

Ars ad Astra
A Cultural Experiment on EUROMIR 95
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ABSTRACT

On September 3, 1995, *Ars ad Astra* the first art exhibition in Earth orbit was launched to the Mir space station under the auspices of the European Space Agency (ESA) in the context of the EUROMIR 95 mission. Artists from around the world were invited to submit artworks measuring 21 x 30 cm and dedicated to the theme "Space and Humanity". The project was organized by the OURS Foundation - a cultural and astronautical organization based in Switzerland. The project was also endorsed by the International Academy of Astronautics (IAA). This commentary describes the implementation process, our cooperation with ESA, obtaining commercial sponsorship, stimulating the participation of the artistic community, the technical and organizational details related to the preparation of the exhibition for spaceflight, its flight and the subsequent international exhibition tour.

1. INTRODUCTION

Ars ad Astra was conceived of as a "cultural experiment". The word experiment was used to indicate that a trial or test situation would be created or established to produce results which are not yet known. What we did not know was: if non-scientific projects such as *Ars ad Astra* would generate interest in space matters and create awareness of space benefits in the society at large. if non-space artists would be attracted to participate in the project, and after more than 35 years of space activities which have created volumes of scientific data, images and expectations, how would the artists express their current understanding, vision, relation, etc, to space. Within this context the purposes of the project were:

- to relate the promises and benefits of space to a large public,
- to stimulate and involve the artistic community in space activities, and
- to expand a cultural dimension within the highly technical and scientific space programs of the world.

The theme "Space and Humanity" was chosen as continued space development is considered by the OURS Foundation to be critically important to the future of humanity especially in meeting the increasing needs of a growing population. In October 1994 the project received the endorsement of the International Academy of Astronautics (IAA) which agreed to lend its name as the project's patron.

3. IMPLEMENTATION ON EUROMIR 95

In July 1994, the OURS Foundation proposed the project to the European Space Agency as a "cultural experiment" to be conducted in the framework of EUROMIR 95 mission. As proposed the content of the *Ars ad Astra* payload would consist of up to 100 A4 (21 x 30 cm) artworks and a portable Kodak Photo CD player weighing a total of 3 kg. After consultation with the office responsible for the EUROMIR 95 mission concerning the technical feasibility of our proposal, Mr. Jörg Feustel-Büechl, ESA

Director for Manned Spaceflight & Microgravity, answered on September 2, 1994 informing the OURS Foundation that ESA was prepared to accept our proposal. In his letter he also stated:

"We also feel that the purpose of your project which is to make people more aware of the value and importance of space activities is a good one and merits support."
(Note 1)

However as implementation activities commenced, the OURS Foundation was informed on November 28, that in the above letter, ESA had only agreed to fly our "Ars ad Astra experiment" on the condition that this project would have no major financial impact for ESA. They pointed out that our experiment, as proposed, would cost approximately 100,000 Accounting Units (AU) in additional costs to the EUROMIR 95 budget. It has been reported that ESA paid Russia \$85 million for the two EUROMIR missions (Peter de Selding, 1995).

ESA indicated that, unless the Russians (the managers of the Mir station) were willing to accept this additional weight at no charge, ESA could only agree to fly the electronic aspect of the project if this could conform to the suggestions made by the mission office, which was to replace the portable Photo-CD concept with a hard drive for the on board ESA computer. This approach would result in essentially no additional weight or cost. In response to our request for a contribution from ESA to the project's communication budget, we were informed that "in face of mounting pressure by our delegations to find additional savings in the 1995 budget ESA is unable to supply the requested financial contribution' Apologizing for this state of affairs, ESA suggested that the OURS Foundation find sponsors to assist our communications activities. (Note 2)

At this point *Ars ad Astra* consisted of the possibility of just sending digitized art into space. This was not the art exhibition that we had proposed. Aware of the importance and value attached to the tangible quality of original art, the fact that up until now very few art works had ever been flown in space, and that both the interest of the artists, the public and the media could only be stimulated and maintained if the original artworks were flown into space, the OURS Foundation insisted that for this experiment to effectively address its stated objectives, a quantity of original artworks had to be included in the payload.

Whereupon several months of negotiations ensued between the OURS Foundation and ESA with the result being that on February 14, 1995 we were given the approval by ESA to fly a minimum of 13 original artworks and the hard disk to Mir, and that all but one of the artworks would be returned to Earth. (Note 3) Our total payload was not to exceed 1 kg.

Concerning the return of the artworks from Mir, it should be pointed out that, as opposed to transporting materials to the orbital station, there is much less opportunity to return items from Mir as these have to be stored in the manned Soyuz capsule. Thus, this return aspect is considered to be very valuable. Ironically, with the initiation of a series of docking flights by the U.S. Space Shuttle to the Mir, it could be assumed that this lack of return capability would be somewhat alleviated. Unfortunately, NASA has maintained a long standing policy against becoming involved in "non-scientific- payloads" - even between space agencies (A. Woods, 1994). The *Ars ad Astra* payload was eventually integrated into the mass budget of 10 kg. allotted to ESA Public Relations department for the EUROMIR 95 mission. As such, our experiment did not represent a significant additional cost to the Agency.

4. PHASE I - The Call For Art

With the final confirmation from ESA an immediate effort was initiated to implement the experiment by reaching out to artists and, at the same time, looking for sponsors to assist the communications aspects.

Before the ESA confirmation it was neither possible to solicit artists nor to contact potential sponsors. As the aforementioned negotiations with ESA about what quantity of art would be flown to Mir were lengthy, the first step was to redefine a time plan for the implementation process. The anticipated launch date at that time was set for the end of August, 1995. This left approximately five months to conduct an international competition, to jury and select the artworks, to prepare the communication materials for the media, to document the artworks and to deliver them in the prescribed manner to the mission officials in time for their integration into the EUROMIR 95 payload.

The following schedule was established:

Registration Deadline - April 15 - later extended to May 15.

Submission Deadline - June 1- later extended to July 1.

Meeting of Jury - The first 2 weeks of July

Delivery of Artworks to ESA - July 31.

Furthermore, as the OURS Foundation had insufficient funds and staff for such an intense and engaging activity, the search for suitable sponsors was undertaken concurrently. We were able to recruit two Swiss firms as sponsors - the watch company OMEGA S.A. and Alois Diethelm A.G., the manufacturer of LASCAUX artists' materials to assist our communication efforts and to donate prizes to the artists whose works were selected for spaceflight.

With the final go-ahead we assumed that, even though ESA could not contribute financially to our communications budget, as they had agreed to include *Ars ad Astra* in the EUROMIR 95 mission, they would use whatever established means available to help us in our efforts to reach out to artists, especially in Europe, in order to increase the participation and communication potential of the project. A "Call For Art" and an initial "Press Release" were prepared and submitted to ESA for their approval.

Within our modest budget we planned to launch an international communication campaign relying on direct mailings to artists, art and space associations and publications and by general press attention. We were convinced that with the cooperation and official endorsement of the European Space Agency and their access to the media our project would be easily picked-up by the media and many artists would be exposed to the opportunity to have their art flown into space. To our surprise, we were immediately informed by the ESA communications office: that our cultural experiment could not be referred to as an "experiment" as this would confuse the perception of their process of selecting experiments, that our project could not be called "official" because that term was reserved for experiments, that the use of the ESA logo or the EUROMIR 95 logo on any of our announcements was prohibited, and, as their EUROMIR 95 communications effort was being prepared according to plan, they would not, or could not mention our project in any of their official public communications at that point.

After pointing out the many communication opportunities that were being missed by this position which would result in lower awareness and participation by the public and, after more lengthy negotiation, we agreed to conform all of our communications

to these regulations. As predicted, the result of this policy was that the media failed to remark and report on this unique opportunity that was being afforded to artists for the first time in the history of spaceflight.

Working under these restraints, the "Call for Art" went mainly to space organizations, art organizations and space and art publications. Surprisingly, few of these actually reported about the project and mostly we received solicitations for advertisements.

However, in this first announcement phase we did manage to receive a few articles in the public media as well as in the space press. The response most often received from the media journalists was that they wished to wait until we had something concrete to report and, as this was an art project, they also needed suitable picture material. By the end of Phase 1, eighty-nine artists representing 14 countries had registered for the 1st Art Exhibition in Earth Orbit.

5. PHASE 2 - The Selection Process

The artists were instructed to create 'space qualified- artworks that were both lightweight and completed using non-toxic materials. Aware of the restricted weight budget and the stringent regulations concerning materials introduced into the Mir environment, the artists were sent paper cut to specification and samples of LASCAUX artists' paints that had been approved for use on Mir during the Cosmic Dancer Sculpture project by Arthur Woods. These materials were recommended but not required.

By June 31, 1995, 171 artworks were received from 82 of the registered 89 artists. Almost all of these artworks conformed to the regulations that we prescribed. On July 7, the jury met in Embrach, Switzerland to pick the artworks for the EUROMIR 95 mission. The jury was made up of space and art experts and included:

- Space Artist Ludek Pesek,
- Dr. Roger Malina, astrophysicist and editor of Leonardo - the Journal of Art, Science and Technology
- Dr. Karl Knott, space administrator and ESA official responsible for the technical implementation of our project at ESTEC.
- Mr. Pierre-Dominique Cochard, Press Relations manager for OMEGA S.A.
- Dr. Marco C. Bernasconi, space engineer and vice-president of the OURS Foundation.
- Arthur Woods - a space artist and president of the OURS Foundation.

The submitted artworks ranged broadly in their style and type of artistic execution and the jury quickly decided that it wanted to select a group of artworks that represented the broad interpretation of the theme "Space & Humanity" . Consequently, the 1st Art Exhibition in Earth Orbit contained all types of artistic expression ranging from the very abstract to the very representative. Many of the artworks had significant symbolic elements. There was no attempt at geographical distribution and only one artwork from each participating artist could be selected.

The jury then selected 20 artworks. It was noted that the artists had followed our instructions so well that the total weight for the 20 artworks was only 246 grams. As this was substantially under our allotted weight budget, it was then proposed to ESA to accept all 20 of the selected artworks. To everyone's pleasure, this proposal was subsequently approved by ESA. One artwork from each of the following artists was selected:

- Alessandro Bartolozzi (I)
- Peter Binz (CH)
- Werner Beyeler (CH)
- Michael Böhme (D)
- Marcy Burt Butz (CH)
- Michael Carroll (USA)
- Chris Couvee (NL)
- Karl Draeger (D)
- Peter Eickmeyer (D)
- Marilyn Flynn (UAE)
- Rudolf Halaczinsky (D)
- Rudolf Hanke (D)
- Sarah Kernaghan (IRL)
- Mark Maxwell (USA)
- Edward Mendelsohn (GB)
- Elizabeth Smith (USA)
- Ruth Trapane (USA)
- Andrea Thüler (CH)
- Claudine Varesi (MEX)
- Amy Zofko (USA)

The artworks were photographed and documented. A Photo-CD including one artwork from each submitting artist was produced for the electronic archive. This and the 20 selected artworks were then delivered to ESA mission officials at ESTEC at the end of July. The works were subsequently delivered to the Russian space officials who were responsible for their preparation and integration on the Soyuz TM-71 capsule. The works on the Photo-CD were copied onto the hard disk so that these works would be displayed on the Payload and Crew support computer left on the Mir from the previous EUROMIR 94 mission.

The electronic archive enabled us to include one artwork from each participating artist in the *Ars ad Astra* EUROMIR 95 payload sent to Mir station. (Note Archive) As mentioned earlier, until February 14, this electronic archive would have been the only exhibition payload sent on EUROMIR 95.

6. PHASE 3 - The Launch

After the artworks were documented and sent off to ESTEC, the preparation for the next communication phase commenced. This consisted of issuing a new press release announcing the selection of the 20 artworks. All artists were requested to send us the names and addresses of their local media. Due to the novelty of this unprecedented cultural event, it was our expectation and goal that each artist would become a center of press attention and likewise, a communication opportunity would be created in 20 localities. This was one way in which we would meet our goal of stimulating the discussion about space in the general public.

The ESA Press Release of 31-95 issued on August 25, 1995 prior to the launch mentioned the *Ars ad Astra* exhibition and the upcoming downlink scheduled for November. On September 3, 1995 the *Ars ad Astra* exhibition accompanied ESA astronaut Thomas Reiter and his Russian cosmonaut colleagues Sergei Avdeev and Yuri Gudzenko on their successful launch to the Mir space station. This crew would also serve as the final jury of *Ars ad Astra* as they will pick one of the 20 artworks to stay on the Mir station. The announcement of the winner was scheduled to take place during a live link-up with the Mir crew in November, 1995.

7. PHASE 4 - The Spaceflight.

Concurrent with the beginning of the EUROMIR 95 mission, the interest of the media in our project increased. As expected, most of the 20 artists whose work was selected for spaceflight were featured in their local press and in some cases also nationally. Interest was particularly high in Germany where dozens of press articles as well as several television reports appeared. This interest was attributed to the fact that ESA astronaut Thomas Reiter is a German citizen and that artworks from five German artists were among those selected. Several artists reported positive press results in their own countries as well.

Our communication efforts continued throughout the mission with the goal that more in-depth coverage will be the result. As organizer of the experiment, the OURS Foundation was often contacted by the media. As to the anticipated discussion about space, both the artists and the OURS Foundation were often asked the question "why it was important to send art to a place where there are so few people, especially as space activities are so expensive". These questions usually led to a discussion of why "space" is important to art and to society.

On November 30, 1995 a live video link-up was arranged between the Mir space station and the Euro Space Center - a space camp located near Transinne. Belgium. As this is one of ESA's four announced link-ups to be carried live by the media, we expected substantial press coverage. 13 of the 20 artists whose works were selected for the spaceflight attended the event. Some of the artists travelled from overseas (USA and Mexico) to be there at this event.

The link up began in the late afternoon and lasted approximately 20 minutes. It was covered by approximately 100 journalists from various media. Cosmonaut Thomas Reiter and his two Russian colleagues described the pleasure they had to view the many artworks as well as the difficulty they had to choose one of them as the winning artwork.

Thomas Reiter made the following comments during the live link-up:

"It was quite a difficult task for us to select a favourite picture out of these because we liked them all. We took the task very serious, in fact it took us more than a week. One evening we took 10 out of the 20, on the next evening we dropped three of the ten, so just seven were left.

..... The winner is this picture from Ms Carroll Smith.. "When Dreams are Born" The last seven pictures we choose the second place is the picture from Mark Maxwell, called "Promise". It was very difficult, it took a long discussion and the next evening we had a look again and confirmed it. The third place is a picture called "Unforgettable Home" from Alessandro Bartolozzi and they were quite close the second and the third place and we like to thank all the artists.....

.....and let me tell you that there are many things here on board which keep us alive, of course technical systems which produce oxygen to breathe, water to drink which clean the air from carbon dioxide, food and all these things which help to keep us alive, life support systems. But I can tell you that this kind of thing (he holds up a picture) are a part of what is necessary to keep us alive, to keep the memory to the Earth, to our families, to our friends, to the nature.

So we thank you all very much for these beautiful pictures, and for those who

have not been selected we can assure you that we like all of your pictures. Maybe it was a little unfair to force us to do a selection, so, thank you very much."

The watercolour "When Dreams are Born" by Elizabeth Carroll Smith was selected as the winning art work by the cosmonaut jury. The artist will receive a specially engraved OMEGA Speedmaster Professional Chronograph that was flown on the Mir station between July 1993 and July 1994. This prize has a commercial value of \$10,000. All the 20 artists received a selection of "space qualified" artists' paints donated by the Swiss Lascaux paint company. On February 29, 1996, 1996, after having spent 179 days in orbit, Thomas Reiter returned to Earth bringing with him the remaining 19 artworks. The winning artwork and the electronic archive will remain on Mir for the enjoyment of future crews.

8. PHASE 5 The International Exhibition Tour

It was planned that the project would remain in the public domain far beyond the 179 days that it was in space. An international exhibition tour began at the 46th International Astronautical (IAF) Congress in Oslo, Norway - October 2-6, 1995. As the original works were still be on the Mir station during this Congress, only high quality reproductions were on display. A selection of artworks that were not selected for spaceflight were also displayed. In a similar fashion, the *Ars ad Astra* exhibition was displayed at the Euro Space Center in Transinne, Belgium during the Mir link-up described above. Other exhibitions took place at ESTEC in the Netherlands, the Swiss Transportation Museum in Lucerne, Switzerland in the Summer of 1997, the 47th IAF Congress held in Turino, Italy in October 1997, and on the Internet.

9. THE ARTWORKS

One of the purposes of the *Ars ad Astra* project is to analyse content of the submitted artworks as one way to evaluate how the space endeavour is being perceived and expressed in society. Many of the participating artists reported that the theme "Space & Humanity" and the challenge to make "space qualified" art was a worthwhile and stimulating experience. It was remarked that many of the art works were about the evolution of life from Earth into space.

10. CONCLUSION

Ars ad Astra was indeed a "cultural experiment" - and like many experiments it yielded expected and unexpected results. Originally designed as an experiment to both stimulate and evaluate the perception of space in a specific non-space sector of society, it became more of an experiment in how to integrate the goals and objectives of a non-space area of society into the world's space program. Unfortunately, our perceptions were reinforced that, space does not appear to have much relevance for mainstream society, and likewise, "culture" or more specifically "art" does not have a particularly high status in the today's space programs.

The experiences related in this report are not intended to be viewed as criticisms of any persons, departments or the agencies involved, but rather to give some insight on the status of the relationship between the traditional space community and society. The fact that *Ars ad Astra* took place at all under the official auspices of ESA is an unprecedented and major development in the effort to establish a cultural dimension to human space activities. I congratulate ESA on taking this bold step. Also, I wish to report that on both a personal level and on a technical level we

received much valuable and enthusiastic cooperation from those at ESA involved in integrating this project into the EUROMIR 95 mission. Based on our past experiences it would not have been possible to implement this cultural experiment in such an official manner with either NASA or with the Russian space program.

Implemented on a communication budget of less than \$15,000, *Ars ad Astra* must be considered as a success. Millions of people heard about the project on television and in the newspapers around the world. Most of the artists whose works were selected have received substantial publicity. More importantly, many artists have communicated how much they enjoyed the challenge and appreciated the opportunity that was created for them. We were amazed at how well the artists responded to the technical challenges. Perhaps some seeds of astronomical art have been planted which will one day blossom.

However, even though our organization was given the unique opportunity by ESA to fly our experiment as a part of EUROMIR 95, we found that there was no true understanding of our philosophical reasons for initiating this project. These reasons were clearly explained in our proposal as well as in a previous paper. Perhaps this was due to the fact that there was no precedent for this type of experiment.

Ars ad Astra was the first time in the history of art and space that artists were 'invited' to have their art integrated into the world's space program - in space. The OURS Foundation is not an 'art association' nor an 'art club', thus its purposes in pursuing this project were not to satisfy a membership but rather to employ art in its traditional function as a form of communication. Art is an emotional experience. For space to be understood by humanity it must incorporate this emotional aspect.

Ars ad Astra was proposed out of my deep conviction that the future of humanity - and perhaps all life on Earth - hangs on a narrow thread and that thread is our understanding of the importance of developing space to meet the growing needs of our species. *Ars ad Astra* is part of the OURS Foundation's on-going program to elaborate and disseminate "The Space Option" concept which we believe offers a new rationale for space development.

Other than in the field of telecommunications, space development based on the traditional rationales - the political and scientific arguments - is in decline the world over. It is unfortunate that the dreams and visions of exploration and colonization must be tempered by the reality of the worsening situation on our endangered planet. Unless it can be demonstrated that space development has meaning to the rest of society, space activities will continue to decline and will eventually disappear within the growing stresses of an overpopulated and environmentally endangered planet. However, the political and scientific reasons for continued space development pale in the face of the enormous potential for space development when it would be used primarily to meet the ever growing needs of a species starved for room, resources and energy. The impact of space, or rather the non-impact of space on human culture will determine the future of humanity. Developing space must become a cultural activity. One way to do this is to create a place for cultural activities in our world's space programs.

11. ACKNOWLEDGMENTS

I wish to acknowledge the European Space Agency for its contribution to the realization of this experiment. We are grateful for the early endorsement by the International Academy of Astronautics which was crucial to the success of this project. Also, I would like to thank Alois Diethelm AG and OMEGA S.A. for their

contributions to the project's communication activities and their generous donation of prizes to the artists. All the artists deserve acknowledgment for their meeting the challenge of making space art for space. Dr. Marco C. Bernasconi was invaluable as the project's technical director. And last but not least, my wife Heidi and my sons, Louis and Alex need to be thanked for their tolerance and patience.

NOTES and REFERENCES

Arthur R. Woods and Marco C. Bernasconi, (1994) <<*Ars ad Astra*>> The 1st Art Exhibition in Earth Orbit. Paper IAF-94-P 3.320 presented at the 45th IAF Congress, Jerusalem, Israel. October 9-14.

Marco C. Bernasconi and Arthur R. Woods (1993) Implementing the Space Option Elaboration and Dissemination of a New Rationale for Space. Paper IAA.8.1-93-764 (Part 1 & 2), presented at the 44th IAF Congress, Graz. Austria. October 16-22.

Arthur R. Woods and Marco C. Bernasconi, (1993) Spaceflight of the Cosmic Dancer Sculpture. Paper IAA.8.2-93-773 presented at the 44th IAF Congress. Graz, Austria. October 16-22.

Note 1 Letter from ESA to author 2/9/94.

Note 2 Letter from ESA to author 28/11/94

Peter de Selding (1995) Space News, Vol 6, No. 35, pg. 10.

Arthur R. Woods (1994) The Role of Art In Communicating the Importance of Space Activities. Paper IAA-94-IAA.8.2.712 presented at the 45th IAF Congress, Jerusalem, Israel. October 9-14.

Note 3 Fax from ESA to author 14/2/95

Note 4 Fax from ESA to author 28/2/95

Note 5 Fax from ESA to author 10/8/95

Note 6 Letter from ESA to author 29/8/95

Note Archive

In addition to the 20 artists of the selected artworks these artists' work were included on the electronic archive on EUROMIR 95:

P. Rawlings, S. Monaco, P. Braglia, B. Tutino, U. Neumann, R. Gehriger, L. McVicker, D. Travous, S. Camargo, G. Askew, J. Asbury, M. Sanni, J. Peregrin, C. v Rettig, C. Yankovich, A. Chaplin, S. Koumjian, M. Goralski, J. Fabrikant, D Davidson, J. Dennis, G. Foti, B. Ahrnstedt, J. Timian, L. Koehler, J-P Gamper, A. Martelli, L. Namara, B. Wittels, I. Biriaco, D. Cook & V Turquand, H. Rose, R. Ganz, G. Somerlock, C. Bonifazi, R.C. Parkinson, S. Mitchell & R. Ras, K. Szathmary, J. Brady, D. Walliker, M. Montague, O. Pyka, A-R. Saidi, C. Ferronato, M. White, A. Aehegma, R. Garner. S. Bruggisser. G. Meendsen, J. Forthuber, R. Freeman, M. Hempell, C. Alderfer, R. Kubler, & A. Kozel