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MESSAGES TO THE ABOVE: LOOKING AT ART FROM THE SKY

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This article wants to provide 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.

Aerial photography unveiled to the public a new iconography, inspiring a number of photographers, cineastes, painters and architects to experiment with the possibilities offered by the bird's-eye view perspective. Moreover, progresses in aerial photography also represented a precious tool for human sciences, notably in the field of archaeology. At the end of the 1960s, the pictures made available by aerial archaeology influenced the artists of the 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 only way for the public to appreciate such artworks in their entirety was often through an aerial photography showcased in a gallery.

Today, the availability of new technologies and digital tools allows for unexpected synergies among artists and space experts. Indeed, the space sector is including arts among its areas of interest, as shown by the organisation of a session dedicated to Contemporary Arts Practice and Outer Space within the International Astronautical Congress to be held in Dubai in October 2021.

This interest is motivated by the multiplication of photographic, video and graphic experiences (also including VR and 3D), inspired or powered by space. Satellite imagery in particular, has been not only used to show the artistic beauty of the planet, but also to capture large artworks from the sky.

Leading companies such as Google have launched different online platforms allowing for the geolocation of indoor and outdoor artworks, often incorporating a satellite layer. Furthermore, artworks have been sent to the outer space within rockets, major galleries have exposed satellite imagery as part of their exhibitions, and artists have entered the discussion on space accessibility and ownership.

Eurisy aims at seizing the interest of the space community towards arts to launch a project specifically dedicated to "Space for Arts".

KEYWORDS: Arts, Eurisy, Satellite imagery, Land Art, Creativity, New project

I. INTRODUCTION: SPACE AND ARTS

Artists have been drawing inspiration from space exploration and remote sensing images since decades. Nevertheless, arts have been among the latest sectors to be addressed by the space community.

Traditionally, visual artists have been inspired by space to realise artworks using painting, sculpture, textiles, ceramics and crafts. Moreover, 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 ichnography 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. Moreover, the article aims at attracting partner organisations in joining Eurisy in the launching of a new initiative aimed at connecting space and arts.

II. LOOKING AT ART FROM THE SKY

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 unveiled 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.

During World War I, hundreds of aerial pictures were taken from airplanes for military purposes. By changing the perspective of the viewer, these photographs affected 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.

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.

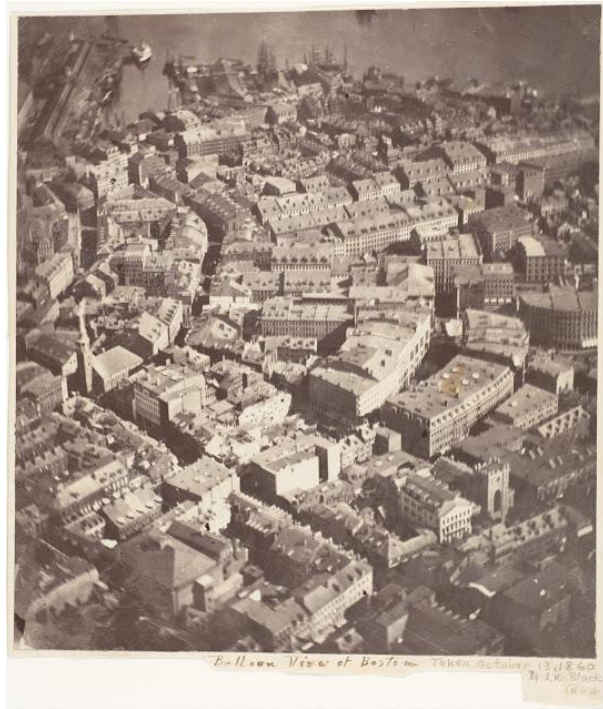


Fig 1: James Wallace Black, “Boston, as the Eagle and the Wild Goose See It”, 1860, Metropolitan Museum of Art.

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.

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.

Arts, land art and satellite imagery. science or art?

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 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]

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.

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.

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

Indeed, satellites add a new perspective to land art, inviting the eventual viewer to get closer to the art piece.

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.

Satellite Photography

Technological developments in the space sector have also 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 for good the Eurocentric and anthropocentric paradigm that had characterised the Renaissance artistic model

More recently, satellites have become innovative and fascinating tools for creative arts, notably in the field of photography, leading to what we can call today “satellite photographic art”. 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”.

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.

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As a conclusion, we might dare stating that like the steam engine and the locomotive in the past, satellites 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.

III. OUR PROJECT IDEA



Eurisy proposes to launch the initiative "Space for Arts: Another dimension to space". The initiative would mainly aim at: capturing the interest of the general public towards space-related research; showing to the general public the artistic potential of space exploration and space hardware and software; and at encouraging artists and cultural stakeholders to recognise space technologies as cultural tools.

The initiative will include the publication and dissemination of pictures, articles and videos on arts inspired by space, performed in space, or relying on space hardware, data and images drawn from satellites. The contents created will be disseminated on media and at space and non-space events, aiming at creating a multi-disciplinary dialogue around space and arts.

The project duration will be divided in different stages. The foreseen duration of the initial stage is of 12 months. The project could then be continued including the realisation of more videos, articles, reportages, events and exhibitions.

The articles and videos would feature interviews to artists and space stakeholders interested in the topic, reportages on exhibitions and artistic experiences relevant to the topic, and thematic journeys (e.g. on the filmmakers or visual artists that have been inspired by space, on arts books collecting satellite images, etc.).

The project will target the general public, artists and space stakeholders and it will include the organisation of conferences and exhibitions, both online and offline.

The materials produced (videos, articles and publications) would be disseminated by Eurisy and sponsors through their network and social media and would be presented to the mass media to extend the reach of the initiative.

To implement the Space for Arts initiative, Eurisy offers space-technology companies and organisations to co-fund and co-brand the Space for Art initiative in one or more of its stages.

Sponsors will be able to reach out to unconventional audiences and organisations outside the space sector (SMEs, companies, associations, foundations) that could profit from their services, establish partnerships with them in the creative and artistic industries and make them known to different publics.

The sponsors will be given maximum visibility and acknowledgement on the project's website, on all materials produced and during the events organised within the initiative. The initiative's materials will be shared on the webpages and social media of galleries and cultural organisations, while mass media will be approached to communicate on the initiative.

The products of the initiative will be disseminated at events and exhibitions targeting artists, decision-makers and stakeholders in the arts and space sectors.

Together with Eurisy, the sponsors will co-own the materials produced, and will be free to use them.

The funding will cover part of the costs related to the acquisition of satellite-based data (satellite imagery in particular), the realisation of the articles and videos, their dissemination on mass media, the publication of printed materials, and the costs related to the organisation of exhibitions and events.

IV. EURISY

EURISY is a Paris-based non-profit association founded in 1989 by Hubert Curien, then France's Minister of Education. Eurisy's members include most space agencies or governmental offices in charge of space affairs in Europe, and international organisations dealing with space matters.

The mission of Eurisy is to bridge space and society. To fulfil its scope, Eurisy stimulates and supports dialogue and collaboration between public institutions at all levels, SMEs, industry and academia from the space and non-space sectors. The goal is to build solid relations with communities new to space, encouraging early adopters to share experience and creating a common ground for professionals from different backgrounds.

Aiming at maximising the impact of space-derived innovation and the resulting benefits for society, Eurisy is constantly seeking for new topics, appealing to society and to the general public.

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