DUST

TABLE OF CONTENTS

DUST TO DUST
- About the presentation

STUDIO DUST
-About Studio Dust
-Project of Studio Dust ; Beauty of the insignificant
-Project of Studio Dust ; Dust Cabinet

DUSTY EARTH / CITY
-Dust is a global environmental issue
-Where is all the dust coming from?
    -Soil Erosion
    -Sea Salt
    -Industry
    -Agriculture
    -Traffic

DUST IN THE HISTORICAL CONTEXT
-Great London Smog
-Dirty Thirties
-Year without summer
-Pompeii
-Dinosaur
-Darwin's Dust

DUST AND THE ECOSYSTEM
-Context
-Dust and Algae
-Dust and Moss
-Global Dimming

DUST TOT DUST CONCLUSION

DUST TO DUST

Dust connects to you in the most sensitive tactile way. Dust is in the air you breath, and is the matter you are connected with, through your skin all day long.

However dust seems to be an abstract problem, that isn't visual, and therefore doesn't feel like a problem. But research about fine-dust show that it isn't only lowering the quality of our life's, but also very bad for our health, and shortening our life's.

image Internet

DUST TO DUST

This presentation tells in contrast to all sorts of studies concerning dust not the numbers and graphics, but the story of dust and the consequence it has on humans in a personal tactile way.
Story telling about dust creates awareness. But also rises the question if we are living in such a dusty time?
And questioning if there are benefits from dust?

This presentation tells about the work of Studio Dust, and the random stories Studio Dust gathered about dust in a historical context. These stories form a dusty inspiration-base.

image Internet

STUDIO DUST

Studio Dust is founded by Annemarie Piscaer. She graduated in 2004 at The Design Academy Eindhoven, with “beauty of the insignificant”; a series of rugs made from wool dust. Since then she in fascinated with the industrial waste dust, and up-cycling material. She worked during her internship at the trend forecasting agency Studio Edelkoort Paris, and worked as an industrial textile designer for the Cradle to Cradle company Desso. She is a lecturer product design (BA), and she has her own product design studio for several years based in Berlin (2005) and Rotterdam.

Studio Dust
www.studiodust.nl
annemarie piscaer
annemarie@studiodust.nl

06 27220434
Heemraadssingel 320 b
3021 ND Rotterdam

STUDIO DUST

"Pollution is nothing but the resources we are not harvesting. We allow them to disperse because we've been ignorant of their value." Buckminster Fuller

Studio Dust has as a main focus to up-cycle industrial waste materials into products by using craftsmanship. It has a love for the materials textile and ceramic, and a fascination for the industrial waste: dust. Dust is the consequence of making. Dust seems like worthless material, however the industry produces lots of it. So it can be used as a material for products instead of burning it as waste, and polluting the air. Dustification of our planet goes rapidly, and becomes a huge problem. Studio Dust wants to create products with dust rather than have dust polluting the air.

image Studio Dust

STUDIO DUST

Dust is light and airy and has a poetry to it. Dust is a state of the material.
But the pollution of dust has huge consequences for the health of humans! Better create something out of dust, then have dust-pollution! Creating value instead of pollution.
Dust symbolizes the fragility of the available materials. But it also symbolizes the power of circular thinking concerning materials (circular economy). Everything will turn into dust, and is created from dust. This worthless material can be up-cycled by the use of craftsmanship. The value of crafts is that it can shape material rough and independently, and in contrast to the industry does not need uniform material. Studio Dust wants to preserve the knowledge of craftsmanship.

image Studio Dust

BEAUTY OF THE INSIGNIFICANT

"Beauty of the insignificant" is a series of felt woolen rugs. Starting point is to design with the most worthless material and the lowest input of energy. Resulting in a series of woolen rugs felted with the industrial left over material dust from a woolen bed sheet company. The production of bed sheet produces a lot of dust. Because of health regulations all the dust has to be carefully gathered into big bags. This dust seems worthless, however can be used as material for felting. It is felted into the washing machine, and uses as much energy as the hottest and longest washing program.

image Studio Dust

BEAUTY OF THE INSIGNIFICANT

The series of "Beauty of the insignificant" consists of 2 types of rugs. First series is made in the washing machine. This thick felted rug has a maximum size of 2.2m / 2.6m. In the second series the rug is woven with the left over edges that are cut from the sides of the first series. There is no waste in the production of "Beauty of the insignificant".

image Studio Dust

BEAUTY OF THE INSIGNIFICANT

"Beauty of the insignificant" is designed as a graduation project of The Design Academy Eindhoven.
It had an honorable mention in the "Dyson sustainable design award". It was exhibited at several exhibition, among others Salone del Mobile Milan 2006 (Post Mortem), DMY Berlin 2005 and was on loan to the Dutch Ambassy in Berlin at the Cultural Department 2005.

image Studio Dust

DUST CABINET

"Dust cabinet" is a cabinet with a collection of several sorts of dust.
But is also resulting a lecture and research about dust in general, the consequence for human health, historical facts, potential material, dust and the consequences for the ecosystem, etc. This research tells in contrast to all sorts of studies concerning dust not the numbers and graphics, but the impact dust has on humans in a personal tactile way.

The research tells the story that dust has on a human size level.
(Historical, Cultural, Industry) This lecture was given amongst others at the DesignMai Youngsters Berlin 2012.

image Studio Dust

DUST CABINET

image Studio Dust

DUST CABINET

Giving value to dust starts with giving it a better image. Showing the beauty of dust!
Studio Dust has an inspiration base of images that would like to show the poetic character of dust.

image Studio Dust

DUST CABINET

image Studio Dust

DUST CABINET

image Studio Dust

DUSTY EARTH

Recent studies show that in the last 100 years it got twice as dusty on earth, with a huge acceleration in the last decade. This dustification is mostly caused by the dust that comes from deserts. There are a big consequence to dustification on the ecosystem. Dustification is a problem that crosses borders of countries.

image Internet

DUSTY CITY

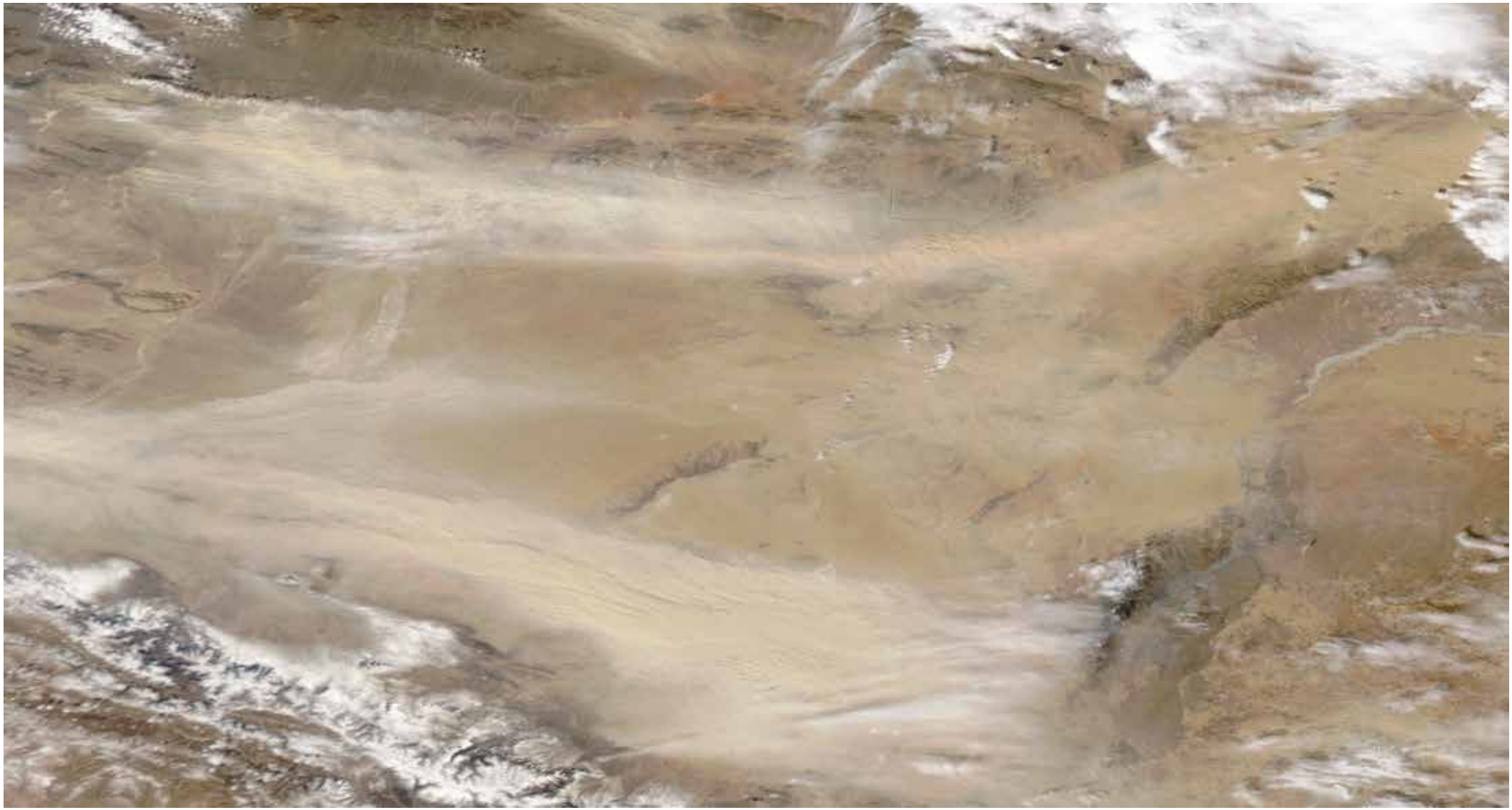
Smog is a big issue in a lot of cities world wide. And has consequences for the people living in a city.
According to the 2014 WHO report, air pollution in 2012 caused the deaths of around 7 million people worldwide.
It is caused by many factors. Sea salt in the air, air pollution by traffic, the industry, agriculture etc.
Some cities take unconventional measurements.
For example the city of Athens; where on even days only cars with even number plates are allowed to drive, and on odd-even days only cars with odd-even number plates. Resulting in family´s owning two cars!
In Chinese cities oxygen-bars are very popular. In these bars you can order some clean air instead of a beer.

image Studio Dust

SOIL EROSION

Soil erosion is creating deserts. Bad treatment of our soil, by overproduction of our agri-cultivated lands create erosion.
Change of climate is also changing the conditions for the soil. This dustification happens quickly.
To measure fluctuations in desert dust over the century, researchers gathered existing data from ice cores,
lake sediment and coral, each of which contain information about past concentrations of desert dust in the region.

The impact of dustification happens on various levels, and is an intertwined process. Desert dust and climate influence each other directly and indirectly through a host of intertwined systems.
This year (2015) is the international year of the soil, where issues like soil erosion are important.



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SEA SALT

Where is all the dust coming from?
Sea salt is one of the biggest contributors in the dust problem. These are the salt particles that are evaporated from the oceans.

image Studio Dust

INDUSTRY

The industry still has a big contribution to our dust problem. Burning of fossil energy, the burning of our waste etc. However the industry has made big improvements in collecting the dust, and stopping it to get into the air.

image Internet

INDUSTRY

The industry is using dust-collectors in all sorts of shapes and forms.
A dust collector is a system used to enhance the quality of air released from industrial and commercial processes by collecting dust and other impurities from air or gas. Designed to handle high-volume dust loads, a dust collector system consists of a blower, dust filter, a filter-cleaning system, and a dust receptacle or dust removal system.

image Studio Dust

AGRICULTURE

Agriculture produces dust in all sorts of ways. The dust comes for example from the erosion of the soil.
The dust also comes from for example the animals. Especially chicken farmers have to be real careful for dust.

image Internet

AIR TRAFFIC

Air traffic is increasingly contributing to air pollution.

image Studio Dust

TRAFFIC

The last big contributor to air pollution is traffic.

image Studio Dust

GREAT SMOG LONDON

The Great Smog was a period in 1952 in London with severe air-pollution. The pollution was caused by a change in the weather. This cold and wind still weather collected airborne pollutants mostly from the use of coal to form a thick layer of smog over the city. This period had a lot of air pollution. The smog was caused by the use of coal for heating houses and in the industry.

image Internet

GREAT SMOG LONDON

The Great Smog had huge consequences for humans and was very bad for health.
It resulted in the Clean Air Act in 1956, a series of regulation in order to reduce the use of coals, and replace it by gas heating etc.

image Internet

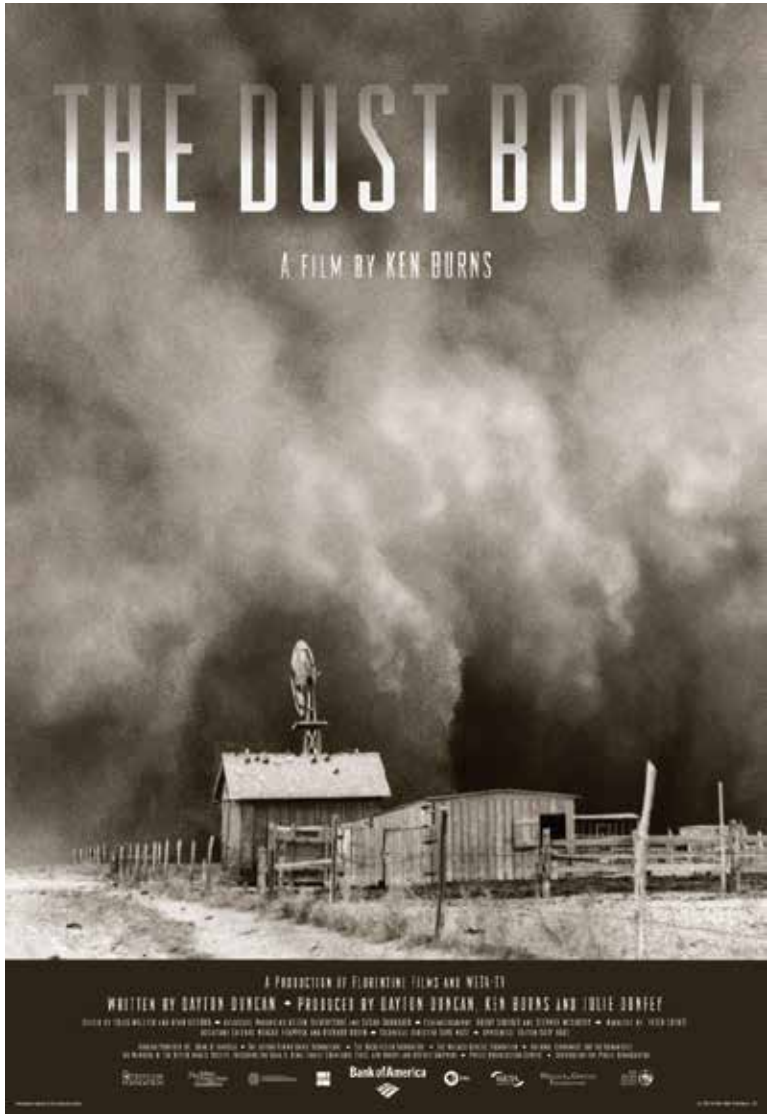
DIRTY THIRTIES

The Dirty Thirties was a period in the thirties in the 20th century in the US and Canadian prairies, during the Great Depression. Due to high food prices all land was cultivated. This gave the result of intense agriculture, and overgrazing in combination with drought and caused a lot of dust storms.
This intensified the economic crisis. The Dust Bowl forced tens of thousands of families to abandon their farms. These people migrated to the cities.
As a sollution President Roosevelt ordered the Civilian Conservation Corps to plant a huge belt of more than 200 million trees from Canada to Abilene, Texas to break the wind, hold water in the soil, and hold the soil itself in place.
The administration also began to educate farmers on soil conservation and anti-erosion techniques.

image Internet

DIRTY THIRTIES

The Dust Bowl was documented by photographers, musicians, and authors, many hired during the Great Depression by the federal government. It created a vivid artistic movement.
For example author John Steinbeck, wrote Of Mice and Men (1937) and The Grapes of Wrath (1939) about migrant workers and farm families displaced by the Dust Bowl.



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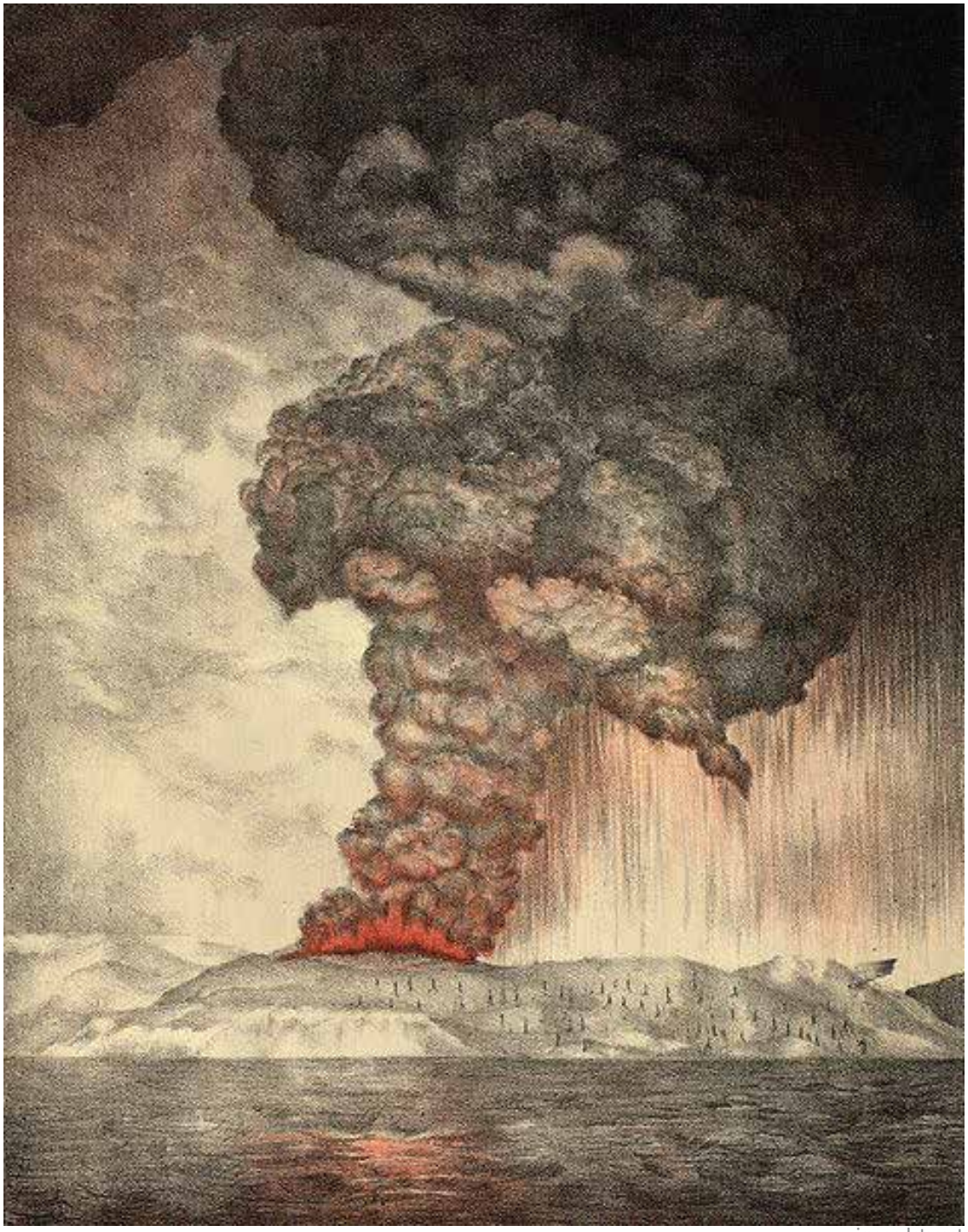
YEAR WITHOUT SUMMER 1816

The year 1816 is known as the Year Without a Summer because of severe climate abnormalities that caused average global temperatures to decrease. This resulted in major food shortages. A volcanic winter event caused by the massive 1815 eruption of Mount Tambora in the Dutch East Indies (Indonesia), the largest eruption in at least 1,300 years. The dust of the volcano got into the air, and spread around the globe causing a temperature drop world wide. And in some area's even snow in summer.

image Charles Leickert; Internet

YEAR WITHOUT SUMMER 1816



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YEAR WITHOUT SUMMER 1816

The lower temperatures caused bad harvest and food shortage and global famine. The perfection of the invention of the bicycle, became nessecery due to the food shortage, since there was no food for feeding the horses, so other ways of transport became necessary.

image Friederich Moon; Internet

YEAR WITHOUT SUMMER 1816

The dust in the air also resulted in beautiful orange sunsets (painted by JMW Turner). The color of the sunset is influenced by dust in the air and create a beautiful color palet.
The sudden change of the climate and the change of the colors in the sunset created a different artistic movement. This period is called Romanticism. This interest in nature is seen in paintings, but also in a new movement of story telling. Where in the cold winter people where sitting inside and the horror story like Frankenstein was written.

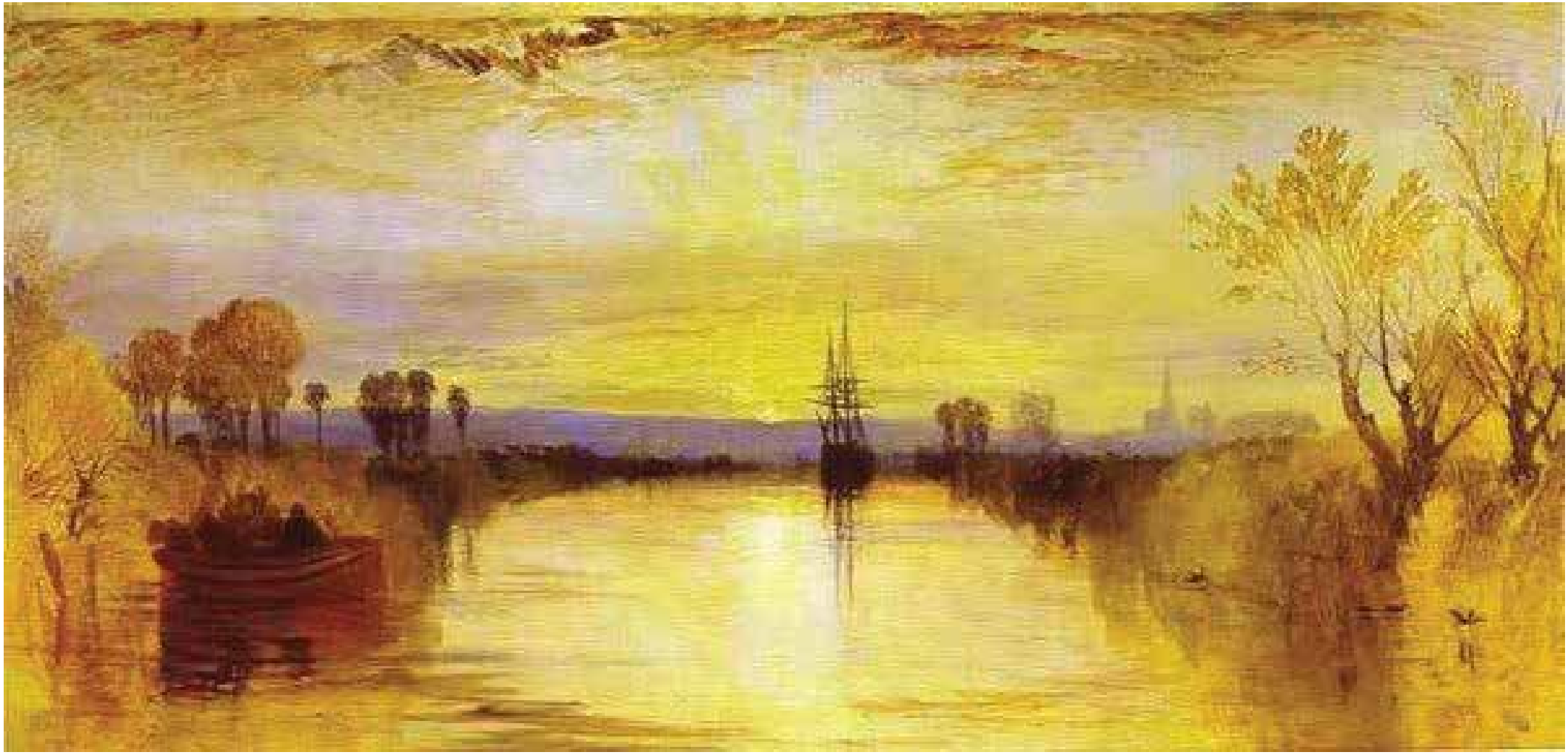


image William Turner; Internet

POMPEII

The eruption of the volcano the Vesuvius destroyed the city of Pompeii, killing its inhabitants and burying the city under tons of ash. This ash proved to be an excellent conservation method and well-preserved the city for centuries.

image Studio Dust

DINOSAUR

The Dinosaur got extincted by a climate change and temperature drop caused by ash and dust.
This ash either came from a series of volcanic activities worldwide, or a meteorite impact on earth, also causing a lot of dust and ash.

image Internet

DARWIN DUST

Charles Darwin found a lot of dust on the boat "Beagle" in the middle of the ocean in the South American area. He collected this dust. He was amazed to find this dust in the middle of the ocean, and was wondering how this dust could have traveled so far. Samples of this 200 year old Darwin´s dust remained and resulted in a research about the origin of this dust. The dust came from the Sahara desert, and was blown all over the ocean to South America.

image Internet

DARWIN DUST

On the 16th of January (1833), when the Beagle was ten miles off the N.W. end of St. Jago, some very fine dust was found adhering to the underside of the horizontal wind-vane at the mast-head; it appeared to have been filtered by the gauze from the air, as the ship lay inclined to the wind. The wind had been for twenty-four hours previously E.N.E., and hence, from the position of the ship, the dust probably came from the coast of Africa. . .. . . the circumstance of such quantities of dust being periodically blown, year after year, over so immense an area in the Atlantic ocean, is interesting, as showing by how apparently inefficient a cause a widely extended deposit may be in process of formation. . ..

Charles Darwin

ECOSYSTEM DUST

The impact of dust to our global eco-system is very important.
Like the story of Darwin is showing is that dust can travel very far on the planet. There is research about dust, and what consequence it has on planetary microbial ecology. Microbes (bacteria and fungi for example) get attached to the dust particles and are able to travel long distances from the Sahara to the Amazon. Causing an intercontinental spread of micro-organisms on land and in the oceans. Dust is connecting local eco-systems to each other.
Dust plays a very important role in the global ecological system on earth!

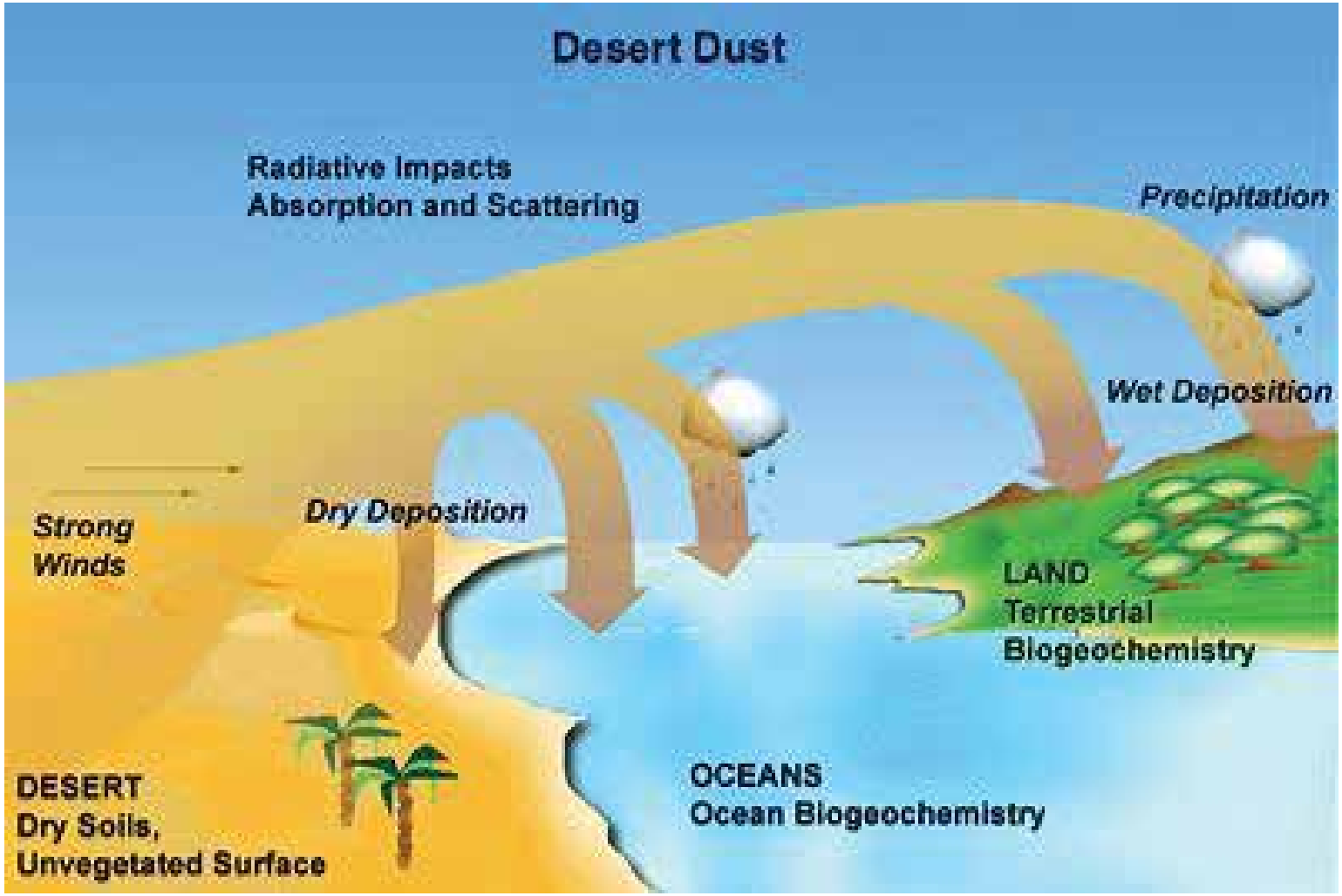
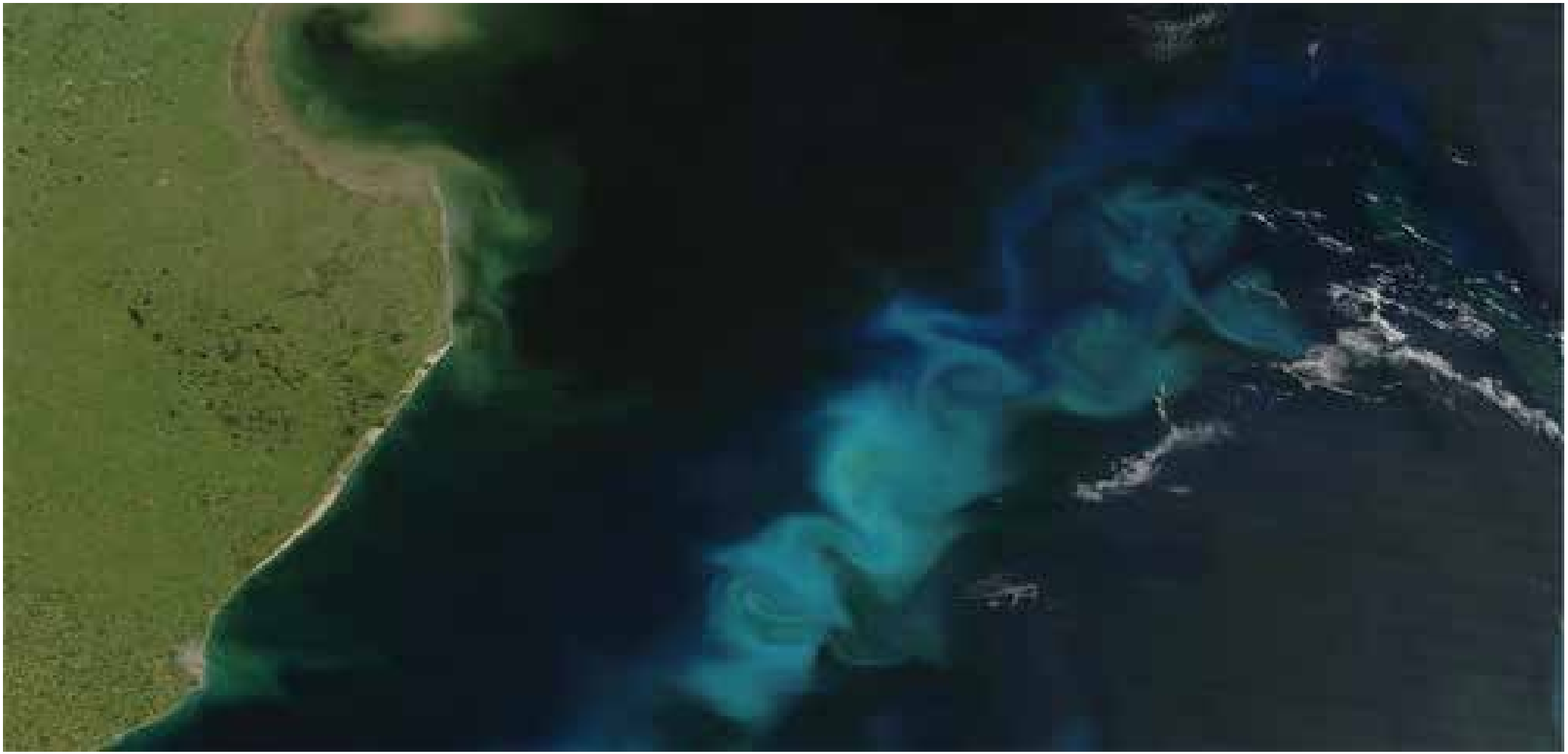


image Internet

DUST ALGEA

The dust contains nitrogen and phosphate (the elements gets attached to dust particles). The dust blows into the ocean and the nitrogen and phosphate is fertilizing the water. Causing a massive growth of plankton. Images show a massive growth of plankton in the area's were the dust is getting into the ocean. This plankton can trap in its turn atmospheric carbon. Which is important for the right balance of atmospheric carbon. There is still a lot of research about this process, and unclear what sort of effects it has. The oceans are the lungs of the world.



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DUST ALGEA

A research on desert dust in Australia gave the discovery of the possible benefits.
Australia started an experiment because of this research in order to solve their CO2 problem by blowing with big machines desert dust into the ocean. The nourishment that is attached to the dust is fertilizing the ocean, and is food for the algae, that in its turn trap CO2.
However there are a lot of questions concerning this experiment. Because long term consequences are unclear.
It might also pollute and kill the natural Eco-systems.

image Internet

DUST MOSS

Plants and in particular moss are able to “clean” the air. Dust particles are absorbed by moss, and are connected to the small hairy parts of plants.

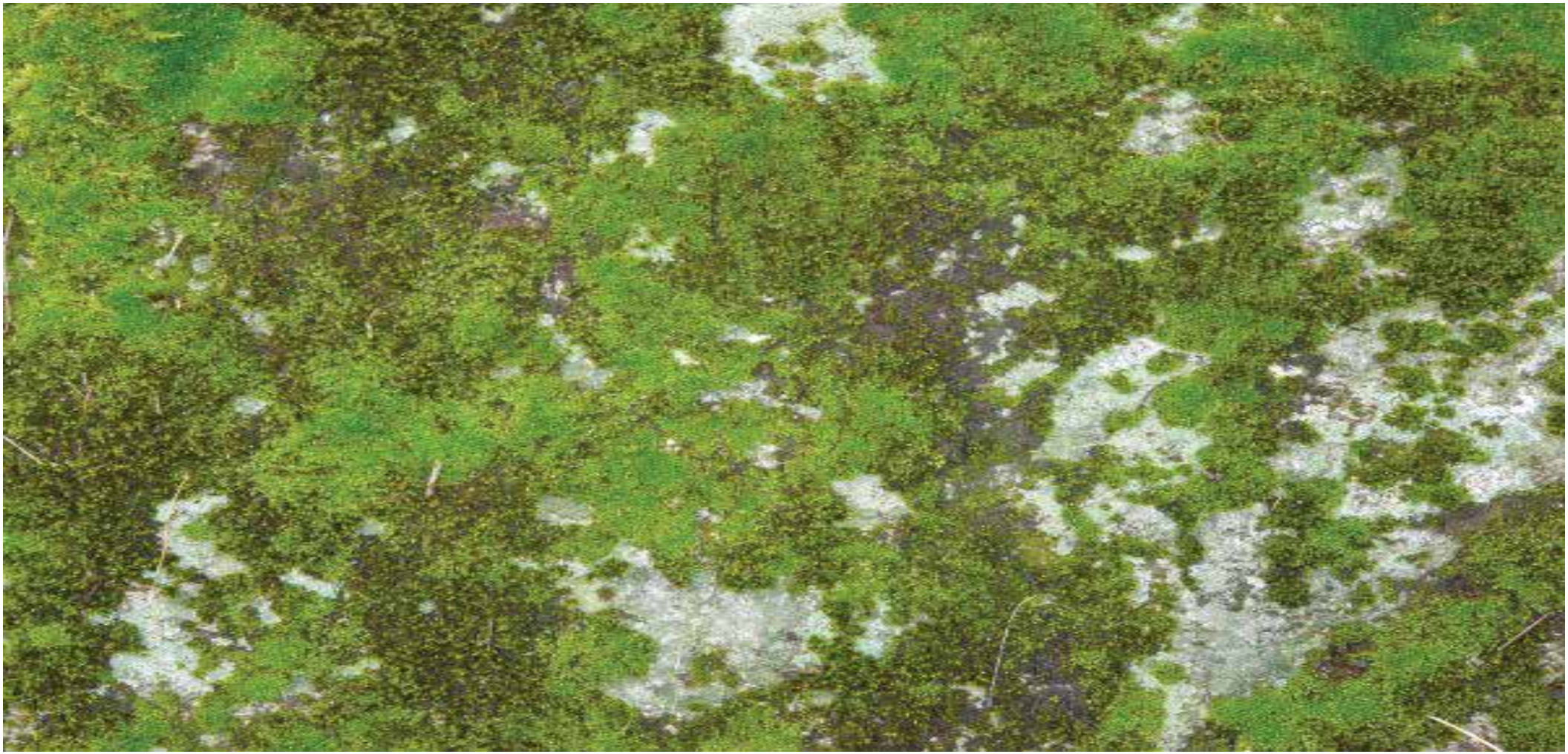

image Studio Dust

GLOBAL DIMMING

Global dimming is the effect of the reduction of the intensity of the sun, probably caused by small particles in the atmosphere. Fine dust attracts water and these small droplets (forming clouds) reflect sunlight and therefore create a cooling effect on earth. The effect of global dimming became obvious for example at 9/11 when air traffic was grounded (reduction of fine particles in the air caused by kerosene) and it seemed like it got a few degrees warmer worldwide.

image Studio Dust

DUST TO DUST

In this presentation I tried to show random stories about dust. And shift our perception of dust in general. But I also tried to give dust an image, and hopefully make it a less invisible issue. Some dust-stories are about the positive effects dust has on our Eco-systems.
Or the positive effect global dimming has in cooling our earth (or lowering the effects of our global warming). And the beautiful colors dust can generate in sunsets; dusty sunset have gorgeous orange and yellow colors. I would miss them, if air pollution could be solved!
I also tried to rise the question, if we are living in such a dusty-dirty period? We are not living in a period of burning coals in our homes and pollute ourselves with black smoke (like in the period of the great smog in London).

However I believe that clean air should be the common good to everyone, and we could all enjoy breathing! And I also believe we should honor even the smallest things in our lives (dust). Everything has a value, and everything could be celebrated to use as material.
This means that even dust can be used as a material. Nothing is waste!

image Studio Dust