What the heck is THAT!?!?

Fred Durant made a gift of 64 paintings from his personal collection to the National Air & Space Museum. This includes major works by artists such as McCall, Pesek, Mion, Calle, Bonestell, Sokolov, Cunningham, Hardy, Leonov and Miller. According to Tom Crouch, Senior Curator, Aeronautics Dept., "These acquisitions elevate the Museum to the premier position among the institutions of the world that collect and display space art." The current Annual Report of the museum has a 6-page essay by Crouch that details the history of the museum's space art collection and Fred's role in its creation. Three cheers for Fred!!

Is it alive? What are those bubbles? Is it about to explode? Do I have time to draw it first??? What ever it is, some Yellowstone workshop attendees sure are captivated by it! Left to right, Kara Szathmáry, Mark Garlick, Bill Hartmann, Jackie Burns, Joy Day, BE Johnson.

Editor: Jon Ramer

IAAA Website: http://www.iaaa.org
From the Editor:
Hi Gang! Here it is! At long last, the new issue of the Pulsar. I'm sure many of you are wondering what happened to the Aug-Sep issue. Well, long story short, it got lost in the shuffle. My apologies to all, but to make up for it, you are now holding an EXPANDED Pulsar with extra pages, more photos, more art, more words, and a special surprise in the center for everyone! Check it out! See you in December!

Jon!

Having just been to the Yellowstone Workshop, I of course have to write a Feature of the Month on something seen in the Park – geo-thermal features, of which there are four basic types.

First is a geyser. A geyser is a hot spring that throws underground water into the air. Rain and snow melt seep through porous layers of rock and eventually comes into contact with hot rocks, usually heated by molten magma. The hot water rises through cracks and fissures in the ground. Even though the temperature down deep may be well over boiling, the weight and pressure of water above prevents the boiling from happening. Eventually, the pressure builds enough to push some of the upper water up and out. That overflow relieves the pressure on the super-heated water below, causing it to flash into steam. The flash of steam in the narrow constricted cracks is what shoots water high into the air.

The second thermal feature is a hot spring. Hot springs let off enough heat from boiling or surface evaporation to avoid the steam explosions that make geysers. Some are quiet pools while others flow freely. While underground, the water often becomes charged with carbon dioxide, creating a mild carbonic acid. This acid dissolves the limestone rocks while flowing upwards. Once on the surface, the carbon dioxide gas escapes, leaving the water less able to carry dissolved limestone. The limestone then precipitates out creating beautiful travertine terraces.

Fumaroles, or steam vents, are the third type of thermal. Simply put, fumaroles are “smoking” vents in the Earth’s crust. The level of groundwater around fumaroles is much less than around hot springs or geysers. Water comes into contact with the hot underground rocks and is turned to steam. The steam rises up through the cracks and fissures in the ground and rushes out the vent, often with a loud hiss or roar.

The last thermal feature is mudpots. Mudpots are created when steam rises through groundwater that has dissolved surrounding rocks into clay. Minerals in the rocks color the mud a wide variety of shades. Often, the water is quite acidic, which helps break down and dissolve the rocks.
A COLD WIND BLOWS...

Lynn Cook asked a question on the listserver about the plumes seen on Triton by Voyager. With the focus this issue being on Triton, I had to include Garry Harwood’s reply.

"Wind is the most likely explanation for the plume distortions you refer to. As I understand it Triton has polar caps that might change with the seasons (although there's some speculation about this) and the southern hemisphere was some ways into spring when Voyager 2 flew past. What may be happening is that frost that has formed during winter ... of vapor from one hemisphere to the other that is believed to be the source of Triton's 10 meters/sec or so wind.

"As to why the plume rises to a particular height where it appears to be sheared off, if I recall correctly this is likely due to a combination of the force with which the material is erupted (if we're talking geysers) and buoyancy. The material in the plume is probably somewhat warmer than the surrounding atmosphere, and at a certain height the temperature of the atmosphere reverses - so the plume stops rising. That's where the wind comes in and shears the plume off in that right-angled pattern, taking the material downwind and causing the streaks."

The Surface of Triton

By Don Dixon

Here Fellow member Don shows us a view of Triton's surface with Neptune in the sky. From Don's great web site.
Kudos Korner

- Bill Stolpin was recently accepted as a member of the Society of American Graphic Artists (SAGA) in New York. Their members have been some of the finest printmakers in America going back to 1915.
- October’s Sky and Telescope has Don Dixon’s spiffy “Merging Neutron Stars” on the cover - great covers like Don’s makes you think S & T’s art direction has gotten more sophisticated.
- The October Scientific American has a half-page article titled “Science on the Canvas” featuring an interview with Ron Miller, his painting of Io, and a mugshot in which he looks very distinguished. Ron discusses the history and influence of the astronomical art genre.
- Mark Garlick also had an image in the September Scientific American.
- Joe Tucciarone has a half-page, almost photographic, rendition of an edge-on spiral galaxy in the September "Sky and Telescope", p.76.
- Dan Durda had a fine painting p. 53 in September’s Astronomy magazine.
- Bob Eggleton and Vincent di Fate nominated in 2000 Chesley Awards.
- The August issue of Astronomy magazine has an article by Bill Hartmann on Ludek Pesek. Very interesting reading and nice illos, an especially good to see an article about space art.
- Joy Day and BJ Johnson are working on a magnificent 4-foot by 26-foot mural of titled “The Origin of Meteorites” that will soon be installed in the new Chabot Space and Science Center outside of Oakland, by San Francisco. You can see the work in progress on the web at http://www.glassnebula.com/paintcam.html.
- Kim Poor has written an intro to space art collecting for collectSPACE, a major website devoted to collecting space memorabilia, check it out at http://collectspace.com/resources/spaceart.html.
- And a special kudos to Dirk Terrell and Jon Ramer for all the magnificent photography of the Yellowstone workshop in this issue of the Pulsar!

NEW SERVER IS UP!
The vacation is over. The new server is up and has passed initial tests. There are a couple of minor differences in addresses but none that directly effect the operation of the list as seen from the user’s perspective, unless you have filters to sort your mail.

You’ve been subscribed to the mode to which you’ve become accustomed. Rather than send everyone the server info file, I prefer to use the Internet facilities to their best design and intent. Thus, the file has been made into a Web page at: http://www.spaceart.org/IAAA/info.html and is a duplicate of that sent to new subscribers upon their successful handshake with the server.

You may also obtain a text version by sending eMail to: spaceart-request@lists.best.com with “info” as the subject and *also* as the only word in the body of the message.

I urge you all to get a copy of this file, read it and then retain it for future reference in maintaining your account. Welcome back!

B.E. Johnson, List server Manager

Blue Ice
By Mark Garlick

Mark shows another view of Neptune reflecting blue light upon the icy surface of Triton. Mark is a professional artist/illustrator.

DIGITAL WINNERS!!!

Congratulations IAAA! As in last year’s contest, the IAAA was well represented in the winner’s circle in the TAACCL’s annual contest. The results were just published in TAACCL’s State of the Arts Magazine. The website will be up by 9/7/00 to coincide with the show. How will we do next year?... Here are the 2000 winners:

Science Division
- 2nd place - Walter Myers, “Titan Revealed”
- 3rd place - B.E. Johnson & Joy Day, “The Origin of Meteorites”

Technology Division
- 3rd place - Dr. Mark Garlick, “Stormy Descent”
time to wander off and immerse myself in this strange and lonely landscape. I may not sketch, or even photograph, although usually I do. I just want to absorb its ambience, by myself if possible. A sort of meditation, if you like.

“At Yellowstone, on the last afternoon (which was cloudy, with occasional bursts of sunshine) I wandered off to the thermal areas to the right of the Inn - something I had promised myself, since my wife and I had already seen all the ‘biggies’ such as Castle and Grand Geysers erupting, on a too-brief visit in 1995, which nonetheless gave me the idea of holding a workshop there some time. After strolling along the boardwalks and chatting to some Americans while we waited to see if the Beehive would erupt (it was showing signs, like brief bursts of spray). After half an hour it was clear this was not going to happen, and I went into the woods towards Solitary Geysier. This proved to be one of those big blue pools, but it suddenly surged with activity, making me jump back! From the time I left the boardwalks I was completely alone, and I started off, on another path through the woods, on the mile and a half to the Observation point, high on the hills that back the basin.

“From there you can see the whole basin laid out below you -- a wonderful sight. After just a few minutes I noticed that the little geyser near the Beehive was spurring. Sure enough, a huge jet of water and steam began pouring out of the Beehive, continuing for many minutes and drenching the people in the spot I had vacated half an hour or so earlier..... I could hear its roar even from my high perch. Not ten minutes later, Old Faithful itself followed suit, and the Sun spotlighted it. I made my way carefully down the rock-strewn path -- and suddenly became aware that not ten feet away was a bison, grazing. It looked up at me. Now Kara says that his presence was greeted by flatulence. I apparently had a different effect. My bison casually started to take a pee -- an inverted mini-geyser of his own. Perhaps marking his territory so there could be no mistake who had a right to be there?

“As I neared the bottom of the path, a great plume of steam on my right showed that Castle Geyser, where I had seen people waiting literally all afternoon, had finally decided to put on a show.”

**Mark Garlick** said, “I had such a great time, as did all the others. For me the visual highlight of the trip was the Grand Canyon of Yellowstone. But even after the workshop the sights continued. The drive down to Jackson Hole past the Teton range offered just awesome sights, especially in the dramatic light we had that day. The other highlight of the trip was the people. Such an amazing range of talent and personality. Jon was particularly bonkers, as participants have already mentioned on the list serve. I simply couldn’t resist diving into episodes of Monty Python with him. And I thought “I” was weird remembering all those lines from films and stuff. (‘I’m Brian and so is my wife!’). Must have been something in the water.....

“Jon had the idea that we do a joint-effort painting. He brought a long panoramic canvas that we divided into eleven segments. The idea is that we each get to do a bit of the image, which no doubt you will all see when done.”

As for comments from me (**Jon Ramer**), all I can say is that I’m even more convinced that I’ll never miss another workshop. Whether climbing the basalt columns of Sheepeater’s Cliffs, hiking around the North Rim of the Grand Canyon, drinking beer with Kara, taking pictures with BJ, trading movie lines with Mark, getting painting tips from Dave, or just marveling at the incredible scenery, the Yellowstone workshop was a great workshop to attend!
rocks include deep reddish brown sandstones and weathered basalts, dark gray basalts, etc. Lowish value earthy tones. At Yellowstone I found myself mixing in lots of whites and using pure yellows and oranges with palette knife, giving the same kind of intricate color mixes that were in the canyon walls.

“So I have a hypothesis: Like many of us, Moran may have been influenced by his first attempts at rendering the landscapes of the west at Yellowstone. That’s where he ‘learned how to do it.’ And he may have kept coming back to the same colors even in other settings. I find myself doing this, certain greens I use for shady vegetation, certain ones for sunlight on deciduous vegetation, others for sunlight on western gray-green vegetation.

“That’s why I like painting out doors from nature -- it keeps forcing you to break with those ‘standard colors’ that you’ve learned to use and try to paint the colors you really see under that sky, at that time of day, in that place.”

New Member Hilda Green Demsky was delighted to attend her first workshop and had lots to say about it: “Arriving in West Yellowstone, MT on a small Sky West plane from Salt Lake City and wearing my newly acquired IAAA pin, I was quite surprised when someone I didn’t know recognized my pin and said ‘Hi Hilda.’ What a delightful welcome from Jon Ramer and his wife, Terri. That kind of friendship marked the entire 10 days.

“West Yellowstone is a tiny tourist town that caters to the folks who arrive for the purpose of entering the Park. The highlight for me was visiting the Grizzly Discovery Center. In natural protected habitats, one can see the grizzlies and wolves. Somewhat apprehensive about meeting up with bears in the Park, I listened carefully to the ranger who suggested that humans should make noise (sing, whistle or wear bells,) so that the bears are not surprised by your presence. I am happy to report that we didn’t meet up with any bears, but we did encounter many elk, bison, and deer.

“One of the things I loved dearly was the nightly critiques. IAAA members were so supportive of each other’s creative efforts, and what spectacular results poured forth! Dave Hardy’s thoughts were always sought after; he provided salient, right-to-the-point, much appreciated comments. Joy Day gave me the best advice on what to do with my 17 ink drawings of spectacular was returning from a note taking trip to Morning Glory Pool, with beautiful emerald green 20 feet deep pool of hot water, surrounded by ochres, terracotta rose, burnt and raw umber browns, and parchment white calcium trimmings around the edges of the boiling pool. I was gathering a visual description so that I could demonstrate my painting style in our collaborative project. I also recorded the shapes of the pine trees that surround the back hills, some dead and bleached white by sulfur hot steam and with a few dead trees with lots of bleached dead branches. I noted how the trees also had fallen helter skelter on the hills as well, and the different types of grasses from background to foreground. Oranges, golden cadmium, naples yellow, turner yellow, crimson red grass, oh there was an orchestra of colors.

“After my sketch I headed back for some supper and came upon a male buffalo standing 20 feet from the path by a dead trunk of a large tree. I stopped in fascination of the creature. Buffalo are nearly blind and very not smart. So I stopped beside an eight inch aspen to gaze at this enormous animal. I was up wind, so the bison could smell me in the air. He ‘huffed’ and grunted. So I returned the huff and grunt, imitating his sound. At that point, he turned around and clawed the ground slowly. I didn’t move. Panic had either paralyzed or fascinated me. The bison then began to walk slowly towards me. What do I do? Where do I go? He kept advancing, building his momentum. Finally within a foot of me, as I was sure he would ram the tree, he turned left. I could have touched him - but didn’t! BUT, as he pasted by, he let go one amazing long and fowl flatulence. Guess he told me what he thought of my presence. Oh brother, I thought the sulfur springs smelt bad! I bolted and left gagging for fresh air in the other direction, knowing full well he had poor eye sight. I shared my story with my colleagues that night at the Bear Pit tavern where I did my painting in the the dark, with a few mugs of beers to cheer me on. I painted fast and furious to the amazement of all around who wondered aloud how I knew what colors I was using? Good question, but did it really matter? Certainly the beer helped clarify my fauve mannerism of painting!”

Workshops are nothing new to Dave Hardy, but he still had a great time at this one. “It is generally accepted that one of the main reasons for attending an IAAA workshop is to meet other members, to put faces to names we have known for years, meeting old friends, the new friendships that develop and general camaraderie. The evenings, with their hectic meals and after-dinner meetings for critiques, painting or whatever, are always a highlight of the day.

“And yet there is another side. The places we visit are, usually, the wildest, most alien places we can find on Planet Earth; the nearest we can get to visiting another world. And at each workshop I have attended -- Iceland, Utah, Hawaii, Mojave, Tenerife, Yellowstone -- I have found

Separated at birth? While in Yellowstone we ran into David B. Hardy - David A. Hardy’s evil twin brother! Or is it David A. who’s evil???
painting pad, to distract me from my sketching. An hour later I found myself struggling to get back on firmer ground. As I looked up towards the trail I saw that Dave had had similar feelings as he too was also on his feet, busily packing away. Then the mylar sheet that Dave had been sitting on decided to make a break for freedom and fluttered on a gust of wind a few feet down the canyon.

“A few minutes later Kara came down in time for discussing an appropriate rescue plan. And so it was that Kara edged, oh, so slowly down the canyon face, the heels of his cowboy boots chiseling deep furrows in the loose gravel. One hand firmly clasped in Dave’s, the other hand lightly swinging the longest branch that could be found, back and forth as he inched his way towards the errant sheet. It took several minutes before the tip of the branch could catch the silver fabric and, with a deft turn of the wrist, flip it back into captivity.

‘To cap it all, Dave calmly folded the sheet his heals right on the very edge, the buffeting of the wind causing him to sway - ever so slightly. One good puff and I’m sure he’d have been challenging the osprey for its’ thermals!

Kara Szathmáry had probably the most amazing encounters with the wildlife of the whole group! “Here are a few of the bizarre things that happened to me, naturally when there was no one around, and without camera. Why do these things happen then? At any rate...

“At Norris Geyser Basin, in particular Porcelain Springs Basin, after I had finished my drawing, I was hiking back to our rendezvous location as we all agreed, when my path became blocked by two, mother and calf, elks. I stayed still for five minutes until they meandered up hill off my path. As I proceeded slowly, suddenly a bull elk came running towards me out from nowhere around a bend. I froze, bewildered, then, decided to run the other direction but I stopped after running some thirty feet.

“The bull-elk had also stopped and remained looking at me. So now I decided to stand still too and looked at him with my black Stetson hat owered to my eyebrows. We stared at each other for ten minutes - High Noon.

Throughout that time, the bull elk would yell at me ‘yyaahhHHHAAKK! I didn’t move. I kept staring and wondering how do I get around him? That rack on his head had 14 points and was the size of a 4-foot by 5-foot tree as it sat on his horse-of-16-hands body. Huge! Well, finally he yelled again, stuck his tongue out, went ‘yyaaayyyaatteeTTTHHHRRRUW’, then walked slowly uphill to his ladies in waiting. Several minutes past before I made my daring and bold step up the trail. Once I got to the meeting point, I found a crowd was waiting, my colleagues and tourists, who all began to applaud my arrival.

“Later on at Old Faithful territory I encountered another male creature. I...
Top left - Morning Glory Pool
Left - Pinnacles by Dave Hardy
Below left - Lower falls
Above - Bison before Old Faithful
Below - Porcelain Basin by Bill Hartmann

Above - The Grand Canyon of Yellowstone
Right - Emerald Pool
Below right - Minerva Terrace
Below - Kara drawing in Upper Terraces