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ASTRONOMICAL ARTS

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AND FINALLY...

I hope everyone takes a look at this back page from time to time. It contains all the information you need about the IAAA, in order to contact the Board, Editors, send queries about Membership, etc. Still, occasionally we get letters saying "I didn't know how to contact so-and-so..."

Generally, *Pulsar* is supported by a small number of regular contributors. Ask yourself: have *you* ever sent a contribution? If not, please do consider doing so. Are we doing a good job? If not (or so), let us know!

What are your feelings about abstract, impressionistic or expressionistic space art (see page 2)? Let me know. I am now particularly in need of *art*, so send prints (preferably black-and-white) for use on the cover or inside. Arthur Gilbert has provided all our cartoons so far, but are *you* a cartoonist? There's no closed shop here!

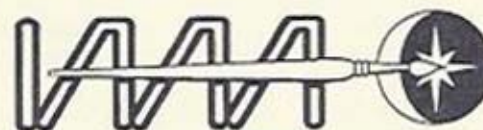
And may I repeat: **IF you can send material in digital form, on floppy or via the net, it REALLY DOES HELP.**



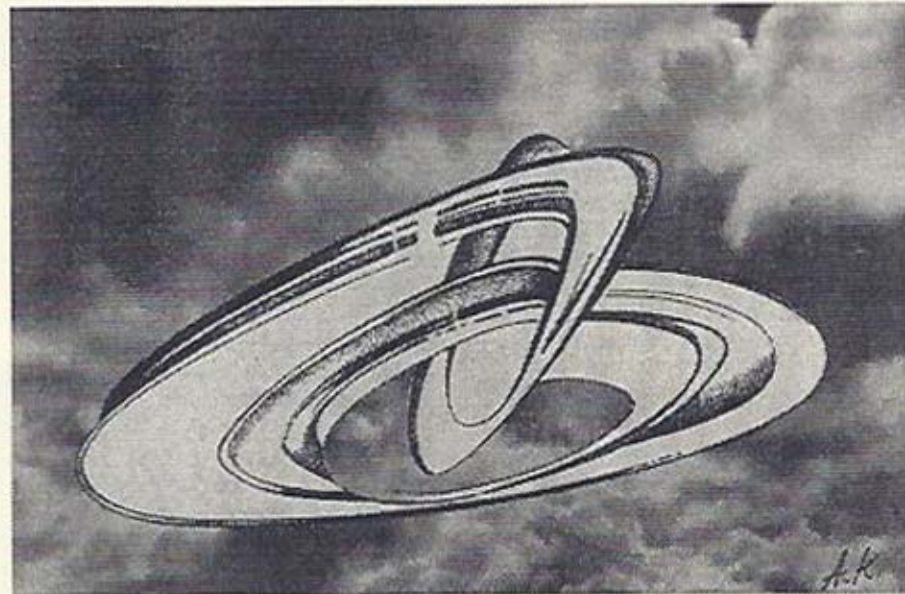
February/March 1996



The Official Newsletter of the



International Association for  
**Astronomical Arts**



*Interstellar Voyage* by Ana Kozel

General Editor: David A. Hardy  
Coordinator, USA: Michael W. Carroll

## Members' Forum

Last month I included the IAAA Manifesto, which addresses the question of styles of space art. This month's cover, 'Interstellar Voyage', is by our only Argentinian member, Ana Kozel, who is very highly respected as an artist in her own country and beyond, and has held many exhibitions.

However, a few years ago there was heated discussion in the pages of *Pulsar* about whether art of this kind could legitimately be regarded as space art. Have members' views mellowed over the intervening years? The term used by some opposers was 'swirly' art, I seem to recall! Do they still feel the same?

Let's have your views.

Meanwhile, as promised last time, here are the views of another 'lone' artist - our only Australian member, Steven Hobbs, who has found our articles on computer art interesting and wishes to participate in the discussion. Which, as you'll see, is at times not unconnected with the above. . .

### Computers and Artists: A Newcomer's Perspective

After following the previous articles on this subject you all must be aware of the major impact computers are going to have on the artistic world. For the first time in history the average 'man in the street' has access to software powerful enough to produce images that rival works an artist has slaved over for days with an airbrush. What does this mean to us space artists? I'm going to attempt to answer that question from the viewpoint of one for whom computers have become a way of life.

My name is Steven Hobbs and I'm one of the 'newer blokes' in the IAAA, having joined not so long ago. Being a newcomer, both in art and in years, I have always been associated with computers. I have never really experienced life without them.

I have seen computers improve over the years however, and have been struck with the curse of squandering lots of money on a system only to find it obsolete a couple of years later. Still, I am capable of producing reasonable images with my modest machine. With software packages such as *Deluxe Paint* and *VistaPro* I can turn out in minutes what would normally take me ages with a brush.

I still find, though, that the computer

images lack a certain amount of the realism that an artist's brush can create. I can always tell the difference between a *VistaPro* image and a painted one. Computer graphics are almost always very 'clean'; they lack the randomness which we find in nature and that a traditional artist can create fairly easily with a brush.

This is because software packages such as *VistaPro* use shortcuts in the creation of their images, such as repeated ground texture and faceted terrain. At present, computers still lack the tremendous processing power required to create photo-realistic images. For the present then I feel that we artists (at least those with fairly modest home computers) should use computer graphics as a guide for picture composition and as a sneak preview of what our final work will look like. Computers are also great for storing scanned-in artwork in digital format, and retouching them for publication by manipulating brightness, colour and so on.

But be warned! The day is soon coming when computer graphics will surpass the quality of the canvas. What will we as artists do then? I believe that this revolution, if managed properly, will be a good thing for us. We had better be prepared, for like it or not it's going to happen. I see computer graphics as merely a change in mediums for the artist. First there was rock art, then there was oil paint. Next came airbrushes and acrylics, and now up pops computer graphics. This last development will soon enable us to produce works indistinguishable from a photograph. "But then so can the average joe-on-the-street," you may say! "Not really, because it is one thing to slap some moons and planets against a starry background and quite another to produce a scientifically accurate and artistically sound piece of work."

Computers will also allow us to animate our work. How many of you after painting a picture would like to see it move? How does watching two spacecraft dock above a cratered lunar surface grab you? What about cruising down Valles Marineris at Mach 6 in a futuristic Mars plane? (Something I hope to do soon myself.) This is a whole genre in itself and will keep us busy for decades to come.

Brush and canvas will still be around though. There will always be a call for traditional landscapes, just as there was after the invention of the camera. But let's use this new tool in an artistic and scientific way, before it becomes abused by people who don't really know what they are doing. I would appreciate your comments. S.H.

## CALL FOR ART

### ART TO THE STARS

Traveling Exhibition Of Astronautical Art - 1995-1997 Norway, Belgium, Italy, Germany, England, China, Mexico

The first venue of the *Art to the Stars* exhibition of space art took place at the 46th International Astronautical Congress in Oslo, Norway between October 6-10, 1995.

Over 70 works of art including 46 works of art that are currently included in the *Ars Ad Astra* exhibition on the *Mir* space station were on display. The second stop was at the Euro Space Center in Transinne, Belgium on November 30, where a live link-up with the *Mir* station was arranged by the European Space Agency to announce the winning art work chosen by the crew on *Mir* - IAAA member Betsy Smith's "Where Dreams are Born". [Congratulations, Betsy!]

In 1996 "The Art to the Stars" traveling exhibition is dedicated to exploring and developing two general art and space themes:

1. Art that has been, or is designed to be realized in the space environment, using space technology and/or integrating art into the human habitats beyond Earth.

Central to the current exhibition are the OURS Foundation's current *Ars ad Astra* project, the *Cosmic Dancer Sculpture* project, both of which have been realized on *Mir*, and the new SEEDS project.

2. Art that concerns the evolution or expansion of life that has originated on Earth into the cosmos, the expansion of human civilization beyond Earth, and/or any artistic expressions related in some way to the *The Space Option Concept* - the utilization of extraterrestrial resources to meeting the growing needs of humanity.

All types of artistic expression and all art media will be considered. Digital, electronic and/or multimedia presentations are of particular interest.

Due to the publicity associated with the current *Ars ad Astra* Exhibition on *Mir*, there is already much interest in this exhibition coming from many different parts of the world. The OURS Foundation is actively seeking further exhibition opportunities. Concurrent exhibitions may also be possible.

Organizations wishing to host the "Art To The Stars" exhibition should contact The OURS Foundation.

Interested artists should send their documentation including photos or slides to:

Arthur Woods  
The OURS Foundation  
P.O. Box 180, CH-8424 Embrach, Switzerland  
Tel. ++41 1 865 08 53, Fax. ++41 865 26 65  
e:mail: theoursfoundation@access.ch  
http://www.access.ch

## CALL FOR PAPERS

47th International Astronautical Congress  
Beijing, China - October 7-12, 1996

International Academy of Astronautics  
Symposium on Space Activities and Society  
- Session I.A.A.8.2

### Reciprocal Relations Between Space Activities and Culture

Considering the impact, or non-impact of space activities on society, the cultural reasons for developing space may become a key reason for future space activities. Therefore, the interrelation and interaction between space activities and cultural activities need to be identified, nurtured and reported.

Also how the cultural interaction with space activities can be better utilized will be examined. Papers are solicited which illuminate these or similar topics.

Send abstracts to the session chairmen  
(deadline March 15 1996):

R. Liebermann  
2874 S. Abington ST \*A1, Arlington Va  
22206-1363 USA Tel. ++1 (703) 824 9733  
and to:  
A. R. Woods at the address above

To request information on how to submit papers to this symposium contact:

The session chairmen listed above.

Or:

The International Astronautical Federation  
3-5 Rue Mario-Nikis  
75015 Paris, France

Tel. ++33 (1) 45 67 42 60  
Fax. ++33 (1) 42 73 21 20

To attend the 47th IAF Congress contact:

Chinese Society of Astronautics  
P.O. Box 838  
Beijing 100830, China  
Tel. ++86 10 858 4077, ++86 10 837 2081 Fax.  
++86 10 837 2081, ++86 10 837 0849

## IAAA News

The IAAA at last has a new Membership Officer. As I wrote several issues ago, due to other commitments Laurie Garner has had to give up the post which she has filled so efficiently for many years.

Dale Darby has now come forward to take over. You will find a couple of pieces by Dale in the last *Pulsar*, together with his address etc. (also on our back page), to which your own changes of address or status should in future be sent. Please also refer prospective new members to Dale.

Thanks Dale, and good luck!

\*\*\*P.S. Is your subscription due? Please check, and if so, send your \$40.00 to Dale.\*\*\*

Steve Mercer's new address is

P.O.Box 11295,  
Boulder, CO 80301,  
USA  
e-mail: SKMercer@aol.com

Ron Miller's e-mail address has also changed, to:

rmiller@crosslink.com

## One-Person Show at Arizona Sonora Desert Museum William K. Hartmann

In February 1996, I'll be having a one-person show of about 30 paintings at the internationally-known Arizona-Sonora Desert Museum in Tucson. Members might be interested in my experiences.

I contacted the museum and proposed the show, and offered my services to help organize and hang the show. My idea has been to evolve away from the 'gallery scene' (where some of our work is judged 'non-commercial' - except at Novagraphics where Kim Poor

V.A.G. →

continues to provide a great outlet and wonderful support).

My idea is that museums and other educational or public organizations are looking for something different, and that our art can be used as fund-raisers for such organizations. Instead of 40% or 50% commission to an upscale gallery, a museum often requests only 30% or a similar lower commission. So it's a win-win situation - you show your art and support a worthy organization if there are any sales.

In organizing this show, I provided invitation cards, some of the refreshments for an opening reception, and manpower to help hang the work. Such an offer of support helps make such a show happen, since museums are chronically understaffed.

Although I have received enough material to fill this issue, there has been NO response to my request last month for YOU to write and tell us about yourself. So here are a few blank lines. As I said, if next month there's an empty page, you'll know why. . . D.A.H.



## Kim's Computer Column IAAA NOW ON THE WEB

The IAAA now has a Website. Currently I am hosting it as a subdirectory on the Novagraphics site. the URL is:

<http://www.novaspace.com/IAAA/IAAA.html/>

The site is only skeletal at this time, with a general outline, and in bad need of that currency of the Internet realm, CONTENT. There have been several ideas floating around about structure, and I don't want to be the editor of this massive project. Anything you all decide about the site is fine with me. If you have any suggestions, or writings, whatever, put it in a text file, or if you're ambitious, an HTML file, and e-mail it to me. (kim@novaspace.com) [Several previous *Pulsar* articles have already been sent, but some become outdated and others, most agree, should be available to members only. D.A.H.]

### A WEB ARCHIVE?

It has been suggested that since the Web is graphical, we can use the site to put the archives, and a portfolio of workshop pix, or whatever. I would suggest a "call for photos" (slides) to be sent to a central entity, to be archived digitally on Photo CD, for about a buck or less apiece, which can then be used for anything.

My site takes in over 1000 hits a day now and is climbing. Links from other sites are increasing the numbers all the time. A non-commercial entity can be listed in many more links than a commercial gallery like Novagraphics, so when we can get something useful up, it may become a monster, and may be just what we need to help make space art mainstream.

Discussion?

## THE INTERNET

I took me a while to understand the concept of the Internet. I have been a member of online services for years, but words like "telnet", "usenet", "ftp", "World Wide Web" & "gopher" left me grasping for a central kernel of understanding. I think I have it now, and I'll do my best to enlighten you.

The Internet is simply: (nearly) everyone's computers hooked up together over regular

and high-speed phone lines. When I say everyone, that means the whole WORLD. Most countries are on the net, save a few Middle Eastern countries. Europe, Canada and Russia have heavy Internet use.

### SURFING THE NET

The original Internet was a U.S. military project to have a non-centralized network which would stay operational if a number of nodes (cities) were destroyed. This later grew into a government-university collaboration for research and development. Now we see commercial entities on the Net, and individual users "surfing" the net on behalf of only themselves.

Certainly there is explosive growth of the net in recent years, but the old "structure" remains. The entire U.S. military and government is still on the Net, and in fact, have themselves developed new tools and concepts for navigation. The hottest part of the Net, the World Wide Web, was developed by CERN, the European particle physics lab in Switzerland. The Web will be the new paradigm for commercial and personal enterprise, and will be the subject of future columns. The Web is SO cool.

### ONLINE SERVICES

What's the difference between the Internet and commercial online services such as America Online, CompuServe, Prodigy, Demon (UK) or GEnie?

There are many similarities, such as real-time conversations, (chat) forums (fora?) on many subjects, and downloadable software and other information.

The difference is, while commercial services are like a modern city, the Internet is the Wild West. The Internet is still unmoderated and uncontrolled, and has no central navigational engine to get around. It takes some skill to move around the Internet; just mouse clicks on CompuServe or AOL, though this is rapidly changing. The Net continues to thrive because of courtesy ("Netiquette") and common protocols or rules.

### THE PERFECT MONSTER

And, although the U.S. and other governments are trying to control content they have created the perfect monster. The Net is for the most part completely anonymous, free of charge and anyone has access to most anything. You've heard about the coming information superhighway? It's already here. The information superhighway being spoken about is really the ENTERTAINMENT super-

highway, a sort of video and VR server added to the Internet.

The net works on a CLIENT-SERVER system, similar to a Local Area Network or LAN, found in many businesses. Simply, the clients ask for and receive information, the Servers find it and provide it.

Servers are larger computers with more storage, speed, and can service many clients at once. They are usually available 24 hours a day. A client is any computer, connecting with a particular server, one at a time.

### GETTING ON

So how do you get on? It's similar to signing up for an online service. The PROVIDER has a direct connection on one of the high speed digital phone lines (known as T1, T3, or 56K) that connect to the "backbone" of the Net. It's kind of like an on-ramp to the freeway. You can build your own on-ramp directly, but the cost is prohibitive for a single user.

You simply need to sign up with a local provider to dial up a local number and you're on! It's similar to accessing a BBS system. Currently providers are sometimes hard to find. None of them currently mails out free software or advertises on TV like the major online services. Ask around, check the newspaper (my provider advertises in the business and entertainment section). Other sources are the online services themselves, which have "gateways" to various servers on the Net. In addition, internet access is available as part of the OS/2 operating system for IBM-compatible computers. Windows 95 also has easy access. I believe a local provider can provide the lowest cost and easier access. The online service servers may become clogged with users and cost much more in the long run.

### THE STACK

The stack refers to the suite of software tools you will need to operate effectively on the Net. The software can reside on your computer, your provider's, or both. The good news is that a lot of stack software is free-ware or shareware, and available on the Net itself for downloading, or as part of a commercial Internet package, such as *The Internet Starter Kit* (for Mac & PC), *Internet In A Box* (Mac & PC)

### HERE ARE THE MOST COMMON TOOLS

**E-MAIL** This is the most essential. When you sign up for an online service or an internet

provider, an e-mail account is automatically set up for you to receive and send mail. If you're just getting started, AOL has the easiest mail service.

**PPP-TCP/IP-SLIP** This is the essential protocol software for connecting to the net. This has to be on YOUR computer. I recommend Winsock for Windows (PC) computers and Mac PPP or MacSLIP for Macs (I recommend the PPP). PPP stands for point-to-point protocol, which simply is a supercharged connection to the Net that allows your modem to receive data at speeds in excess of your modem's given speed, using compression regimes built into it (V.34 for instance). Winsock can do PPP also.

**TELNET** This is simply a Terminal Mode program which allows your computer to be a dumb terminal as if it was in the same room connected to the server. You usually Telnet to your provider's server to receive your Email.

**NEWSREADERS** This is software which comes in many versions, which allows access to the USENET, thousands of discussion groups on EVERY conceivable subject. It also allows you to download pictures from the Usenet; yes, those too. If you don't have software to view the pictures (such as *Photoshop*), there are simple "viewers", add-on pieces of software which can be configured to your Newsreader.

**GOPHER/VERONICA** Before there was the Web, Gopher ruled Netspace. It was developed at the University of Minnesota (mascot:Golden Gopher), and is a menu-driven way to search for information. Crude by today's standards, but effective. VERONICA is the search engine for Gopher menus all over the world (termed "Gopher-space"); it stands for Very Easy Rodent-Oriented Net-wide Index to Computerized Archives(!)

**FTP/ARCHIE** FTP is File Transfer Protocol, the method by which files are uploaded and downloaded across the net. FTP can be accomplished through raw (but simple) UNIX commands to navigate to a particular server, directory, and file, but there are also a fair number of "front-end" programs (free-ware) which take care of the nasty UNIX business and allow you to point and click in

a Windows or Mac-like interface. I use FETCH for the Mac, which has a neat "running dog" icon which runs forward or backward depending on whether it is "putting" or "getting" files. ARCHIE is simply the search engine for FTP sites worldwide. (Archie, Veronica...get it?)

### WEB BROWSERS

Here's where the Net becomes big fun. A browser is a piece of software which allows users to view text and graphics on the World Wide Web. There are many different browsers available, most of them free, but *Netscape Navigator* controls nearly 85% of the market. It is also the most sophisticated browser, able to decipher tightly designed Web pages, with colored text and formatted tables, among other things. Most of the world's Web sites are "Netscape enhanced" and say so on their home page. If you view these pages with other "lame-ass" browsers such as some of those provided by the commercial on-line services, the pages may show up as a jumble of text with missing graphics. Netscape is available for free via FTP from their site, so there's really no excuse!

Kim Poor's article on the Web will be concluded next time; probably together with some info about *Bryce*, which was promised in the October/November issue. Meanwhile...

### More Web Stuff

Member Daniel D. Durda has a space art page, together with some Bonestells, and has now included some of his photos from last year's Arches Workshop. He says he has no objection to you downloading and copying these. Take a look at:

<http://www.lpl.arizona.edu/users/durda/funstuff.html>

JPL has released its *Exploration of Neighbouring Planetary Systems* home page:

<http://techinfo.jpl.nasa.gov/www/ExNPS/HomePage.html>

- a group of 135 scientists and engineers from 53 universities and companies worked for over six months to develop a 'road map' for the characterization of nearby planetary systems. Ground-based telescopes, space facilities such as the HST, and eventually (2005?) up to four infra-red telescopes operating in the outer part of our Solar System beyond Jupiter will search for Earthlike planets around

nearby stars and identify CO<sub>2</sub>, ozone and water vapour in the atmospheres of the brightest planets.

Also, one of the world's most popular photo collections - images of the planets produced by the US space program - has gone on-line as part of a joint project between NASA and the US Geological Survey (USGS):

<http://www.pdsimage.jpl.nasa.gov/PIA>  
(at JPL - I recommend this site. *Netscape* v. 1.1N required)  
<http://pdsimage.wr.usgs.gov/PIA>  
(at the USGS)

And speaking of images, *Visions of Mars*, the CD-ROM which is to travel on Mars 96, has now been published by the Planetary Society. I hope to include more information about 'the first Art Gallery on another planet', as Mike Carroll described it, next time.

## The Tenerife Workshop

This is progressing well. We have a definite commitment from: Bill and Gayle Hartmann (plus a friend or daughter Amy), Dennis Davidson, Dana Berry (with possible friend), Michael Böhme, Andreas v. Rényi (and possible friend), Jess Artem (of course) and myself.

Members yet to confirm, but probable, are: Beth Avary, Arthur Woods, Joel Hagen; while there is interest from John Lewis, Erik Viktor and Betsy Smith (let's hear from you, guys!).

There is still time to put your name down for what promises to be one of the most interesting and certainly the most international (we are the IAAA!) workshop yet held.

But please do contact me A.S.A.P. if you'd like to go, as hotels etc. have to be booked.

*Even if you can't manage to attend, you can exhibit art at the new Museum and Art Gallery. Details to follow in a later issue.*

Finally, we have a new UK Member: Graham Bate, whom I met in Peru just before the 1994 solar eclipse. Graham achieved a life-long ambition in August 1995 when he climbed Mt. Kilimanjaro in Africa (19,340ft). The night skies, he says, were out of this world. For 1996 he plans to scale Aconcagua, S. America.

Graham asks "What is a workshop?" Other newer members may also wonder. Basically, a bunch of members meets in a geologically interesting spot to sketch, photograph, hold slide shows and critiques, exchange tips and hints - and generally party! DO JOIN US. DAH