FROM CYBERSPACE TO OUTERSPACE

Space Dreams: A Space Art Exhibition on the Internet

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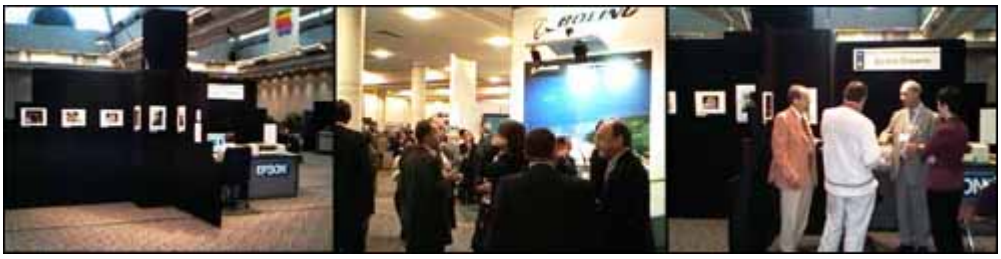

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Abstract

One of the by products of the space age has been the development of global telecommunications networks. One of the most significant developments in this field has been Internet and the World Wide Web. This media has rapidly become a global territory for electronic expression encompassing the scientific community, industry, all forms of cultural interests as well as many forms of personal expression. Space technology and science is well represented in Cyberspace and recently space artists are discovering the web as a platform for their ideas and images. Today, approximately 100 space artists have personal galleries on-line or are represented by their agents and their associations. Other artists have introduced their new art projects for outer space via this media. Yet, others have made artistic or personal statements which relate to space and its development. This paper will survey space art that is currently to be found in cyberspace and will present some examples of those artists who are using this new media in more creative and interactive ways.

1.0 Introduction

Based on my experience, there are four factors that have contributed to the explosion of interest in the World Wide Web (WWW). They are : 1. The development of browser technology at the level of Netscape 2.0 and above, 2. the increasing speed of information delivery via modems; 3. the decreasing cost of Internet access and availability of web space, and 4. the perpetual and dynamic development of both the hardware and software available on the consumer market. As many have said before, finally the computer has become an interesting and useful tool for the general public and there is no end in sight to any of these developments - except for maybe the costs of accessing and publishing on the Internet.

The space industry, with its university connections and high reliance on computers, has been one of the pioneering industries using this new communications technologies. Many of the most information rich and popular sites on the Internet have been sites about space. Until the Clinton transcripts hit the net, the Mars Pathfinder website during the initial phase probably held the record for the most “hits” in a specific timeframe. Indeed, anytime an event with sufficient media attention hits the world, it can be found and researched almost simultaneously on the WWW.

As important as the capabilities of graphical presentation of information via browser technology, has been the use of e-mail messaging systems to exchange information. E-mail is a quicker and cheaper way to send information than reliance on traditional postal services. In addition to this convenience is the powerful use of e-mail lists and automatic message technologies.

In the past three years, space artists and their organizations have embraced and integrated these technologies into their repertoire of skills and activities, so that today Internet knowledge and access is a prerequisite for their career.

2.0 The I.A.A.A.

The largest and most active space art organization is the International Organization of Astronomical Artists. This organization which began in 1986 has grown to an active membership of 152 present members from around the world. Over the years the main form of communication and interaction was via their monthly newsletter “Pulsar” - a black and white photocopied pamphlet - and through occasional workshops. As most of the members used computers in some form in their work, regular communication via e-mail among some of the members began in 1994. In early 1997, the number of members with online connections reached about 40 and the organization decided to automate the exchange of information and a “listerver” was set-up.

A listserver - an automatic e-mail list - automatically posts the messages and responses to the messages to all persons who have subscribed. This development had a remarkable impact on the communications of this organization. The amount of messages between the membership sometimes reached 20 or 30 a day - with topics relevant to space and art being discussed in detail as well as substantial amounts of pure conversation or “chat”. The frequency of mail traffic was too much for some members who opted to unsubscribe. However, eventually, the level of noise leveled off and today the listserver is the primary organ of communication and exchange for the the I.A.A.A. membership. Indeed, the members of the I.A.A.A. now know much more about their fellow members both personally and technically than in earlier years.

For the new or distant member this development exposed a deep pool of resources and expertise present in the membership which many were unaware of previously. These resources range from professional astronomical and astronautical information, to digital cameras, computers and printers, as well as to traditional art making techniques. The sharing of this information adds substantially to the value of membership. Last but not least, announcements concerning exhibitions and / or job opportunities appear on the listerver as soon as they are known to a member somewhere in the world- a real advantage for those members who participate online.

The I.A.A.A. has also had a web presence since about 1995 which was hosted and designed by Kim Poor, co-founder and former president of the organization on the Novagraphics Website of which he is the owner and where many of the members' works can be purchased. Convinced of the increasing importance of the Internet and the much publicized rush for domain names - the organization decided to have its own independent website and in December 1997 registered www.iaaa.org . A visitor to the website will find the typical organizational information, a history of the I.A.A.A., a space resources list, sign-up information, a news section and guestbook, and a membership list and links to the member's web sites or to other places on the WWW where they are present. In a "members only" section accessible via unique password and userid there is more detailed information about the members and specific resources that are only available to the paying membership. Recently, an online version of PULSAR is now available on the website so that "color" - which was previously not affordable to the organization - has now been added to the monthly newsletter in electronic form.

Thus, in a period of less than two years, Internet technologies have impacted this space art organization and transformed it into a larger, more knowledgeable, more resource-rich and more communicative group. Today (Oct. 1998) , of the 152 members, 98 have e-mail access and 49 have their own web sites. Though it is not the intention of the organization, the membership benefits of being online are more advantageous.

3.0 ars astronautica

www.spaceart.net is the home of "ars astronautica" a website dedicated to exploring and promoting the "astronautical arts". It also hosts "Space Art News" which was initiated as an email newsletter in the early 90's by Roger Malina of the International Society for the Arts, Science and Technology and its journal "Leonardo" which has been tracking and reporting about space art in an astronautical context for many years. It now appears as an email letter and as an online publication more or less on a quarterly basis.

On the ars astronautica website one will find a brief history of this genre of space art and information and links to other space art projects. Also there are reports about space art related events and activities including the art exhibitions at the annual IAF Congress and Space Art Workshops held in Paris each spring, co-sponsored by the OURS Foundation: www.ours.ch.

Major sections of the website have been dedicated to the project “Ars Ad Astra” - the 1st Art Exhibition in Earth Orbit”, www.arsadastra.com which flew on Mir in 1995 (Woods, 1995) and more recently to the “Space Dreams” project which is discussed below.

Astronautical space art projects are often designed to involve a large public participation. Therefore, the Internet is a logical place for their presentation and this medium will be used by more and more artists to their advantage. Ken Fair (Fair, 1997) reported last year about his very successful, “West to Mars Collaborative Project” on the Internet which invited artists to depict their visions of Mars in order to generate more public support for this initiative. Recently, I opened a new website about my Cosmic Dancer Sculpture project which was sent to the Mir space station in 1993. At the URL: www.cosmicdancer.com one can find a comprehensive documentation about this art-in-space project .

French artist Jean-Marc Philippe has placed his space art project “KEO - the Archeological Bird of the Future” (Philippe, 1997) on the web in the past year - www.keo.org. As he intends to have a large public involvement in his project, the web provides him with the most effective and economical access to the global public - an access that was unprecedented just a few years ago.

Space artists, such as Richard Clar, of Art Technologies - www.arttechnologies.com - are developing personal web sites for their past and future space art projects. Another, Frank Pietronigro, is using the web to publicize his space art activities. Pietronigro recently made paintings in zero-gravity aboard a NASA parabolic flight. His project was reported in several online magazines and recently appeared on the New York Times’ website.

Ars astronautica will continue to report on these and other newer projects as they become known and are developed. In addition, this technology has stimulated a new

form of portable exhibition which merges the aspects of Cyberspace and Outerspace.

4.0 Space Dreams

It was proposed to utilize the exciting new technologies of the Internet to create a portable exhibition at this year's 49th IAF Congress in Melbourne. The idea was to avoid the cost and work intensive activity of shipping artworks around the world and at the same time have an interesting art exhibition that could be simultaneously shared at the congress and around the world.

While I developed the Space Dreams website in Switzerland, Richard Clar in California arranged for the necessary equipment by contacting sponsors and Kerrie Dougherty, in Australia was responsible for organizing the frames and finding volunteers to staff the show. These activities were coordinated with the local congress organizing committee.

The title "Space Dreams" was picked because the space community was coming to Australia - the land of "dreaming". As artists have been exploring space as long if not longer than scientists and engineers, it was their "dreams" that gave birth to today's space program. Thus, artists were asked to submit their current "dreams" and do so electronically.

After securing the exhibition venue at the congress and the support of the local congress organizers a website was set-up under the URL *www.space-dreams.com*

The original website was actually a sub-domain at: *www.spaceart.net/space-dreams* which was pointed to the URL. This approach saved on hosting or virtual server costs and allowed the "Space Dreams" to utilize some of the Internet technology already installed on the ars astronautica website such as JAVA and CGI programs.

A "call for art" was made via e-mail and during the two months prior to the IAF Congress, 20 artists submitted over 40 artworks via the Internet. These works, both traditional media as well as purely digital, were arranged in a virtual exhibition space or "Preview" section and each artist was given their own page. The artists were requested to submit a written "dream" which was included with the artwork on the page. Links were added to the artist's own website and to their respective organization. To make the website more attractive and interactive a "Guestbook"

program and a “Digital Postcard” service were added. These will enable visitors to the website to leave their comments and to send artworks from the website to their friends. The recipients of the Postcards get a message accompanied with music and are invited to visit “Space Dreams” to see the show and to send their own postcard. This type of service is very popular on the Internet and can be a real “traffic builder”.

For the “physical” exhibition it was necessary to arrange an on-site workstation, a high-quality printer, an Internet connection and exhibition frames for the works selected. For the most part these arrangements were handled via e-mail. Apple Computer and Epson agreed to sponsor the necessary hardware and the frames were purchased locally.

The artists were instructed to submit versions of their work in higher resolution and these were downloaded to a 1 GB Jaz removable hard drive. Using an ISDN connection most of the high-resolution works were downloaded in less than 10 minutes.

The website was also copied onto this hard drive as well as the programs necessary to present and administer the website from the exhibition facilities. Thus, instead of crates and rolls of bubble pack weighing hundreds of kilograms - Space Dreams arrived in Australia via the Internet and in the form of a disk drive weighing several hundred grams.

The “Space Dreams” online exhibition was not over when the 49th IAF congress in Australia ended but stayed online until November 2001.

These 20 artists participated in the project: Dana Allen , Walter Barrows, Michael Böhme, Richard Clar, Chris Couvee, Ann Contois, Contois-Reynolds, Marilynn Flynn, John L. Fox II, Kelly Freas, Mark Garlick , David A. Hardy, Paul Hoffman, Ana Kozel , Jean-Marc Philippe, Kara Szathmary, Dirk Terrell, Michael C. Turner, Claudine Varesi, Arthur Woods

5.0 Conclusion

The Internet has developed to the point where it has impacted the way artists in general and space artists in particular create and present their work. On the one hand it offers opportunities to reach an unprecedented global audience and yet, this requires the artist to learn and develop a new set of skills. Not only the artist but all aspects of society are discovering and using this new media to their advantage and this means competition for the “surfer’s” attention will increase in direct proportion to the number of people using the world wide web. Space artists, with their early reliance on computer technologies and their minds open to the future have made an early start in using this new media to their advantage.

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