality of Timbaúba: "(Hill of the Crucifix) in Timbaúba, A sugar-belt town in the state of Pernambuco, in Northeast Brazil," Nancy Scheper-Hughes, "No More Angel Babies on the Alto do Cruzeiro," <http://www.naturalhistorymag.com/features/282558/no-more-angel-babies-on-the-alto-do-cruzeiro>, accessed July 27, 2017.

⁹ Nancy Scheper-Hughes, "No More Angel Babies on the Alto do Cruzeiro. A dispatch from Brazil's revolution in child survival", in *The Berkeley Review in Latin American Studies*, Spring 2013 and *Natural History*, <http://www.naturalhistorymag.com/features/282558/no-more-angel-babies-on-the-alto-do-cruzeiro>, accessed July 27, 2017.

The anthropologist showed that the population's struggle together with the world's awareness made things change. The book and articles she published showed the whole world the links existing between misery and the destruction and pollution of the environment, especially of water, but also between consumption in rich countries and misery in poor countries. The story Nancy Scheper-Hughes told suggests that everything is linked, and that everybody in western culture has some part of responsibility as is shown by the example of sugar factories in Brazil, producing the sugar we will put into our coffee) and causing pollution and infant mortality. The advertisement for sugar conceived in 1986 and presenting spectators with a spectacular show of sugar lumps living various adventures in a domino-like manner— a campaign that led to an increase in the consumption of sugar—could be used in another way. The domino chain bringing about a series of events linked in the advertisement with appetizing desserts might be seen otherwise and remind the viewers that the first lump of sugar reveals a structure leading to a cane plantation and factories in South America, themselves leading to the pollution of rivers leading to hundreds of children's deaths. Nancy Scheper-Hughes evokes a “Brazilian Heart of Darkness” (Scheper-Hughes, xiii) to denounce what happens in the favelas. We could see a parallel between the sugar dominoes of the advertisement and Joseph Conrad's ivory dominoes with which the characters play in *Heart of Darkness*. In one case, Europeans play with Africa, in the other case, they play with South America and in both cases, their greed destroys the land and rivers and thousands of lives.

We could also think about another monster, Coca-Cola, whose activities in India for example destroys water and deprives thousands of peasants of drinkable water. Scott Slovic mentions it in *Going Away to Think* in an essay made of letters sent to the director of Coca Cola India. In one of his letters, Scott Slovic says to the director:

During a recent lecture trip to India [*a meeting during which he had met Vandana Shiva*], I became aware of the impact Coca-Cola and its rival companies—chiefly Pepsi and Parle Bisleri—are having on Indian society through the privatization of water and the pollution of water resources in places like Kerala, Uttar Pradesh, Tamil Nadu and Himachal Pradesh. [...] I was deeply concerned during my trip this fall to learn that thousands of subsistence farmers and other local residents in India have, in recent years, lost their access to the water that their communities have traditionally used for farming, livestock, and daily consumption. (Slovic 2008, 215).

Women in Kerala fought against Coca-Cola and Vandana Shiva published an article in 2005 in the French paper *Le Monde Diplomatique*:

Evicted by the government in 1977, Coca-Cola settled again in India on 23 October, 1993, at the very moment when Pepsi-Cola became established there.

For more than a year, women from Plachimada tribes, in the district of Palaghat, in Kerala, organized sit-ins in order to protest against the drying of the water tables by Coca-Cola. Virender Kumar, a journalist for the daily paper *Mathrubhumi*, writes that “*the inhabitants carry on their heads heavy loads of drinkable water, which they must fetch far away, while trucks with sodas go out of the Coca factory.*” 9 litres of drinkable water are necessary to make 1 litre of Coca.

The Adivasi (*Native populations in India*) women from Plachimada started their movement little after the opening of Coca-Cola factory, whose production was to reach 1 224 000 bottles of Coca-Cola, Fanta, Sprite, Limca, Thums Up, Kinley Soda and Maaza in March 2000. The local panchayat had granted permission to it, under conditions, to draw water with motor-driven pumps. But the multinational illegally started to draw millions of litres of clear water from more than six wells drilled by its care and equipped with extremely powerful electric pumps. The level of the water tables drastically lowered from 45 meters to 150 meters deep.¹⁰

In a folder published in the French paper *Le Monde diplomatique*, *Ruée vers l'or bleue*, we are reminded that “on the planet about 1.4 billion people are deprived of drinkable water while others waste it. Intensive agriculture leads to an uncontrolled consumption and an unprecedented pollution.”¹¹ In the 350s BC, Greek philosopher Plato (427/348 BC) wrote about necessary laws on water and underlined the importance to punish those who willingly destroyed the water from springs or cisterns:

Water is, among all the products from the garden, the most nutritious one, but it is easy to be corrupted: neither the earth indeed, nor the sun, nor the winds, which nourish plants, can be easily destroyed by drugs, diversions or even thefts, but water is, by nature, exposed to all those disadvantages: so a law is necessary to protect it. Here's the law: whenever any person will voluntarily destroy spring water or tank water in another person's place, either by putting drugs into it, stopping it with pits or stealing it, his victim will summon him to the *astynomes* (*magistrates in Athenian democracy*) [...]. The man who will be proved guilty of causing damage because of

¹⁰ Vandana Shiva. “Les femmes du Kerala contre Coca-Cola”, *Le Monde diplomatique*, March 2005, pp. 20-21. (Translation mine) (<https://www.monde-diplomatique.fr/2005/03/SHIVA/11985>)

¹¹ *Ruée vers l'or bleu* in *Le Monde Diplomatique*, March 2005. <https://www.monde-diplomatique.fr/2005/03/PLATON/11975#nb1> (translation mine).

drugs will have not only to pay a fine but also to purify the water springs or the tank according to the rules expressed for that purification.¹²

Already in the Antiquity, a philosopher warned people about the dangers threatening water and the necessity to pass laws protecting it. It was in the 4th century BC. And things are worse and worse. Yet things can change if everybody feels responsible. The mere fact of sending letters to someone in charge of a multinational responsible for some of the most serious deprivations of water in the world shows that every individual can act and have a weight on the world's situation; everybody can try to change things. Organizations and individuals denounced the damage created by the factory in India. Scott Slovic's letter was sent in 2006. Coca-Cola factory in Varanasi, in India, was condemned to be closed in 2014. In 2016 Pepsi and Coca-Cola was accused to use the water of the rivers of the State of Tamil for commercial purposes while the population suffered from a serious drought.¹³ In 2018, in the French program *Cash Investigation*, the journalist Elise Lucet stopped people in the street in front of the photo of an Indian woman, Shanti Senthikuma,, living in Kerala, India. She told them that this woman had fought for years against Coca-Cola company which, to produce its soda, deprived the population from access to drinkable water. The journalist explained to passers-by that she had decided to fight against Coca-Cola which had settled in her village and had pumped all the water from the water table; she eventually won and managed to make the factory close. It was great to see how people were surprised to see that one woman and the other women from her village, without any means but their voices, had succeeded in fighting a giant like Coca-Cola.

We have/ Everybody has an influence on the state of the world both negatively and positively. To take the example of Coca-Cola, when we drink Coca-Cola, we contribute to the fact that somewhere in India some peasants have no drinkable water or no water for their crops. But when we decide to write to those who have the power of decision making, we have a chance to reverse the process to let them know that our behavior can have an incidence on their profits. Perhaps it is a dream. Perhaps not, as these Indian women proved. A man having some responsibility in the government and who was favorable for an agrarian reform in Brazil

¹² Platon *Les Belles Lettres*, Paris, 1976. (<https://www.monde-diplomatique.fr/2005/03/PLATON/11975>). See the article by Pierre Louis. "L'eau et sa législation chez Platon et Aristote", MOM Editions Année 1982 / 3 / pp. 103-109.

¹³ https://www.francetvinfo.fr/replay-radio/en-direct-du-monde/en-direct-du-monde-en-inde-pepsi-et-coca-cola-soupconnees-de-surexploiter-les-rivieres-en-pleine-secheresse_1945455.html.

years earlier, when he had no political responsibilities, answered my father, an agronomist defending the project of an agrarian reform in Brazil, who had asked him why he had not made things progress since now he had power, “we can only do something if there is some exterior pressure, if people write to us. To change things we must say to those who don’t want to change them that there is some pressure coming from all parts of the world.” Letters (simple letters) can change the course of things (this is what the organization *Survival International* suggests with what was its French motto “le poids de la plume” (the weight of the pen)).¹⁴

Human activities killing the ecosystems of lakes and rivers

Fred Pearce gives a worrying and realistic picture of all the manmade damage on the waters of the world in his book *When the Rivers Run Dry*, with the subtitle *Water—The Defining Crisis of the Twenty-First Century*. Among the many disasters caused by human activities to rivers and lakes, he mentions Lake Chad (“Lake Chad: Tragedy of the Floodplains”). He tells about the disaster happening when rain is missing and when a wetland is changed into a desert: “When it happens” he says, “lakes shrivel, crops grow brown in the baking sun, fishing nets empty, trees die, and herders slaughter their animals for whatever pitiful amount of cash they can raise. The land curls up and die. The people depart” (Pearce 77). And he demonstrates that the situation is “much more terrible when the dough is manmade—when the wetland dies because humans have decided to divert the rivers that should replenish it; when the water is taken for little purpose, as a statement of the power of one community over another; [...]” (77), he writes. Dams have been built and water has been diverted upstream for irrigation projects thus destroying most of the wetland. Devastation has replaced life. Serpil Opperman also gives many examples of the pollution of lakes and oceans. She takes the example of Lake Acıgöl in Turkey:

“Lake Acıgöl is only one of the many representative cases of the ruination of lentic habitats¹⁵ and the violation of their inhabitants. Another noteworthy example is Lake Powell, a large reservoir located between southeastern Utah and northeastern Arizona in the United States, which is filled to 26 percent

¹⁴ Survival International <https://www.survivalinternational.fr>

¹⁵ A lentic ecosystem is constituted of a biotope and living creatures proper to still waters and waters renewing slowly like ponds or marshes.

of its capacity due to intense drought. The Great Lakes (Superior, Michigan, Huron, Erie, and Ontario) that contain 20 percent of the world's freshwaters are also damaged by pollutants, including industrial wastes that flow to the lakes as heavy metals, and residential and agricultural waste products that decrease water quality and increase phosphorus levels."

The Greater flamingos inhabit saline shallow water environments like salt pans, salt lagoons and alkaline lakes. The food of Greater flamingos is brine shrimp, larvae, blue-green and red algae, artemia, etc . . . Salt pans can also be considered as a feeding area where microorganisms (artemia salina) live although their life cycle is affected by the activities on salt pans. (Karaman, et al. 2011)

Yet things can be changed and there is some hope as initiatives are taken, as Serpil Opperman underlines:

Nevertheless, the initiatives taken by local communities and organizations (such as the AOC program) to change the lakes' conditions through pollutant remediation and habitat restoration are important and must continue with effective community engagement and a sustained commitment to mitigation. This is evinced by the restoration of Mono Lake in California, which is known as a bird haven. If it weren't for the restoration project, the lake's ecosystem "would have collapsed ... under the combined pressure of water diversions and global warming" (Berwyn 2022). This project indicates that the protection of lentic ecozones must be a high priority for the health of all aquatic organisms, against the conceit of human greed." (Opperman 48-49)

Photographers also warn people. I would just like to take one example in Sebastião Salgado's hundreds of poignant and so beautiful photos: it's entitled "'Lake Faguibine dried up with the drought and invasion of the desert. Mali. 1985.'" Place, time, fact. But there is the photo. The caption speaks about the dried-up lake, the picture shows the desert, which is not really the desert as there are small stunted trees desperately trying to survive like the human population. And nearly at the centre of our field of vision, in the foreground, we can see the frail figure of a child, walking. The child is in connection with the trees; he can even be mistaken for one of the trees at first sight. His fate is the fate of the trees, he is as frail as them, and like them he wants to live. His noble gait, his walking step show that in spite of the natural disaster, he is still standing, he is still advancing, he is still living. The French title of the book, *Sahel, l'homme en détresse*, and its Spanish and English titles, *Sahel-El fin del camino* and *Sahel, the End of the Road*, seem hopeless. And yet there is hope in the tragical beauty of those pictures, hope in the dignity of those who try to live on in spite of the fact that

¹⁶ <https://www.artnet.com/artists/sebastião-salgado/this-used-to-be-the-large-lake-faguibine-it-dried-rSMYbPgD6oRWKaykwvOmLg2> accessed 3 December 2023. A longer version of this analysis is developed in Françoise Besson, *Ecology and Literatures in English. Writing to Save the Planet*, Newcastle Upon Tyne: Cambridge Scholars Publishing, 2019.

they have nothing to eat, nothing to drink as water has vanished, as lakes are dried up. There is hope in the beauty of the picture showing a fragile child alone on a lake changed into a desert, in front of poor trees also trying to survive, a child who walks on with determination, who walks towards the limit of the picture, a fictitious limit masking the reality of the invisible path in the desert, which has no end.

Photographers (we can also think about Louis Helbig or Yann Artus Bertrand), like the anthropologist Nancy Sheper Hughes, want to show all the devastation generated by human activities in the Anthropocene. But they also want to give hope. Or else people would stop fighting and deserts would definitely replace rivers and forests. The little boy in the desert is alone but he is living, he is standing, he is walking. Sebastiao Salgado wants to warn us but also to show the beauty of the world to lead people to defend the planet and its inhabitants:

So many times I've photographed stories that show the degradation of the planet. I had one idea to go and photograph the factories that were polluting, and to see all the deposits of garbage. But, in the end, I thought the only way to give us an incentive, to bring hope, is to show the pictures of the pristine planet—to see the innocence.”¹⁷

This is also what American philosopher and nature writer Kathleen Dean Moore said in a lecture she gave in 2022 in the Pyrenees: “Our work as writers is to open people’s hearts without breaking them. It’s our duty to show today’s challenges in such a way that people should not be paralyzed.”¹⁸ Everywhere in the world human activities destroy lands and lakes and rivers and oceans. In some parts of many countries the pollution of water by pesticides or oil or plastic threatens biodiversity and also sometimes deprives human inhabitants from drinkable water. And yet things could change with only small and yet strong gestures. This is what Jean Giono demonstrated in his tale *The Man who Planted Trees*.

How a gesture can reverse the process: Jean Giono’s *The Man who Planted Trees*

¹⁷ Sebastião Salgado, <https://www.icp.org/exhibitions/sebastião-salgado-genesis>, accessed February 28, 2018.

¹⁸ Kathleen Dean Moore, lecture and interview, Laruns, France, 18 June 2022, <https://ecirelanature.com/fr/actualites/kathleen-dean-moore-sisyphe-la-meduse-le-pygargue-et-le-climat>
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The tale demonstrates how a simple gesture can change everything. When the tale starts in a village of Provence in Southern France, the climate is hostile, there are no trees, the river is dry and the inhabitants of the village leave. Only a shepherd stays and when a traveller visits him, he welcomes him and shows him what he does. The man has lost his wife and son after the First World War. Instead of shutting himself in despair, he decides to plant some acorns every day. He selects a few acorns every day and plants them. The traveller is surprised. Time elapses. There is another war, there are tragedies and the shepherd just goes on planting acorns. When the traveller returns years later, he sees a new village: the desert has been replaced by a dense forest and water has come back. With water animals and plants have come back and the inhabitants of the village have returned. Life has returned. Because the presence of trees keeps the water. Wangari Maathai explains the connection between trees and water in her preface to the English version of Giono's tale:

I first became aware of the importance of trees as a little girl, when my grandmother told me that I should not collect wood from the nearby fig tree because it was a gift from God. Even if I didn't know then why fig trees were special, I later understood that the fig-tree's deep roots tapped into underground streams and brought water to the surface, replenishing the land and bringing it life. Unfortunately, that indigenous wisdom, like the tree, did not survive the forces of colonialism and globalization. The pure stream where I used to play with frogspawn and tadpoles dried up, like the tree a victim of shortsighted forestry practices and the growing of cash crops.

I began to plant trees with the Green Belt Movement (GBM), an organization I founded in 1977. Rural women had been telling me that they had to ask further and further to collect firewood for fuel. Their families were mal-nourished and their land was degraded. I saw that planting trees could provide these women with firewood, fruit, fodder for their livestock, and fencing for their land, and also stop soil erosion and keep streams flowing. Like the narrator of *The Man Who Planted Trees*, I saw human communities restored along with nature. (Maathai 2005, vii-viii, my underlining)

Water is life, water helps us to see time passing or us passing in time as N. Scott Momaday writes: "The waters tell of time. Always rivers run upon the earth and quench its thirst. Bright water carries our burdens across long distances. Without water we, and all that we know, would wither and die. We measure time by the flow of water as it passes us by. But in truth it is we who pass through time" (Scott Momaday 2020).

Conclusion

“[...] it requires us to find ways of storing water without wrecking the environment of restoring water to rivers and refilling lakes and wetlands without leaving people thirsty, and of sharing waters rather than fighting over them. It requires us to go with the flow. And to do it before the rivers finally run dry.” (Pearce 311).

Let’s always fight so that everybody in the world could go on drinking a glass of water as René Dumont said in 1974. We should remain attentive to each of our gestures and try to fight all powers destroying lands and waters. We must be aware that we may be short of water and that there are people in the world who have no drinkable water to be able to fight together. To make people aware, scientific books, poetry, letters are all necessary. And songs, too. A song by *Magic System*, an Ivorian band, “L’eau va manquer” (*We’re going to be short of water*)¹⁹ is like René Dumont’s glass of water: a warning and a cry of hope; a way of urging us to be active. As the song says “let’s gather together and let’s reinvent ourselves.”

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¹ Bibliographical Reference