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# MESSAGES TO THE ABOVE: LOOKING AT ART FROM THE SKY



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# MESSAGES TO THE ABOVE LOOKING AT ART FROM THE SKY

What's the interest of realising an artwork that can only be appreciated in its entirety from the sky? Apparently, none. Nevertheless, giant artworks perceivable only from above have been realised since the most ancient times, while the history of architecture counts endless examples of sophisticated buildings, castles, gardens and the like, which plan or iconography can be only seen clearly by watching at them downward from above.

Examples of land art, integrated in natural or urban landscapes, continue generating interest

also in the XXI Century, responding to what seems to be a peculiar human need for "decorating" our planet, while showing off our idea of beauty to those who might be watching from above.

This article wants to provide our readers with a short introduction on how aerial photography and satellite imagery have changed our way of looking at the Earth, inspiring art movements and allowing for the discovery and appreciation of ancient and more recent artworks, be them nature-made or man-made.

## SHORT INTRODUCTION ON THE ORIGINS OF AERIAL PHOTOGRAPHY AND ITS INFLUENCE ON ARTS

The first aerial picture we recall was taken by the French photographer **Nadar** in 1858 from a tethered balloon at 500m from the ground. This first snap of Paris seen from above is today lost, but it inspired a number of contemporaries to follow suit, the most known being **James Wallace Black**, whose picture of Boston taken from a hot-air balloon represents the first clear aerial photograph of a city.

These pictures unveil to the public a new iconography, allowing for the discovery of a flattened Earth. "**The Earth unrolls in a huge carpet without edges, without beginning or end**", Nadar wrote.

This panoramic view of the landscape inspired photographers, filmmakers, painters and architects to experiment with the possibilities offered by perspective: the images change depending on whether they are observed from far or from near, from above or from below, while the horizon line gradually disappears.



James Wallace Black, "Boston, as the Eagle and the Wild Goose See It", 1860, Metropolitan Museum of Art



Paul Klee, "Highway and byways", 1929, Oil on canvas, WikiArt

During World War I, hundreds of aerial pictures are taken from airplanes for military purposes. By changing the perspective of the viewer, these photographs will affect the work of contemporary artists, from the Bauhaus movement to **Paul Klee's** oblique or perpendicular landscapes, to Jackson Pollock's all-over paintings, realised by throwing colours on canvas laying on the ground and reminding the aerial pictures of bombs released from airplanes during WWI and WWII.

The power of abstraction of what is called "**bird's-eye view**" is particularly evident in the paintings of Sam Francis, illustrating the memories of his two tours around the globe as a pilot in the late Fifties.

# AERIAL PHOTOGRAPHY AND ARCHAEOLOGY

In addition to influencing artists, progresses in aerial photography also represented a precious tool for natural and human sciences. Indeed, Paul Kosok, credited as the first researcher of the **Nazca Lines** in Peru, first acknowledged their existence thanks to aerial photographs of the sites in 1939.

Forty years later, the American photographer **Marilyn Christine Bridges** was able to capture the whole of the site from a plane, delivering to the world the first artistic snaps of the largest existing concentration of earth drawings.



Marilyn Bridges, 1979. Aerial view of the ancient earthwork "Pathway to Infinity", Nazca, Peru. Gelatin silver print, comp.: 32.9 x 25.5 cm, sheet: 35.4 x 27.9 cm. CCA Collection, PH1980:1187

The Nazca lines are not the only example of giant representations that can be only seen from above. **Hill figures** (large visual representations made by cutting into a steep hillside and revealing the underlying geology), have been created since prehistoric times and include human and animal forms, as well as more abstract figures.

The Nazca Lines are a group of very large **geoglyphs** in the Nazca Desert in Peru, created between 500 BC and 500 AD by making incisions in the soil. Numerous scientists have studied the Nazca geoglyphs, also using satellite imagery of the sites, in an effort to understand the purpose of these giant drawings, conceived as to be seen from the sky.

Despite the technologies available, and the numerous theories proposed by the scientists who researched the Nazca lines - claiming that the lines were messages to the gods, astronomical representations, or even ceremonial paths - their meaning still remains mysterious.

## SATELLITE IMAGERY AND ARCHAEOLOGY

Satellite imagery has proved to be a powerful tool for archaeologists.

It allows scientist to identify new sites, even when these are buried underground, thanks to crop marks; in combination with ground measurements and spatial analytics tools, satellite imagery also allows archaeologists to identify physical interactions between archaeological deposits and the surrounding soil; moreover, satellite Earth observation facilitates the **detection and monitoring of threats to heritage**, such as deforestation, climate change, agriculture and urban sprawl, among others; finally, it can be the only available means to acquire information on the status of cultural heritage during conflict or emergency situations.

To know more about the uses of satellite imagery to study, monitor and safeguard cultural heritage, please read the conclusions of the Eurisy conference "**Space for Culture**" held in Matera (Italy) in 2018.

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# ARTS, LAND ART AND SATELLITE IMAGERY. SCIENCE OR ART?



The Cretto di Burri of Gibellina (crack of Gibellina), realised in Sicily between 1984-2015, is a landscape artwork by Alberto Burri based on the old city of Gibellina, that was completely destroyed in the 1968 Belice earthquake. Picture by Boobax - Opera propria, CC BY-SA 3.0

At the end of the 1960s, the pictures made available by aerial archaeology influenced and became a reference for the artists of the emerging **Land Art** movement.

Aiming at extending the reach of arts to the topographic space, this movement included the creation of very large artistic works, embedded in the surrounding landscape.

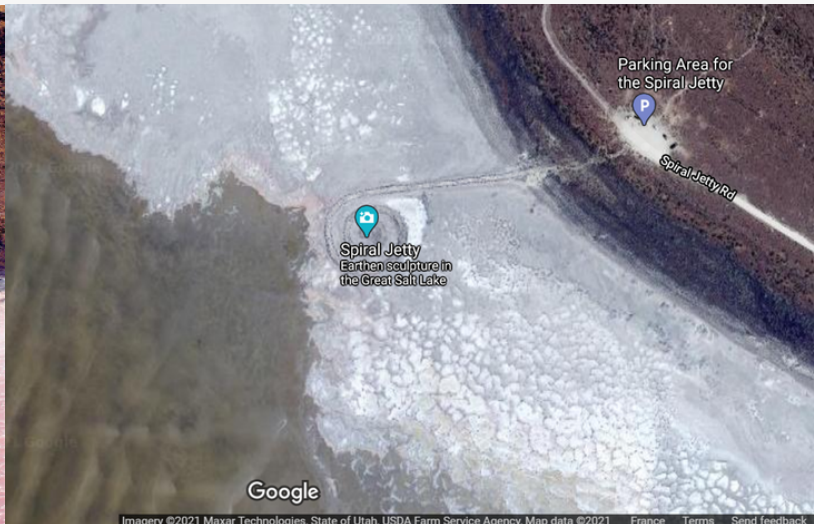
The movement was started by **Robert Smithson** and **Dennis Oppenheim** and includes among its representatives Christo Vladimirov Javacheff and Jeanne-Claude Denat de Guillebon (both known as Christo), and Alberto Burri, among many others.

The materials used within the Land Art movement were generally the materials of the Earth found on-site, while the location of the artworks was often inaccessible.

This means (and this is what interests us the most here), that the only way for the public to see and appreciate such artworks in their entirety was often through an aerial photography showcased in a gallery or by media.

Today, the deployment of satellites equipped with sensors with an increasingly high definition allows us to also perceive such artworks from the outer space.

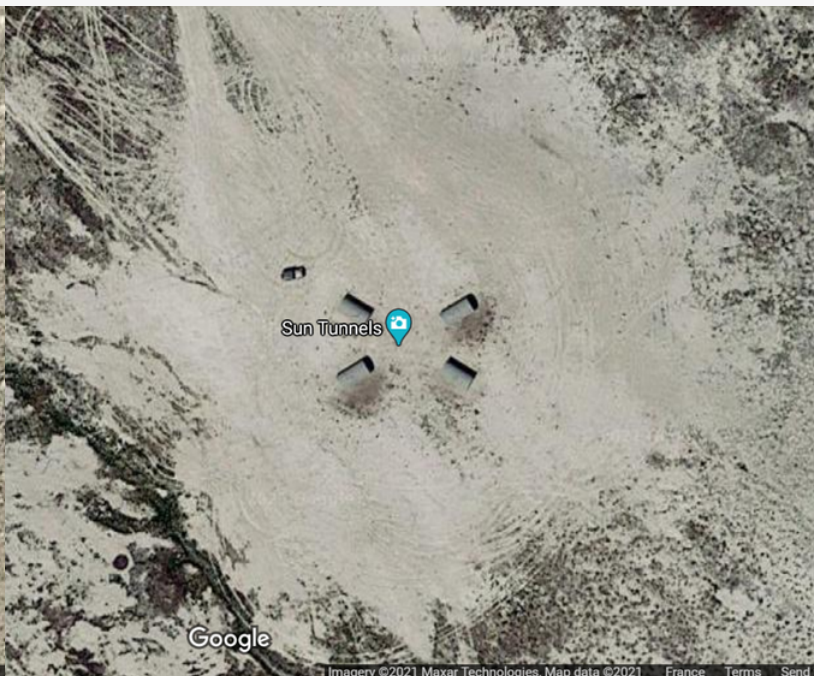
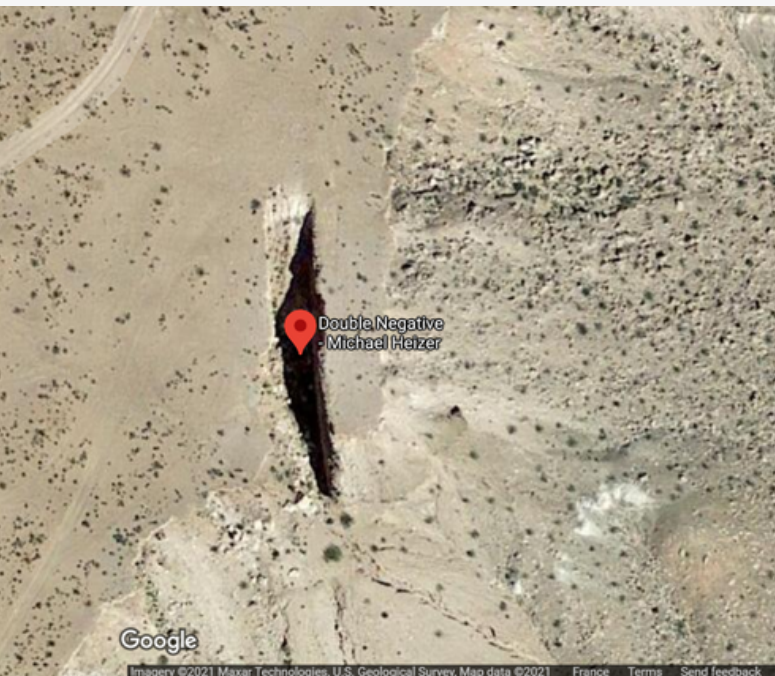
**If the quality of the images collected by satellites is not comparable with those of aerial pictures, the fact that such artworks can be seen from space carries an undeniable fascination.**



Aerial photo showing Robert Smithson's **"Spiral Jetty"** (1970) on the northern banks of the Great Salt Lake, in the Utah desert, and the Rozel Point landscape to which it is attached, Aug. 26, 2009. Ray Boren, Deseret News archives

Spiral Jetty captured by Maxar Technologies satellites and made available on Google Earth

**INDEED, SATELLITES ADD A NEW PERSPECTIVE TO LAND ART, INVITING THE EVENTUAL VIEWER TO GET CLOSER TO THE ART PIECE.**



**Double Negative** is a trench in the earth 457 m long, created by Michael Heizer in 1969 in the Moapa Valley, in Nevada. Its name refers to the "negative space" that constitutes the art work. Credits: MAXAR Technologies satellite imagery, as shown on Google Maps

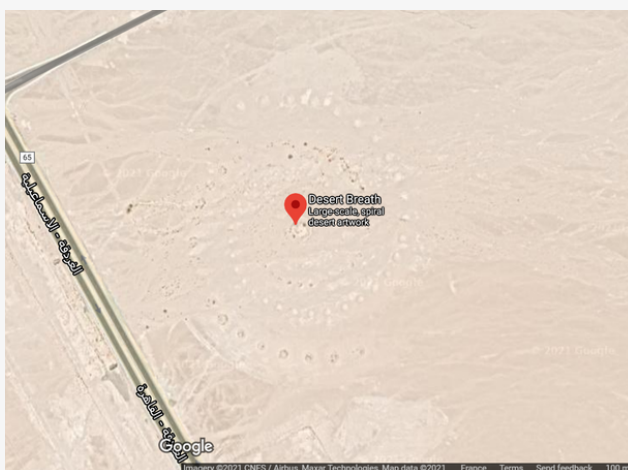
The **Sun Tunnels** built in 1976 by Nancy Holt in the Utah desert, captured by Maxar Technologies satellites and made available on Google Earth.

If the United States are the country with the highest concentration of Land Art works, some interesting examples of this movement can be also found elsewhere.

As an example, **Desert Breath** is an installation excavated in the sand of the desert in Egypt, nearby the Red Sea, by the D.A.S.T. Arteam collective between 1995 and 1997.

For this artwork, the artists used about 8 thousand cubic meters of material, 89 sand cones and 89 holes spiralled around a basin, on an extension of about 100 thousand square meters.

If the water in the tank has evaporated, the cones and depressions are incredibly still in their place, unchanging over time and still visible even from satellites.



On the left, the **Desert Breath** captured by satellites as available on Google maps, and on the right, as it appeared in 1997, captured by aerial photography. Picture credits: D.A.S.T. Art Team

## WHAT IS THE VALUE OF THE IMAGES OF LAND ART FROM SATELLITES?

Given the fact that they do not allow the viewer to fully enjoy the aesthetic features of these works, can we still talk about art? Or are we in the realm of science only?

An answer to this question can be partially drawn from the current master of global cartography, Google.

Indeed, Google Earth offers today a portal dedicated to Land Art. Merging satellite and aerial views, the portal showcases 10 modern examples of Land Art, coupling Earth views with descriptions of the artworks.

## BY COMBINING ART AND CARTOGRAPHY, GOOGLE ERASES THE DISTINCTION BETWEEN ART AND SCIENCES, SHOWING HOW THE TWO DOMAINS CAN GO HAND IN HAND AND SUPPORT EACH OTHER.

If since the end of the XIX century telescopic observations showed us that the space world can be assimilated to an artwork, the world seen from the space is not far behind.



## THE WORLD SEEN FROM SPACE. THE RELATIVE SIZE OF THINGS AND THE EMERGENCE OF SATELLITE PHOTOGRAPHIC ART

Technological developments in the space sector brought a new look on reality, taking perspective to a new level.

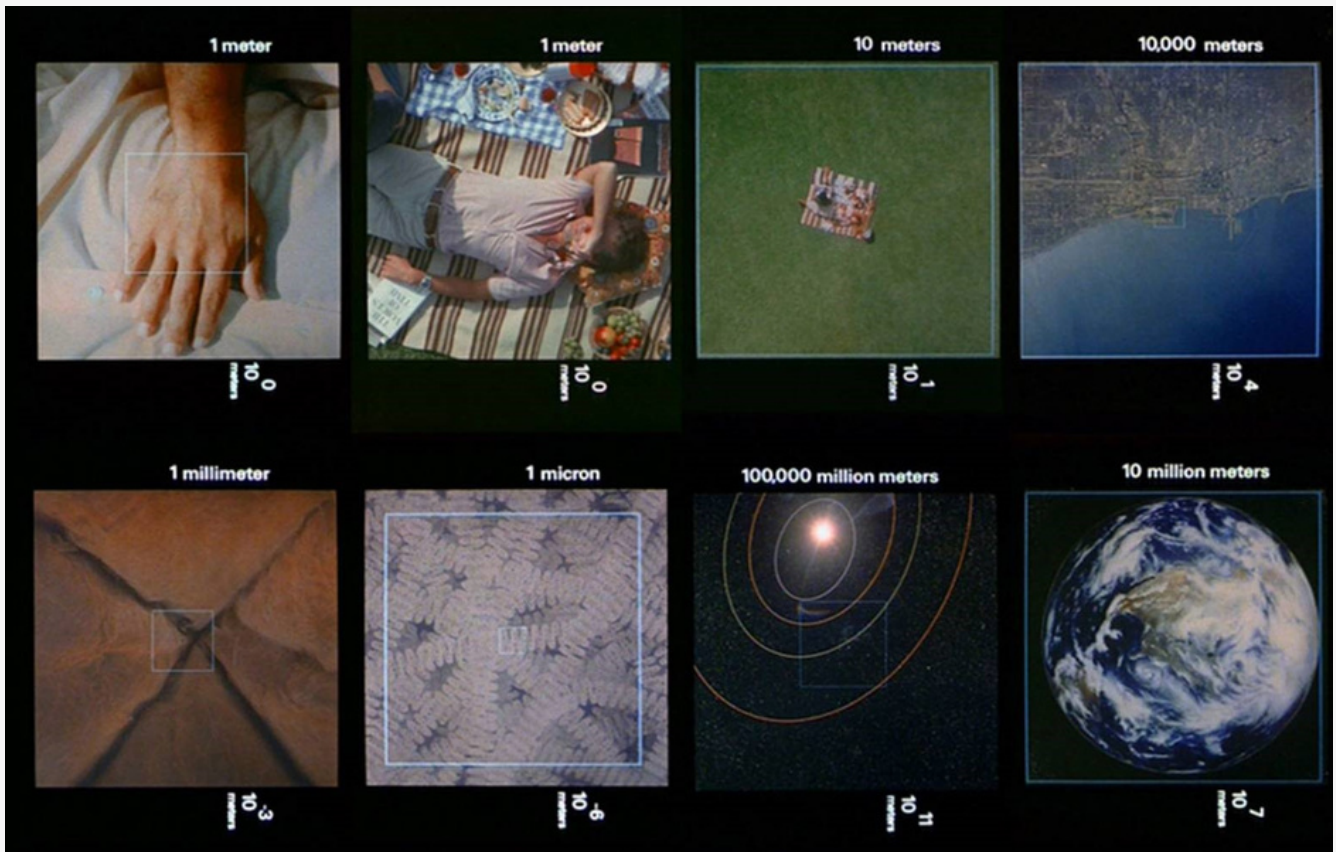
In addition to revealing the astonishing beauty of our planet, the first clear images of the Earth taken from the sky in the late Sixties changed the Eurocentric and anthropocentric paradigm that had characterised the Renaissance artistic model for good.



On top, one of the first images of the whole Earth, taken in 1968 by the crew of **Apollo 8**. The photo shows the Earth at a distance of about 30,000 km. South is at the top, with South America visible at the top half centre.

The picture below, taken by the Apollo 8 crew members while in orbit around the Moon, shows the Earth rising for the third time above the lunar horizon (Pictures credits: NASA)

**SUCH IMAGES SHOW THAT THE LOCATION OF THE ELEMENTS AND THEIR IDENTIFICATION BECOMES LESS OBVIOUS AS THE POINT OF VIEW RISES AND LEADS US TO WONDER ABOUT THE “RIGHT DISTANCE” FROM WHICH AN ARTWORK SHOULD BE OBSERVED.**



Some photographs from the movie "Powers of Ten", 1977. Picture credits: ARCHIO

This awareness about the relative size of things in the universe inspires in 1977 the documentary movie "**Powers of Ten**" written and directed by Charles and Ray Eames.

The guiding principle of the movie is that every ten seconds the distance from the initial scene (a couple having a picnic in a park in Chicago), becomes 10 times greater, reaching up to a view of the whole Earth (based on a NASA image), and continuing towards a visualisation of the edges of the known universe, before reversing at the same pace to explore the galaxies within the human body, and eventually going down to the level of a carbon atom.

The "Zoom in" and "Zoom out" function, today embedded in Google Earth, was born with this movie.



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In the very last years, satellites have become innovative and fascinating tools for creative arts, notably in the field of photography. And aerial photography has paved the way for what we can call today **“satellite photographic art”**.

The artistic value of aerial cartography became undeniable since the publication in the Seventies of **Georg Gerster’s** aerial images. Others followed suit: in 1994, the French photographer **Yann Arthus-Bertrand** released the book “Earth from Above”, showcasing breath-taking views of some of the Earth’s most beautiful landscapes seen from an airplane.

It was soon the turn of satellite imagery to show how beautiful the Planet looks from outer space. According to Arthus-Bertrand, **the advent of satellite photography “completely blew up the vision of the Earth”**.

Indeed, in 2013, he published a book collecting 150 satellite images captured by Spot Image: **“Earth from Space”**.

The images were modified with “false colours”, using data outside the spectrum of light perceivable by the human eye (infrared, near-infrared, ultraviolet, and other such data), to produce images with brighter colours highlighting weather patterns, plant life, and pollution.

The union between science and arts could not be more successful. Indeed, the value of such images does not only rely in the beauty of the landscapes, but in the possibilities that these offer to **monitor and safeguard the Planet** against threats such as pollution, desertification, urban sprawl, agriculture, and disasters.

Of course, behind the satellite there is no longer a human eye, but this does not mean that satellite images do not constitute a new frontier of photography, which is now also capable of capturing much more than shapes and colours, but (thanks to sensors) of “seeing beyond the eye”.



Two astonishing images from the book “Earth from Space” by Yann Arthus-Bertrand, Published by Abrams, 2013

# CONTEMPORARY LAND ART: A NEW FRONTIER FOR SATELLITE IMAGERY?

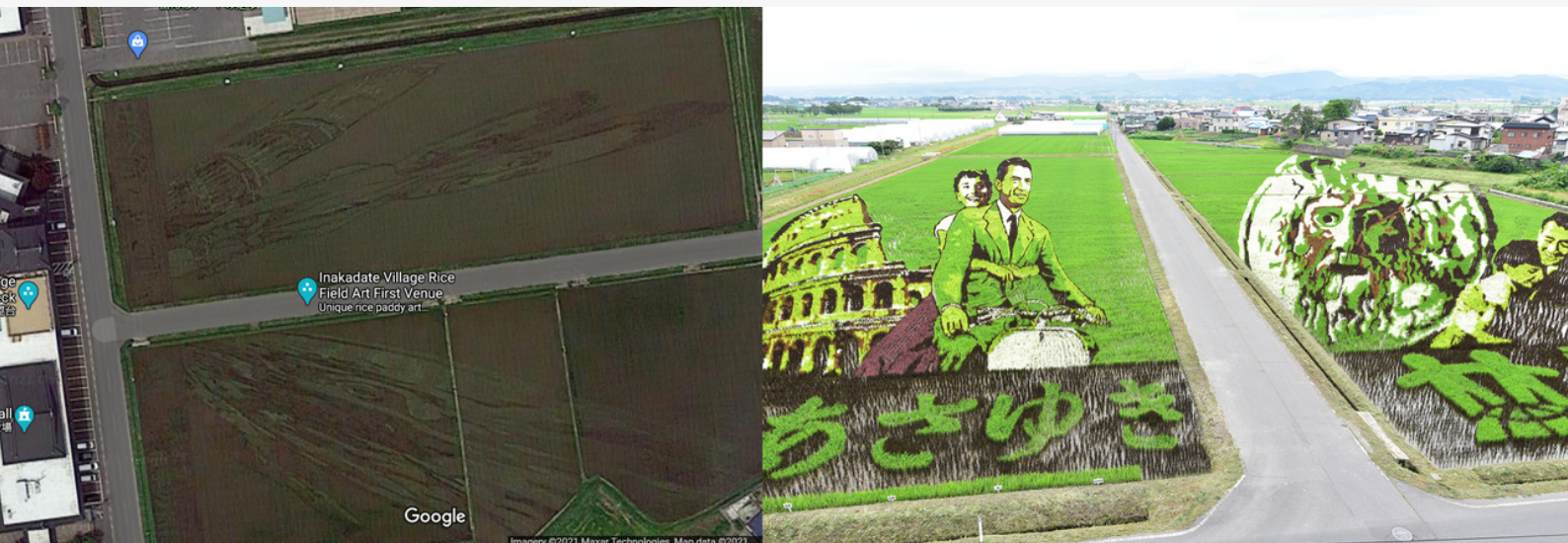
Nowadays, we see contemporary Land Art representatives to continue using this expressive means to valorise unknown or degraded environments or to push political messages.

In Japan, rice fields have become the place for the artistic experimentation known as **Tambo Art**, or Tanbo Art (Rice paddy art).

The representatives of such movement create images in a paddy field by planting rice of various types and colours.

The Japanese villagers of this movement capitalise on the Country's millenary tradition of growing rice to revitalise and draw attention to their villages through giant pictures in the fields.

In Inakadate, a village in the Aomori Prefecture, more than 200,000 people visited the village in 2006 to see these artworks, which are also perceivable from outer space.



A satellite image of some **Inakadate Tanbo Art**, as seen on Google maps (on the left) and from the local observation point (on the right), featuring a scene from the movie "Roman Holiday".



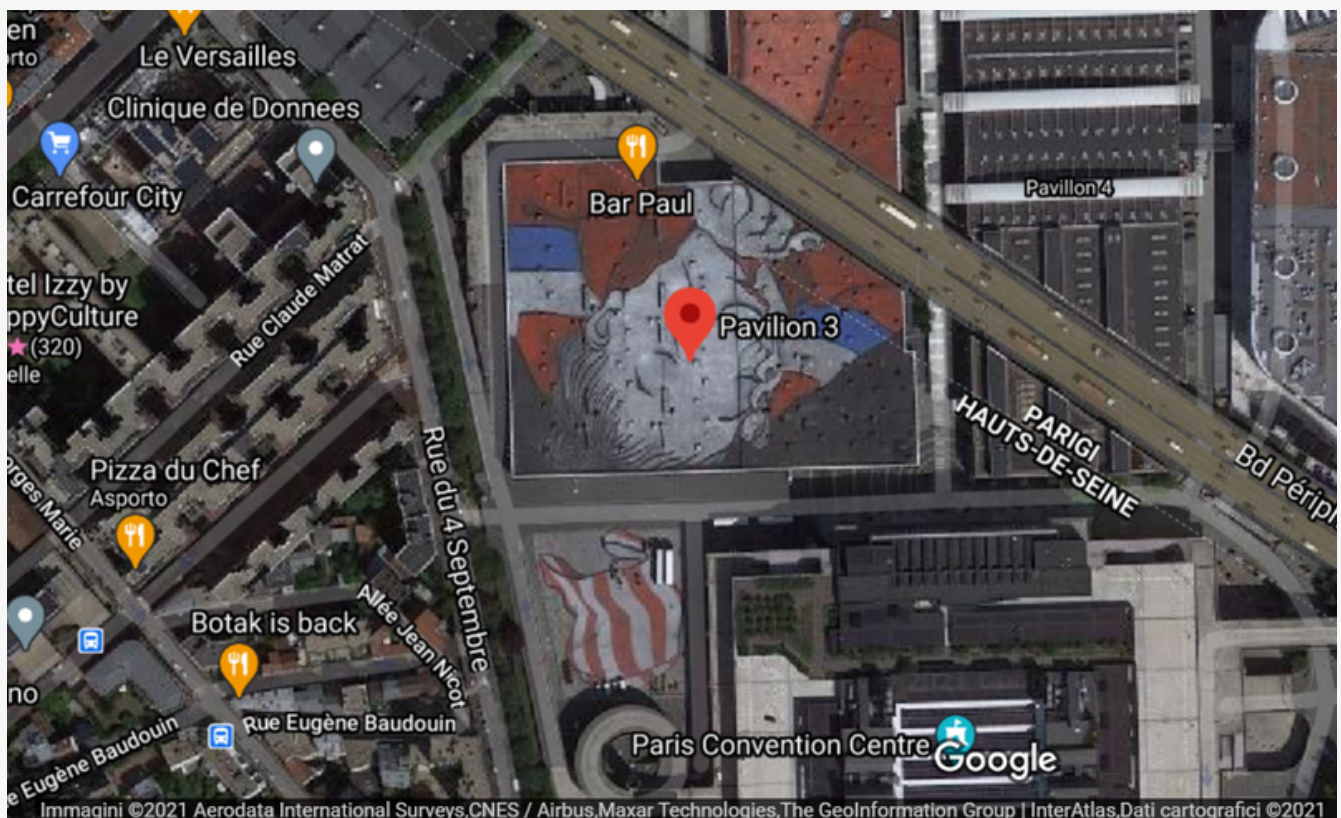
The Macromural of **Pachuca**. Picture credits: Presidencia de la República Mexicana, Wikimedia Commons

In some cases, the **Street Art** movement can be also assimilated to Land Art. An example is the giant painting realised by German Crew on a whole rundown neighbourhood in the district of Las Palmita of Pachuca, in Mexico.

The huge painting has been commissioned by the Mexican Government and includes 209 homes on about 20.000 square meters.

The houses and street pavements have been covered with bright colours to form an artwork that can be observed from the sky and that reveals a number of details as the viewer gets closer to the houses.

Several street artists realise today huge murals that are visible from the sky, from the French **JR** to **Ella e Pitr**, a duo realising murals that can be only appreciated with a bird-eye view.



One of the giant murals of Elle e Pitr in Paris, France, as photographed by satellites and visible on Google Maps

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Recently, the **Black Lives Matter** movement has captured worldwide attention, leading Washington Mayor, Muriel Bowser, to commission a giant mural on the city's pavement, which spans two blocks of 16th Street.

Fascinatingly enough, the voices of the thousands of people protesting against policiary violence all over the world have literally "reached to the sky".

Indeed, the mural is visible from outer space, as shown by an image captured by a satellite of Maxar Technologies, a Colorado-based space technology company.



The new Black Lives Matter street mural as seen in a satellite image. © Maxar Technologies

The company accepted to provide Eurisy with a high-resolution image of one of the giant murals realised by Guillaume Legros, better known as **Saype**, within "**Beyond Walls**". The project is a global artwork that, at the end of its course, will have touched 5 continents and more than 30 cities with the objective of calling upon humanity to respond to the greater challenges of our time.

"I have always really liked the idea of not seeing big things from the ground, and of seeing things appear while taking a step back", Saype told us. "I like this idea of thinking about size benchmarks. Compared to myself, the fresco is huge, but as soon as you step back, it becomes smaller. **There is a form of logic of humility, of reflection around our relationship to the world**".



On the left, an aerial view of the giant land art fresco by French-Swiss artist Saype, painted for the 9th step of his worldwide "**Beyond Walls**" project in Sea Point, Cape Town, South Africa, on Tuesday January 19, 2021. Three frescoes were created using approximately 1,000 liters of biodegradable pigments made out of charcoal, chalk, water and milk proteins. The "Beyond Walls" project aims at creating the largest symbolic human chain around the world, promoting values such as togetherness, kindness and openness to the world. In Cape Town, the artwork was motivated by the country's persisting need for reunification. Three frescoes representing widely different populations and realities within the city were created in Sea Point (6,000 Sq. m), the Philippi township (800 Sq. m) and the Langa township (800 Sq. m). Picture credits: Valentin Flauraud for Saype - EDITORIAL USE ONLY. On the right, the same artwork captured by Maxar Technologies' satellites.

**If satellite imagery does not currently have a resolution high enough to allow the viewer to fully appreciate the aesthetics of these artworks, their interest relies in the change of perception that the viewer needs to operate to look at them.**

Indeed, watching at something from above requires an effort on the part of the observer, in order to reconstruct the subject and the context of the image. Like in the movie "The Power of Tens", satellite imagery challenges the viewers' perception of reality and of scale, forcing them into a constructive process to recreate the image from a concrete view.

Hence, if we had to imagine that intelligences from outer space would be able to see such artworks, they would be triggered to get closer to clearly see them and to understand their meaning.

Looking at the satellite images of Land Art from previous decades, the feeling is that these artworks remain as "scars" on the Earth's surface, testifying of a present that already tastes like past.

As wacky as it may sound, we could imagine that those who will be exposed to these artworks in the future will wonder about their meaning like our archaeologists did by looking at the Nazca geoglyphs, wondering what inspired them and which messages the artists wished to convey.

As a conclusion, we might dare stating that satellites, like the steam engine and the locomotive in the past, have the potential of upheaving our perception of the world and of inducing echoes that will inspire new forms of art, combining science, poetry and politics to communicate messages beyond the human sight.