Into(x) the Wild. The Anthropogenic Landscape: How the Human Shapes Nature

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Abstract
In the contemporary context of the Anthropocene, the relationship between humans and nature should be redefined. Taking into consideration how capitalist industries, natural resources overexploitation, economic and social processes are shaping the landscape, “Into(x) the Wild” aims to draw a parallel between cleaning the interior and polluting the exterior.

Keywords: Anthropocene, pollution, human, landscape, nature

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From the very beginning of his existence, human started to manipulate and transform nature according to his needs. For ex. 1.9 million years ago, homo erectus transformed natural elements such as stones in weapons in order to hunt and kill animals. Through the technology he achieved at that time he could shape nature according to his will.

Later on, an effective domestication began within human aggregation and creation of society. Hunters abandoned their nomadic lifestyles and started to settle down. Agriculture first, and livestock farming later represent the first substantial alteration of the landscape conceived as land, and domestication of living beings. With technology and industrialization, decade after decade, the presence of humans on earth had a strong impact. The landscape became more and more human-made and the image of an untouched nature has disappeared.

Our impact on the planet has been so strong that a new term has been coined to define the geological era in which we live, the Anthropocene. This era is characterized by the drastic consequences such as global warming, sea level rising, the release of pollutant materials like plastic or aluminum, chemical fertilizers in soil, biodiversity loss, biosphere and geosphere transformations. We are actually creating a new stratum on Earth and new fossils for future generations to discover.

So the first question we should ask ourselves is “how can we define nature in the contemporary society?” In the Oxford dictionary “Nature” is defined as something opposed to human or human creation. But, nowadays it is hard to find this definition still appropriate. One could argue in fact, that there is not a single square meter, area or piece of land where humans have not engaged with. Today, a wild nature is simply inexistent. Considering the definition of nature, it would be interesting to look at the perspective of Next Nature Network’s philosophy. Next Nature is a group of designers, scientists and thinkers whom main concept consists in a substantial shift in the romantic idea of nature as something separate and apart from us. In fact, analyzing how human beings evolved through history, they define human-designed technology a “next nature” created by humans as part of the evolution of a natural but technological species within a technological environment. Moreover, humans are considered as part of the system of nature, where nature is conceived as an ensemble of species, of human and non-
human, living and non-living... We are not the dominant species on the planet, but we coexist with many others such as bacteria, algae colonies or insects.

**Figure 1.** Google Earth, Rosignano Solvay, Tuscany, Italy. 43°23'07"N 10°26'52"E

https://earth.google.com/web/search/Rosignano+Solvay+chemical+plant/@43.36375275,10.44274225,4.7093629a,12390.4768701d,35y,0.00007877th,0t,0r/data=CgigIg0Cg0Eg0VAEXIg0Euc7rUVAGe5B0RH6CjVAlfEEpCjW0RA [31st July 2018]

At this point of the research, in order to find a practical application of the topic it was necessary to choose and examine a case study that could properly reflect and present human traces and, subsequently, a significant transformation of the landscape. The case study chosen is Rosignano Solvay, a small city in Tuscany. This particular spot is on the coast where in 1914 a Belgian chemical company called Solvay founded one of its biggest plant of Europe.

Since it has hosted the company, the small village has undergone a tremendous shift. Firstly, it got named after the company itself, furthermore, its agriculture-based economy switched to an industrial economy, and over time it grew from a village to a small city. Moreover, due to the necessary labor force for the industrial activity, whilst building its plant, Solvay launched a hierarchical urban model dedicated to its employees, in which each class of workers corresponded to a certain model of habitation. Additionally, the company founded not only the Solvay’s club, a recreational association for monitoring social aggregations among its employees after work, but also most of Rosignano Solvay’s co-operatives and institutions (hospitals, theatres, cinemas, schools, and libraries).

However, the reason why this landscape is so absurd is because of the similarity it has with paradisiac and exotic places, indeed it attracts many tourists who call it “Caribbean of Italy” or “white beaches”. The factory produces its commodity: sodium carbonate. However, in order to produce it, while releasing its by-products in the sea, Solvay has been contaminating the area and creating a white beach and an altered sea. Due to the Caribbean-like aspect, this altered landscape, thereby becomes a by-product itself, a supplementary commodity of the factory, in the form of a widely popular tourist attraction.

**Figure 2.** Rosignano Industrie Solvay, Etienne (LI), 23 February 2008


Actually if we imagine this place without the factory it can really be considered an utopian beach with white sand and crystalline water. But unfortunately it is just a chemical transformation of the natural landscape, due to the waste material of the industrial activity. Some of the tourists don’t know why the landscape is so bleached, others do, but the idea of being in a beautiful place that looks like the tropics wins.

The sea and in particular the seabed in this area are lethal cocktails where the ingredients are toxic chemical components such as cadmium, nickel, chromium, lead, arsenic and especially mercury. In fact, during the last decades these elements necessary for the chemical processes have been released in the sea and just stopped in 2010.

Solvay produces sodium carbonate by the Solvay process. This process consists in chemical reactions
between salt (brine), limestone and ammonia and the end product is sodium carbonate or soda, a cleaning product. However, during the process some waste material is produced. Waste material that becomes the ingredients of this white sand. In fact, the white sand is mainly constituted by sodium carbonate, calcium chloride and limestone. As a result, the whole sea is whitened.

Additionally, the natural resources for the chemical process are taken within the regional area of Tuscany, limestone from the Solvay’s quarry in San Carlo and salt in a closer Saline. Considering the all process, the modification of the landscape is not merely happening in Rosignano, but also in the areas where the sources are exploited.

![Google earth. San Carlo limestone quarry. 43°06'39"N 10°32'26"E](https://earth.google.com/web/@43.08786389,10.39052631,206.12164068a,11121.22999491d,35y,0h,0t,0r,31st July 2018]

**Figure 3.**

Consider all processes, the modification of the landscape is not merely happening in Rosignano Solvay, but also in the areas where the sources are exploited, as shown in the Google Earth images.

**Figure 4.** Map redesigned based on stratigraphic maps of Tuscany – Livia Stacchini – 2018

Moreover, the alteration of the nature is also detected on a geological aspect. In the map it is shown how the coast of Rosignano is mainly constituted by carbonatic white sand caused by the industrial activity and its origin is dated in 1920 – 6 years after the foundation of the plant. Finally, due to the fact that the materials wasted are never stopping to be produced, while almost all the coast of the region is eroded, here it is growing.

Regardless of the fact that the coast has been declared as safe and the drains and its components are carefully monitored, the regional institution for the environmental protection of Tuscany, often detected that the amount of certain toxic substances exceed the established maximum levels. Whether the chemicals derive from the factory or not, Solvay – or Rosignano Solvay’s municipality – should consider the (surely) extremely expensive option of the potential removal and reclamation of the entire coast –
especially since they have received over 30 million euros through – Italian – public taxes for (not existent) environmental remediation projects. Nonetheless, Solvay continues to reassure locals about the safety of the altered terrain, and permits swimmers to be within a 100 meter proximity from the drain. As a result, Solvay is supporting the exposure of centenary harmful contamination solely for the sake of its economic growth, and thus, is committing subtle and steady violence in a foreign territory.

![Figure 5](https://earth.google.com/web/search/Rosignano+Solvay+chemical+plant/%4043.3598182,10.4359626,-0.047123879a,500d,35y,68.48756014h,0t,0r/data=CigIjgokCfl1rEFgs0VAEXlqEuc77UVAGef2B0RHH6CIYAIHEpCjW0lRA [31st July, 2018]

Figure 5. Google earth, Rosignano Solvay, Tuscany, Italy. 43°22′46″N 10°26′17″E

The discussions surrounding Solvay’s hazardous implications can be mainly identified by two factions. The political faction defends the factory by claiming it to be the founder of the whole city through providing a substantial source of income for many families. This doubts the factory’s provenance of the toxic chemicals and in turn, relates them to a more general anthropogenic source. The environmental faction researched official reports about the toxicity of the altered sea and the causes of deaths in the area and discovered that over past decades, 600 tons of mercury have been released into the sea. Consequently, it became apparent that the shore in Rosignano is one of the 15 most polluted spots on the Mediterranean coast, and that the mortality rate for mesothelioma is three times higher than expected.

The production of a cleaning product for the interiors is polluting and altering the exterior. The waste material of the factory is bleaching the sea and the sand, but is also producing a new land, the beach, which is continuously growing. The obsession with cleaning our apartments and maintaining the hygiene in the interior is causing the exploitation of natural resources and the transformation of the landscape. Cleaning the interior is something intentional and necessary, while what is happening on the beach is unintentional and unnecessary.

As a pharmakon, Solvay’s by-products are simultaneously creating “the cure and the illness”. As a unique inseparable amalgam or like the biblical apple, an appealing exoticized landscape coupled with poisonous contamination, are co-existing in the same landscape. Playing with the negligence of visitors, and setting the fictional imagery of the perfect holiday in exotic and overseas destinations, the uncanny and beautiful sea becomes itself the object of desire. Through capitalist and industrial production, while producing its commodity, Solvay produces the altered sea, which becomes a commodity again as a result of tourism.

Geological processes such as the formation of a beach or the change of sand’s pigment are large scale mechanisms that usually take millions of years, but were accelerated by the factory’s activity. The aim of the research was to discover a method to metaphorically reproduce Solvay’s activity into another landscape, the domestic interior.

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