



Do you know where this picture was taken? Answer next issue...

**Upcoming in the PULSAR:**

I've done a little swap-up in the schedule to accommodate a neat article for next issue...

**1<sup>st</sup> Quarter 2007: Impacts.** Big or little, fast or slow, when two objects meet, there is always something interesting to see....

**2<sup>nd</sup> Quarter 2007: Nebula.** Whether it blows up or squishes down, a star always ends in some way that makes for good art. Also, the Nicaragua workshop report.

**3<sup>rd</sup> Quarter 2007: Multi-star systems.** Many star systems in the universe have multiple stars in them. In fact, there are more multi-star systems than there are single sun systems. What does yours look like?

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4<sup>th</sup> Quarter 2006



*"Stars and Dust" by Sean Brady*

## From the Editor:

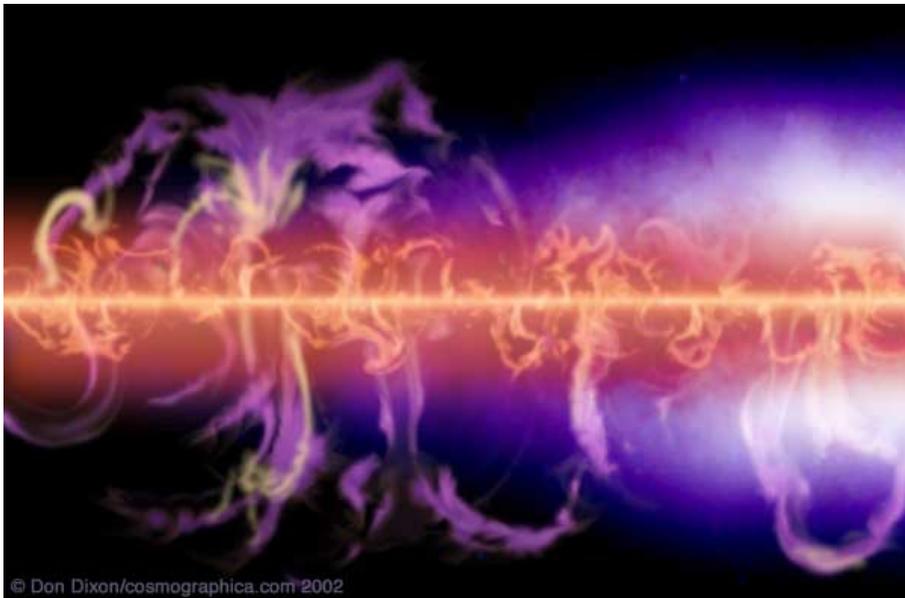
Hi Gang,

Lots of tidbits and high energy art this time. Enjoy....

Jon!

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*“Galactic Atmosphere” by Don Dixon*

## 2006 LUCIEN RUDAUX AWARD

It is my pleasure and honor to announce this year's recipient of our prestigious Lucien Rudaux Memorial Award. Twenty-five Fellows cast a strong majority vote along with a double majority support unanimous vote from the Board.

Let's all give a hearty salute, cheers and CONGRATULATIONS to our new master of the genre of space art MICHAEL W CARROLL!

Kara Szathmàry

IAAA President and Chairman of the Board of Trustees

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Michael Carroll was born in San Diego, California in 1955. He graduated from Colorado State University with a Bachelor of Fine Arts.

From about the mid-1970s, he began to focus more and more upon painting astronomical scenes and writing about space exploration. The hook began after having been mesmerized by Patrick Moore and David A. Hardy's book "Challenge of the Stars." As an artist, Carroll's inspiration came from several directions intermixed with the likes of Corot, Monet, Salvador Dali, Bonestell, Edward Hopper and his father, who was an aerospace engineer.

His parents taught him a love of nature and by extension his passion for the cosmos which focused on the geology and exploration of planets in the solar system. Carroll's painting's and articles have appeared in several hundred magazines throughout the world, including Time, Omni, Smithsonian, Harper's, Reader's Digest, Astronomy, Sky and Telescope, Ad Astra and the Planetary Report.

His works have also appeared on "Nova", "Cosmos" and other TV specials. His artwork appears in several books, including "Comet" (1985), "Beyond Spaceship Earth" (1987), "Mars 1999" and "Race to Mars" (1988), to specifically mention a few. In addition to writing science articles, Carroll has

ventured to write children's books. His versatility also produced 30 paintings for a major book "Vision of Revelation" which he co-authored with Jay E. Adams.

He is a founding member of the IAAA (1983) and the originator of the tradition of bringing orange food stuff - Circus Peanuts - to the very first astronomical art workshop, which he organized.

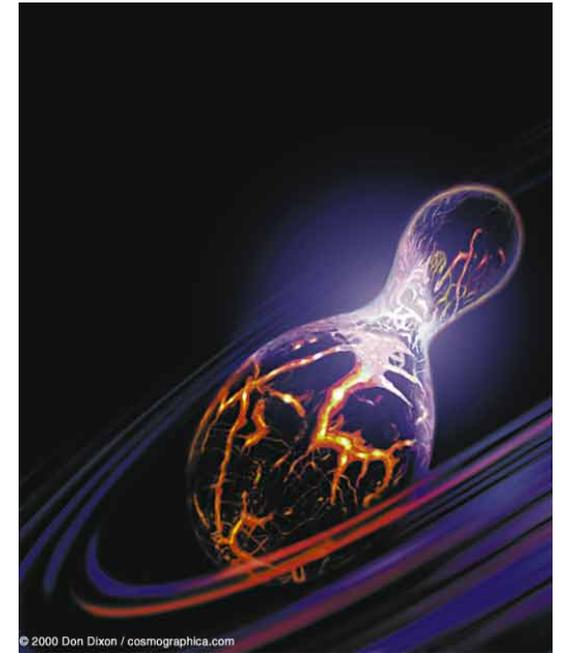
In 1987, Carroll was one of seven American space artists invited to the Space Future Forum that marked the 30<sup>th</sup> anniversary celebrations of Sputnik I where he participated with Soviet scientists and artists in discussions about upcoming missions to Mars.



*“Gamma Crash” by Mike Carroll*

He has continued to work diligently over the years to organize and encourage international cooperation between Russian, European and North American artists. In addition, he has participated in the NASA Arts Program and as a consequence has given many lectures and classes relating to art and science including presentations at the Reuben H. Fleet Space Theater and Science Center where he was a freelance artist and artist consultant.

*“Gamma Burster”  
by Don Dixon*



*“Stellar Nursery”  
by Nicole Houston*



## WORKSHOPS OF THE PAST...

The IAAA has a long history of going to interesting and different places for our workshops. Just to whet your appetite, here are a few highlights from the past couple of decades....



Godofoss, Iceland, 1988.



Astrium (Stonehenge),  
England, 2001.



Kennedy Space Center, 1999.

Arches National Park, 1995.



Mt St Helens, 1997.



Yellowstone, 2000.

White Mountain, 1996.



## WORKSHOP 2007...

The 2007 IAAA Granada Workshop is right on track with 11 confirmed member reservations so far.

The event duration is from the 15<sup>th</sup> of February until the 22<sup>nd</sup>. Flight should be booked to arrive in Managua, Nicaragua on the 14<sup>th</sup> and leave on the 23<sup>rd</sup>. Longer stays are possible.

### **ADDITIONS ARE STILL WELCOME**

Although most bookings seem to be in, newcomers are still invited to join the party as long as there are hotel rooms available. Contact Erik Viktor at "info@swampbuster.org" or check out the web site at <http://workshop.swampbuster.org>.



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## PROFILE: MICHELLE ROUCH

Michelle Rouch is a well known aviation artist who is branching out into the astronomical arena. Having drawn all her life, Michelle was often caught at school drawing on her assignments rather than focusing on her studies. She originally entered Wright State University with the intent of getting a Bachelor's degree in art; however, her brother encouraged her to follow in his footsteps and become an engineer instead. After Michelle finished her master's in Information Systems in Engineering, she focused seriously on her talents. Her husband, Fotios Rouch, has been a great inspiration in using his vast library and encouraging her to draw airplanes. In 2003, she had her first show at Tucson Airport for the Centennial of Flight Art Show, which exhibited 39 pieces of her work. That began her world in Aviation Art and is bringing her closer to the great master artists in the world.



*“In the Line of Fire” by Mark Garlick*

## WHERE IN THE WORLD?...



So where in the world was this pictures taken?....

At the Pinnacles Desert, in West Australia!

The Nambung National Park features one of Australia's most fascinating areas - the Pinnacles Desert. Here, thousands of huge limestone pillars rise from the shifting yellow sands,



resembling a landscape from a science fiction movie. In places, the pillars reach up to three and a half meters tall. Some are jagged, sharp-edged columns, rising to a point; while others resemble tombstones. The raw material for the limestone of the pinnacles came from sea shells in an earlier epoch rich in marine life. These shells were broken down into a yellow lime-rich sand



which was brought ashore by waves and then carried inland by the wind to form high, mobile dunes. In winter, rain, which is slightly acidic, dissolved small amounts of calcium carbonate as it percolated down through the sand. As the dune dried out during summer, it precipitated as a cement around grains of sand in the lower levels of the dunes, binding them together and eventually producing a hard limestone rock, known as Tamala Limestone. When

water seeped down through cracks in the limestone, the softer limestone beneath was slowly leached away. This subsurface erosion continued until only the most resilient columns remained. The Pinnacles are the



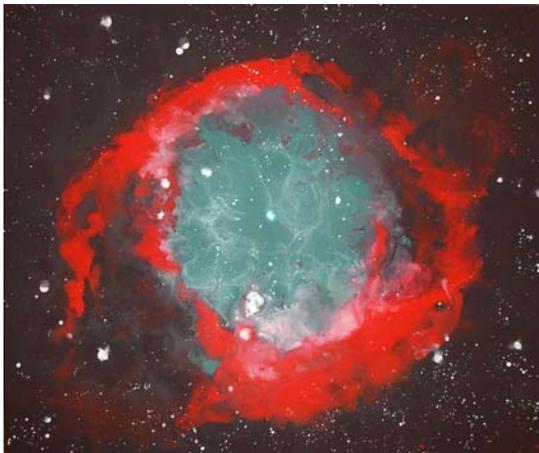
eroded remnants of the formerly thick bed of limestone. Although the formation of the Pinnacles would have taken many thousands of years, they were probably only exposed in the last few hundred years. This process is continuing today, predominantly southerly winds are uncovering pinnacles in the northern part of the Pinnacles Desert but covering those in the south. Over time, the limestone spires will no doubt be covered again by other sand drifts and the cycle repeated, creating more weird and wonderful shapes.

*Text from various web sites, images: Jon Ramer.*

## PROFILE: CHRISTA WAWERS-BREID

Hello to all members of the IAAA. My name is Christa Wawers-Breid, my artist name is Christa Wawers. I am proud to be a member of a worldwide association of prominent space artists. Since I joined in 2004 it is time to tell something about me and my work. I live in Germany near the Rhine river valley (a UNESCO World Heritage site) where you can find old castles and the well-known rock of the "Lorelei." I have painted since my school-days. I worked for many years with young people suffering from psychiatric diseases.

Now I am a full-time painter, which I enjoy very much because it gives me the chance and time for experiments and new ideas in my creative works. In summer 2002, my interest in celestial phenomena and my everlasting curiosity about what is "out there" lead me to embark upon a series of space portraits. Though I am still doing other paintings, especially illustrations of poems and fairy tales, I spend most of my time on astronomical works. Since the premiere of my show "Space in Colors" in March 2003 I have been in many exhibitions in Europe. I have a good contact to the ESO headquarter in Garching near Munich where I have been invited for the third time for Open House Day. The European Coordinating Facility for the Hubble

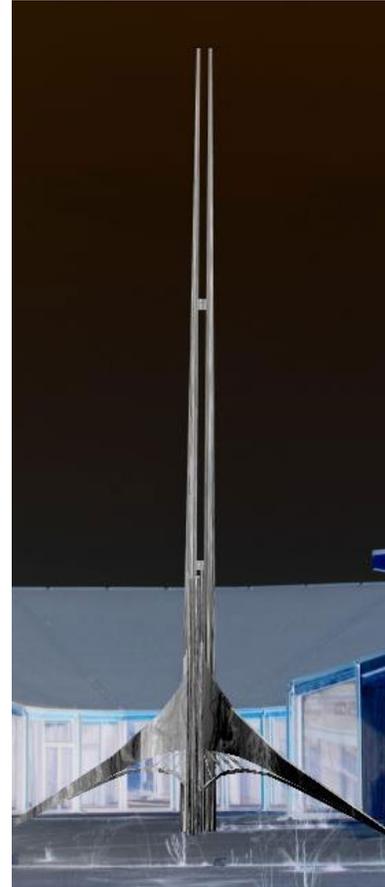


Space Telescope is also situated there and I am, as some other IAAA members are too, a featured space artist in the Hubble-Homepage Europe. My internet site is:

["www.christawawers.de"](http://www.christawawers.de)

***"Helix Nebula"***  
*by Christa Wawers*

## SHOWCASE: ITALO RODOMONTI



Italo has done a large scale installation about the elusive Dark Matter in the universe near the Technical Institute for Geometricians of Teramo. This was featured in an article in the December issue of Sky & Telescope.



## SHOWCASE: TERRY SUNDAY

IAAA Member Terry Sunday has a piece of his space artwork included in the major new book "Space 50," written by award-winning author Piers Bizony and published by HarperCollins/Smithsonian Books. "Space 50" is a celebration and historical perspective of the first 50 years of the Space Age. Author Bizony chose one of Terry's digital renderings of the classic 1953-vintage Wernher von Braun/Chesley Bonestell moonship to illustrate how vividly these old spacecraft concepts still live on today. See more of Terry's art at his website [www.zianet.com/sundayt](http://www.zianet.com/sundayt).



*"Moonship" by Terry Sunday*

## ASTRONOMICAL FEATURE OF THE QUARTER: THE GREEN FLASH



Your humble editor has the great fortune to live in a house with an awesome view of the sun setting over the Pacific Ocean, and in the winter I'm graced with several green flash sunsets a week, in fact the sunset on Dec 21 had five separate green flashes. Here's how they happen.

The setting Sun's disk is made up of light of all colors. Green and blue light are refracted by air slightly more than red light, so the disk actually consists of a flattened red disk, with a yellow disk slightly above it, a green disk above that, and blue and violet disks at the top. This phenomenon is called atmospheric dispersion. The vertical separation of red and green varies with conditions, but is typically about 1' at the horizon.

As the upper rim of the setting disk approaches the horizon, it begins to spread into a thin bar of light, then runs through the spectrum from orange to yellow, then pale green, and finally reaches a deep emerald color for one or two seconds. Under favorable conditions a brief blue blob of light may be seen after this, but exceptional clarity of the air is needed.

The explanation for the green flash involves refraction, scattering, and absorption, 1) refraction separates the solar images by color; 2) at just the right instant, the red image has set, 3) the yellow image is absorbed; and 4) the blue image is scattered away. The upper limb of the green image is left.

*Text from various web sites, image: Jon Ramer.*