ANNOUNCEMENTS!

HEY ALL YOU BOOK WORMS!

Kelly Freas's 4th volume of his collected works is now available in bookstores and online. Title: FRANK KELLY FREAS: AS HE SEES IT, 112 pages, over 100 color illustrations plus b/w, hard bound with dust jacket, selling for US\$29.95, Publisher is Paper Tiger, an imprint of Collins & Brown Limited in the U.K.

Web Surfin' Sites to check out:

- http://www.sprl.umich.edu/ CassiniHSTJupiterflyby/4x5w.jpg
- http://collectspace.com/resources/ spaceart2.html
- http://mars.jpl.nasa.gov/mgs
- http://ciclops.lpl.arizona.edu/ciclops/ Graphics/finaljupganysharp75.jpg
- http://spacescience.com/headlines/ v2000/ast26sep 1.htm?list
- http://www.newmars.com/archives/ features/hirst.asp
- http://www.lpl.arizona.edu/SIC/ impact_cratering/intro/
- http://www.pbs.org/wgbh/nova/universe/.
- http://www.provide.net/~randyaf
- http://www.heavens-above.com/
- http://science.msfc.nasa.gov/
- http://flightprojects.msfc.nasa.gov/ fd02 elev.html
- http://near.jhuapl.edu/iod/20000908/

CALLING ALL MEMBERS!

The Board needs the membership's input. 1. How many of our members actually use the Directory, the hardcopy that has been sent each year upon renewal?

2. Did you know the Directory is available at our www.iaaa.org web site? If a PDF file were placed onto our web site, would you make your own hardcopy provided that you needed it for whatever reason? Please e-mail your comments to Kara Szathmàry, e-address: kbasz@champlaincollege.qc.ca



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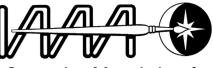
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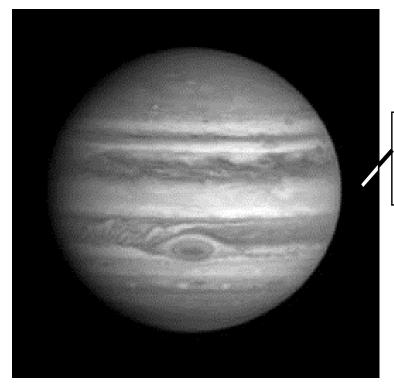
Dec 00 / Jan 01

The Official Newsletter of the



International Association of **Astronomical Artists**

IT'S 2001 TIME!



Insert "Also Sprach Zarathustra" here....

Cassini takes the first "tandem" photos of another planet with Galileo. Cassini made it's closest approach to Jupiter on 30 Dec, 2000. NASA photo.

Editor: Jon Ramer

IAAA Website: http://www.iaaa.org

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MONOLITHS

Announcements

From the Editor-

Hi Gang! Yes, the new millennium has finally arrived, and what better theme for a Pulsar than Jupiter and Europa? (Okay, it was supposed to be Mars, so sue me!) Next time we're off to the asteroid of Love - Eros! (Then Mars, okay!?!)

DUES TIME FOLKS!!

A reminder that it it is that time of year again -- your IAAA subscription is due. Rates remain the same as last year -- please make out checks to 'IAAA' and NOT to an individual! Current rates:

Associate Members (Non-artists): \$40/26 GB Pounds

Artist member: \$45/28 GBP

Fellows: \$50/32 GBP

You may of course also take this opportunity to take out Life Membership, as several members have recently. US and other non-UK members please send your renewals to Kim Poor at "IAAA c/o Novaspace Galleries, PO Box 37197 Tucson, AZ 85740." UK members please send your renewal to Dave Hardy - address on back page. Euro members may also do so, as long as payment is in GBP sterling, charges prepaid. As a reminder, Fellows must have been voted into that position, but this is the time when you can propose another member for Fellowship (with their agreement), just send their name to any Board member.

Astronomical -- MONOLITHS -'Feature' of the Month:

"Nothing is more precious than Mind, Starchild. Remember that."

Life has arisen on millions of worlds across the galaxy. Given even the slightest opportunity, biological chemicals will quickly form and replicate into every possible niche. Intelligence however, is much rarer. It must be nurtured and aided whenever found, in even the most rudimentary form. This is the purpose of the Monolith.

Autonomous Survey Vessel 112439 passed through star system 416525636 and discovered eight major planets with advanced life forms on the third planet and primitive forms on or orbiting two others. One species on the third planet was determined to have potential as a Candidate Species and Monoliths were placed beside several colonies. The Monoliths followed standard procedure 749, evaluating and boosted members of the Species. They increased individual's cognitive, spatial, imaginative, and memory capabilities, restructuring their brains and genetic code so the changes would be hereditary. Life on one satellite of the largest gas giant planet was classified as Potential, but the energy supply for the moon was found to be too low to allow advanced development.

After boosting the Candidate Species, one Monolith was placed on the satellite of the third planet, keyed to the natural light frequency pattern of the primary star, given a large magnetic field, then buried. The Monolith was set to record electromagnetic emissions from the planet and upon first exposure to the star's light, transmit its data in a traceable signal to a second Monolith orbiting the largest planet in the solar system. The second Monolith was given the dual task of acting as a hub point for a wormhole tunnel for the first visitor from the third planet and as a mass duplicator to initiate fusion implosion of the large planet to increase the ambient energy for any Potential species on the moon - after connecting to the tunnel.

Monoliths store data in lattices of quantum fluctuations and are constructed of exotic matter neutrons fused into a single atomic unit. The size will vary depending upon the data storage requirements and function but the ratio of dimensions must remain 1:4:9. Monoliths are capable of telepathic communication, matter manipulation, data storage, wormhole anchoring, rapid duplication, energy projection, and much more. They derive power from zero point energy of quantum space and are the most powerful tool left behind by the Creators.

"Does that answer your question?"



ART TIPS

Here is a little tip for airbrushing from Bob Kline.

I found a solution to thinning acrylics for airbrushing. First was to overcome the problem of mold and mildew growing in highly thinned acrylics. Many paintings I do are large and will sometimes take a couple months working only periodically on it so the thinned paints tend sit a long time. When I came back to do more work on the piece I found many of the thinned paints had gone moldy, at least moldy enough to keep clogging the airbrush! What a waste of paint and time and money. A solution had to be found. First I thinned the acrylics with distilled water which greatly extended the shelf life of highly thinned paints. Distilled water lacks the minerals and other nutrients that helps sustain mold and mildew. Ultra pure distilled water works even better however is hard to find (avail at lab supplies companies). Then I found that thinning mostly with Liquitex airbrush medium works the best. This can be found at most art supply stores. You get two benefits from using it. First it greatly reduces mold growth and the best benefit is that you are thinning the paint with mostly binder (this is the clear polymer material that "glues" the pigment particles together and to the canvas). The more paint is thinned with water the weaker its bonding ability and is less archival. I usually thin about 60 to 80% airbrush medium to 40 to 20% distilled water. For spraying large areas and using a spray gun even less water is used. The Liquitex airbrush medium is better to use for airbrushing than the polymer mediums found at paint supply stores, which are to heavy bodied and are designed mainly for brushing and rolling. I have done some painting on plexiglas with this technique and works very well. The plexiglas is first sanded with 220 grit sandpaper and then the sanding dust is thoroughly removed before painting. After drying a couple of weeks, the acrylics bonded tightly to the plexiglas. The longer the acrylics are on the plexiglas the better they bond. Probably because plexiglas is a form of acrylic. After a couple of months of drying on one painting, I did a high tac tape pull test and could not lift the paint! As strange as it may seem, sanded plexiglas makes a good very durable and very archival painting surface.



HOW THE HECK DID THEY DO THAT!?!

In honor of the year, I've located a great little source with the secrets of how Stanley Kubrick filmed his masterpiece, "2001: A Space Odyssey." If you've ever wondered how some of those incredible shots were made, each issue this year will detail a little of the magic behind the camera.

How did Heywood Floyd's pen float in mid-air?

The pen was suspended on a string (actually a special very thin filament) in the more distant shots inside the Orion 3 spaceliner, but for the close ups it was glued lightly to a sheet of transparent acrylic, which was wiggled around gently in front of the camera. The hostess plucked it "out of thin air" by simply detaching it from the sheet.

SPACEART SHOW ANNOUNCMENT

I have meet with the show producers of Space Tourism Expo 2001 (renamed from Space Fair) and they have finalized a venue for the Expo. It will be held at the Pasadena Convention Center the same location the Planetfests are held. The show will run August 31 through Labor Day, September 3, 2001. The producers are very enthusiastic about having a major space art show as part of the show, as well as science fiction and future oriented art. This show will be a great opportunity for us to expose space art to the general public as well as the aerospace industry. Space Expo will carry full insurance coverage for the show. Let Bob Kline know if you are interested at "Robert Kline, 121 Cottage, Aliso Viejo, CA 92656," phone # (714) 429-7980 work, (949) 916-2719 home, or e-mail at "designdynamc@earthlink.net". Please state how many pieces you are entering so the right amount of wall and or exhibit space can be allocated. You will be able to sell your works at the show. The exact figures for the commission on sales are not set yet, but there's more to come....

Sincerely, Bob Kline

Europan Night By Mark Garlick Here is a view of the giant planet Jupiter from a vantage point somewhere above the surface of Europa. The Sun is right behind you but just below the moon's horizon, so the light in this rendition is coming from Jupiter. Europa's surface is a cracked layer of ice that looks like a jigsaw puzzle. The ice has been fractured because, probably, there is a sub-Europan ocean of liquid water constantly on the

move beneath it.



Kudos Korner

- Kudos to Mark Garlick for his piece on the cover of "Astronomy Now"
- Let's not forget another UK member, Andrew Stewart, who has a nice photo-looking digital piece on the cover and inside February's "Astronomy"
- IAAA folks have been busy with the "Planetary Report" too, the twin Dons, Davis and Dixon, have images inside while Edwin Faughn has one on the back cover
- Michael Carroll has a nice painting of a probe exploring under Europa's ice (a double-page spread!) in December's "Space Illustrated." There are even some cool alien bioluminescent "jellyfish"....
- Pat Rawlings has a human exploration of Mars picture in December's "Astronomy Now," p.13. It's a dinky one in AN's idiosyncratic style...
- Check out this URL which has some fantastic aviation and space artwork from the 2000 Aviation Week Aerospace Art contest as well as a note on the 2001 deadline for entries: "http://www.awgnet.com/aviation/art/index.htm" Click on the "View this year's winning entries" from this page and you'll see Norm Siegels' award winning view of Mars
- Aldo Spadoni made the cover of "Aviation Week & Space Technology" magazine (sorry lost which week!)
- Go to the library and check out the Nov 6 "Parade" magazine, there were four paintings by Bill Hartmann inside in an article by David Levy about the moon. A technical note for anyone interested: Bill says, "In the 2nd paintings, showing splash of molten material off Earth after a collision, I used some enhanced chroma by adding some flourescent pigments." Neat, eh?

SPACEART CONTEST By The Planetary Society

The Planetary Society needs your artistic talents and imagination! The Student Scientists chosen for The Planetary Society's Red Rover Goes to Mars Training Mission have been studying the Martian surface in detail. Their goal was to choose a place on Mars suitable for selecting rock and soil samples to bring back to Earth. Now that they have narrowed the potential landing sites down to just a few, here's where you come in: We would like you to draw what you think an interesting Mars landing site might look like from the ground -- both now and in 100 years.

Draw, paint, or otherwise artistically depict by hand what you think the surface of Mars will look like near the site of an upcoming robotic exploration mission...and what that same site might look like one hundred years from now. (Computer-generated art will not be accepted.) Be creative, and use your imagination! You can include a spacecraft in the picture, but it is not required.

An entry consists of one "Mars landing site terrain now" picture, one "Mars landing site terrain 100 years from now" picture of the same region, and a brief written description of your drawings. These two drawings may be judged separately or as a pair, at the judges' discretion.

For full details, including submission size, locations, prizes, etc, please visit http://www.planetary.org/html/rrgtmbeta/artcontest.html. Artwork must be submitted by 2 April, 2001 and the IAAA is being asked to participate in the 4 judging.

imagine what it would be like to live and work in space and stand on the surface of another world.

Thanks to the generosity of Mr. Frederick C. Durant III, 1999 was a banner year for space art at the NASM. More than simply a friend of the Museum, Durant is an important part of our history. A graduate of Lehigh University and a naval aviator in World War II, he became involved in rocketry while working at Bell Aircraft, 1946-47, and as director of engineering for the Naval Air Rocket Test Station, 1948-51. Elected president of the American Rocket Society in 1953, Durant was heavily involved in a variety of projects that set the stage for the coming of the space age.

S. Paul Johnston, then director of the Museum, hired Durant in 1964 to bring the Smithsonian into the space age. As assistant director and head of the new Astronautics department, Durant was responsible for transforming the National Air Museum into the National Air and Space Museum. Under his guidance, the Museum became the official repository for all flown NASA hardware. Satellites, spacecraft, space suits, and other space paraphernalia soon joined the aircraft on display at the Museum. But Durant knew that it would require more than hardware to capture the imagination of visitors and communicate the excitement of space flight.

Like so many of the engineers who pioneered space flight, Durant was an enthusiastic admirer of artists like Chesley Bonestell, Fred Freeman, and Rolf Klep, whose illustrations for books and national magazines made the dream of space flight seem very real indeed. As a leader in the astronautical community, Durant befriended first-generation space artists and supported the work of newcomers to the genre. He also insisted that space art find a home in the Museum's art collection and was responsible for our earliest exhibitions of work in the field.

Following his retirement from the Smithsonian in 1980, Durant's collection of space art continued to grow, as did his activities on behalf of the space art community. He became the representative of leading artists, including Chesley Bonestell and Ludek Pesek; introduced new artists to the public; helped to organize exhibitions; and wrote books and articles publicizing the best work in the field.

In 1999 Durant decided to present to the National Air and Space Museum the core of the personal collection of space art that he and his wife, the late Carolyn "Pip" Durant, had built over a lifetime. The 64 paintings in the Durant gift include works by such masters as Bonestell, Pesek, Pierre Mion, Robert McCall, Paul Calle, Andrei Sokolov, Alexei Leonov, David A. Hardy, James Cunningham, and Ron Miller. These acquisitions elevate the Museum to the premier position among the institutions of the world that collect and display space art. The Museum appreciates this extraordinary gift from a man who has played a critically important role in shaping the modern National Air and Space Museum.

Tom O. Crouch, Senior Curator, Aeronautics Division

A SPECIAL GIFT.... By Tom Crouch

Millions of visitors flock to the National Air and Space Museum each year. Expecting to find the world's largest collection of historic aircraft, they are not disappointed. Far fewer people are aware that the Museum also houses one of the world's finest collections of art, inspired by the great adventure of flight and expressing our fascination with the wonders of the sky and the universe.

Paul Edward Garber (1899-1992), the curator who pioneered the display of aircraft at the Smithsonian, was the son of an art dealer and insisted that works of flight-related art would be a part of the National Aeronautical Collection. The legislation authorizing th construction of a new National Air and Space Museum mandated that an art gallery be included in the building plan and established an art unit headed by a staff curator.

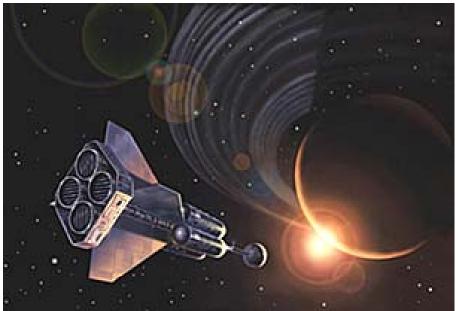
James Dean, the artist-administrator who had played a key role in the creation of the NASA art program, was named the Museum s first curator of art in 1974. He brought the NASA art collection to the Museum with him. Dean was succeeded as acting chairman by William Good in 1981 and by Mary Henderson as chairman in 1983. Henderson and her colleague, Susan Lawson-Bell (an IAAA member - ed.), supervised the growth and expansion of the art collection and the rich program of exhibitions featured in the Flight and the Arts Gallery, 1983—1997. Today, the Museum's art collection includes almost 3,600 paintings, drawings, original prints, reproductions, architectural drawings, sculptures, textiles, craft and jewelry items, and materials such as games and toys that reflect aerospace themes in popular culture. The collection contains works of art ranging from rare, two-centuries-old prints documenting the invention of the balloon to the work of recent artists who interpret flight in a variety of media and styles.

Many artists of international stature, including Alexander Calder, Eric Sloane, Richard Estes, Morris Graves, and Robert Rauschenberg, are represented in the collection. Norman Rockwell, Peter Hurd, Paul Sample, Jamie Wyeth, Lamar Dodd, Mitchell Jamieson and Paul Calle are among the well-known artists who participated in the NASA art program and are well represented in the Museum's collection. Still other artists, including R.G. Smith, Frank Wooton, Robert McCall, Keith Ferris, William Phillips, Ted Wilbur, and Robert Taylor, have attained international stature as artists who specialize in interpreting our aerospace heritage.

If art can bring to life great moments in the history of flight, it can also help us to imagine the future. As author Howard McCurdy explains in Space and the American Imagination, artists like Chesley Bonestell "...did for space what Albert Bierstadt and Thomas Moran accomplished for the American western frontier." Just as the artists of a century ago portrayed the wonders of Yellowstone and the Grand Canyon for an audience of stay-at-home easterners, so Bonestell and the other "space artists" of the post World War II era kindled the desire to travel beyond the atmosphere by helping us to

Saturn's Rings By Dave Hardy

Okay, so this isn't an image of Jupiter. This is a purely digital rendering of the Discovery entering Saturn's rings as described in "2001: A Space Odyssey" the novel version. In the movie, of course, we go to Jupiter in a very different Discovery.



Profile: Jim DeLillo

more at ease in front of a keyboard.

I am a computer consultant by trade, an Industrial Engineer by degree and a nationally published photographer. I began collecting Space Art just a few years ago by buying a print of "Ladies of the Lake" from Novagraphics. I have since added a few modest items to my collection and developed a desire to try some on my own. I have some limited experience in airbrushing, which I haven't used in years, but now I have a reason to work at it again. But, I am

I realize you all put a lot of research into the pieces you work on and it is probably here that I need the most help and guidance. I look forward to your comments and becoming an active and accepted member.

On the personal side, I am 45 years old, divorced, one 11 year old son (Ben), I have a new companion (Joanne) of five years and she has two daughters (Alli, 15) and (Lindsay, 17) who live with me. I recently joined the Rescue Squad in town and am now treated to two a.m. false alarms.

I started my business, aptly named Pleiades Group, Inc., about 14 years ago as a part time computer consultant. We specialize in bar code systems. I made it full time 8 years ago and worked as an independent consultant until last year, I now have a couple of full time programmers doing the implementation work. Our clients include Lucent Technologies, Schering-Plough Pharmaceuticals, American Home Products, Tosco Refinery (Exxon/Mobil) and some smaller local companies.

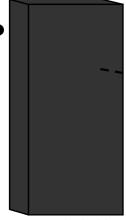
My other life experiences include white water raft/kayak guide, mountain and rock climbing, theatrical lighting designer and I have a private pilot's license with a helicopter rating.

ONE NIGHT IN L.A.

By Don Davis

(Usually, I don't like to do reprints, but in this case Don's article was just too perfect for this issue. So, enjoy his delightful comments from Jun/Jul 98 – Jon)

An invited multitude converged on Beverly Hills on 29 April 1998, where the American Film institute hosted a celebration of the 30th anniversary of the release of the movie "2001 - A Space Odyssey." We were to see a special viewing of the film after listening to a discussion by a distinguished panel. Many people active in space matters were gathered there as well as journalists, noisy photographers,



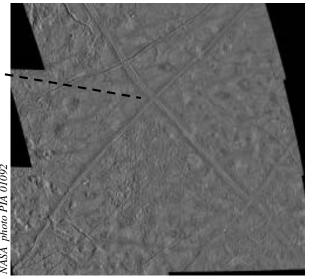
Hmmm, looks like a nice "fixer-upper!"

and many others whose lives have been touched by the greatest science fiction film ever made. Andrew Chaikin not only brought the event together, he also hosted a panel which included Bill Anders - Apollo 8 astronaut, and Tom Hanks - actor and producer instrumental in realizing the ongoing series based on Chaikin's book From The Earth To The Moon. Other panel members included Keir Dullea, Gary Lockwood (Dave Bowman and Frank Poole in 2001), Joan Horvath of JPL, who works on designs for Europa probes, and Dr. David Stork, an artificial intelligence guru. Sir Arthur C. Clarke was part of the panel from Sri Lanka once technical problems were overcome, using a phone to speak to us while his grinning image appeared via the Internet.

Many of the 2001 veterans were apparently in touch lately, with Arthur getting his share of correspondence! Referring mostly to notes he had gathered for the 25th anniversary events, Clarke recalled Alexi Leonov saying after seeing the film that he felt that he had been in space twice (which he actually accomplished later during the Apollo-Soyuz Test Project). Arthur spoke about Europa, especially mentioning one photo (PIA 01092) which contains a strikingly straight fissure. The panel discussion went all over the place, filling in tidbits of the history of the late sixties film project as well as subsequent feedback the actors experienced through the years.

Bill Anders saw 2001 at its premier and carried the Bonestellian lunar scenes of the film in his mind, only to be disappointed some 7 months later at the real Moon's textural monotony! (Chesley told me he once was in discussions about working the film, but it didn't work out. His words to me were, "They probably said 'That old bastard, he'll probably pick up a paintbrush and drop dead!" At least one of the moonbus travel exterior scenes, which were 'forced perspective' models, was almost certainly based on 'Conquest of Space' paintings!)

Gary Lockwood recalled a shot where he was strapped into the centrifuge Discovery set, nearly upside down, spooning out some food goo, when a glop of green food left his fork and suddenly gave away what direction 'down' really was! (CUT!!!) Lockwood also mentioned his experience in touring to promote the film, only to be dismayed at the initial bad reviews the film received at the time. Dullea's recollections included his anxiety in being dropped two stories with only a piano wire saving him from dropping on the massive camera, for the



emergency airlock shot.
Among the last sequences
Dullea appears in is the dinner scene, as he eats in a very echoy Louis XIV style room.
Breaking the glass was Dullea's idea, allowing a change of his posture before he reacts to hearing himself breathing in bed, Kubrick agreed it made the scene work better!

After a great discussion, there was a screening of what was billed as a 'pristine' 70 mm print of the film. Alas, pristine it was not, but except for near the ends of the reels the print was

overall quite good, with only one splice obvious. There seems to be no such thing as a pristine print of the film in existence, except possibly the archival stashes Turner Films and Kubrick possess.

Some changes were noticeable from my memories of seeing 70 mm prints some 45 times in the years they were fresh. Besides the print damage, some of the reels were more magenta than they should be, particularly evident in some scenes where Bowman is doing his EVA, where his blood red suit went magenta The blacks were a bit faded as well. Both are signs of aging modern film stocks, hopefully when new prints are struck from the archival negative material this will be corrected. It may be this film needs restoring as was done with 'Laurence Of Arabia' if the negative has gone bad - a distinct possibility!

Despite the ravages of time, most of the print was just as I remembered. The distinctive old Ektachrome colors were evident in some of the projected 8x10 transparencies used as backdrops in the 'Dawn of Man' scenes (first use of 'Scotchlite' reflective screens for front projected backgrounds), the sharp crisp spacecraft and stars (70 mm really shows stars nicely!) and the ultraviolet purples in the aerial desert footage near the end. Dave Bowman's helmeted face reflecting the many Lucite wafers inside the red interior of HAL as the last words in the film are spoken, displayed the delicious visual interplay between magenta and orange red lighting across this famous image from the film.

I've got to say it was incredible to see this masterpiece with not only the two main actors (Daniel Richter, who played the australopithecine hero in the 'Dawn of Man' sequence was also there) but with numerous big time fans of the film, including several space artists! Among those I saw there were Don Dixon, Carter Emmart (drove over a day in his "art car" to be there) Chris Butler, Joel Hagen, Joy Day, and Aldo Spadoni.

After the film, we milled about and talked, and I got to touch the red space helmet Dave forgot to put on, one of a very few artifacts from the film to survive Kubrick's dastardly destruction of the models. Most of the attending artists and Andy ate a late dinner at Cantor's Deli and talked mostly about what we had seen that night. This was indeed a grand space occasion!