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Why Art in Space Renaissance International?

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[symposium, session] ----------

5. SPACE RENAISSANCE ART, 5.1

☒ this paper was not published before

☒ I agree that Space Renaissance International will publish this paper on their websites and publications

ABSTRACT

If you think artists are largely useless, try spending your time in quarantine without music, books, poems, movies, paintings and games. The coronavirus has changed organizational structures worldwide. But that has had some positive consequences. New technologies have received a boost from of the need to maintain communication structures (think: Zoom.) This can also be an opportunity. Digitization has entered the world in unexpected ways, and it will find its way into art, be it as artificial intelligence, which is already making an appearance, or in 3D printing, video technology or other electronic forms. Entirely new art formats will emerge. The new technical possibilities will inevitably influence the content of art, for example the art of man venturing into space. In the Renaissance, many scientists were also artists. They were polymaths. Today, the branches of science are so specialized that hardly any polymaths are left. We want to think outside the box again and draw the link between art and science. We would like to use the art platform of SRI to present and interact artistically on an international level, enter into a dialogue with scientists and all interested people, develop projects and express our ideas and thoughts by means of artistic content. In the near future, we also want to have real-time conversations to develop ideas, and engage in dialogue about them. Most importantly, we want to listen to each other. Exhibitions are also being planned. At the moment, we present our work more on the digital level, but if the Corona pandemic eventually allows, we could also imagine in-person exhibitions in different places around the world.

PAPER

I am happy that art has found its way into this society, and I think that we can inspire each other in several ways.

Why art at Space Renaissance International?

If you think artists are useless, try to spend a quarantine without music, books, poems, movies, paintings and games.

Art is very diverse, and we encounter it in the most varied activities of everyday life, just as we do science and politics. Even if people are not interested in art, they are nonetheless constantly subject to its influence.

In the artistic realm, it is mainly design, music, movies, games and literature.

In the field of science, it is many things that we use today as a matter of course, such as the Internet or the smartphone (to name just two examples). But not only media such as radio and television, but also many other products that we use are the result of decades of research and eventually technical realization. We take things for granted today that our grandparents didn't think could ever exist.

Or consider medicine. Many diseases are curable today, thanks to research.

In politics, the impact on all of us is particularly severe. Political decisions or laws that are passed affect very directly everyday lives and the life of every single person.

The corona virus has changed our organizational structures worldwide. However, that has also produced some positive effects. New technologies have received a boost out of the need to maintain communication. This can also be an opportunity. Digitization has entered the world in a profound way. Elements of digitalization will find their way into art, be it as artificial intelligence (which is already taking place) or in 3D printing, video

technology or other electronic forms. Entirely new art formats will emerge. The new technical possibilities also influence content. For example, that could include the art of man venturing into space.

What can art do that science cannot? In art, one is free and not bound to the exactness of science. The artist can use imagination and emotional means to express scientific ideas, make hypotheses and propose content without having to follow the strict rules of scientific provability and thus make them understandable in a different way. But not only that. It can be way ahead of its time: Leonardo da Vinci, for example, with his flying machines; Chesley Bonestell with his visionary drawings; as well as science fiction literature. Jack Williamson published the novel "Collision Orbit" in 1942 under the pseudonym Will Stewart. In it he formulated the idea of a global remodelling of planets by humans and used the term "terraforming" for the first time. Today, this *terminus technicus* is in general use and by no means only for the reshaping of Mars and Venus.

Another example of the visionary power of artistic vision is given to us by Galileo Galilei with his drawings of the moon in the "Sidereus Nuncius". Since he had artistic training, he was able to recognize that the shadings on the surface of the moon were mountains and valleys. He perceived the contrast between light and dark as being three-dimensional. In this case, it was a fortunate coincidence that his scientific genius was coupled to artistic education and talent.

And we should not forget Johannes Kepler. He is a key figure in the 17th-century scientific revolution, best known for his laws of planetary motion. And he was probably the first science fiction author with his *Somnium* and his description of a trip to the moon.

In the Renaissance, many scientists were also artists. They were polymaths. Nowadays the branches of science are so specialized that there are hardly any polymaths left. That is why we want to think outside the box again and draw the link between art and science.

It is a dream of mankind: the colonization of the nearby universe. There are models and studies, but apart from the ISS and its predecessors, living in space has so far remained wishful thinking. Recently, however, attempts to do so have become more and more concrete, not least thanks to advances in space technology.

Living in space has so far been thought of in rather functional terms, with few exceptions, even in science fiction. The environment is metallic, dark, - oil drips through the picture and somewhere Hans Rudolph Giger's alien scurries through the corridors (or hallways). - An astronaut sitting comfortably on a sofa is almost nowhere to be found.

Yet space pioneers were already thinking about how to make themselves as comfortable as possible, at least with the Soviets. The state space company RKK Energija employed Galina Andeyevna Balashova, an architect who was exclusively responsible for the interior design of the space shuttles and who quickly realized that she had to start from scratch. New questions had to be answered: How do you orient yourself in zero gravity? Balashova developed a colour concept that made it easier to distinguish between floors and ceilings. Yellow for walls and ceilings, turquoise blue for the fronts of the furniture and green for the floor.

For the mobile home "Soyuz" she designed a sofa, a built-in wardrobe and a toilet. For the "Mir" space station, she designed benches, sleeping accommodations and cabinets and, for the sake of better mobility, combined the living and technical areas as a unit for the first time. The concept is still in use today as the basis of the ISS.

When the two modules of Soyuz and Apollo were coupled together, the Americans were somewhat envious, Balashova says, because their spacecraft was not oriented toward quality of life, but only toward technical possibilities.

When we think about the colonization of space, it will be the case that people will one day leave the Earth behind forever. But they will take with them, in addition to their technical equipment, their experiences, their culture, language, religion and education. Every astronaut, cosmonaut, taikonaut or whatever their name is, has taken a mascot with them

into space, something that reminds them of their home on Earth. And so, it will be with the people who leave Earth to live, for example, on the Moon, on Mars, in an artificial habitat or elsewhere. They will take their memories, their images of Earth, photographs and other things with them and build on them in their new living space. A new kind of art and culture will emerge, perhaps a new form of government, a new legal system, and possibly even new religions.

We live today on earth in a world of abundance. But resources are limited and the people who leave the earth will not find most of it in their new world.

They may become painfully aware of the different environment in which they live, and then it would be nice to have a landscape picture of the earth with you. Some of my works that are shown here in the chapter breaks should also be understood in this sense; some of them with a wink.

In my pictures created under the topic “Art meets science”, I try to combine scientific content with artistry, but also use scientific processes in an artistically effective manner. For this I have employed different techniques.

Lately I've been focusing more and more on the inclusion of fluorescent and phosphorescent colors. This gives me the opportunity to hide things in pictures that only become visible when the pictures are illuminated with UV light. There are two pictures in one, so to speak.

Science and art are two different ways of approaching reality.

Sometimes works of art say more about reality than science can, because aesthetics and emotions play a major role.

As an artist, you can depict things differently and make them visible. I can exaggerate things and therefore make them easier to understand as, for example, in this picture showing the surface of the moon.

But if I illuminate the picture with UV light in the dark, these tardigrades appear; extremophiles able to live in extremely harsh environments.

In April 2019, the Israeli space probe *Beresheet* crashed onto the lunar surface. This ill-fated probe had thousands of tardigrades, each less than a millimeter in size, on board.

The following picture gives an imaginative look at what it might look like beneath the icy skin of a watery moon.

I think if there is life on such worlds, it will be as microbes.I have pictured here bacteria (admittedly oversized again), but they would also have to be extremophiles who would need to endure a cold world that’s perpetually dark.

In my pictures I try to build a bridge between art and science not only thematically, but also in terms of color technology and color experiments.

We would like to use the art platform of SRI to express ourselves artistically at an international level. We would like to enter into a dialogue with scientists and all interested people, develop projects and turn our ideas and thoughts into artistic content.

Our group is still developing and hopefully growing. But there is already a Space Renaissance Art Facebook group in which we interact. In the future, we also want to have real-time conversations to develop ideas and engage in dialogue about them, and most importantly, to listen to each other.

We would like to invite scientists to give lectures or interview them to better understand their content and illustrate it in our artwork or develop other ideas from it.

Of course, exhibitions are also planned. At the moment we present our work more on the digital level, but if the Corona pandemic allows, we could also imagine exhibitions in different places around the world.

For this we still need comrades-in-arms, and would be happy to find volunteers who would like to contribute.

To cover a broad range of work, we present artists from various fields, such as conceptual art, dance, painting, music, literature and video art.

We would also like to give three art organizations, we would like to work with, the opportunity to talk about their work.

With this in mind, I open our session and am pleased to be able to present the first examples of artistic engagement with our theme here.