pulsar

THE

space art journal

july-aug

1990

INTERNATIONAL ASSOCIATION
FOR THE
ASTRONOMICAL
ARTS

INTERNATIONAL ASSOCIATION FOR THE ASTRONOMICAL ARTS

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LETTERS FROM OUR READERS

I am writing concerning the article in the Jan/Feb 1990 edition of PULSAR entitled IAAA Pipeline: International Networking. The article said, "send me some slides" but it wasn't clear about who to send them to. Is it therefore safe to assume that I should send my submissions to the editors of PULSAR?

I would like very much to be a part of the network described in the article but I wanted to be sure to send my stuff to the correct address.

I am looking forward to hearing from you soon.

Greg West

Editor's reply: Greg, I hope you don't mind such a public reply but I feel this might be of help and of interest to many, so here goes:

You are already part of the network system as are all Active artists. When magazines, publishers, galleries etc. call and ask for recommendations, they are sent a list of all active artists. However, at the moment we do not have many examples of artists work on file. I know Kara intends to put together a portfolio of works by IAAA active members which will be available to interested parties ie...galleries, educational institutions, corporations who may wish to sponsor exhibitions etc.

Also, a new questionnaire is in the works to help classify artists and their style(s). This will obviously improve networking as well. The more organized we are, the better the service we offer and, as a result, the better our reputation becomes. And because more wonderful people are now volunteering to take on responsibilities within the IAAA, thereby redistributing our phenomenal workload, all services will improve.

The correct person to direct examples of your work to is indeed Kara Szathmary whose addresses are on the front cover. If you are a US resident, use the US address; otherwise, use the Canadian address.

I hope this helps clarifies things for you and I look forward to seeing more of your work. G.Sz.

.....

Greetings Kara!

....Hope that all is going smoother for you; it sounded rather nerve shattering last summer. Incidentally, I love David Hardy's suggestion for an Hawaiian workshop. I wonder whether we've grown to the point where semi-local workshops are feasible (for example..western US, eastern US, western Europe, etc.); it is enjoyable to get together with other artists for learning sessions, but some of us can't afford the cost of distant workshops.

Take care -

Cathie Yankovich

Editor's note: Feast your eyes on the list of suggested workshops that follow Cathie. And I agree with you, but, as I've mentioned before, all it takes is for you to propose a workshop, put out feelers in PULSAR and...now comes the hard part...organize it if the response is good or if someone from that area volunteers to take on the task, so much the better.

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VISIONS OF SPACE GETS U.S. PUBLISHER

W.H. Smith Publishers, Inc.,
112 Madison Avenue,
New York, N.Y. 10016

Contact: Harvey Markovitz

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IAAA MEMBER SHOWS

Ruth Trapane will be exhibiting at the

HAAS GALLERY,
Bloomsburg University,
Bloomsburg, PA.

from August 5th through 29th, 1990. The works are a paintings from her recently awarded Master's Thesis FOR THOSE WHO DREAM OF NEW WORLDS BUT STILL SEE THE BEAUTY IN OUR OWN.

About the artist...Ruth Trapane has been painting and teaching for over twenty years. Recently, she has emersed herself into the investigation of the uses of wax paint in varied forms and techniques. She has a monoprint method of melting the wax into varied types of Oriental paper to achieve some startling effects. She paints on thicknesses of acrylic and has found a way of working that is entirely unique.

Her paintings are both explosive and spiritual in nature. Her views of space are based on her study of many photographs from space and her own unique visions.

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GET WELL SOON

In a recent conversation with **Judy Asbury**, we learned that she has been having eye troubles...a curse for an artist. Actually, we joked about her having a whole new perspective with which she could play....perhaps a distinct advantage for `other worlds' renderings. Awaiting news as to the cause of these problems has been nerve wracking though and we wish **Judy** all the best. Our hearts and prayers are with you!!!

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CONGRATULATIONS

This one's for **Carter Emmart** who has had a recent work published on the cover of Ad Astra (May, 1990) and **REUBEN H. FLEET SPACE THEATRE's** SPACE REFLECTION. **Carter** has been frantically busy with his **CASE for MARS** work (he is working with engineers creating a model for the Air and Space Museum) and his exciting involvement with **BUZZ ALDRIN**, Apollo 11 astronaut. **Carter** is part of a design team, along with architect **John Spencer**, who is designing and illustrating **Buzz Aldrin's** ideas for cycling space crafts. These concepts apply to the space exploration initiatives program under **President Bush**.

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IAAA MEMBER HAS MANHATTAN T.V. SHOW

David Channon is a painter, sculptor, and videographer living and working in Manhattan. He is also an independent television producer. His VOLCANIC VIDEO series can be seen

on Manhattan Cable (Ch 17) Saturday 7pm, and on Paragon Cable, Friday, 11pm. It is zany T.V. at it's best.

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ART MENU

Often these days, artists are at a loss when trying to 'label' their art style. They don't really fit into a specific category and would like to define new areas or sub-groups for themselves. We at PULSAR invite you to submit your thoughts on this.

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COSMIC SYMBIOSIS

...is the continuing web of relationships and influences that interweave life on Earth with the Moon, the Sun, the stars and galaxies, and other phenomena in an evolving universe.

When modern art is viewed as a periodic table, Cosmic Symbiosis emerges as an isotope of **Paul Hartal's** element, **Lyrical Conceptualism**. Basically, the artist attempts to paint in the light that emerges from the boundary between the conscious and the unconscious parts of Man's psyche. It requires serious commitment and the artist's totality.

The resulting paintings are then psychological photographs or calling cards of the artists soul. No restrictions are placed on personal style, medium or concepts. No barriers are built against traditional art. Furthermore, no attempt is made to isolate one's Self from past tradition.

What is present is merely a reaction to post-formalist trends in contemporary art. It is also a signal to the artists of the last quarter of the 20th century that the time is ripe for a fresh and new notion in art.

If, **Lyrical Conceptualism** is an attempt to help bring Man in touch with Himself, then, when viewed in this manner, **Cosmic Symbiosis** is an attempt to help bring Man in touch with His surroundings.

Kara Szathmary, 1978

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WORKSHOPS IN THE MAKING

THE CRIMEAN WORKSHOP

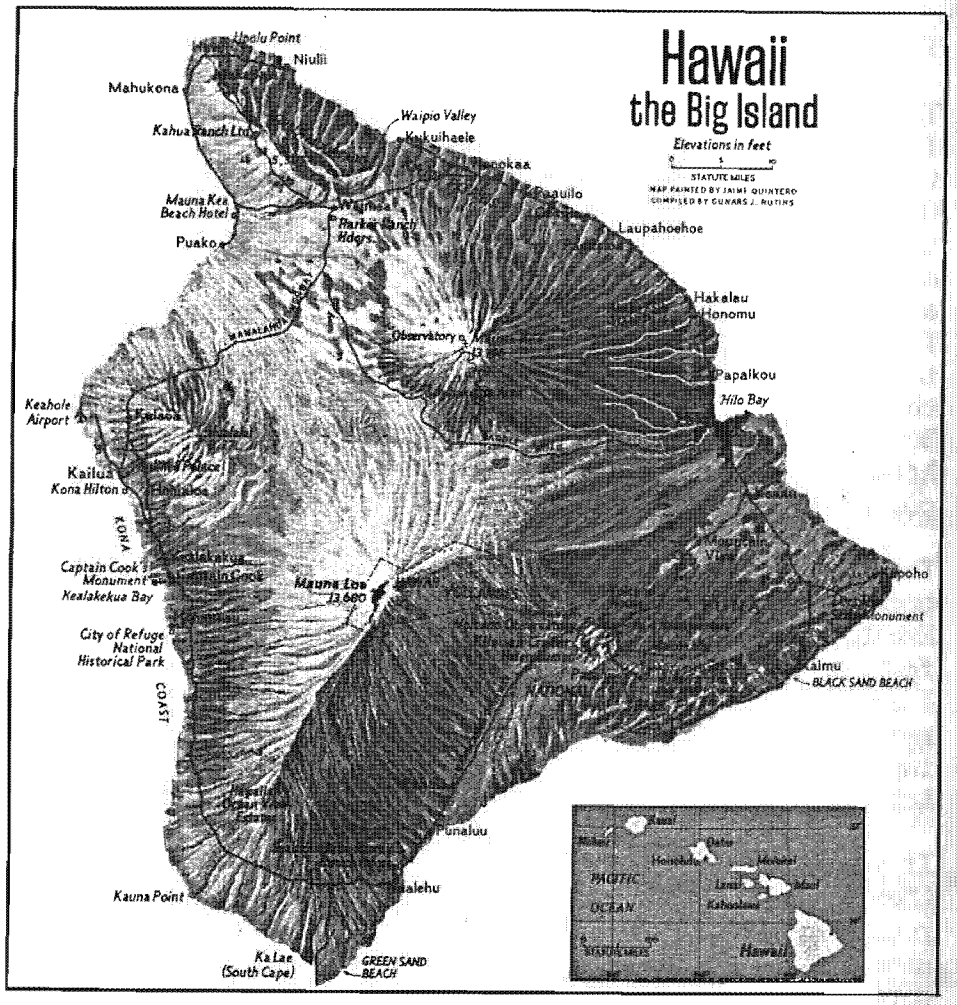
The 5th and final phase of the "Dialogues" project features a joint Soviet All Artist Union/IAAA workshop this fall. The workshop will take place at the **Garzuf House of Creativity** near Yalta in the Soviet Crimea near the Black Sea, from October 1st to October 20th. Artists are requested to bring along not more than 5 paintings for an exhibition in Yalta at the All Artist Union Gallery. These paintings will remain in the USSR and will be toured through the country until April 1991 where they will join the **International Space Art Exhibition** celebrating the **30th Anniversary of Yuri Gagarin's** historic space flight. After the exhibit, the paintings will be returned to the countries of origin.

The purpose of the Crimean workshop is to begin preparation of collaborative works for the Gagarin Exhibition. As I understand, this workshop might also feature the Saudi Cosmic Artists Group for the first time. I urge our European IAAA members to participate. In the mean time, efforts are continuing for eventual Japanese involvement through participation in the 1992 **World Space Art Exhibition**.

If you would like to participate in the Crimean workshop, then please let us know as soon as possible so that our roster of 12 artists can be faxed to the USSR. Time is short and visa applications must be arranged. The cost of participation is the return flight to Moscow from your studio. Expenses in the USSR are to be sponsored by the All Artist Union.

.....

Laurie Ortiz is presently enjoying the insanities of organizing a workshop...our heart felt sympathies Laurie! This one is to be held in **HAWAII** during the solar eclipse (as originally suggested by none other than David Hardy). The dates will be **July 6 - 14** and it will cost no more than **$550**. Participants - there is space for 24 on a first come first serve basis - will be asked to bring 2 or 3 pieces of art with them for a show at the Volcano Art Centre.



Buenos Dias!

Here is the long awaited ***preliminary*** information on the Hawaii Workshop!

About the event: There will be a total eclipse of the sun on July 11, 1991 at 7:28a.m. with approximatly 4 minutes of totality on the big island of Hawaii.

Where: We are working with the Volcano Art Center for low cost

lodging for **25** people. In exchange we will be giving them a couple of special lectures and workshops. With plenty of time to do our own workshop kind-o-stuff. Lodging will be dormitory style with 3 to 4 people to a room in the military camp adjacent to the Volcano Art Center.

When: The dates for this glorious event will be from July 6 - 14, 1991, leaving the 14th.

The bottom line: The cost for each participant is going to be approx. $500.00 (maybe $525.00, but not less than $500.00) this will include the following: Lodging, rental cars (for island jaunts), gas, & food. Getting to Hawaii will be your responsibility, there will be rides to the workshop site from the airport.

By the way: There will also be an art show, with two to three submissions from each artist. A very many details about the art show have yet to be ironed out. But, this is how it is shaping up; by February you will have the captions that you wish to see accompany the paintings, along with the sizes of each piece, to me. There may be a chance that artists not attending the workshop will be able to put their paintings in the show as well. But as I said, there aren't enough details yet to give specifics. Be sure to send:

Name, Address and Telepone number; Also, please include a person we can reach in case of emergency once at the workshop: Telephone number.

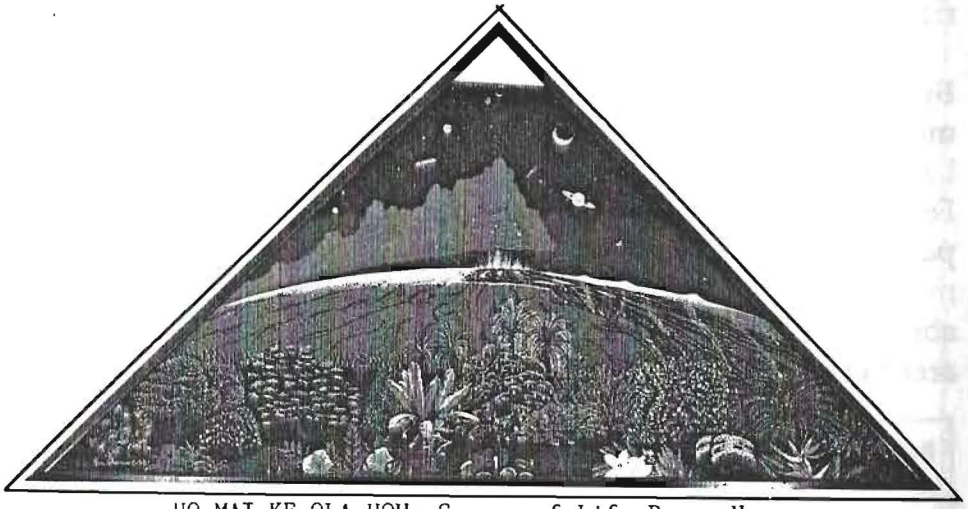
Please make check ***payable to the I.A.A.A.*** and mail to:

Laurie Ortiz
339 W. University Ave. #A
San Diego, CA 92103

You will be receiving a confirmation in the mail, remember it is limited to the first 25.

Ken Charon is an active member of the IAAA living in Hilo, Hawaii. He began drawing classes at the American Centre For Students And Artists in Paris in 1971. From 1972 to 1974, he studied studio art at the American College of Switzerland in Leysin. From 1974 to 1975 he attended the California College of Arts and Crafts in Oakland. He then returned to Paris, where he perfected his style at the Ecole Superieure D'Art Graphique.

Ken has since had numerous shows in Europe and the US. He has created many canvases reflecting on the heavens, both realistically and symbolically.



HO MAI KE OLA HOU: Source of Life Renew Us

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Arthur Woods is proposing to have an **IAAA/OURS** "**Art in Space - Space in Art**" workshop next summer in **SWITZERLAND**. The **OURS Foundation** would undertake the organizational details and one or perhaps more exhibition(s) resulting from the event could be arranged. Anyone wanting to participate should contact Arthur at:

Orbiting Unification Ring Satellite Foundation,
P.O. Box 180 CH-8424
Switzerland
Tel: 01-865 08 53 Fax: 01-865 40 17

Personally, I feel that this is a super idea and a great opportunity!

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There are many other workshop proposals.....all of which will be discussed at the upcoming Board meeting. To whet your whistle...**J.J. Van Ellinckhuijzen** of **Namibia** has suggested a workshop there, the terrain being truly out of this world; **David Hardy** has suggested a workshop in the **Gran Canaria**, a good central meeting place and home of a British observatory. several people would like to return to **Iceland**; **Joe Tucciarone** has suggested **Cocoa Beach, Florida** with trips to **Kennedy Space Centre, Disney/Epcot/MGM Studios**; we'd love to talk **Joel Hagen** into giving a computer graphics workshop, maybe in conjunction with **Amega**. With better funding, we could have a central location for a yearly or semi-annual seminar where people could sign up for workshops to be given by IAAA or outside artists renowned in their field. One could study a diversity of techniques, attend lectures and take quantum leaps in creativity.

Basically, if anyone wants to put together a workshop, they need only outline the program. I'll print it up in PULSAR (your network source) and then you can set about organizing the logistics of it all. Organizing workshops can be very rewarding. On the other hand, it requires a tremendous amount of time and patience. We welcome anyone who is willing to take on such responsibilities.

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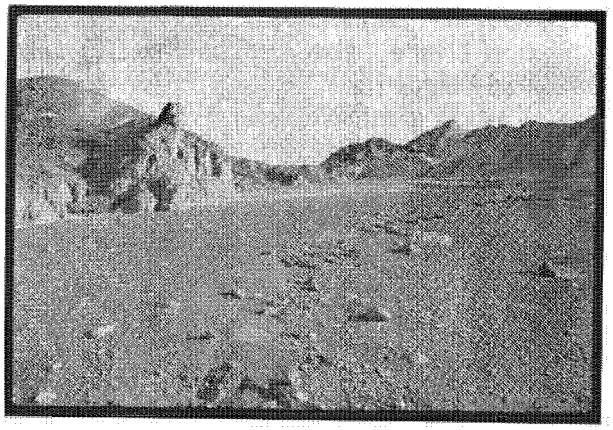
PULSAR GETS INJECTION OF FRESH BLOOD!!!!

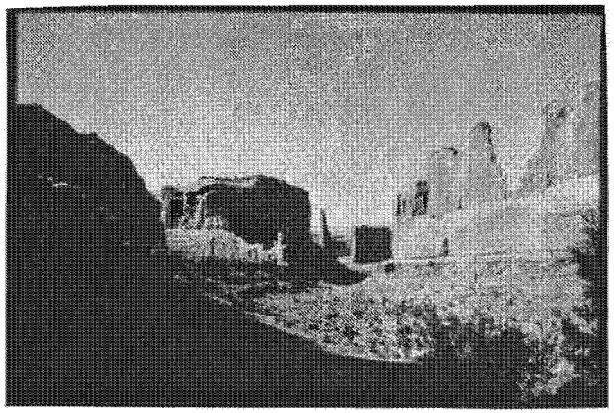
LAURIE ORTIZ has volunteered to take over the editorship and publishing of PULSAR. This is wonderful news for all concerned!! **Laurie** is a dynamic, good humored, inventive human being with positive energy in abundance. She has been working at the **Reuben H. Fleet Space Theatre** in **San Diego** for the last ten years as Art Director, Head of Graphics Dept., and is staff photographer as well. As **Michael Carroll** puts it, "she's the glue..she keeps it all together!"

Laurie is also the IAAA archivist. This should mean more photos and illustrations for PULSAR articles. I know **Laurie** has been working hard organizing the archives lately and that she will be discussing her ideas at the upcoming Board meeting. I feel these two positions interface beautifully and am confident that the membership will enjoy the results.



20 Mule Team Canyon, Death Valley 1983

On top of all this, **Laurie** has volunteered to take over membership inquires and business. Her ability to organize is highly regarded by fellow workers..so watch out everyone...inquiries may be efficiently and comprehensively answered before that sigh of exasperation leaves your lips.



Arches National Park, Utah 1989

Geysir, Iceland 1988

Goblin Valley, Utah 1989

So, starting right now, all PULSAR articles, announcements and gossip can be sent to **Laurie** as well as all membership related business. Don't worry if things get mailed here by mistake..all will be immediately rerouted. **This transition will be smooth!** And please, do write! This is your organization. It's your chance to beat your breast in indignation or to toot your own horn, to express your ideas or to debate heatedly that which irked you in a past issue. It's your chance to introduce yourself to like minded artists. This is your forum. USE IT.

NEW PULSAR AND MEMBERSHIP DATA CENTRE ADDRESS:

Laurie Ortiz,
339 W. University Avenue,
San Diego CA92103
(619) 297-3422

GOOD LUCK LAURIE AND THANK YOU

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VISIONS IN SPACE: A JURIED FINE ARTS EXHIBIT

The **Mountain Art Guild and Fiske Planetarium, University of Colorado at Boulder** are presenting **VISIONS IN SPACE**, a juried fine arts exhibit, **October 6 - November 30, 1990.**

This will be the fifth annual exhibit of original fine art **expressing the artists' creative interpretation of flight, space, and space exploration.**

ELIGIBILITY: Open to all artists

MEDIA: Any two or three dimensional wall-hung works. No photography or free-standing sculpture.

ENTRIES: Each artist may submit up to four (4) original works. Art work must be framed (if applicable) and ready to hang with screw-eyes and wire. Maximum size: 3'x4'.

FEE; $4.00 per entry (non-refundable). Make cheques payable to Mountainside Art Guild.

AWARDS: 1st. place $100.00
2nd place $75.00
3rd place $50.00
Merit awards

JUROR: **Susan Arndt** is a long time art instructor at **Red Rocks Community College**. She is a multi-talented artist specializing in drawing and design, who is currently working in mixed media. Susan is much in demand as a juror and demonstrator through out Colorado.

PUBLICITY: **Mountainside Art Guild and Fiske Planetarium** reserve the right to photograph works for publicity.

SALES: Will be promoted and handled by art show representatives. Sold works will remain in exhibition until the close of the show unless released by **Bob Stoller**, Fiske Operations Manager. A 20% commission is charged on sales.

INSURANCE/SECURITY: No insurance is provided. However, the sponsors of the show take the utmost precaution in handling works in a secure environment. Artists who submit works are required to hold harmless the Mountainside Art

Guild, Fiske Planetarium, and the University of Colorado, their agents and employees from any claim of damage or loss of work.

SHOW DATES: *

October 2: Deadline for artists' entry forms. No walk-in registration.

October 1-5: Shipped works must arrive at
Fiske Planetarium, University of Colorado,
Boulder, CO 80218

Available agents:
UPS, Parcel Post, Artcraft:
383 Corona, Denver Co 80218

Shipped works will be returned C.O.D.

October 6: 9am - 11:30am : Hand Delivery of works at
Fiske Planetarium (park at "artists' delivery" sign on north side of Fiske)
No work accepted after jurying begins.

October 8 - November 30: Visions in Space exhibit
Hours: Mon-Fri: 8am-12noon, 1pm-5pm
Fri evening: 7:30-9:30

December 1: 9:30-11:30am: Pick up of works
Any pieces remaining after 11:30 will be sent to **ARTCRAFT** in Denver. Pick up may be made after noon on Monday, Dec.3rd, or thereafter, by paying their fee. TELE: (303) 722-1761

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INTERNATIONAL SPACE YEAR 1992 EXHIBITION:

ART OF THE COSMOS

More about this show will be published in the next PULSAR issue, but for now, keep it in mind. The theme for International Space Year is what you would like to see the space age bring, on Earth and in Space. Slides are due in DECEMBER 1990. There will be an IAAA jury.

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RE-NAMING MISSIONS

In the Jan/Feb issue of **The Planetary Society Report** there was a call for submissions to re-name the Comet Rendezvous Asteroid Flyby (CRAF). The following, which seems ultimately appropriate, was submitted by Jon **Alexandr**...and I hope he wins!

"I propose that the Comet Rendezvous and Asteroid Flyby (CRAF) mission be renamed **Monet**, after the well-known landscape artist. **Claude Monet** devoted his artistic explorations to the study of light, including the misty, ethereal light of early morning along the river Seine and in his own private water garden. It is a light that glows in the imagination like the misty, ethereal halo and veils of an awakening comet. When the spacecraft and comet perform their celestial **pas de deux**, scientists (and artists) will patiently wait, as did Claude Monet in the pre-dawn hours, for Sol's warm touch to stir the volatile molecules and lift them from their parent body.
Naming the mission after an artist may also be recognized in the future as the second example, following the international Giotto mission to **Halley's Comet**, of a fine tradition of naming all missions to comets after artists. Like comets (and asteroids) throughout history, artists will often burst onto the scene from eccentric orbits and inspire fear, awe and wonder. The tradition would also be a fitting tribute to the artists who have done so much to illuminate our scientific pages, like the illustrators of ancient religious texts, for the pioneers who will actually voyage to the heavens, in the realm of the comets and beyond.

Jon **Alexandr**, 3/24/90

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The International Association for the Astronomical Arts

The IAAA was founded in 1982 by a small group of artists who journeyed through the fascinating and seldom tread territory where science and art overlap.

For these pioneering astronomical artists, a firm foundation of knowledge and research is the basis for each painting. Striving to accurately depict scenes presently beyond the range of human eyes, they communicate a binding dream of adventure and exploration as they focus on the final frontier of space.

Since its founding the organization has grown to number over one hundred fifty members represented by fourteen countries. The work has also grown to incorporate a variety of styles and viewpoints. At times the art may step outside the bounds of scientific rendering to address the broader implications that space poses for humanity. However, no matter which form of expression the artist chooses to take, the common inspirations held by all are astronomy and space exploration.

In addition to painting skills, the diverse allies of an astronomical artist include personal computers, NASA photographs, field geologists, space scientists, astronomers, astrophysicists, science writers, and travel agents. They may find themselves in a training simulator at Johnson Space Center, camped in a windy desert ravine studying erosion patterns, or talking with an Apollo astronaut about subtleties of color in lunar shadows. At the workshops, knowledge and techniques are shared while new landscapes are explored for useful detail.

From this fertile background of research and imagination comes the body of artwork known generally as the genre of SPACE ART

For more information, write:
the International Association for the Astronomical Arts,
Box 354, Richford, VT 05476

INTERNATIONAL ASSOCIATION for the ASTRONOMICAL ARTS

Non-profit Foundation

Membership DATA Center
Box 354 Richford, VT 05476

MEMBERSHIP Application:

The object of the IAAA, as a non-profit foundation, is to implement and to participate in space art projects ~~including the development of cultural enrichment through astronomical art~~ and to foster further international cooperation in artistic ~~exploration~~ work in pursuit of our astronomical art, and to promote education about astronomical art.

Name: _____

Address: _____

_____

Associate $35

Active $100

I wish to be a member of the IAAA. PLEASE send me the most recent issue of PULSAR

☐ If you'd like to contribute more to help the IAAA realise its goal to become a legitimate school of Modern Art, then your enclosed additional tax-deductible contribution would be greatly appreciated.

Please make your check payable to the IAAA

INTERNATIONAL
ASSOCIATION
FOR THE
ASTRONOMICAL
ARTS

CASE FOR MARS IV: REPORT

by Kara Szathmary

"Des Moines Iowa, 325 miles"..the sign laughs at me like a Saturday morning cartoon. I have that `neither here nor there' feeling and Boulder, Colorado is a long way off. We'd been driving non-stop for thirty hours in an old, (but faithful) van crammed with paintings, space-age games, and sleeping accommodations, our sites set on the CASE FOR MARS conference, June 4-8 1990.

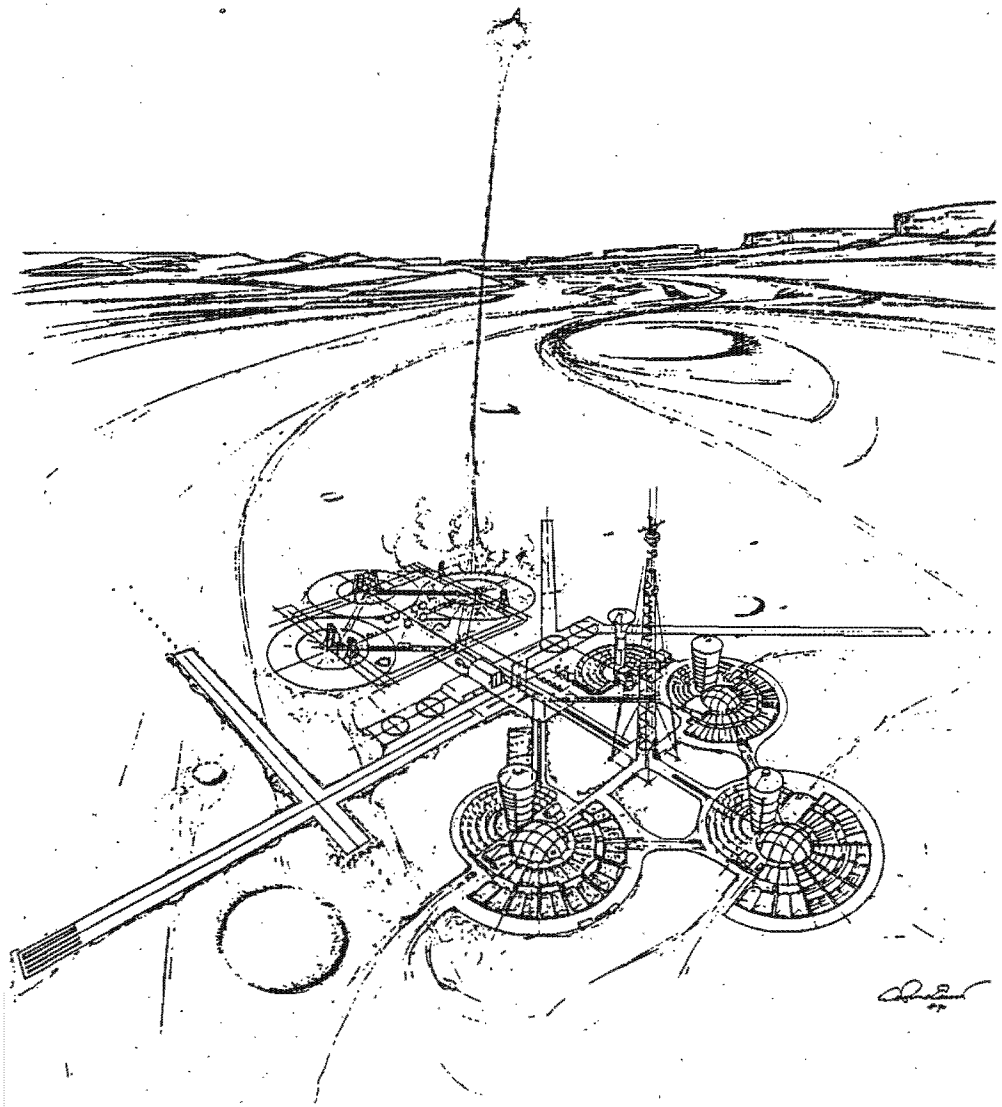
Earlier in May, I received a frantic phone call from Rachel Freeman, newly appointed "Case for Mars" exhibition coordinator, to request paintings from the IAAA for an exhibition. She apologized for the very short notice but wanted to know if the IAAA could help. Our current policy is to provide the list of active artists in such cases where we cannot inform people via PULSAR. This approach has helped several times in the past. I faxed her the list.

I had heard a great deal about previous "Case for Mars" conferences long after they were over. Now I was hearing about it in advance. I was intrigued, particularly by this one because of the recent USA Space Exploration Initiative program committment spanning the next 30 years. If Mars is the next great human adventure, capable of exciting and inspiring peoples of all ages the world over, then I would have to find out everything I could about the project and the global efforts taking place to bring this adventure to fruition.

The "Case for Mars" conference rose above the horizon, like the new day sun, in my mind. The idea that Mars is a step towards the long-term objective of establishing humanity as a multi-planet species is indeed heady stuff. When Rachel called again and expressed her disappointment in being able to recruit only five or six artists, I decided to call Richard Norman, a local IAAA member and entrepreneur.

A trip to Colorado was certainly not equitable alone. However, if a joint venture could be arranged then the cost would be more affordable. I would be able to represent the IAAA as both an educator and an

Mars Base 2057
by Carter Emmart



exhibitor; furthermore, Richard and I would have an opportunity to introduce and to demonstrate our space-age games. His is a board game played on a ball: mine, a ball game played on a board.

Richard is the co-inventor and co-creator of OBOL.

along with his wife Sonja and long time friend, David Chamberlain. OBOL is an exceptionally challenging and captivating game of creative global thinking. It's fast paced, uses very simple rules, and deals with constructive chaos and 3D strategy. It can also be played anywhere..in a hot tub, at the beach, in a bar, or, naturally, in space.

On the other hand, QUANTUM BASEBALL is my invention which I co-created with my wife Gail. It's a unique and well thought out game, which combines the universal appeal of baseball with the fun of playing cards. It's statistically accurate and provides constantly changing scenarios that require thought, strategy, and "managerial" decisions. QUANTUM BASEBALL is basically a stadium in your pocket and travels well. It was also designed for play in zero gravity as several astronauts had mentioned that tactile games..**not computer or video**...were needed for long duration space flights. I had talked the idea over with Joe Allen during our IAAA workshop in Houston in August 1987, and he loved the idea of cards and wondered why no one had tried this out yet!

So, we left Sutton Quebec around 3pm on Friday and arrived in Boulder on Sunday, 54 hours later. After delivering the paintings to the exhibition hall, we settled for a restful night of sleep in the parking lot. The van is outfitted for camping and is never difficult to locate (this fact is important because conference discussions often end up going late into the night at some celebrated bar, like The Dark Horse, which someone knows is "the best!"). It is painted deep Prussian blue with star fields as back ground for both the OBOL and QUANTUM BASEBALL logos. As Carter Emmart puts it, it's kind of a new/old hippy van.

Morning came bright and early, particularly with the heat absorption factor of prussian blue. Despite the open windows, the temperature rocketed with every degree rise of the sun. We bolted from the van...and every day after that...before 7AM.

Registration was the first order of the day, then the set up of the IAAA information desk with samples of PULSAR, membership application forms and David Hardy's book, VISION OF SPACE. Meanwhile down the hall, Rachel

Freeman and staff were busily opening crates and boxes and arranging paintings in preparation of the opening reception for 5PM in the Glen Miller Lounge.

In the Glen Miller Ballroom Centre, Tom Meyers, conference organizer and opening chairman, along with Donald Hearth, president of the University of Colorado, welcomed the delegation to the university, to the "Case for Mars IV" conference and introduced the keynote speaker Raymond Walter, chairman of the National Space Council. Reporting on the Status of the US President's Moon-Mars Initiative and its international implication, he summarized the current focus, thrust, and direction the US was taking in its leadership role during this international collaboration and committment.

Tom Paine, eternal optimist, consultant, and chairman of the National Commission on Space, followed, exploring the rationale for the exploration of Mars and the lessons learned from the Apollo program. Known for his visionary leadership and as the premier spokesman for a Mars mission, it was Tom Paine's recognition and support for the student driven Case for Mars project in the early 80's that lead to the "Case for Mars" conferences.

The final speaker of the morning was Chris McKay, of NASA Ames Research Centre. His talk reflected on Life and the Theme for the Human Exploration of Mars. His talk included an outline of several professional workshops that were planed and would be held in the evenings throughout the week. The general directives and the organizational plans would be issued in the first workshop meeting. The workshops that followed would be divided into two areas; Technical and Educational.

Chris also reflected how he, as a graduate student leader, had corralled Carter Emmart and other undergraduate friends to organize the first conference. The rest is history and is still in the making. Chris then invited everyone to participate in the workshops and to explore ideas. For the Technical workshops, he recommended formations of subcommittees to address program and mission strategy, scientific objectives, spacecraft design, propulsion, space

stations, Mars base and infrastructure, habitats and human factors with social, economical and political aspects of international missions to Mars.

For the Education workshops, he suggested that the prime focus and goal should be the development of strategies and recommendations needed to meet the educational needs of space exploration while improving science as well as education in general. We were reminded that during the '60's, after President Kennedy had delivered his most inspiring speech wherein he made a commitment to put man on the moon within the decade, using materials and technology that had not yet been invented, the educational system exploded. There was a 450% increase in the number of college degrees awarded. Technology skyrocketed. There was excitement and adventure in the air. I couldn't help but think, at that point in his speech, that this is just what the world needs now...a vision: an adventure involving global cooperation and hope that with such an adventure would come solutions to our numerous Earthly problems.

The afternoon session brought forth the principal player-organizations that were collaborating to define the scientific objectives at the podium. Philippe Masson, representing Universite Paris-Sud of France gave an overview of the European Space Agency scientific interest in a Mars exploration. Lev Mukhin, of the Academy of Sciences USSR Space Research Institute, summarized the Soviet space missions, Search for Life on Mars programs, and other scientific interests. The American scientific strategy for Human Exploration of Mars was reviewed by Carol Stoker from NASA Ames Research Centre. Finally, Takafumi Matsui, of the University of Tokyo, announced the Japanese plan to host the International Mars Forum in Japan then summarized the Japanese plans for the Mars exploration with the Soviet Union and France.

With the completion of these overviews, the a series of scientific papers began delivered by researchers from around the world including Holland, France, Germany, India, Japan, the Soviet Union and the United States. One such paper was the ENDEAVOUR 1000 project which is written up in this PULSAR issue.

By the end of this first day, everyone was ready for the opening reception and Art Show. Surrounded by the paintings of Craig Attebury, Michael Carroll, Carter Emmart, Joel Hagen, David Magoun, Kim Poor and Kara Szathmary and several outstanding displays, exhibits, space models and hardware on loan from aerospace corporations, private companies and NASA centers, the reception brought about the wonderful opportunity to meet the artists, exhibitors, conference speakers, attendees and staff members and to introduce the IAAA and its objectives to all.

Several IAAA members were in attendance. Besides Richard and myself, there was Michael Carroll, Carter Emmart, Joel Hagen and James Timian. After a bit of celebrating and grazing, anthropologist Jim Funaro, of Cabrillo College, led the Neanderthal charge to the Dark Horse tavern for some lengthy and innovative discussions.

The delivery of scientific papers resumed the next morning and throughout the week. The subject matter was diverse. Here are a few of the titles to give you a flavour:

RATIONAL FOR THE EXPLORATION OF MARS

EXOBIOLOGY

INTERNATIONAL EXPLORATION ACTIVITIES

MISSION ARCHITECTURE AND INFRASTRUCTURE ELEMENTS

INTERNATIONAL COOPERATION

MISSION STRATEGY: PLANNING, PHILOSOPHY, MANAGEMENT

ADVANCED PROPULSION

ROBOTICS AND PRECURSOR MISSIONS

CYCLING SPACECRAFT, SPACE STATIONS

There were concerns expressed that if man lands on the planet's surface, they could deposit micro-organisms, blurring the possibility of proving that life may have existed there.

There were suggestions that the mission start with unmanned spacecraft carrying robotic vehicles that would set up a nuclear-powered fuel production facility on the planet's surface in 1998. The facility would separate the Mars' atmosphere, which is about 95 percent carbon dioxide, 3% nitrogen, into carbon, oxygen and nitrogen, and store it in containers that had arrived on the same payload. Thus, when the manned spaceship arrives a couple of years later, the ingredients for a breathable atmosphere would already be available. Hydrogen, which would be brought on the manned flight, could then be combined with the carbon to create methane, which would be used for fuel.

There were amazing solutions offered for many potential problems that could arise on a manned mission. As the talks proceeded, I couldn't help but imagine the excitement of standing on Mars and looking back at the bright blue dot, a tiny oasis in the night sky, where it had all begun.

Lou Friedman, of the Planetary Society, outlined the Soviet "Mars 94" project they are conducting with Soviet and French scientists. The TPS is directing a group of Utah State University scientists who have designed an apparatus that will drag along the Martian surface, gathering information as it goes. Friedman described this instrument, called the "snakerope", as a long flexible cylinder, that will provide a ballast for a balloon that will roam Mars and will be propelled by the planet's winds. The snakerope is attached to a balloon. When the sun sets on Mars, the balloon deflates and lowers the apparatus onto the ground during the night to collect data. At sunrise, the gas in the balloon will heat and expand. As it does, the balloon will inflate, rise, and pull the instrument from the surface during the day. The data collected will provide the newest evidence in the continued search for Martian life since the Viking missions of the mid 70's.

The ENDEAVOUR 1000 crew, who, by the way, will test OBOL and QUANTUM BASEBALL for their recreation and relaxation value in closed environment situations, outlined their upcoming project which follows in this issue of PULSAR. Medical aspects, social perspectives, strategy, closed eco-systems and biospheres were all discussed.

The education workshops that followed every evening consistently drew the IAAA members. And not surprisingly, as the IAAA provides one of the best educational tools...art. Astronomical art provides a visualization of science in an enticing, enchanting, and unique way. It is full of the visions and dreams of great adventure that we are now certain is possible. As a matter of fact, an international cooperative of private enterprises is planning to land on Mars by the year 2000. The technology is there and our art is the venue to visualize and inspire the movement. There are phenomenal opportunities for artists arising as a result. There is a growing demand from educational institutions, aerospace and film industries, the media of Television, books, magazines and art collectors.

The "Case for Mars" conference pointed out that the public and professional interest, and the demand for space art is about to erupt at the seams. The celebration of European unification, the International Space Year, the 500th anniversary of Columbus' discovery of the Americas, and the 30th anniversary of Yuri Gagarin's historic space flight are some of the major projects that are spear-heading the IAAA into a prosperous decade of visualizing the new world order --the emerging planetary consciousness, as humanity prepares to step from ancestral Earth.

When Richard and I reloaded the van at the end of the conference, we were loading `our life support system and habitat architecture'. Richard and I `blasted off in a blaze of euphoria and glory'. "We are heading home Houston...uh, make that Sutton, I guess..anyway it's a blue dot on my map, 65 miles east of Montreal, Quebec and 8 miles north of Richford, Vermont...over and out". The jargon stayed with us..it's infectious. So, when having driven non-stop for some 30 hours, it was `no problem' when our transmission blew in a traffic jam created by the Ohio Hover Dam breakage. We just assumed we were on the moon and that, in order to get back, you solved the problem creatively...and we did.

I will keep you posted as to when the next CASE FOR MARS is occurring. It is not as yet decided. I highly recommend it to everyone! I believe you can obtain a

transcript of all that has gone on, the outline and content of papers presented by writing to:

Tom Meyer,
THE BOULDER CENTRE FOR SPACE SCIENCE AND POLICY,
625 Pearl St., Suite 326,
Boulder, Colorado CO 80302

ENDEAVOUR 1000 : 1000 DAYS at SEA EXPEDITION

OVERVIEW:
In the fall of 1991 the Antarctic schooner "Anne" will depart from New York on an unprecedented history-making voyage. Carrying all life support and totally isolated, the ENDEAVOUR 1,000 expedition will continuously circumnavigate the world via the Southern Oceans for 1.000 days non-stop. Support will only be by electronic communications. The six carefully chosen crew members are couples who will live and work in a specially prepared environment, intentionally very similar to that of astronauts in space. In addition to daily ship life and ship management, scientific experiments will be conducted as arranged by the participating organizations.

THE MISSION:
The principle mission of the ENDEAVOUR 1.000 is a living study of crew behaviour in isolation and confinement, as the expedition duplicates the conditions of the 1000 day interplanetary manned space flight to Mars and back. To accomplish this the expedition will circumnavigate the world easterly through the Southern Oceans non-stop and unsupported for 1000 days. This experiment will provide improved understanding of crew response to prolonged isolation, confinement and stress analysis. Additional information of the crew's abilities, motivation, emotional stability and capacity for team work is needed for space flight planning. This data will enhance procedures for selecting and training the astronauts. Perfecting space craft habitat design also is an objective of this study. Evaluation of equipment and supplies (particularly nutrition) will be performed. Experiments in meteorology, oceanography, environmental sciences, marine mammal surveys and educational programs are also scheduled. The expedition mission follows President Bush's declaration on May 12th that we will send astronauts to Mars by 2020.

THE CREW:

REID STOWE 38. of New York, the leader of ENDEAVOUR 1000, is a veteran explorer and ocean sailor of twenty years. He designed and built his schooner twelve years ago for extended voyages in the Southern Oceans. His 1987 sailing expedition to Antarctica confirmed his plans for this 1000 day expedition.

ANNE-FRANCE PIEDFER 22, a native of France. lives in New York and is employed in modeling. She will be Principal Investigator for the environmental science and nutrition programs and video documentarian for the expedition.

DAVID S. PORTER 52, of Summit, New Jersey, is a consulting communications engineer with thirty-five years in radio and television engineering. He is a veteran of four polar expeditions. He has sailed Atlantic and Caribbean waters for forty years. As Executive Officer he will manage the ship's electronic systems.

CATHERINE A. SURMAN 46, of Cleveland, Ohio, is a biologist. She has sailed on the Great Lakes, Atlantic and Caribbean waters for thirty years. Ms. Surman is trained in emergency and marine medicine and will be Medical Officer and Principal Investigator for the marine mammal program.

OLIVIER BERNER 36, of Neuchatel, Switzerland. is trained as a geologist. He spent more than six years sailing around the world, exploring more than forty countries and on his last solo circumnavigation he met and later married Tania Aebi. Mr.Berner will serve as Principal Investigator for oceanographic programs.

TANIA AEBI 23, of New York, is the first American woman and the youngest person ever to circumnavigate the world. Her 27.000 mile voyage is now the very popular book, "Maiden Voyage". From this recent experience she brings a heightened public relations awareness to the expedition.

MISSION CONTROL CENTERS and SUPPORT TEAM:
Mission control centers, similar to space mission control centers, will be operational in New York and California to support the expedition. The support teams will have daily radio contact with the ship, providing contact with medical and technical advisors. They will also connect

the advisory committee, sponsors, media and relay data to experiment sponsors. Communications will include facsimile and television modes.

ADVISORY COMMITTEE:
An advisory committee consisting of experts in the fields of seamanship, psychology, meteorology, medicine, marine environment, nutrition and interplanetary travel and habitation will be constantly evaluating crew interaction and performance during and after the expedition. They will also be providing frequent input toward improving safety, productivity and quality of life on board.

EXPERIMENT PROGRAMS:
The principal experimental program is the study of crew behaviour in isolation and confinement relative to a 1000 day interplanetary manned space flight to Mars. The program is designed for research and analysis of human habitation, motivation, emotional stability and capacity for team work while traveling unsupported and isolated for 1000 days. Information gained will enhance procedures for selecting and training astronauts and advancing spacecraft habitation design.

In addition to the crew behaviour program, experiment programs will cover meteorological reports, air pollution sampling, phytoplankton sampling, and a student educational program that follows the expedition's progress. A marine mammal survey and a marine debris survey are also planned.

NUTRITION:
Among the most significant aspects of crew life support is the preparation of the nutritional supplies. All food supplies will be stored or grown on board or taken from the ocean. The crew will rely on stocked dried food, soy protein concentrates, cereals, beans, nuts, dried fruits and vegetables. On-board gardens will offer growing experiments of hydroponics, cereal grasses, sprouts, and small vegetables. Also fresh fish will be available. Pure water will be provided by desalination, condensation and rain catch systems with backup spares.

ELECTRONICS:
The onboard electronics systems will include electricity generated by alternative power sources such as wind generators, solar cells, hydropower and an exerciser-generator. Communications will be maintained to our two

Mission Control Centers via high frequency voice, data and facsimile transmission daily. Also satellite circuits will be used for these modes as television transmission. Navigation will use the new Global Positioning System, radar, sonar and weatherfax, all of which will interface with the two onboard PC computers. The computers will manage navigation, communications, word processing and graphics.

SPONSORSHIP OPPORTUNITY:
ENDEAVOUR 1000, The 1000 Days at Sea Expedition, offers a unique three year high profile opportunity to sponsors. The expedition will showcase all experiments and equipment via constant radio, data, facsimile and satellite television transmission. This continual exposure will heighten international awareness to world scientific and environmental needs and solutions. Support for the expedition and its programs will be well repaid in high sponsor visibility via electronic media communications with the expedition for three years. You are encouraged to contact the expedition for a more detailed copy of the Grant Proposal. The expedition is registering as a non-profit corporation. We invite your participation to underwrite the costs of the expedition and share in the benefits of sponsorship. Support by tax deductible contributions specified for ENDEAVOUR 1000 may be sent to:

The Explorers Club,
46 East 70th St.,
New York, NY 10021,

an IRS 501 (c) 3 non-profit organization.

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SPEAKERS CORNER

IS 'SPACE ART' or 'SKY ART' THE THREAT?

Exploration and art have always shared a common link. Early 19th century landscape painters of the Hudson River School accompanied the explorers to the Western frontiers and sent back colorful images of the new land. Like the Impressionist in Europe, the Hudson River School painters including Thomas Cole, Albert Bierstadt, Fredrick Church, Thomas Moran, Asher Durand and Thomas Peale put into pictures not only what could be seen at the moment of time but also what the mind knew to be there. In fact

philosopher Ralph Waldo Emerson conceived that Man, nature and God existed in perfect spiritual unity... However, 'new eyes' were needed to study even the most familiar surroundings. Unfortunately, once the frontierlands disappeared, the link between Art and exploration broke down.

Today, we receive images from a new frontier. Space exploration is rapidly expanding our awareness of the planets in our solar system and the stars and galaxies beyond. A new link between art and exploration is being forged by a new generation of 'space artists'.

In a recent issue of Technology Review (Feb/March 1990), Roger Malina begins to describe space exploration as the greatest voyage of discovery ever undertaken. For this reason, he believes that artists should be an active participant in it. In his article ART IN SPACE, Malina describes only the role played by contemporary sculptural space artists. It is these sculptural SKY ARTISTS whose "strive to turn outer space into a canvas for creative expression" have had some of their proposals provoke controversy.

The scientific community might accept the genre of Space Art as an essential part of extending human civilization into the cosmos. However, astronomers fear space sculptures for their contributions to "light" pollution while space engineers dread unnecessary debris for collisions with spacecraft.

When the EIFFEL Corporation in 1986 ran a competition to create a sculpture in space that can be seen from Earth, Alain Coquet and his team design was the winner. His group planned to put 100 balloons tethered together in a circle 15 miles around creating an artificial constellation. This would have obstructed the view of the sky for astronomers and other scientists. The European Space Agency blocked the deployment with the help of the International Astronomical Union (IAU), International Acedemy of Astronautics (IAA) and the American Astronomical Society (AAS). These organizations have since passed resolutions to stop orbiting space sculptures.

Projects like the OURS space sculpture, as described in PULSAR (Jan-Feb 1990), however do not pose the same threat. Nevertheless, the scientific community is working

in collaboration with artists and the interested public to address the problems of light pollution and space debris and to reach a space policy that will be applicable to the scientists, the military, commercial businesses as well as artists. Unfortunately when the definitions of art are still in their formative stage, mislabeling is generated and a movement may suffer undeservedly. For example, the International Dark Sky Association recently described "space art as another threat" to the dark and radio quiet sky. Perhaps these 'sculptural' space artists should have their work categorized as SKY ART, Space Sculptural Art or Sculptural Art in Space. Whatever the name, it must not misconstrue the genre.

A manifesto of" Sky Art and Space Art" has recently been published by Otto Piene, director of MIT's Centre for the Visual Studies. His call is for the creation of both a national and international councils to review space art projects. I haven't seen this document yet, nor do I know if it implicitly applies only to sculptures that utilize the phenomena in space (magnetic fields, zero gravity, etc), nevertheless, it will not stop the IAAA Board nor should it stop you from participating in formulating a manifesto that best reflects the ambitions and menu of art styles of our group. If we are to be heard and have impact on this genre of Space Art, we must all express our views, feelings and aspirations as to what we feel we are trying to accomplish. Dialogue and participation is the key to playing a historical role in these formative years. Perhaps the time is about ripe to begin the formation of a Global Cosmic Cross-Cultural Commission so that everyone can play a part. I look forward to your letters.

Kara Szathmary

IAAA CALENDER 1990

July 16-20:	Space Art Exhibit Bandenberg Air Force Base, California
July 31-Aug 2:	IAAA Board of Trustee Meeting Modesto, California
October 1-20:	The Crimean Workshop, Yalta, USSR
October 6-13:	41st International Astronautic Congress Dresden, East Germany
October 6-Nov 30:	Visions in Space Exhibition University of Colorado, Boulder
October-November:	Dialogues Exhibition Ottawa, Canada
December:	Dialogues Exhuibition Titusville, Florida