Gallery—Earth

**Craters of the Moon: Eclipse of the Sun in Leo**, Kara Szathmary, 24 x 36, While seeing the Eclipse in Ririe ID, I decided to place it into the landscape.

**4M Telescope on Kitt Peak**, Kara Szathmary, 14 x 17, from 2009 IAAA Kitt Peak Workshop.

**Alaska Aurora**, Sam Dietze, oil on masonite, 48x32 2014.

**Sunrise Over Earth**, Deneb Arici.

**Earth**, Simon Cattlin (above and below image).
From the Editor

Greetings!

I am hoping you are all well during this trying time of Covid-19. It has certainly dashed a lot of our plans, and as artists, we are all hit pretty hard. That is the reason I chose Earth as the subject for our gallery pages. Wherever we live on this planet, there are beautiful things to paint and as David Hardy’s superb example shows (p. 7), we can transform those images into other planetary wonders.

This time is also pushing us to try new things! Coming up will be our first Zoom meeting hosted by Aldo Spadoni. Hopefully we can do this on a regular basis, which will be a major benefit to our membership, so keep an eye out for announcements in the listserve. Workshops will happen again. Art shows will be a thing one day soon. In the meantime, let’s hone our craft, learn from each other and do our best work!

Erika McGinnis

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Cover Art: Chris Calle, Earthrise Apollo 8, oil on canvas, 30 x 32. Early in 2018 I had been thinking about plans to begin a series of “Earthrise” oil paintings, one for each of the Apollo missions to the Moon. I have always been intrigued by the Apollo astronauts’ descriptions of the color of the lunar surface. For the most part I had heard mostly black and white and gray, with the exception of Alan Bean of course who brought back wonderful colors in his mind’s eye! As artists we all know that black and white is never really just black and white. With that in mind for the first painting in the series, Earthrise Apollo 8, I decided to go to the source and ask Apollo 8 astronaut Bill Anders his impressions of the Moon’s color. After a few conversations my takeaway comment from Bill was that the Moon was “basically greys with a wisp of brown”, so that’s what I set out to paint. We emailed back and forth a few times while I was working on the painting and I emailed him the image when completed. Bill liked the painting very much and then asked if he would sign the original which he happily did. During the reception Apollo 8 astronauts Jim Lovell and Frank Borman each added their signatures making this painting for me truly special.

At right is the image of the Apollo 8 crew who signed the original painting.
Welcome New Members!

◊ **Peyton Scot Muehlmeier**

I grew up with a mom who was a talented artist/art historian and she exposed me to all the artists of the past, but mostly to the renaissance artists. Our cats were named Donatello, Michelangelo, and Leonardo. By watching her working with paints, fabrics, ink, and various sculpture materials, I followed her path. I have worked with them all, as she did. Her sister worked on the NASA shuttle so I was lucky & treated to all things space-related at an early age.

I continued to create throughout my career in the family business, sometimes filling night clubs that I designed with my unique art. Retired now I'm finding more time than ever to develop works that are space science related. In short, to me...Subject matter...matters.

◊ **Susan N. Bibbs**

Susan Bibbs is a contemporary Vancouver Island artist working primarily with oils on large canvases and with multi-medium drawing, creating contemplative Space and evoking Environmental sensibilities. She raised her children working as a Family Practice Nurse, with a BSN from Vancouver Island University (VIU). A long standing interest between creativity and healing brought Susan to study the principles of art therapy at the BC School of Art Therapy in Victoria (now CIIAT), with recent study of art history and drawing in the Visual Arts at VIU.

Susan is the owner of Rightside Studio at rightsidestudio.com. She is an Active member of the Federation of Canadian Artists (FCA), with a strong history of display in public shows and private galleries from 2005 through to 2020.

*Kudos for members of IAAA*

◊ **Michael Carroll** gave a lecture at Denver Astronomical Society about the icy worlds of the solar system. You can view this lecture here: https://youtu.be/K3-dmkx266aU (and then we can debate the legality of Circus Peanuts!)

◊ **Nick Stevens** was on Astro Radio in an interview with Pete Williamson. They were discussing online astronomy in the days before the World Wide Web, and the history of his Starbase One Astronomy BBS. Here is the link: https://mixcloud.com/AstroRadioEarth/astro-radio-lock-in-at-the-locked-inn-13th-april-2020/

◊ **Ron Miller**'s artwork was featured on the BBC TV program "The Sky at Night". Here is the link to the panorama depicting Martian polar geysers. https://spaceart.photoshelter.com/image/I0000T0bqcETUGcA

◊ **Marilynn Flynn**'s artwork was on the cover of Desert Exposure, a magazine dedicated to the arts in New Mexico. You can see the image here: https://www.desertexposure.com/desertexposure/stories/april-2020

◊ **Mark Garlick** had one of his illustrations in Ann Dryan's Cosmos—Possible Worlds book.

◊ **Ron Miller** had a nice write up in Forbes online! Here is the link: https://www.forbes.com/sites/billretherford/2019/01/17/alien-worlds-extraterrestrial-life-space-artist-sketches-the-cosmos

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**IS THIS THE FIRST IAAA STRIP PAINTING?** Yes and no. It is the first strip painting given to a one of our workshop organizers, but the workshop occurred before the IAAA formed! After a lot of us met in Pasadena at the 1981 "Planetfest" organized by the Planetary Society, I organized what I called the "First Space Art Workshop" at the Volcano Art Center, in Hawaii Volcanoes National Park. Mike Carroll came up with idea of a joint painting for the organizer, and that became a tradition common in most IAAA workshops. Mikey made the underlying pencil sketch on a 16x20 board and marked off eight strips, one for each participant, and we Of course, he picked the hardest thing to paint in the park, the business side of a cinder cone that erupted in 1959. Instead of forming a symmetric cone (easy to paint) the ash and cinders were blown by prevailing winds to one side of the cone, so that the complicated vent lies at the base of the cone in this picture. The proto-IAAA gang kindly presented the painting to me. Artists from left to right are Pam Lee, Bill Hartmann, Joel Hagen, Andy Chaikin, Jim Hervat, Marilynn Flynn, Mikey Carroll, and Kim Poor. Jim was the last to work on it, but he was rushing to make his flight home, and did his panel in pencil. As I like to say, there's a story behind every painting.

Bill Hartmann
Pluto Exhibit at Lowell Observatory

By: Simon Kregar

Lowell Observatory held a group exhibition of new works featuring some of the artists of the International Association of Astronomical Artists. The opening reception was on Saturday, February 15th and featured Pluto-themed artwork and we also had the opportunity to get a first taste of Mother Road Brewery’s Pluto Porter! This event was very well attended with about 150 ppl visiting including New Horizons Principle Investigator Dr. Alan Stern, artists Michelle Rouch, Marilynn Flynn and Simon Kregar.

The exhibition featured artwork from artists Dr. William K. Hartmann, Dr. Dan Durda, Dr. Mark Garlick, Ron Miller, Pat Rawlings, Marilynn Flynn, Michelle Rouch, Richard Bizley, Steven Hobbs, Don Dixon, Simon Kregar, David Hardy, Lynette Cook and Amber Allen and ran from February 15th, 2020 – May 15, 2020.

Gemini IV Spacewalk, Chris Calle

When I was an illustrator I did a few paintings of the Gemini IV Mission for assignments but had always wanted to do a large oil painting of Ed White against the backdrop of the Earth.

Years ago Jim McDivitt had given me several pieces of silver that he took in space on the Gemini IV flight. Taking a cue form Alan Bean (and I spoke with Alan about this when I was working on the painting), I shaved off some of the silver from one of those pieces and mixed it into the paint for Ed White’s spacesuit and his umbilical cord. When I showed Jim the painting after it was completed he said, “That was my View!” I asked Jim to sign the original painting and I was thrilled when he added, “My View”.

He was also kind enough to give me a quote to use with the painting.

“This is a great painting of my view of Ed White set against the perfect beautiful blue earth. Ed was having so much fun he didn’t want to get back in the spacecraft.

Chris Kraft was getting nervous, and I wanted him back before it got dark so that we could close the hatch.”

Jim McDivitt
A Space Artist’s Legacy Orbits the Earth

By: Mark Pestana

The year 2020 is a major milestone for the International Space Station (ISS). This coming November, the ISS will celebrate 20 years of continuous operation with a human crew aboard. 2020 also marks a very historic moment in the legacy of the late artist, Chesley Bonestell, who passed away in 1986 at the age of 98. An architect by education and experience, who also created matt paintings for Hollywood films, he had a hand in such notable projects as New York City’s Chrysler Building, and California’s Golden Gate Bridge. Known as “the Father of Space Art,” Chesley used outer space, our solar system’s planets and moons, and stars and galaxies as the subject matter for countless numbers of his paintings. He once said, “Space, to me, is the infinite cosmos- the ultimate mystery.” He lived to see great strides in space exploration, just like his canvasses predicted. We’ll never know if Chesley ever dreamed of exploring space himself but just recently something remarkable happened. With a confirmation from the NASA Johnson Space Center on March 12, 2020, The film Chesley Bonestell: A Brush With The Future was transmitted electronically up to the International Space Station for the “Expedition 62” crew to watch and enjoy.

Chesley was no stranger to space stations. His work with Werner von Braun included turning von Braun’s mathematical formulas and sketches into practical renderings that were featured in magazine articles like the Collier’s magazine series, “Man Will Conquer Space Soon!”, and books such as “Across The Space Frontier”. One of the space station designs appear in a film Chesley worked on called “Conquest of Space”.

The process to get the film to space began this past February when I was the featured speaker at a monthly meeting of the Los Angeles-Las Vegas chapter of the American Institute of Aeronautics and Astronautics. I presented a lecture on my NASA experiences in developing flight crew operations for the International Space Station. One of the attendees was Douglass M. Stewart, Jr., the producer/writer/director of the film. Doug approached me with an eager and exciting demeanor, as he cautiously broached the idea and question, “Is it possible to send this film to the ISS for the crew to enjoy?”

I also expressed a cautious eagerness. I explained how my youth was sometimes spent in libraries perusing “space books”, some of which were illustrated by Chesley Bonestell. My inspirations and interests in art, and my career in aerospace, are attributable to the inspiring work of artists like Bonestell, Robert T. McCall, William K. Hartmann, and Ron Miller. In fact my aerospace book collection today includes some of the classic volumes from the 1950s and 1960s, in which assortments of wheeled space stations and lunar explorers, from visionaries like Werner von Braun and Will Ley, came alive through Bonestell’s vivid paintings.

My “caution” to Doug was that I imagined many months of review boards and payload integration meetings, requiring people to brief and paperwork to sign. Could a DVD be manifested on a Russian Soyuz or a Progress cargo ship? Is there time to “throw” it aboard the upcoming SpaceX Dragon flight, the first mission to ISS in the Commercial Crew Program?

I responded, “I’ll ask!”. I’m fortunate to maintain a relationship with many of my former co-workers at NASA Johnson Space Center in Houston. My request to a colleague was routed to a special group:  

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The Behavioral Health and Performance Team. This team, among their various duties, supports the astronauts’ leisure time activities like family teleconferences and viewing live sporting events. They also provide the crews with music and films. With sometimes months between cargo deliveries and crew changes, this process is expedited by transmitting these files rather than physically transporting them. It should be noted that NASA does not specifically endorse the music or films they provide to the ISS crews. They also can’t confirm if the crew has watched the film. But fingers are crossed down here on Earth that luck will be on our side and those astronauts and cosmonauts will have some time to take a look.

The news that *Chesley Bonestell: A Brush With The Future* now circles Earth brought smiles to its Co-Producers Ron Miller and Melvin Schuetz. “I have devoted so much of my life to the works and wonders of Chesley Bonestell”, said Ron, a space artist himself. “I’ve co-authored two books on him and this is a signature moment that just astounds me. It’s incredible!” Melvin, himself a renowned Bonestell historian, agrees. “As a young boy, I became fascinated with Chesley’s extraordinary art. It’s wonderful that he has now been taken up into space—something that fascinated him so much. That fascination inspired him to create paintings that have encouraged others to accomplish what humanity has dreamed of for centuries—the exploration of the Final Frontier.”

If only Chesley could be alive today to see how important his life’s work has become in a film that now orbits 250 miles above the Earth.

A message from Mr. Douglass M. Stewart, Jr.:

“The Chesley Bonestell Film Team is deeply indebted to the American Institute of Aeronautics and Astronautics, the National Aeronautics and Space Administration, and to Mark Pestana for their extraordinary efforts on behalf of this film.”

For viewing opportunities and contact information, visit: [http://www.chesleybonestell.com](http://www.chesleybonestell.com)

This is a prime example of how artwork created from IAAA workshops can transform into extraordinary exoplanetary artwork!

*Thingvellir/Mars*, David A. Hardy. They are examples of a fault valley or ‘graben’. Pastel sketch done at IAAA workshops (left), and how I converted one into Mars (right).
EVERYTHING YOU EVER WANTED TO KNOW ABOUT IMAGE CAPTURING

by Kelsey Poor

Space artists, I have some GREAT news! Space art (even our old prints from the 90’s) is selling again! With a record number of Spacefest artists displaying at our Spacefest event last year, I find myself becoming more involved in the art selling process, and it wasn’t as easy as I originally thought (nothing ever is).

Novaspace prides itself on guaranteeing our prints, framing, and customer satisfaction. With that being said, there are simply some things that we cannot guarantee that have been sent in to us, with the intent to sell. Prints that dent easily or have color discrepancies from copy to copy, just aren’t going to be sellable by our standards.

We have a brand new printer in dad’s old office, and so you’d think printing would be easy! However, we have tried to print a couple of originals based off of high-resolution photos sent in by artists, and they just don’t look as amazing as the original does when you compare them side-by-side. What gives? What constitutes a “professional photo” anyway?

I delved into this and contacted the image capturing specialist at Photographic Works in Tucson, Arizona. That’s right, I did the research for you (and for me too).

I thanked Rachel Castillo at a local print shop, Photographic Works, for meeting with me during a pandemic, we elbow bumped, and I explained who I am, who I represent, and what I do. Rachel was very familiar with the work they’ve done for Novaspace. I asked her to take me through the Photographic Works process, and explain why artists should have an end goal in mind, and why they should care about Color, Quality, and Repeatability.

ME: Let’s just start. How does this work?
RACHEL: We take the original upstairs and we photograph it. We offer two options: Premium Capture and Standard Capture. We take the pictures the same way, with a high resolution camera, even lighting, and with a color checker.

Rachel pointed to a picture of what looked like 24-color eyeshadow palette.

RACHEL: The color checker tells us what the known values of the colors are supposed to be in the art work. It’s super important because that will tell us what white, grey, and black is.

ME: So what is your Standard Capture?
RACHEL: When we take a photo for our Standard Capture, we’re looking for a contrast and a density match. We photograph it, bring the artwork down into a light booth, put the art next to the computer, and we try and match the contrast and the density. That doesn’t always mean that the colors are going to come through, though.

Rachel goes on to show me a chart with some pictures of an original art piece, a Standard capture, and a Premium capture of a small yellow house with villagers preparing food outside. “The colors don’t exactly match,” she says, “but the contrast and the density does. Some artists just need something “good enough, color-wise, and some artists need something as close as possible to their original. The price difference on our service reflects their choice. The difference isn’t in the photograph quality because it is all photographed the same way, and it’s edited on the computer by the same person. The difference is how long it takes for us to work in Photoshop to get the colors to look right.

ME: So how does an artist know what kind of capture they need?
RACHEL: I tell most people to start at a Standard Capture. New artists are budget-conscious, and don’t have as much gallery experience where galleries generally like the prints to be an exact match of the original. If they’re not sure, they should start with a Standard Capture and then come in when we have a proof. If they compare their original and proof in the same lighting conditions, and are happy with it, then we burn them a disc with their high resolution file on it, and they leave. If they say a certain color isn’t showing through as they would’ve liked, we upgrade them to a Premium Capture, and charge them the difference so we can work on the colors.

ME: So the statement that remains true to all colors: LIGHT IS THE MOST IMPORTANT THING. How accurate is this procedure?
RACHEL: Some things that we photograph, look perfect. Some things are more challenging, and hard to reproduce. Some colors are really subtle in originals, and the monitor can pick them up, but the printer can’t reproduce it. That happens a lot with fluorescent colors! One of the things that could make a photo capture more challenging for us, are “under paintings,” when artists paint something, and then paint over it. That light raise comes into the camera, and all the colors photograph at different rates. Watercolors are usually challenging for us, as well.

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EVERYTHING YOU EVER WANTED TO KNOW ABOUT IMAGE CAPTURING

ME: Can scanning your art get the same kind of result?
RACHEL: Some artists come in to use our large flatbed scanner, but it will never achieve the same color results as our Premium Capture. The optics are different in that machine, but it’s still a good result. Smaller art sometimes makes more sense for that. Same with if they’re on a budget or aren’t sure if their prints are going to sell. The flatbed scanner gets us close to a Standard Capture result.

ME: Chesley Bonestell used to take pictures of his original art in the sunlight.
RACHEL: Taking your own pictures in the sunlight is a good idea, but it ABSOLUTELY has to be edited in Photoshop. Sunlight is yellow and warm. Shade is bluer. It changes. The most important thing is that you have even lighting. No hotspots, no shady parts, just nice even lighting one way or the other. Please make sure you’re square to your artwork while taking the picture! Also, the quality of your camera and the quality of your lens matters. There’s still a lot to consider with accuracy and photo science.

At this point, I’m finally starting to understand. The bottom line is that no matter what method you’re using to capture your original painting into a high resolution file, tweaking the colors in Photoshop is 100% unavoidable. Color matching used to be a requirement when off-set lithographs were the go-to method. Every artist had to go into their print shop with their magnifying glass and make sure each print was an exact copy (This was before Photoshop). “Artist Proofs” or “AP’s” are the first several prints that supposedly had the best color with the lithograph process, and with AP’s, you could charge an upward of $100 more for each print.

Here’s a hot tip: You can still sell AP’s without the lithograph process. It’s just a matter of how you sign and number them. If you don’t know about this, ask me sometime!

ME: Now with sites like Fine Art America, the artists rarely get to see the final print being sent out to the customers.
RACHEL: That’s the artist’s choice. The artists that come here, don’t do sites like that because they want to have full control over their art. Customers don’t want to think ‘Wow! That is a great painting, but the colors are completely off!’ I compare it to cooking a dish and not adding salt. Money is a huge factor because if you can’t afford a high quality image capture, then you’re going to be more swayed to go in that direction. The good news with that, is that you can build up your sales until you can afford the thing you want. Convenience and affordability are the reasons why sites like that are thriving.

Some artists care about the colors, and some just don’t. It’s actually a spectrum of caring. ‘I care, but this is what I can afford.’ That’s probably the main motivator. Giclees definitely need to be as close as possible to the original. A non-giclee process (a 4-color process): postcards, calendars, inexpensive non-archival prints, books, etc - still need a high resolution file, but you actually will have less control over the colors just because it’s a CMYK process. It will always look different, and never look like the original.

Those people will get the Standard Capture, because they know they won’t have control over the colors in the end anyway. There ARE good reasons to go for our Standard Capture.

ME: How long does this whole process take?
RACHEL: Typically, the process takes about 4 business days. If they had a Standard Capture, decide upon seeing it that it is not up to par, then we’d need another 2 business days to get a Premium Capture upgrade. It is best not to do this right before your show! A week in advance is great.

ME: What if you’re using different printing companies?
RACHEL: All printers are different. If you use the same people who photo capture your art, to print your art, the prints should always be the same. If we send our high resolution file and proof to another printer, they may have to tweak the printer color collaboration or high resolution file in order to achieve the same outcome. That’s the same with screen monitors, and whoever is adjusting the colors in Photoshop. A closed-system (one place that does everything) is going to be the most consistent and repeatable. Even if the printers have the same manufacturer and inks, the paper you’re printing on will make a difference!

ME: Tell me why paper makes a difference.
RACHEL: We profile our colors based on the paper. Each paper here has an inkjet coating that accepts the inks from the printer in different ways. We have a book of paper we show the artists, and samples of art printed on them to show you how they differ.

You can photograph art that isn’t a painting. Scratchboard drawings, other photographs, and all sorts of things. The paper you choose helps present the original in the artist’s vision. We also have different kinds of canvas. Each paper has a different color base that will affect the final colors.

Canvas has the most yellow. If you optimize your high resolution file to suit canvas, and then you want to print on a glossy or luster paper, it will technically look different. It’s nice to know what the artist’s end goal is. Most artists just want to find something archival that looks closest to their original.

ME: We haven’t talked about metal prints, and I see some over here.
RACHEL: Metal is great because it comes in a huge sheet and it’s a good way to get low-cost panoramic, and framing is not a necessity. It’s actually really affordable. These are ready to go, compared to a print that needs a mat and a frame.

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A drawback to metal prints is that they’re in a home decor category, not a fine art category. There’s not really such thing as a fine art metal print. The colors can shift over time, they’re definitely meant for indoors only, and they’re non-color critical. Printing on metal is a dye process of heat and pressure, and it can be a bit of a wildcard. Sometimes the prints looks slightly different within 5% - 10% even though you do it the same every time. Metal printers only have one black ink, whereas when we print on paper, that printer has 4 black inks. Red and greens inks are helped to build up transitions and gradations on metal prints. That’s why metal prints can either look more red or more green. There isn’t a true black and white on metal. You can’t get that. They are also dinged up and chipped up easily because they are aluminum, and aluminum is soft, but nothing is completely safe from damaging.

**ME:** What are the drawbacks of inkjet printing?

**RACHEL:** The language gets tricky. Inkjet printing is a process. Compare it to tissue and Kleenex. “Inkjet” is a technical name. You can STILL have carbon-based black ink and pigment-based archival inks coming out of an inkjet printer. Using a printer at home with regular paper and dye-based inks are NOT archival. A lot of places sell that. Places like Kinko’s use a different process that is an ink toner, which is also dye-based.

Rachel then gave me a tour of the upstairs room, where they do their image capturing, but no pictures were allowed. Their set-up was impressive, with two large towers of lights that were set up at angles, to eliminate shadows, and a table with a camera mount on a track system behind them. Different tools were scattered around the dark and painted grey room. Filters that secured to the lights were used to soften the light so it doesn’t glare. “Anything shiny has to be cross-polarized to get rid of the shine,” she says. “You can’t do that with the sun,” she continues, “oil paintings and graphite pencil art causes a shine that needs to be polarized. Otherwise you get bright spots on your print.” How do they capture the fragile things? “We have it set up on here where we photograph fragile things down on the floor and we take a picture from above it. We get things like old Ledgers from National Parks that are thin and very fragile.” There was a small piece of paper laying on the table that looked like the eyeshadow palette “color checker” she had talked about earlier. “No, that’s not a color checker. That’s what I use to help me focus the camera.” I noticed a smaller piece of paper that was paper-clipped to the front of it with words on it. That made sense. “Sometimes paintings don’t have a hard edge, so it’s hard to get a focus.”

I followed her downstairs to another dark and painted grey room. I was introduced to the two women working in there and one of them asked if Lisa was still working for us. “Say hi to Lisa for me,” she says. I was then introduced to a woman, Sabine, working in Photoshop with a wall mounted light booth next to her. Her job is to make sure the digital file looks like the original. “Seeing color is so hard sometimes. Not everybody can do it. It actually takes a really keen eye,” Rachel says. “This computer monitor is collaborated weekly, so we always make sure everything is consistent. The lighting is always consistent, the walls are neutral grey.” Ok, so there was a purpose for all the grey walls. “If you wore a white or red shirt in here, you could see all the color reflecting off of you.” That’s wild. I asked Sabine if her eyes were insured. “I probably should get them insured!” she tells me. Rachel explained to me that they work as a group, because color is so subjective. “At Fine Art America, you’re never going to get that.”

*If you have any questions, email me!*

*kpoor@novaspace.com*

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**Amore Senza Fin (Love Without End),** Sean Yarbrough, 2017 acrylic on canvas 25 x 50 inches. An expression of the serendipitous placement of Earth in relation to our sun, and the loving exchange of energy to life, nourished here on our heavenly sphere.
Fallen Stars — Alfred M. Worden

Former astronaut Alfred M. Worden, command module pilot on the Apollo 15 lunar landing, passed away March 18, 2020, in Texas.

Worden was born in Jackson, Michigan, on February 7, 1932. He was appointed to the United States Military Academy at West Point, graduating in 1955. He earned master of science degrees in astronautical/aeronautical engineering and instrumentation engineering from the University of Michigan in 1963. In 1971, the University of Michigan awarded him an honorary doctorate of science in astronautical engineering. Worden was born in Jackson, Michigan, on February 7, 1932. He was appointed to the United States Military Academy at West Point, graduating in 1955. He earned master of science degrees in astronautical/aeronautical engineering and instrumentation engineering from the University of Michigan in 1963. In 1971, the University of Michigan awarded him an honorary doctorate of science in astronautical engineering.

Before becoming an astronaut, Worden was an instructor at the Aerospace Research Pilots School. He had also served as a pilot and armament officer from March 1957 to May 1961 with the 95th Fighter Interceptor Squadron at Andrews Air Force Base, Maryland.

Worden was one of 19 astronauts selected by NASA in April 1966. He served as a member of the astronaut support crew for Apollo 9 and as backup command module pilot for Apollo 12. As command module pilot, Worden stayed in orbit while commander David Scott and lunar module pilot James B. Irwin explored the Moon’s Hadley Rille and Appennine Mountains. Apollo 15’s command module, dubbed Endeavour, was the first to have its own module of scientific instruments. During the flight back from the Moon, Worden retrieved film from cameras in the module during a spacewalk. Altogether, Worden logged more than 295 hours in space. After leaving the astronaut corps, Worden moved to NASA’s Ames Research Center in Mountain View, California. He was the Senior Aerospace Scientist there from 1972-73, and then chief of the Systems Study Division until 1975.

Like other command module pilots, Worden stayed as busy as his colleagues on the surface. But he also took some time to enjoy the view. “Every time I came around the moon I went to a window and watched the Earth rise and that was pretty unique.”

After retirement from active duty in 1975, Worden became President of Maris Worden Aerospace, Inc., and was Vice-President of BF Goodrich Aerospace Brecksville, Ohio, in addition to other positions within the aerospace and aviation industries. Worden wrote several books: a collection of poetry, “Hello Earth: Greetings from Endeavour” in 1974; a children’s book, “I Want to Know About a Flight to the Moon”; also in 1974; and a memoir, “Falling to Earth,” in 2011. His interest in educating children about space led to an appearance on Mr. Rogers’ Neighborhood.
Sand Dunes in Death Valley Nat’l Park, Betsy Smith, painted en plein air during the IAAA workshop there in 2005. Painting with watercolors in a desert is a bit of a challenge as the watercolor washes tend to dry almost immediately.

The Blue Marble, Sean Yarbrough, 2020 acrylic on canvas 24 x 24 inches. I don’t usually paint literally, but the famous Blue Marble photograph from the Apollo 17 mission to the moon in 1972 seemed appropriate. I believe it was the first photo of our home taken by one of us. 48 years ago a lot was happening, but one of the more important things was a different or cosmic perspective of our home. From this new vantage point, we looked back on our heavenly blue sphere where every living thing we know of calls home, and gained more understanding of the preciousness of our pale blue dot in the vast ocean of the universe.

Helio Helix, Sean Yarbrough, 2018 acrylic on canvas 24 x 48 inches. We are light beings, dancing in tune with the symbiotic relationship of Earth spinning around our great ball of fire. The golden ratio is all around and embedded inside of us, its the geometry of the cosmos, spiraling upwards like the DNA chains within us, or flowers in a field.

On Your Left, Europe; On Your Right, America. William Hartmann. The site is Thingvellir National Park, about 45 minutes from the capital, Reykjavik. The view looks south down a graben - a large valley created by tectonic forces. The island sits astride the Mid-Atlantic Ridge and is being pulled apart from with the east side headed toward Europe and the west side, America. A nearby alcove on the east side has excellent acoustics, and is considered to be the site of the world’s first parliament, where Icelandic farmers in the A.D. 900s gathered annually to discuss national issues.

Mt. Teide Volcano, William Hartmann. Tenerife workshop, Canary Islands, 1996 Mt. Teide Volcano: This workshop was held in conjunction with an exhibit of the work that we were producing. This plein air painting shows a view of a summit volcano in a nature park on Tenerife. Interesting to learn that the Canary Islands were populated by Europeans in 1492 and Columbus stopped there on his first voyage. As a space artists, when I’m painting terrestrial landscapes, it try to be aware that Earth, too, is just one more planet, somewhere in space.
Ear of the Wind, Robin Pleak, digital Photoshop. Located in Monument Valley, Utah, inspired from our first visit there in 2013.

King of the Hill, April Faires, watercolor.

AZ Pillar, April Faires, watercolor.


Spaceship Earth, Dave Ginsberg

Mauna Kea Observatory, Erika McGinnis, oil on canvas.

Globe and Rocket, Dave Ginsberg
These pictures, in a favorite area of mine, relate to our several IAAA workshop at Kilauea caldera in Hawaii Volcanoes National Park. What all participants will remember if my 2012 view from the west rim, looking across the caldera floor which was basically a flat surface of lava flows with the "pit crater" named Halemaumau, about 800 yards across (steaming in this 2012 image) on the south end of the floor. Many of us hiked across the flat parts of the floor during workshops. During 2019, however, much of floor of Kilauea had collapsed. My 2020 painting shows the present view of almost the same scene from a spot near my 2012 painting site. The left third of the picture shows the same flat-floor that we all visited, but in the right 2/3 of the picture that floor has collapsed by (I estimate) maybe 100-200 feet. Halemaumau's pit crater, now enlarged, is out of the frame to the right. It was a creepy feeling to think how many of us had hiked and painted on a landscape that has now simply disap-
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Lava Field, Kara Zsathmary, lithographic crayon. Study of lava field flow on Big Island, Hawaii during our third IAAA Workshop.

Mount Carrizozo from the Valley of Fires National Monument, Ken Davy, Plein Air, 9 x 12, Oil on Paper

South Godfrey Hills from the Three Rivers Petroglyph Site, Ken Davy, 9 x 12, Oil on Paper

Earth at Night, Deneb Arici
Message From the President

Hi Folks!

I hope everyone is staying safe and healthy. Even though we're on lock-down, the IAAA is as active as ever. First and foremost, it's election time! Not only is it time to select a new Board of Trustees, but it's also time to select a new President. If you have ever had the desire to help guide the future of our organization, please consider volunteering to serve on the Board or as President. Nominations are open to all members, including self-nominations, just contact Kara Szathmary at iaaa-treasurer@iaaa.org or make the announcement on the listserv. Board duties are very light and the term is for two years only. And during that time your dues are waived! Next big news, our new book, "The Beauty of Space Art" has a release date - 13 September 2020. It is a wonderful book written by members of the IAAA, illustrated by over 300 works of space art, and edited by myself and Ron Miller. It will be published by Springer Nature and we have purchased copies for members to buy at a discount rate. Best of all, all proceeds from the book will go to the IAAA. More details will follow as the publication date approaches. Several art shows and events that have been planned for months have been delayed due to the corona virus outbreak, and our workshop in Las Vegas in March was one of them. The good news is that we're going to hold the workshop at the same time and place next year, so don't hang up those hiking boots just yet - the colorful desert sands are still calling! March 2021, Las Vegas, we're going to spend a week touring Red Rock Canyon, the Valley of Fire, Big Dune Park, and Bigelow Aerospace. Mark your calendar! That's it for now - stay healthy and use your "quarantine" time to paint!

Jon

The Great Outdoors, Under the Starry Sky, art quilt, Robin Hart.

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Submission may be sent to: Pulsar-editor@iaaa.org.