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Mediations in a Warming World
How Visual Media allows us to come to
terms with the Invisibility of a Dying Planet
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UNIVERSITAT ROVIRA I VIRGILI
DEPARTAMENT D'ESTUDIS ANGLÉSOS I ALEMANYS

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ABSTRACT

This project relates how visual media, through the concept of mediations, can help us to put into context the narrative about how humankind has affected the environment in the Anthropocene epoch.

Twenty-first century media is not having the necessary effect on the world's population to make people aware of the state of the planet. On this behalf, this project attempts to shed light on the concept of mediations as a tool for raising knowledge. By defining mediations, we intend to separate the stereotype of media embedded in our society from an abstract thinking related to environmental humanities. The aim is to show that such abstract thinking can help us to reduce the existent distance between human perception and the real dimensions of an environmental impact.

After that, the 'Anthropocene', 'The Great Acceleration', and the 'Capitalocene' have been staged and defined inside the narrative framework within which mediations act. This theory will be applied to the climate-emergency situation in the 'Delta de l'Ebre'. In the same line, it will be exemplified why mediations in the Delta are interpreted as a tool to 'mediate', a tool able to reconnect cognition and emotion to move from the understanding of a crisis to the feeling of such crisis.

Throughout the usage of mediations, we will appeal to the audience's emotions to make this topic culturally mediated and recognizable for not only the scientific and the humanistic branches, but to make an interdisciplinary approach for a wider audience.

Keywords: Anthropocene, The Great Acceleration, Capitalocene, Mediations, Emotion

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LIMITATIONS

The concepts analysed in this project are delimited by two specific constraints. On the one hand, this paper avoids dealing with particular scientific material related to an environmental impact. That is, the impacts described on the following sections do not contain a scientific explanation of chemical processes, but a humanistic approach related to the regression of the Delta that only appeals to human perception and the necessary physical data to put into context its situation. On the other hand, this paper avoids focusing on any specific political issues, but rather deals with governance policy in general terms as the fundamental basis in the Anthropocene and the Capitalocene. For further study, science and politics should be considered.

The basic concept around which the project revolves is mediations. However, this paper does not intend to show all possible initiatives to tackle an environmental problem or to promote a single and unique insight in the way we have to understand it, but just to shed light on the concept of mediations in the way they have been interpreted so far.

1. Introduction

The turning point in history when it comes to understanding our environment came when humankind developed the capacity to create culture, which led humans to adopt different behaviours that have affected all of the ecosystems in the planet, giving rise to climate change in an epoch known as the Anthropocene. We as human beings need culture for building up a society, but our developments in culture have affected — and continue affecting — our planet.

At the core of what is known as the age-of-information, period immersed in the current Anthropocentric epoch, we have in our society visual media as the main communication medium. However, due to the great social distancing that exists today related to environmental impacts — in accepting or rejecting these phenomena — the media represents a great source of misinterpretation.

The abundance of information has resulted in message saturation rather than effective communication that leads to increased public participation in pro-environmental behaviour. Inside this idea of abundance, there is little coverage apart from the ‘typical’ environmental impacts’ consequences, and it is mainly related to an international perspective rather than specific. According to Salazar, ‘learning how to cope (adapt, mitigate) with climate change in one place is not necessarily transferable to another place where local cultural, economic and environmental contexts might be radically different’ (Salazar, 2011, p. 125). Approaches to the environmental problematics in a planetary scale should not be dehumanising and located far beyond a comprehensible spatial-temporal understanding of the spectator, but arising emotions and creating a connection within the social strata of each specific territory.

In light of this, we could derive that traditional media is focused on disseminating recycled scientific information to passive audiences rather than communicating the complexity of the impact (Nosty, 2009). However, by proposing measures that appeal to human emotions rather than using typical recycled data, we should move from an 'informative' to an 'active' way of transmitting information capable of reducing the current misinterpretation that media produces to the audience. This is because interpreting an environmental impact through the traditional concepts of media corrects all those prejudices that morally imply destroying a territory by giving it a 'commercial' approach. However, mediations are intended to respond to all those distortions that would remain untouched if we only based our opinion on traditional media. This would be possible because mediations do not have to reach all audiences and give a globalised approach to the majority, but just specific responses to specific people. This would mean giving the possibility to different communities to interpret a specific environmental problem through their own vision. Hence, using mediations allows cultural events that are not recognised in traditional media to be interpreted personally.

Despite what mediations propose, the reality still shows that what the majority of the population knows about the different social and ecological barriers that propel an environmental impact is based on what appears in the media, based on paradigms established by Western science connected, to a large extent, to capitalism and our way of organizing culture. In the same line, we could say that society's analysis in the destruction of an ecosystem implies that specific forms of knowledge are considered legitimate and some others do not. Hence, Western's way of understanding an environmental impact does not take into account the multivalence of interpretation and submerges everything that escapes the hegemonic dominance of capitalism.

Within this framework of interpretation, anthropologists have led an environmental impact to two different ways of representing it. On the one hand, our society has studied the impact related to ecological pressure — chemical processes — and, on the other hand, to cultural pressure — ethics and aesthetics. ‘Physical’ mediations to deal with ecological pressure are the type of measures already known by the population. Thus, to go beyond the concept of physically fixing the impact must only be considered mediations related to visual media that deal with cultural pressure. Therefore, we must approach the problem from a cultural point of view.

To approach an environmental impact from a cultural perspective we need to consider objects and events from an abstract perspective. This abstract perspective creates a psychological distance — social, hypothetical, spatial and temporal — among human entities (Maiella et al., 2020). This is known as the 'Theory of the Construal Level', where psychological distance is related to people's responses to an event depending on whether the event — an environmental impact in this case — is perceived as close or distant (Liberman & Trope, 1998). If the object is considered to be close, it will be represented in our mind as more concrete and with more detail, whereas if the object is perceived to be far it will be represented in our mind as more abstract. Hence, the attitudes we adopt may be related to this psychological distance, as people who perceive an environmental problem close to them represent it concretely, while those who have a more abstract perception of the problem perceive it more distantly (McDonald et al., 2015). Understanding human behaviour in front of an environmental impact implies being aware of the four main concepts that build up this psychological distance:

Firstly, ‘social distance’ stages how some sectors of society accept or reject this phenomenon, usually linked to the grade of interest in environmental issues. Within these sectors of society, the actions and policies of the different countries are of great importance, as some countries develop environmental policies while others are totally detached from these issues. Secondly, ‘hypothetical distance’ refers to the possibility of the impact occurring or not. Uncertainty results in people's inability to understand the real effect of the problem (Budescu et al., 2012). Thirdly, ‘spatial distance’ refers to the physical gap between the person and the impact. When the event occurs far from the person it seems to be more abstract, while it happens nearer it is viewed more concretely. Nevertheless, it might happen that people perceive an environmental impact as more alien in the area where they live, even being more concrete, and more severe in areas that are still developing, even being more abstract (Jamieson, 2005). This may happen since there is an inclination for individuals to withdraw themselves from information that may increment fear (Shepherd and Kay, 2012). Therefore, a positive view might be superimposed on logical reasoning when the environmental impact feels closer because we want to detach from it, and a negative view is superimposed on logical reasoning when the impact occurs in a place we spatially consider more distant. Fourthly, ‘temporal distance’ refers to the fact that although the impact is already present and some of its consequences are manifest, people perceive its effects as psychologically distant and consider it as part of the future or that it simply happens so slowly that it won't affect us.

Making the issue of the impact more localized, more significant and more pressing will diminish the disaffection by individuals and will extend pro-environmental understanding. Thus, it is necessary to bring this psychological distance closer to people's climate change mitigation attitudes, which is only possible through mediations.

Inside the previously mentioned framework of interpretation, the scientific study of an environmental impact through its ecological pressure is a regular topic of study. For this reason, it has been proven that there are several ways to mitigate the destruction of an ecosystem — either from ecological and cultural pressure —, but it is necessary to convey the message of the scientific community in a clear and comprehensible way to society to reduce the psychological distance between people and the impacts. Inside this narrative of grasping any kind of environmental problem there is people that interpret the impact as a danger because it might imply direct negative consequences for them, and the answer should not lead to indifference, but knowledge as a basic principle for action.

In light of this, we could say that it is still necessary to connect with a larger audience by using mediations understandable for everyone in order to reinterpret the concept of cultural pressure, taking into account the four dimensions that create the ‘Theory of the Construal Level’. For this reason, thinking across a specific problem such as the oceans, for example, creates an opportunity for ‘shaking up the conditions of interpretation in literary and media studies, displacing readers from familiar routines and into new environments’ (Jue, 2020, p. 163). Hence, the use of media and humanistic means — listed as mediations — help in creating an understanding of the issues in the minds of the audience. Mediations will build a bridge linking either the scientific, humanistic, and popular knowledge.

As far as we have seen, we could affirm that mediations for comprehending cultural pressure will allow us to represent, understand and conceptualise the different drivers affecting an environmental impact culturally speaking. Because we are talking about culture, we do not consider the forces that modify nature physically to be part of the main social and economic engine that runs the Anthropocene.

Understanding cultural pressure through ethics and aesthetics, that is, through mediations, is not intended to be used as a corrective measure to any impact, but to understand, as a whole narrative, the meaning and the role of the ‘Anthropocene’.

For all that has been mentioned so far, it is now necessary to shed light on the concept of mediations. The word ‘mediation’ involves all types of instruments, whether digital, written, or embodied, that represent a means of communication. Mediations are present in our daily lives, and they represent everything that appeals to our emotions, so it can alter the way we act and understand things depending on its content. Mediations may be represented in books, sculptures, paintings, photos, videos, timelapses, acting, etc. While it is true that all types of mediations might affect the perception of people, social media has become the strongest tool in today's society because of its influence and power.

Thus, we can consider that social media represents the ultimate exponent in visual media, which allows us to create an idea in our minds of what we read or see on how we have affected the planet, destroying barriers of interpretation because of our limited scale and time perception. Hence, the most powerful and most relevant mediation someone can use is social media, especially through YouTube, Twitter, WhatsApp, etc. Even though these apps are mainly used for entertainment and networking they allow, at the same time, people to express their opinions on different issues. In other words, it can also be a tool for exercising power, as social media encourages people to be authors by themselves and for themselves. In the same line, mobile phones have almost replaced the function of television and newspapers for the generations born in the age of technology, so social media has become the most efficient method of changing ideas and perspectives in the rising society.

To relate social media mediations with the capacity of reducing the spatial-temporal distance between the real dimension of the impact and the capacity of the human's perception to grasp it we can put on stage YouTube. In YouTube, for example, the people who upload videos on the platform — also known as 'youtubers' — receive thousands of views when they become viral. We have to take into account that a large part of young people follows the stories of these 'influencers' on a daily basis.

'Youtubers' show the world their point of view through their camera. In other words, they show people what society is not able to see by reducing on a single video of some minutes (reducing temporal distance) what is happening on the other side of the planet (reducing spatial distance). Moreover, their opinion affects the view of their audience, so they have great attitude-changing power.

I would like to highlight, as an example of how YouTube can be used as a mediation to create an impact to the audience, the work of the content creator 'Lethal Crysis', a person who travels the world exposing cultures and life forms of which we are unaware. Among his videos, we find some dedicated to the functions of the ocean and the importance for human and non-human entities of its care. In the images below we have two videos dedicated to demonstrating that cultures understand and need water for different purposes and how vital it is to preserve it. See figure 1 and 2.



Figure 1. *The people who never set foot on earth*



Figure 2. *Water use as a method of living*

From this, we could also derive that mediations should move the human being away from the apocalyptic perception of an environmental impact and build a narrative of change through a process of psychological approximation to only one problem. Moreover, mediations seek consensus rather than an absolute truth established by our own social frameworks because, as previously mentioned, our form of understanding nature is based on capitalism, which engulfs and limits our capacity of visualizing nature through any other perspective that is not the established.

We must focus on giving importance to the social processes that take place around mediations. With social movement we must conceptualise an idea that must go beyond the large amount of information and media saturation that these problems receive. Thus, we need to focus on local specificity and experiences. The problem must be understood from within the socio-cultural movement processes of the area in order to empathise with it. Therefore, we have to embed the different mediations into everyday social practices in order to create a comfortable space of communication and transmission.

Now that we have framed on a theoretical and practical basis what we consider to be a mediation, we can now reaffirm what has been proposed before: mediations fill the gaps left by traditional media, and thus empower citizens to act through a process of 'public active pedagogy' in which it is about communicating and understanding actively throughout emotional involvement rather than only informing (Salazar, 2010, p.124). To put it in another way, we can say that raising knowledge of any environmental impact will have minimal repercussions unless social and emotional understanding of the problems change the procedures that are nowadays established in society.

Despite the aforementioned, we must not underestimate the power of media, but we just need to rely on the media prepared from the outset to convey relevant information and, besides, on mediations, processes of social change driven by the citizens themselves and for themselves. This is because, as previously mentioned, information is concentrated on a global scale but much sparser at the local level, where, according to Salazar and proposed by Nightingale, the actors of adaptation to such change are located in the end and where media and mediations must put the focus on (Salazar, 2011).

It is also necessary to mention that mediations must avoid technical and recurrent topics related to climate change, as they only alienate society's interest. We must move beyond the traditional and rational perspective from which ecology tends to be grasped. Therefore, significant and powerful media and mediations must be applied to appeal to the viewer's emotions so as to give them a new approach to this controversial topic.

By considering mediations without referring to the infinity of them that exist, we intend on making visible how a different approach to such delicate issues can lead to an improvement not only ecologically, but also ethically. This is embodied in the idea to move from 'traditional' media to mediations in order to empower the whole rather than the few. As Tarrow states, in order to change this perspective, 'new values may have to be planted and nurtured, old meanings or understandings jettisoned, and erroneous beliefs or "misframings" reframed' (Tarrow 1992, p. 188). With mediations, culture comes to be discussed and can be subject to change. After all, it is ourselves in the development of culture that can manipulate language, writing, codes, symbols and signs, opening up the possibility to restructure our own cultural identity.

1.1 The Earth-human relationship

The relationship between the human being and the Earth is linked to the way in which reasoning has been conceptualised over time. For Kant (1798), the Enlightenment represents the moment when reason served as a tool for human emancipation. On the other hand, for Foucault (1984), through the Enlightenment we adopted a new attitude contrary to what Kant proposed, as Enlightenment also led to colonialism, imperialism and slavery in a parallel way. To say it in another words, while reason is celebrated in European historical narratives, it was problematic for those suffering colonialism, genocides, cultural devastation or environmental depletion. In fact, it is precisely when it comes to ecology that the Enlightenment ideals of progress and development of never-ending growth are challenged.

The activities that are indirectly related to human ethics control the Earth system — atmosphere, oceans, and land. These activities trigger different and harmful effects that are significant in magnitude to the components of the Earth. In the last 60-70 years, there has been a huge transformation in the relationship between humankind and nature. Human activities have evolved from negligible to global-scale impacts that have been scientifically proven to alter the basic functioning of the Earth.

Taking into account the susceptibility of our planet to be altered by our own activity, it is fair to point out the ‘Anthropocene’, ‘The Great Acceleration’, and ‘the Capitalocene’ as the final product that embrace what is defined in ‘Global Change and the Earth System’ as ‘the changes that have been unprecedented for half-million years’ (Steffen, 2004, p. 262). Defining these concepts is necessary to put into context the situation of the Delta and how we have come to the point where we are today.

1.1.1 Anthropocene

The unprecedented changes geologically, environmentally, and culturally speaking are now immersed in a specific epoch known as the ‘Anthropocene’, which began approximately 60-70 years ago. Hence, nowadays, we are found in the Anthropocentric epoch, which refers to the way humankind has had an impact on the Earth’s systems. This period is characterized by the way that the depletion of fossil fuels, deforestation, ocean and river damage — activities based on human behaviour — have impacted the functioning of our planet. The Anthropocene results to be the sum of the ecological crimes that shape our society.

Within the Anthropocene we find a reality with which we coexist that is fixed and framed by our social ideology. This reality seems to be sustained by an invisible infrastructure that makes it immovable (Zabala, 2017). Thus, we should take into account that people in the Earth, close to the thresholds of no return and immersed in an immovable infrastructure, have little interest in dealing with an ecological emergency that escapes their interest. However, inside this idea of reality, the concept ‘Anthropocene’ may be somewhat controversial because it contains "Anthropos", a term that refers to the whole of humankind. This is why some anthropologists, understanding the Anthropocene as a cultural concept, do not agree with this definition, as they consider that these impacts are caused by small sectors of humanity — the ones who really control the industrial system — within class struggle and exploitation. The fact of living in such an industrialised society comes to be considered "culture" and in consequence, the great amount of damage caused to the ecosystems in order to maintain our capitalist social system is acceptable and something ‘natural’.

Despite the aforementioned, the Anthropocene has managed to capture the interest of some sectors of the population, dissolving some of the barriers between science and society on some occasions. Thus, an interdisciplinary scenario is created where humanities and the social and natural sciences contribute to defining the interpretation of space and time produced by the Anthropocene. Moreover, humanities also help us to put into play not only human entities, to which science puts the emphasis on, but also to those non-human entities such as many active forces. These forces become participants along with humans to redefine the ecosystem at the same time they are used in mediations to raise awareness to the audience. In other words, we approach the Anthropocene not only from a human-centered point of view, but with the idea that these non-human entities (such as the water, weather, mountains, landscapes, etc.) interact with our choices as much as we interact with their flows — reciprocity (Dürbeck, et al., 2015).

1.1.2 The Great Acceleration

The Great Acceleration is indirectly related to the Anthropocene epoch, so it is The Great Acceleration which enables us to understand the causes and consequences of the Anthropocene.

Since the period of Industrialization, the Earth has experienced two main tendencies of growth in the socio-economic trend that have accelerated the degeneration of the Earth system and have directly contributed to the increase of pressure that our environment needs to hold. In other words, we are bringing our planet to its boundaries because of our understanding of culture — fixed reality aforementioned.

The first and most remarkable tendency that affects the stability of our planet socially and environmentally speaking is the growth of the population during the 20th and 21st centuries. According to ‘Our World in Data’, between 1960 and 2019, the world’s population has grown from 3 billion to 7.7 billion. See figure 3.

According to ‘Our World in Data’, however, the annual world population growth rate started to decrease in 1963, and it is expected to continue decreasing until the year 2100. See figure 4.

This decreasing tendency of population’s growth benefits humankind socially, economically, and environmentally speaking. When we refer to the world as a system almost overpopulated, it becomes clear that the more people the Earth has, the more resources we need. This is a reciprocal phenomenon because when the population increases, the Earth’s resources deplete more rapidly and consequently, the more we damage the components of the Earth System — atmosphere, land, and oceans.

The second tendency of growth is the quintupling of the world’s economy. The world’s GDP has grown exponentially since the mid-50s. See figure 5.

Considering the economic growth as a perpetrator of the Anthropocene is because of the increase in production and consumption demanded worldwide. We as human beings share basic needs, and all of these needs need to be covered. In order to produce goods and services, we need energy and materials. In this respect, in order to maintain the levels of production to satisfy our necessities we need to consume a huge amount of exosomatic resources, and that is why the trend has only been growing since the Anthropocene began 60-70 years ago because, in a parallel way, the world's population has also been growing.

Until this point, when we talk about The Great Acceleration, we talk about the population and the real GDP's growth as the main perpetrators for the Anthropocene. However, they both trigger other socio-economic and earth system trends as a domino effect. Inside these other classifications we find the growth of water use, transportation, fertiliser consumption, etc. See figure 6. And even more growth in other earth system trends such as an increase in CO₂, methane, and other toxic gases. See figure 7.

Our conception of reality was altered when non-renewable energies began to be used, so we increased production and consumption globally. This increasing tendency made the 'Anthropos' start to search for exceeding abundance causing irreparable environmental impacts because of their interests. According to 'Our World in Data', from the 1950s onwards, the traditional use of biomass as a form of energy was replaced by the use of oil, coal, and gas making the usage of non-renewable energies to shape more than 80% of the total global direct primary energy consumption. See figure 8. Hence, we could say that global economic growth is sustained by an energetic model based on non-renewable resources that shape the Anthropocene.

The reality of such an economic and cultural model is what we could define as 'the irrepressible environmental damage because of trends exploitation'. In the same line, our current model of constructing society shapes the capitalist realism in which we live. Still, it is the same capitalist realism that constructs our society — reciprocity.

In order not to be trapped in this model of thought we must refer to the concept of mediations as we have referred to it so far. As Zabala states, mediations could make us perceive the emergency that occupies us and make us capable of 'questioning our comfortable existences'. (Zabala, 2017, pg. 122).

1.1.3 Capitalocene

The Capitalocene means capitalism as a way of organizing nature (Moore, 2016). Capitalism uses as an instrument the concept of duality between humans and nature. On this behalf, we as humans belong to a type of society that brings, as a natural consequence for the fact of just being humans, changes to our environment because of culture — either from a direct or indirect way. Neither non-human entities nor human entities prior to the period of Industrialisation had not caused an impact as great on ecosystems as we have in the last 60-70 years. Of course, it should be noted these impacts are related to the development in many areas given by a modernized society, and all of them can be defined as cause and effect of the Anthropocene — classified within different socio-economic and Earth System trends. Still, there are some concepts that need to be clarified.

The limitations that prevent us from glimpsing an environmental problem appear after considering the power structures in a society — Capitalocene. These power structures seek constant economic growth, causing environmental problems rather than solving them. Hence, power institutions seek abundance rather than balance, moving to the background the ethical dimension of respecting the environment.

To comprehend what is currently happening we must adopt a relational perspective between the power of capitalist globalisation and the necessity of interpreting ourselves as an entity, as we are the only ones who can change the power structures that affect any environmental impact by seeking degrowth. On this behalf, to abandon this form of governance the individual must disengage from the structures that they themselves have created and that dominate them.

To this extent, it can be considered that any environmental impact is linked to a political problem. However, discussing mediation and adaptation is possible from a more abstract perspective that does not necessarily involve political matters. By not considering politics as an element of changing attitudes towards climate change, we refer to mediations. As previously explained, through mediations we study the part of the social tissue that appeals to emotions and critical understanding rather than the scientific and political concerns.

The controversy arises when, as mentioned before, we include all cultures to be participants of the Anthropocene and, consequently, of the Capitalocene, immersed in the former. As Moore states in 'Capitalocene & Planetary Justice', 'in the history of capitalism there has been little room in the 'Anthropos' for anyone not white, male, and bourgeois' (Moore, 2021, p. 2). This affirmation creates a relationship between the social tissue and ecology that has been shaped through history — not only during the Anthropocene — with racism, sexism, and social strata to control the functioning of the Earth and all its trends. In the same line, it would be what Foucault had previously defined when he said that the Enlightenment, apart from empowering our capacity to use reason, also led to colonialism, genocides, cultural devastation or environmental depletion.

Hence, we could derive that the concept of 'nature' is appropriated by human beings in order to favour the interests of some. In other words, 'nature' becomes a territorial and cultural reality that favours the interests of the powerful and leaves apart other sectors of society. Thus, we should not understand the Capitalocene only to be an economic matter, but also a type of cultural domination by the powerful over those human and non-human entities.

Understanding the latter evidences that the natural territory of the human being has been shaped for decades by a system of exploitation that has reached its peak with the Anthropocene ecologically and culturally speaking — creating visible consequences such as climate change. This shows that over the last 60-70 years, the interest for power has grown on a global scale shaping both The Great Acceleration and the Capitalocene to be the engine that runs the Anthropocene.

1.2 The Delta-human relationship

To perceive a different reality from the one that is found in the Anthropocene, we will make reference to the mediations about the regression of the Delta, which is directly related to the destruction of the coastal zones and the ocean itself.

As we can relate, impacts on different environments have been shaped through the Anthropocene within a context of a ‘Great Acceleration’ inside a framework of economic and cultural domination — Capitalocene. Through the different socio-economic and earth system impacts we have created planetary boundaries on an enormous yet minuscule scale that can escape our own perception, and specially in a system so vast such as the ocean, of which the Delta is affected.

Human impact on marine biodiversity involves pollution, acidification, and ocean warming. The impact in the oceans is mainly produced through the industrial and agricultural wastes, along with some other marine activities (transportation, deep sea mining, and so on). Still, the most representative part of the pollution we produce comes from land and it is transported to the oceans through different pathways — rivers, sewage, coastlines and atmosphere. All these impacts are indirectly related to the regression of the Delta because they propel climate change in a global scale

The most representative waste in the oceans is plastics and microplastics. Although the Delta's problem is not one of plastic pollution but of disappearance, these do play a determining role when talking about regression, so they are one of the main perpetrators of climate change because of their large quantities of greenhouse gasses emitted to the atmosphere. Hence, the Delta is indirectly affected by the emissions we produce.

Although the Delta does not suffer from plastic pollution problems, but suffers the consequences of what it produces, the question arises as to who and how it is possible that plastic is so abundant, if we, like that large part of 'Anthropos', do not personally send any remarkable quantity of plastic into the sea. According to 'Our World in Data', the most important quantity of plastic mainly reaches the ocean through ten specific rivers located in Asia. Only these ten rivers alone produce 81% of the total plastic emitted to the ocean.

As 'Our World in Data' also demonstrates, it might be surprising for us as Europeans to only produce 0.1 kg of plastic waste per person in comparison to 3.5 kg per person in Asia although we are the main producers and consumers. This fact can be easily understood when we consider how the waste is handled. In developed countries, plastic is incinerated or recycled and not thrown into the rivers as it mostly happens in the different Asian countries. Although it has been proven that the least developed countries (either due to lack of infrastructure or management strategies) are the biggest culprits, it is not in the interest of the Capitalocene to support these countries in waste management, as it would mean losing power and the governance of capitalism. Therefore, on a global scale, even if modernized countries treat waste differently, pollution is continuous and affects the environment relentlessly.

To what has been mentioned we should add the fact that a large part of macro-industries are located in these underdeveloped countries because of the cheap labour force. This would also be framed within the Capitalocene as the previously mentioned ‘cultural domination’ and what Foucault believed that the Enlightenment really brought.

Among all the environmental impacts we can cause to the Delta, there is also the possibility of damaging the values and cultural identity of countless communities that use and understand the water as a way of living. Thus, the Delta is both a natural and a cultural entity, and its conservation should be one of the fundamental pillars within our social system. However, as we have seen, the force of the Capitalocene makes the actions of those who respect this place to be almost negligible, so a little group of the ‘Anthropos’ will be responsible to shrink them because of their economic interests and their power to make decisions. Nevertheless, even if external forces beyond our reach do not allow us to change the course of destruction that the Capitalocene itself brings to the oceans and coastal zones, we, at least, can understand that it is necessary to relate the cultural aspects through mediations (stories, sculptures, expressions, art, knowledge, etc.) with the society main engine, social beliefs in organizing economy and ethics.

Therefore, we could affirm that the standardized idea of caring for the ocean or coastal zones is nowadays based not only on scientific metrics, but also economic, and not including cultural heritage in the narrative. For this reason, it is necessary to create knowledge through mediations, to link culture to economy and science. The belief that science alone can solve the climate emergency in which not only the Delta, but the Earth and its entities (both human and non-human) find themselves cannot be considered valid.

This is because the central problem of the crisis, as has been mentioned in the previous sections, is humanity, shaped through the capitalist system of abundance, and not the environment in its natural state. For this reason, the ecological crisis, which escapes human rationality, remains something unacceptable to a large part of the population, because apart from the fact that this phenomenon is perceived on a spatial-temporal scale that is very distant and alien to our interests, we are also unable to perceive and understand it unless it is mediated.

1.2.1 Shaping the ‘Delta de l’Ebre’

Choosing the ‘Delta de l’Ebre’ as the object of study in this part of the research is based on the idea that this territory is currently suffering the environmental consequences preceding what may happen on a planetary scale in several decades.

In order to apply the theoretical concepts of the previous sections related to the Anthropocene, the Great Acceleration, the Capitalocene and their mediations on the 'Delta de l'Ebre' we must first know what this natural reserve is.

The ‘Delta de l’Ebre’ is a natural park located in the south of Catalonia, at the mouth of the river ‘Ebre’. The Ebre River is the most abundant river in Spain, carrying large quantities of sediments from different areas of the country. The Delta has an extension of 350 km² and has become one of the most important deltas in the Mediterranean Sea and one of the most important wetlands in Western Europe. As with other geographical features, the Delta has undergone many changes throughout its history. For this reason, we will now briefly talk about how the Delta was built up and how it has evolved until the point where it is now.

In its initial instance, the Delta was formed by the arrival of sediments that were transported to the coast by floods, and later by human activity through the deforestation and modification of the terrain. Throughout time there have been different lobes known as 'Sol de Riu', 'Riet Vell', 'Mitjorn-Buda', etc, which were indirectly shaped by humans due to land modification. Up to this point we could consider that human activity has favoured the growth and development of the Delta, and the truth is that it has. Over the course of 2100 years, human beings have made the Delta grow in an indirect way. Thus, the Delta is not a place that has been created in a totally natural way, but a large part of it is the result of human action over the centuries. See figure 9.

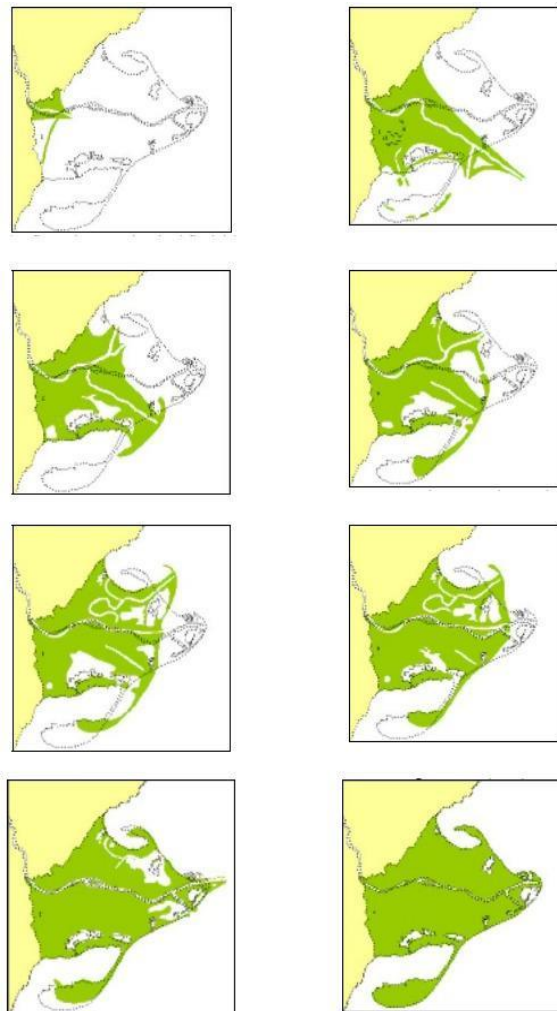


Figure 9. *Delta's evolution*

1.2.2 The ‘Delta de l’Ebre’ in the Anthropocene

Inside our current Anthropocentric epoch, the Delta is a climate emergency zone that can be severely affected by environmental impacts in the coming years, and it may even turn its inhabitants into Europe's first ecological refugees.

From the beginning of the Anthropocene until today, human beings have made a great part of the Delta disappear — something that has never happened before —, as the water is diverted for irrigation and the sediments do not arrive in enough quantity to avoid the onslaught of the sea. Hence, hydrological regulation through reservoirs has had a great impact on the modification of the Ebre’s landscape. The fact of modifying flows through dams has produced a drastic reduction in sediment transport, which has had a severe effect on the Delta. This means that the Delta is now being shaped by the waves because there is not enough sediment arriving.

This allows us to glimpse two particular processes causing the regression: erosion of the sea on the coast and subsidence of land, both associated with climate change. Thus, apart from the negative effect caused by human actions, climate change has a devastating effect on the Delta. This phenomenon may also lead to a change in currents, so that sediments arriving via currents will not be deposited in the Delta. Yet, the most devastating effect seems to be that rising sea levels submerge those areas that do not have the capacity to regenerate quickly. This is further affected by extraordinary storms and extreme weather — squall Gloria and Filomena —, as there is more capacity for penetration and less time for regeneration. However, because of the sense of time-space in which these environmental impacts occur in the Delta, makes it very difficult for the human eye to grasp its real dimensions.

What we do know is that the changing process of the Delta started about 60-70 years ago, right around the time that the Anthropocene began to take place on a global scale. Until this point, as we have seen, human beings had contributed to the formation of the Delta, but it is in the 20th century that we ourselves will initiate its destruction.

The destruction of the ecosystem will come from the different earth system trends that will be altered during this epoch — biosphere degradation, processes framed in The Great Acceleration. Although the different systems are related in one way or another, it is worth noting that, with The Great Acceleration, the Delta experienced many of these changing trends. These trends have to do with the loss of domesticated land, degradation of the terrestrial biosphere, water acidification, land temperature, forest clearing, fertiliser use, urban and non-rural population, and dam construction. Still, The Great Acceleration will also imply an increasing use of water dramatically. In a way, it may be understandable that during the period of the Anthropocene, Spain needed to manage the water resource in such a way because of its social and economic situation. It is worth noting that Spain, like other European countries, has a scarcity of water resources, so it was necessary to control water in one way or another. However, the management of this element needs to be logical and planned in order to favour non-human entities and human entities in an ethical process of seeking balance. Yet, this is not what was done with the Delta.

Although defining a hydrological plan is neither an easy task nor one that falls within the scope of this project, it is necessary to understand that from 2002, the hydrological plan for the Ebre was based on transferring water to Barcelona and Levante. As Susanna Abella states in ‘Save the Delta of the Ebro’, the transfer was to solve the deficit in

Levante's area and, at the same time, to lighten the flow of the river by transporting it to Barcelona (Abella, 2002). However, according to Susanna, there is no scientific evidence to justify it, and that is why for years there have been demonstrations against this transfer. Hence, we could deduce that transferring so much water from the Ebre River only represents the interests of certain people by the fact that water elsewhere in the territory will generate more revenue, without respecting neither natural zones nor the will of the local people — Capitalocene and cultural domination over the Delta.

The role that the 'Capitalocene' plays in the regression of the Delta should be highlighted by the mere fact of, on the one hand, introducing dams in the river for economic benefit and, on the other hand, by the damage suffered by different entities (both human and non-human) at the mouth of the river.

As for the economic benefit included in the Capitalocene, it is important to know that nowadays there are only, at the end of the river course, 3 massive dams, which means that the sediments remain in the dams and do not reach the Mediterranean Sea often enough to continue shaping the Delta. The economic benefit of these structures is based on safeguarding water for irrigation, human consumption, electricity generation, among others. The aim is to meet the needs by covering the production and consumption for a population that has been growing steadily in the last years. There have been many studies that have demonstrated that the non-arrival of sediment in the Delta caused by these dams has deprived the arrival of 20 million tonnes of sediment, which previously reached the mouth of the river. However, nowadays, only 90,000 tonnes of sediments reach this geographical area. This quantity approximately represents the 1% of the sediment flowing down the river compared to 100 years ago.

To state that the Capitalocene directly affects the entities that coexist in this ecosystem means, in the first place, that those human entities who have as their economic livelihood any activity related to the biodiversity of the Delta are drastically affected by the mere fact that it is disappearing, and, in the second place, that non-human entities such as the water from the river transported to other parts of the country for irrigation alters the functioning of the entire ecosystem and all those non-human entities that are integrated into it. To this extent, both human and non-human entities suffer its regression. We must take into account that as for non-human entities, this place is a meeting point for thousands of migratory birds — 360 out of 600 species of birds in Europe —, a place for diverse flora growth, and a place for cultivation — especially rice —, everything at risk since the Anthropocene began.

One of the most representative anthropocentric effects in the Delta is the land losing fertility due to the salinisation of the soils. This impact represents a very big issue because at the same time that many people lose useful land for cultivation as their economic sustain, many species of flora and fauna may disappear because they are not able to adapt to the salinity. Another of the economic livelihoods that this natural area provides for human entities living in the territory and which could be seriously affected is tourism. The area of public interest is at high risk of being flooded. The villages bordering the Delta welcome in summer a large number of tourists who come to this coastal zone. If the coast is washed away by the sea, the towns along the Ebre may see their income seriously affected by less tourist traffic because apart from the Delta being a nature reserve, it is also a tourist attraction that sustains economically a great amount of the people living in the zone.

To try to slow down the disappearance of the Delta, different physical mediations such as increasing the amount of sand in the dunes and in the Delta's bar have been considered. Another option that has been kept in mind is the construction of underwater dikes to reduce the force of the waves. However, as it is obvious, the most effective measure is that of regaining natural sediment transport, but hindered by the interest in keeping the dams for economic purposes.

These are some of the physical mediations that have taken place or simply are considered in the Delta. However, we need to go beyond physical action, and portray mediations with pedagogical purposes to help a larger number of people understand the situation without the necessity of having professional or scientific knowledge about what is happening in the Delta.

First and foremost, we need to tackle social distance. For this reason, since the beginning of the decade, different social movements have been created to demonstrate against all actions that deny the passage of sediments to the Delta and, at the same time, to demonstrate that no measures are taken to stop the disappearance of the zone due to climate change. Therefore, we can say that the appeal is directed, on the one hand, to that little part of the 'Anthropos' that are not interested in taking action to save the Delta and, on the other hand, to how climate change hits the zone — also related to human behaviour in the end. However, as far as we have seen, the economic interest — under the name Capitalocene in this respect — overrides any proposal of the population and makes almost imperceptible any ask for help. Even if this social movement has been very well accepted in the area by creating different social platforms, it seems to have had little effect on the people who must take action.

When we talk about ‘the people who must take action’, it is important to make clear that we mean that part of the 'Anthropos' that is referred in section 1.1.1 when we say that ‘the fact of living in such an industrialised society comes to be considered "culture" and in consequence, the great amount of damage caused to the ecosystems in order to maintain our capitalist social system is acceptable and something natural’. As far as we have seen, this affirmation applies to the situation in the Delta.

Although considering from an anthropocentric point of view that the environmental damage is a necessary part of the process for achieving abundance, we can glimpse that the Delta has always been forgotten by this powerful but little part of the ‘Anthropos’, so it is an area that generates little economic interest. Therefore, leaving apart the inhabitants of the zone, the regression and its consequences have not received any institutional importance for the fact that the physical and necessary solutions would imply changing the social and economic structures. In a certain way, and also because of traditional media’s paper, we could say that because of the little repercussion that the regression has received, the social and ecological reasons why the Delta is disappearing are mostly unknown among a large part of the population.

We could come to a conclusion by saying that the people’s values in the ‘Delta de l’Ebre’ have been shaped through all the physical and social constructions that have taken place in the zone during the Anthropocene. These values become a fundamental pillar in the construction of the cultural identity of the people of the zone who intend to save the Delta to the best of their ability but they see how, little by little, the consequences of the Anthropocene take part of their territory.

1.2.3 Mediations in the Delta

The destruction of the Delta is not perceived by the naked human eye unless mediated. Even though its regression might be visually spectacular, it is difficult to isolate it as an event because of the temporal, scalar, hypothetical and social distances.

Despite the aforementioned impacts of the Anthropocene and Capitalocene, local people in the Delta are still fighting to be heard — fighting social distances in this case. One of the options adopted is to illustrate through social movements that we are making disappear not only home to rich biodiversity and unique landscapes, but also to human life. Hence, through this mediation it is intended to denounce the regression of the Delta due to both ecological and cultural pressure. The idea of this movement is to prevent the sea from swallowing the coast by raising knowledge as a first step.

This symbol should not be understood as a corrective measure by itself, but as an element of popular critique that should be easy to grasp. See figure 10.



Figure 10. *'SOS' mediation*

This congregation of people along with the image taken from a drone in May 2022 occurred in the bar of the Delta, the area that suffers more regression. The image of an 'SOS' shaped by a group of people in the critical zone intends to bring us closer to the dangers of the Anthropocene and the emergency it entails.

Immortalizing an image from the sky is a very powerful mediation that helps in reducing the spatial distance between the impact and our comprehension. This is because such type of visual media permits us to avoid barriers of interpretation. In this case, it allows us to observe clearly a figure from an aerial perspective that we would be unable to see from our own foot. Moreover, the fact of transmitting this image through the most powerful mediation channel, social media, can generate more repercussions at the time that more interest in the problem.

This image intends to draw attention to the necessity of taking action by creating an impact on the viewer rather than only using material that makes people lose interest in what they are seeing. It represents that both the human and the ecological need to be rescued from the danger of regression. This photograph attempts to give insight into our own need to find meaning in the lack of action on this emergency. At the same time, it aims to reconfigure the idea that humans assume, by the weight of our society's structures, that regression is the product of something we cannot change, but it is. In light of this, the biggest problem we face and that this mediation intends to eradicate is no longer to demonstrate the regression, but to confront the lack of will to take action, as the debate about degrowth rarely enters the scene. As sociologist Peter Wagner (2016) put it, 'the climate risk should have radically altered the human relation to nature, but it did not'.

Through the interpretation of the previous mediation, we could consider that social movement represented in an image featuring a creative is a powerful mediation that moves from a typical idea of demonstrating. Yet, not all mediations are related to social movement, but they still appeal to emotions with a pedagogical effect.

Although the standard concept of image can have a great effect on the individual, we must take advantage of visual media by portraying images capable of synthesise what has been happening over a long period of time in a single place. Given that we are curious beings, a single image capable of showing the before and after in an interactive way can awaken the interest of the viewer by reducing both time and scale distances. Thus, they can be useful as a method of psychological approximation to the problem because we can observe an action occurring over decades in mere seconds.

As an example of an interactive image, we have this sequence of the 'Gloria' squall in 2020, which caused an inflow of seawater 3 km inland. On the left image we can see the Delta before the storm, while on the right, the Delta after the squall. See figure 11.

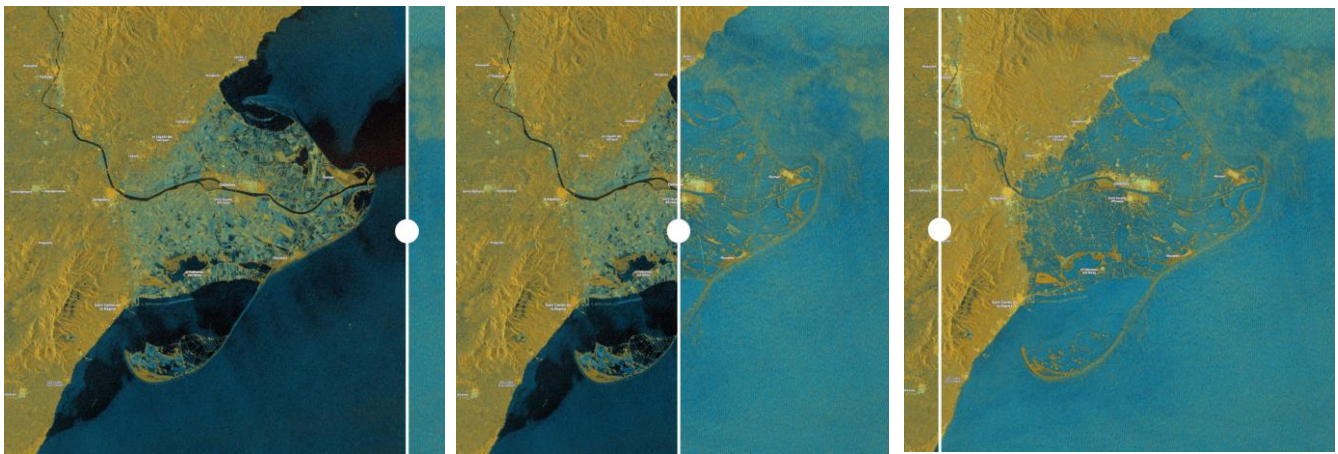


Figure 11. *Interactive image mediation*

From what has been mentioned so far, we can consider that within the mediations to confront regression, images are useful to reduce time, space, hypothetical and social distances in our comprehension of the environmental impact in the Delta, carrying within a function that, on the one hand, appeals to emotions and, on the other hand, deals with pedagogical directives.

Leaving aside whether to consider the previous mediations art, the art that we understand in the traditional way as paintings, sculptures, music, etc., also have a role in the Delta's situation, which act as mediations.

In the Delta there has been created a festival called 'Euphonic' which represents art in all its senses. In this festival, visual media is used as an impressionist technique, so there are plenty of shows of three-dimensional and dynamic projections that represent a story of the time-changing scenarios of the Delta with lights and colours. This staging aims to show the regression through experience. Apart from audio-visual performances, there are installations of art in temporary museums or exterior spaces, workshops, professional conferences and concerts. This type of festival is also considered as a mediation, because all the art, not only visual, but also experimental, is intended to have an effect on the viewer. The indispensable element of this festival is the unique sight of the Delta, which turns the festival into an audio-visual experience anchored in the landscape and the environment, creating a feeling of being experiencing a mediation by the mere fact of just being in the Delta.

2. Conclusions

Humanities via mediations can steer the viewer towards a better understanding of an ecological crisis. Mediations play a fundamental role when it comes to dealing with the complexity of understanding the situation in a climate emergency zone such as the one in the Delta de l'Ebre, as they promote in a pedagogical and emotional way social critique and self-criticism about how we interpret an environmental impact, an object difficult to perceive because of its abstraction in time, scale, hypothetical and social distances. Hence, through mediations we can avoid these barriers of interpretation.

In the same line, handling mediations must lead the individual to reframe their commitment to the natural and the human ethics behaviour, and they must provide a structure on the narrative of the Anthropocene so that we can glimpse Capitalocene's destructive nature, which has brought the Delta to this dangerous situation of regression.

For these reasons, the idea is that mediations must become a process of experience. In this way, in the Delta, through social criticism — 'SOS' demonstration — we intend to reduce the spatial distance by showing the size of the creative in the destroyed zone from an angle imperceptible to the human eye. At the same time, we also reduce the spatial distance between our understanding and the impact by making it more concrete, by abandoning the concept that an environmental impact occurs far away from where we live, which would have simply led us to interpret the impact as something alien to us. Through this psychological reduction in space, we are able to individualise and put a face to the impact, to the regression, making us realise that it is no longer located on the other side of the world, but situated in our home.

As Jamieson stated, being so close to the impact might increase fear into people (Jamieson, 2005), but, as we have seen, mediations simply seek to address this fear and transform it into understanding.

Through the ‘SOS’ mediation we have also been able to reduce the social distance, because by specifically identifying an area, you indirectly create a greater interest in the people who live there, involving them in defending the zone, so the rejection that it receives is less or at least not as accentuated as would happen to an impact considered to be more abstract. In the same line, we avoid dealing with hypothetical distance because, by the fact that we can see with our own eyes how the area is disappearing, it removes any objection, avoiding denial.

To reduce the temporal distance, we can make reference to the second type of mediation, the interactive image of the Delta’s situation. This image permits us to observe the after and before of the Delta since the beginning of the Anthropocene in a matter of seconds, that is, portraying something that is impossible to grasp just in a single moment by the fact that we cannot imagine and synthesise in our heads all the changes that have occurred in the area throughout the beginning of this epoch until today.

In conclusion, mediations able to reduce the temporal, scalar, hypothetical, and social distances intend to give insight into our own need to find meaning in the lack of action that receives any climate emergency zone.

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Appendix A

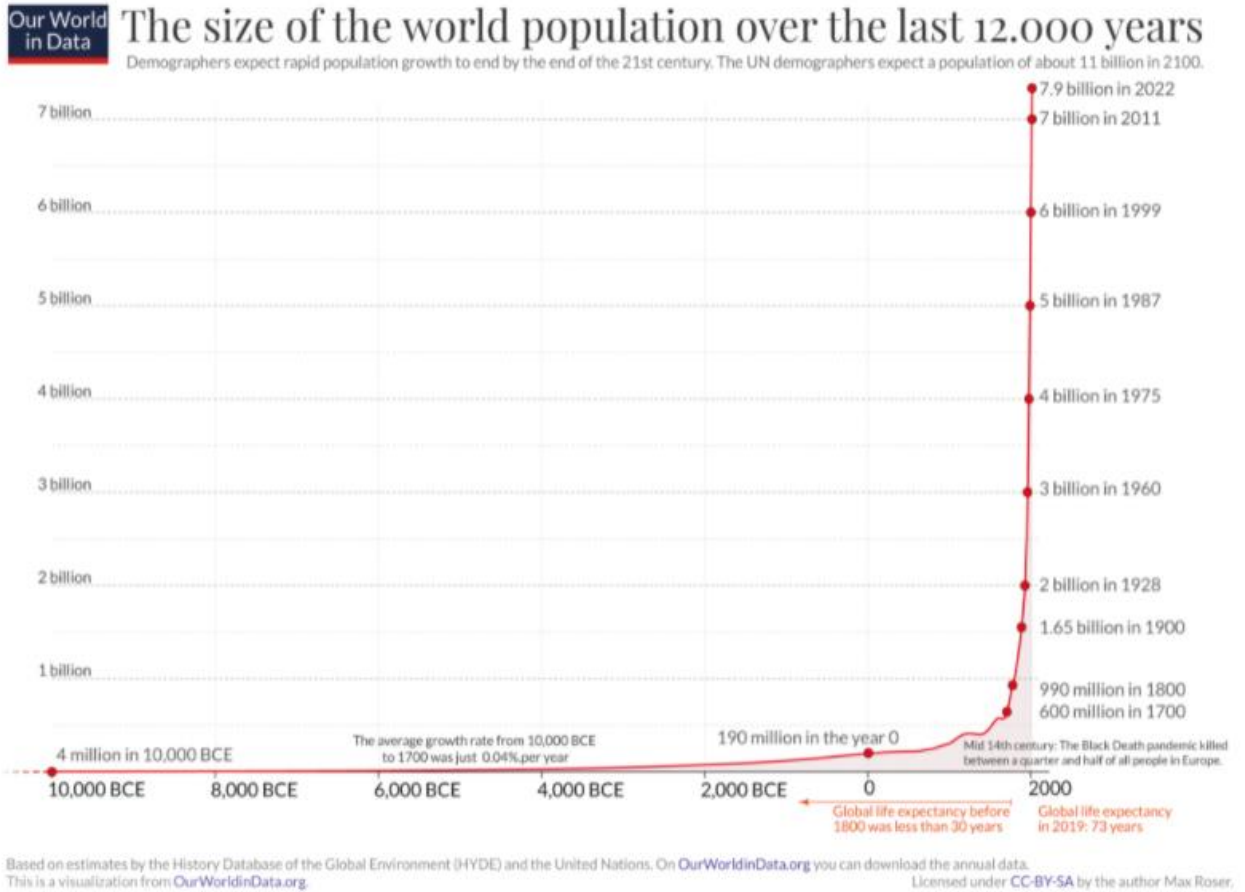
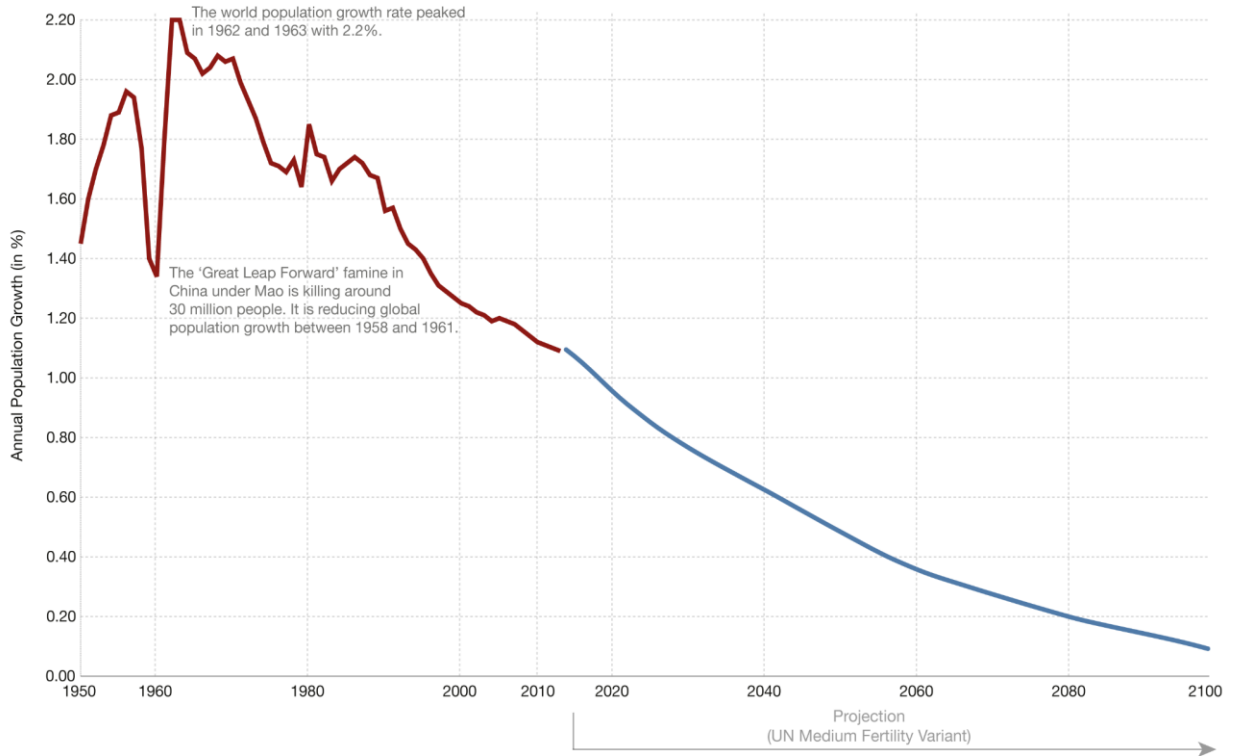


Figure 3. The size of the world population over the last 12,000 years

Appendix B



Annual world population growth rate (1950-2100)



Data sources: Observations: US Census Bureau & Projections: United Nations Population Division (Medium Variant (2015 revision)).
 The interactive data visualization is available at OurWorldinData.org. There you find the raw data and more visualizations on this topic. Licensed under CC-BY-SA by the author Max Roser.

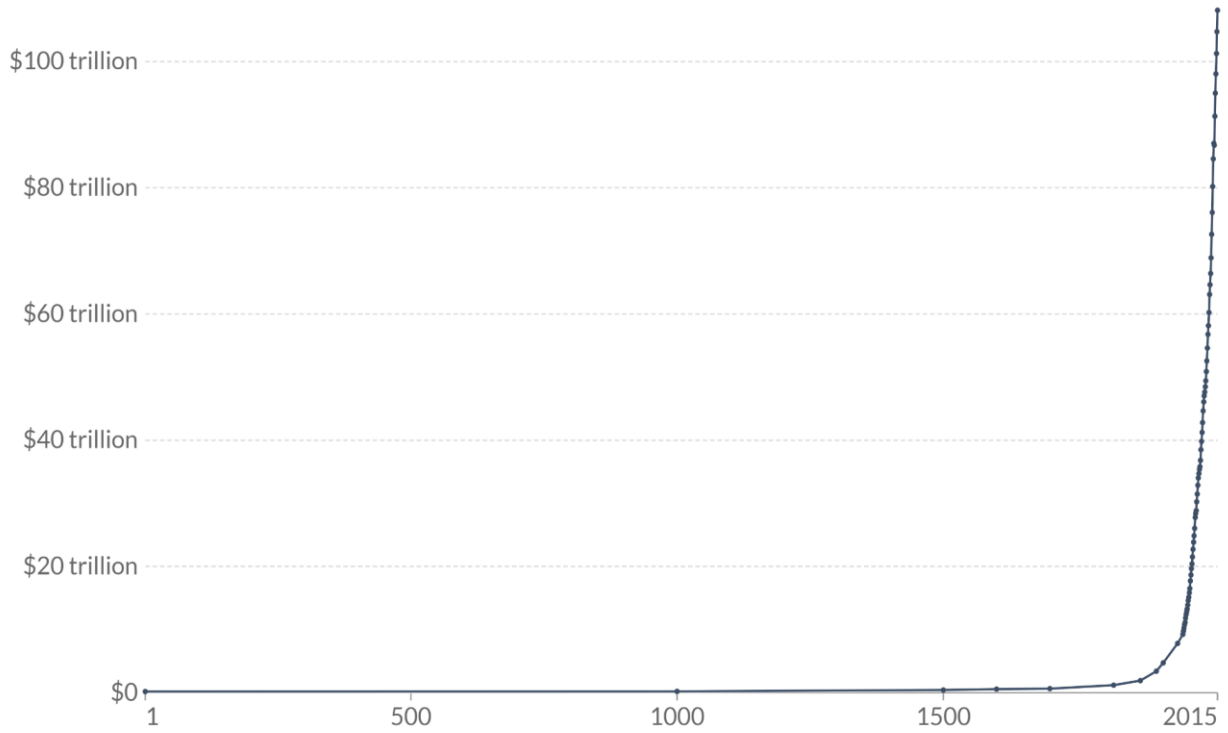
Figure 4. Annual world population growth rate (1950-2100)

Appendix C

World GDP over the last two millennia

Total output of the world economy; adjusted for inflation and expressed in international-\$ in 2011 prices.

Our World
in Data



Source: World GDP - Our World In Data based on World Bank & Maddison (2017)

OurWorldInData.org/economic-growth • CC BY

Figure 5. *World GDP over the last two millennia*

Appendix D

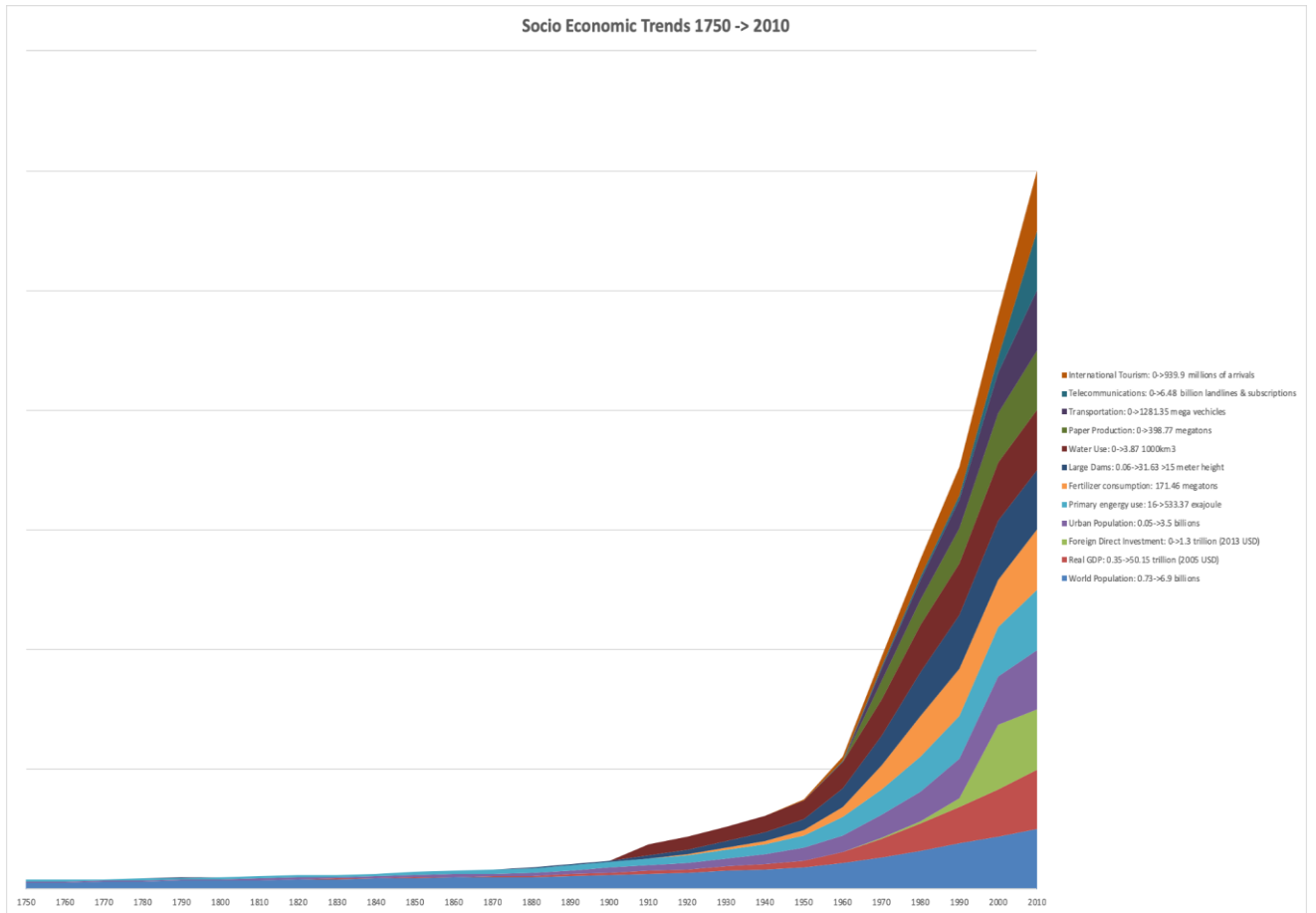


Figure 6. *Socio Economic Trends 1750 - 2010*

Appendix E

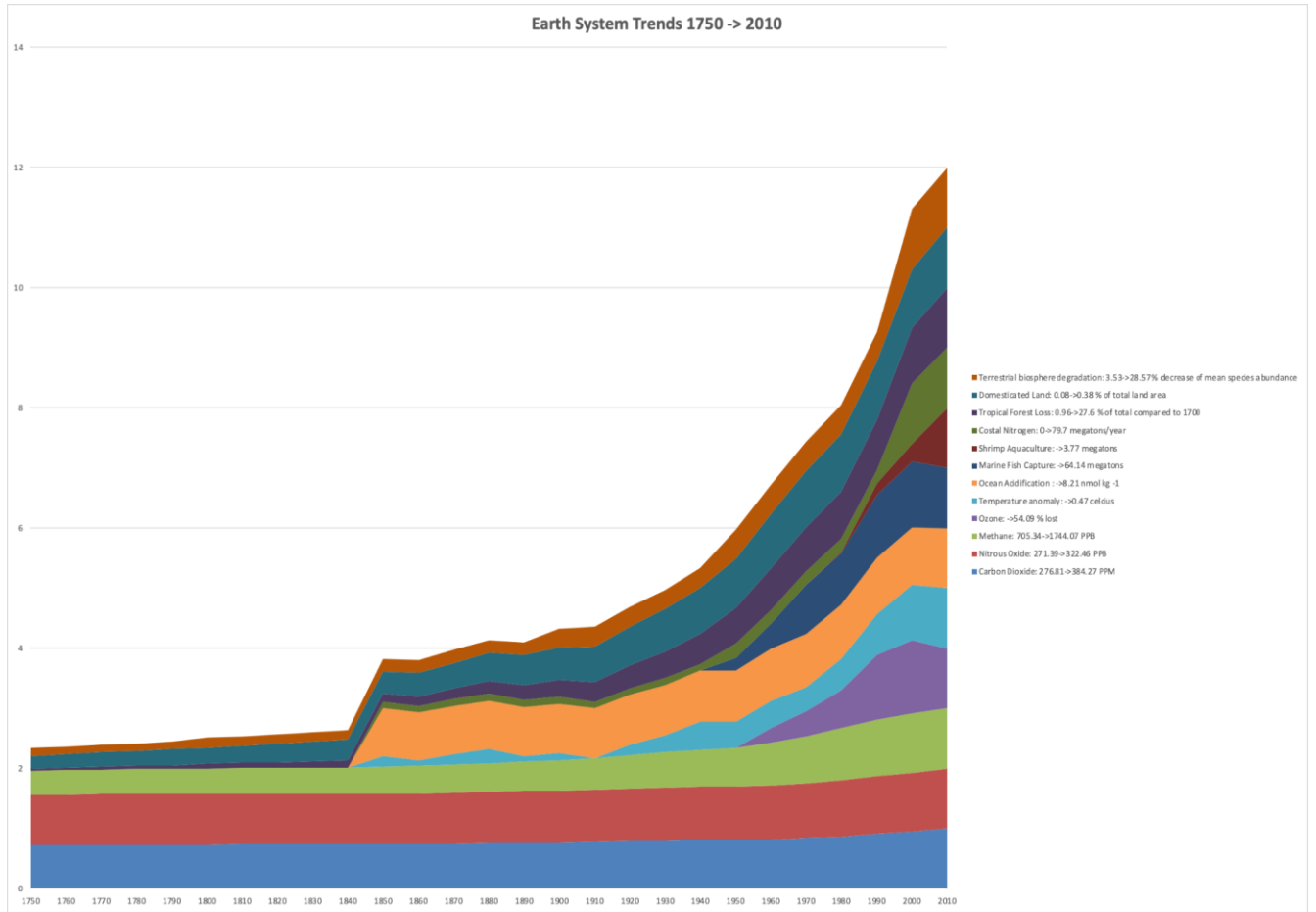


Figure 7. Earth System Trends 1750 - 2010

Appendix F

Global direct primary energy consumption

Direct primary energy consumption does not take account of inefficiencies in fossil fuel production.

Our World
in Data

Relative

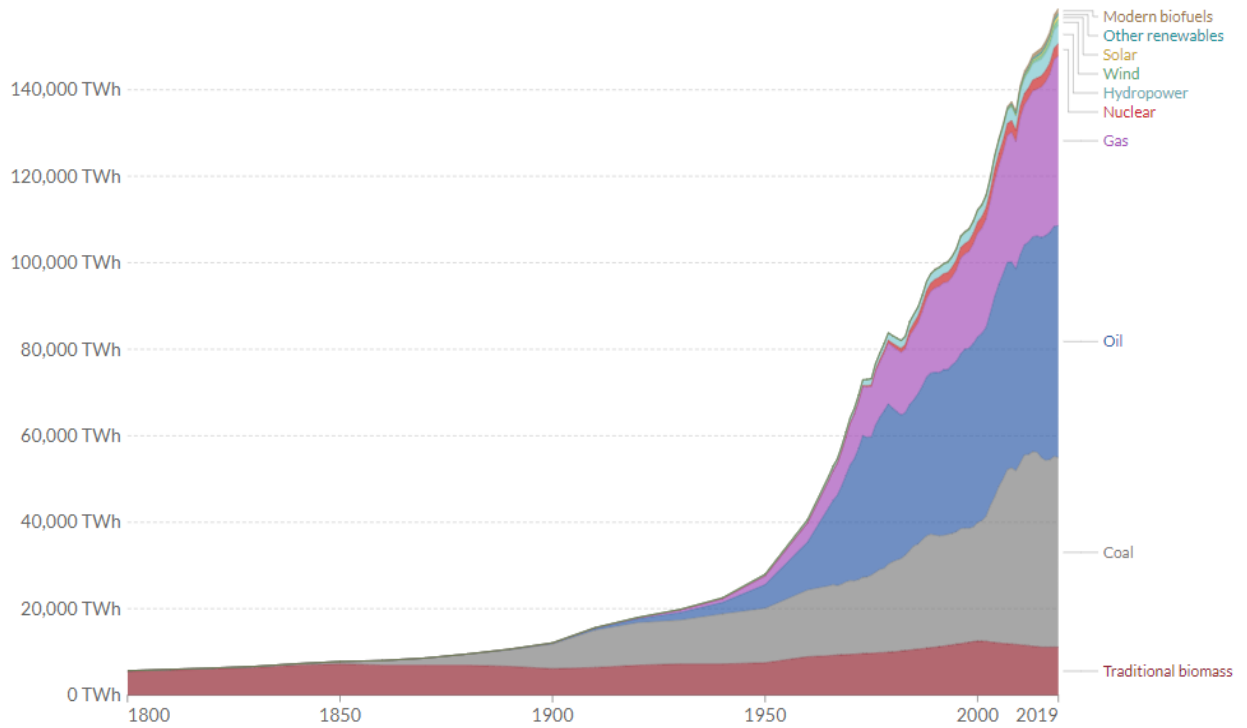


Figure 8. Global direct primary energy consumption