

Tom R. Chambers' Background as It Relates to His Candidacy to Become a Crew Member on the dearMoon Project/Starship Mission to Circumnavigate the Moon

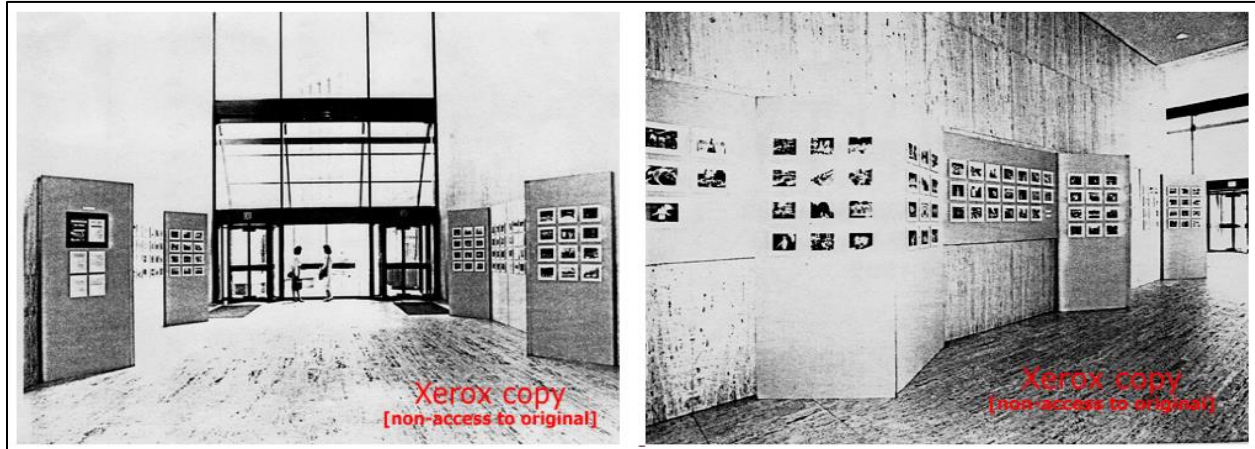
First of all, the **dearMoon Project** is a lunar tourism mission and art project. It will make use of a SpaceX Starship on a private Spaceflight flying a single circumlunar trajectory around the Moon. The project objective is to have eight people travel with Yusaku Maezawa (founder and financier) for free around the Moon on a six-day tour. Maezawa expects the experience of Space tourism will inspire the accompanying passengers in the creation of something new. The art would be exhibited sometime after returning to Earth to help promote peace across the world.

Tom R. Chambers has followed NASA's Space program since Alan Shepard sat atop a Redstone rocket, and said, "Light this candle!" He watched Neil Armstrong and Buzz Aldrin walk on the Moon as the grand finale of the Apollo 11 mission. Two months after this fantastical and very real accomplishment that united the world population, he joined NASA as a research analyst at the Lunar Receiving Laboratory to protect the world (biosphere) from pathogens by analyzing the lunar samples that the astronauts brought back.

During the analysis process, Chambers was drawn towards the documentation that was required via macro/micro photography and cine (movie). This exposure to these procedures and their results has greatly influenced his professional and personal career since that time. He managed a: medical/scientific photo department for Texas Tech University Health Sciences Center (Lubbock, Texas); photo department for the University of Rhode Island (Kingston, Rhode Island); and a photo department for the City of Providence (Rhode Island).

During this time, Chambers moved, personally, towards self-expression as a photographer and visual artist. He founded/directed a Fine Arts photography gallery (Viewpoint) where photographers from across the nation showed their work. American Photo magazine reviewed one of the exhibitions at the gallery. He collaborated with other artists to document their work, and particularly, H.J. Bott, a sculptor. This working relationship led to a joint exhibition, which propelled him towards the Fine Arts and numerous personal projects and their exhibitions.

While in Providence, Chambers mounted a very large photo exhibition (400 prints), "Hot City" showing the diversity of the city, and in keeping with the Newsweek article about Providence as one of the hottest cities to live in America at the time (1989).



American Photo magazine listed the exhibition in its "Notable Exhibitions" section. His coverage was indicative of "humanity" that lives and works together for a greater good.

During this time, Chambers followed the Space Shuttle missions, and he was devastated when the Challenger (STS-51-L) exploded after launch. He was particularly struck by the fact that an educator (Christa McAuliffe) had died among the crew. He had taught the Sciences at the high school level as an extension of his Project Apollo days at the Lunar Receiving Laboratory, and as a part of his curriculum planning, he utilized NASA 16mm movies to motivate the students to get involved with the Space Sciences and aerospace engineering.

In 1990, Chambers put together his "signature" photo/art project, "Mother's 45s". It was a mixed media tribute piece to his mother (died in 1983) and all mothers of the world because of its universal appeal. The project reached across racial/cultural barriers to unite humanity in motherhood. It was exhibited in Providence, Rhode Island, and later picked up through national search for display in the exhibition, "Parents" at the Museum of Contemporary Art, Wright State University, Dayton, Ohio, 1992.

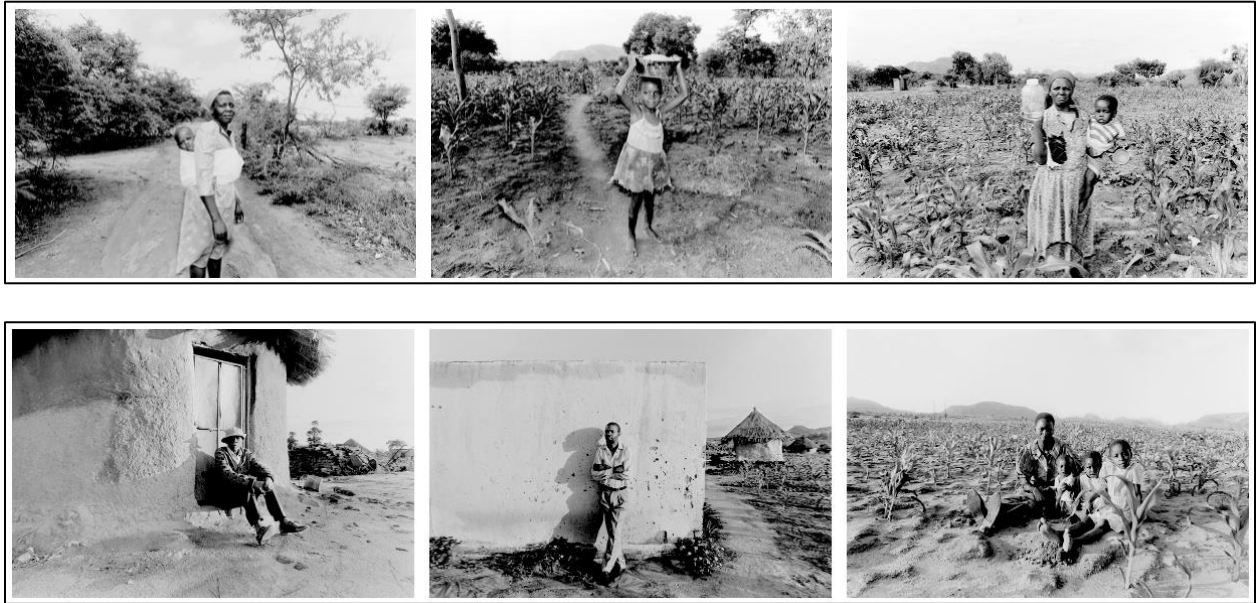


Chambers is seen above at the opening of his "Mother's 45s" project at Gallery One, Providence, Rhode Island, 1990.

He joined the United States Peace Corps in 1992 as a Volunteer in the Arts, because he thought it was the right thing to do. He liked the fact that the organization was a John F. Kennedy initiative, just as Project Apollo ... where he had worked at the Lunar Receiving Laboratory, 1969-1972 ... was. Due to his nature of melding racial/cultural differences, he went to work in setting up vocational photo/Arts programs for street children and "school leavers" (dropouts) in Zimbabwe. His actions resulted in a program called, "Street Kids In Action" and a photo workshop called, "The McEwen Photographic Studio" – named after the first director of the National Gallery of Zimbabwe, Frank McEwen.

While in Zimbabwe, Chambers also put together two important projects for exhibition that enhanced the relations between the United States (via the Peace Corps) and Zimbabwe:

“Southwest of Rusape: The Mucharambeyi Connection” (documentary portraits of an extended family in a rural setting of Zimbabwe):



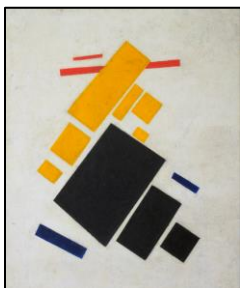
The above project was sponsored by U.S.I.S., Zimbabwe as the inaugural exhibition/event for the United States Information center (1995). The Mucharambeyi family attended, and Johnnie Carson, U.S. Ambassador to Zimbabwe, opened the exhibition. Chambers documentary portraiture style had evolved to a “prime state” of documenting humanity and its environs.

“Variations on the Dan Mask” (photograms based on an African Traditional mask from the Dan Tribe, Eastern Liberia; Permanent Collection: PC - 6400 – 0147, National Gallery of Zimbabwe). The mask was the object for the photogram treatment. The non-exposed area generated from this original mask form was manipulated to vary the look - a transference from a traditional form to a contemporary one.



"Variations on the Dan Mask" - installation at the National Gallery of Zimbabwe, Harare, Zimbabwe, Africa (December 12 - 31, 1995). Johnnie Carson, U.S. Ambassador to Zimbabwe, opened the exhibition.

Fast-forwarding to 2000 when the International Space Station's first long-term residents arrived in November, Chambers began looking at the pixel as abstract art. As the Space station "grew" and re-configured itself in Space, Chambers also "grew" with his exploration of the pixel to include the Suprematist work of Kazimir Malevich. It was uncanny to him how much the Space station looked like some of Malevich's work, particularly, "Airplane Flying" (1915).



It conveys the sensation of mechanical flight using thirteen rectangles in black, yellow, red, and blue placed in dynamic relationships on a white ground.

Chambers continues his work today with the pixel and mainly, Malevich's "Black Square", because of his (Malevich's) passion for Astronomy and his comments about humanity's Cosmic future. He stated:

"The Suprematist machine, if it can be put that way, will be single-purposed and have no attachments. A bar alloyed with all the elements, like the earthly sphere, will bear the life of perfections, so that each constructed Suprematist body will be included in nature's natural organization and will form a new sputnik; it is merely a matter of finding the relationship between the two bodies racing in space. A new sputnik can be built between Earth and Moon, a Suprematist sputnik equipped with all the elements that moves in an orbit, forming its own new path."

Malevich goes on to propose a scheme for overcoming gravitation between celestial bodies and ensuring progressive advancement into the Cosmos.

This is Chambers' inspired reason for including the project, "Malevich in the Moon" for the dearMoon mission. He would take several dozen copies of Malevich's "Black Square" (20"x20" print, each) so they would circumnavigate the Moon, and then upon return to Earth, he would incorporate these "flown"/"Cosmic" copies with photographs of the Moon that he made during circumnavigation.



"Malevich in the Moon" example using "Black Square" and an image of the Moon from Apollo 14. The piece is framed with a "Black Square" print separated from the Moon photo by a layer of plexiglass, and then the entire assemblage covered in plexiglass again. In other words, the photograph is separate to protect the "Black Square" print that has circumnavigated the Moon. The photo is not directly attached to the print. The photo has a small white margin to delineate it from the "Black Square". There would be 30 to 40 "Black Square" prints with each print having a different photo of the Moon made by Chambers during trans-lunar coast, circumnavigation of the Moon, and trans-Earth coast.

In 2005, Chambers traveled to China as Visiting Lecturer in Digital/New Media Art for the Fine Arts Department, Zhaoqing University. He set up and taught the program for freshmen through senior Art majors. In order to provide exchange and exposure for his students, he collaborated with Beijing Film Academy (Beijing, China), Art Institute of Boston at Lesley University (Boston, Massachusetts, U.S.A.), Maine College of Art (Portland, Maine, U.S.A.), Rensselaer Polytechnic Institute (Troy, New York, U.S.A.), National Chengchi University (Taipei, Taiwan), Wake Forest University (Winston-Salem, North Carolina, U.S.A.) and University of Louisville (Louisville, Kentucky, U.S.A.) in joint student projects/exhibitions, off- and on-line.





Tom R. Chambers, Visiting Lecturer in Digital/New Media Art is seen talking to Professor Lu Li [Dean of the Zhaoqing University Fine Arts Department] about the National Chengchi University images. Two design professors are seen to the left.



A student provides coverage of the exhibition as his classmates view the Zhaoqing University images. The image on the far-center monitor is a Flash representation [animation] of different versions of the student's static image on the wall [seen to the right of the monitor].



Chambers talks to Dean Lu and students about this form of digital art for print exhibition. The National Chengchi University images are seen beyond and to the right.

While in China, and during a break, Chambers had the opportunity to spend a few weeks in Ahmedabad, India teaching a New Media Art workshop for graduate design majors at the National Institute of Design. This workshop culminated in the exhibition, "NMA@NID".



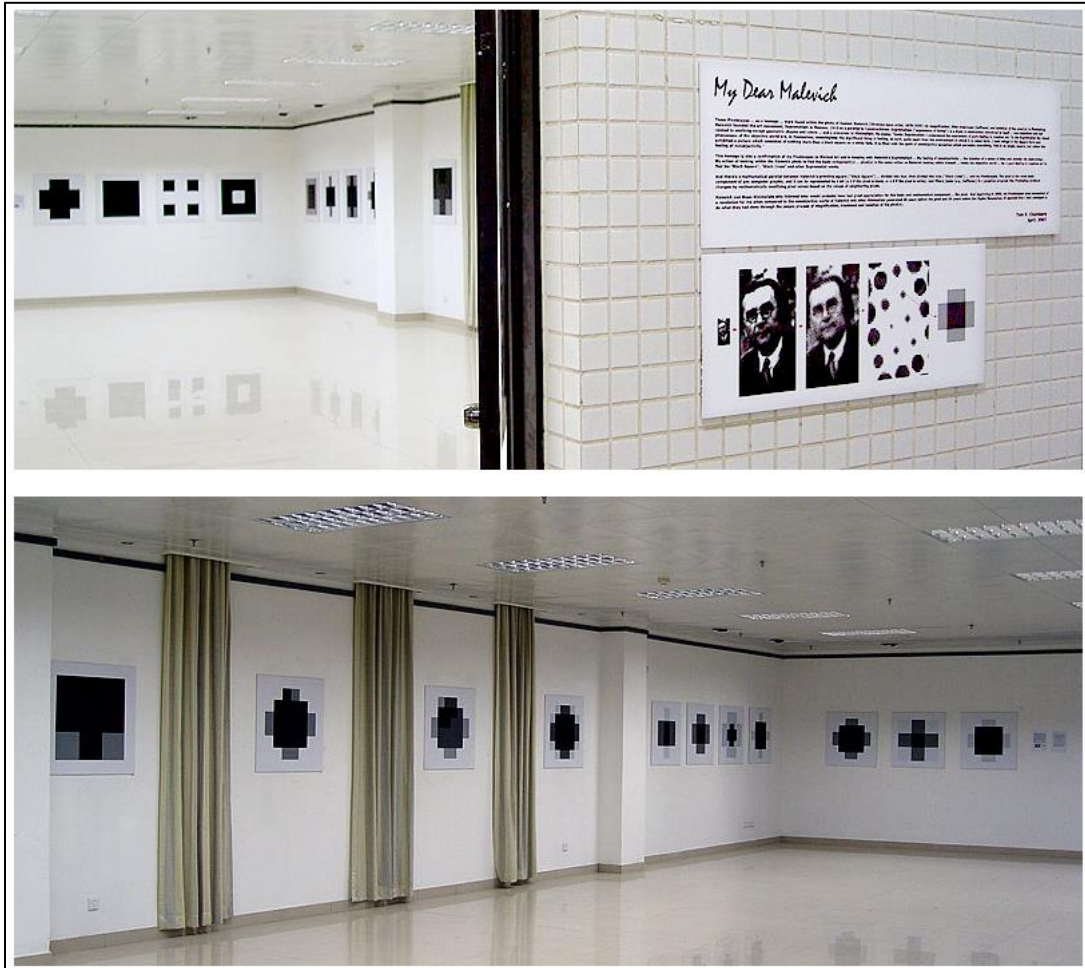
Chambers stated at the time:

"Most of the work on exhibit is time-based or art in motion with some interactivity (Connective Art) and static representation via print. Prabhu's projection of apprehension through Inamdar's take on internal conflict show a surprising maturity of the works on display, particularly since this is the first time for this group of students to pursue self-expression this way. I feel that they (the students) have avoided 'gimmicks' and 'trends' that seem to dominate the attempt of making art in a New Media sense. I consider much of New Media that claims to be art to be nothing more than 'blogging', a maze of aptitude exercises and over-intellectualization with little to no concern for aesthetics and the emotional state."

Because of Chambers' cross-cultural sensitization to the Indian culture and thanks to his students for introductions and translations, he produced one of his strongest body of works in street photography and documentary portraiture, "Ahmedabad, India (2006)".



While at Zhaoqing University in China, Chambers showed his first major exhibition involving Kazimir Malevich's Suprematism under the namesake of "My Dear Malevich".



The installation at the university gallery is shown above. JD Jarvis, Art Critic/Artist and coauthor of Going Digital: The Practice and Vision of Digital Artists states:

"This visual poetry contains the ironic connection between Modernist philosophy which moved visual art from figurative representational pictures of the physical world into an expressive and emotional world of abstraction; and, the digital realm in which the purely abstract unit of one pixel off - one pixel on, has been utilized to reproduce once again, with breath taking accuracy the physical world. Now, Chambers has shown a path by which this tool, which so often serves hyper-reality, is forced to reveal the abstract soul at its very core. Was Malevich thinking in 'pixels' without knowledge of the term and even many

decades before the fact of the technology, which utilizes this basic component? His association with Futurism might account for this sort of metaphysical connection. And, so it is that we have the aspect of this exhibition that straddles a whole century of art. From the earliest beginnings of Modern art to the latest developments in the tools by which the newest works are being made. The ground that is covered is immense, but the time between the two virtually disappears in this exhibit. It seems that with 'My Dear Malevich' it is not a matter of what is old (or new) being new (or old) again; but that what is 'old' and 'new' exists simultaneously. That which is 'gone' is also, at the very same time, ever-present."

During this same time period, Chambers also showed "My Dear Malevich" at the Novosibirsk State Art Museum (as a part of the aniGma-4, Fourth Novosibirsk International Festival of Digital Imaging), Novosibirsk, Russia.



Andrey Martynov, Curator, Novosibirsk State Art Museum states:

"Chambers' Pixelscapes have been exhibited in Novosibirsk and also at the Solovetsky Monastery. He is working with the idea of a small unit or cell of an image, which shows a fantastical world through print and animation. It is a pleasure for us to show 'My Dear Malevich' that stems from the Suprematist traditions of the great Malevich. Kazimir Malevich was a remarkable artist of the 20th century who looked deeply into the philosophical content of images. Chambers uses this same philosophy in his long-term art projects."

Chambers returned to the United States in 2007, and always keeping a mindful eye towards the Cosmos and the International Space Station, as a Technology Applications teacher for an Hispanic charter middle school in Houston, Texas, he involved his students with the NASA educational outreach program, "EarthKAM", enabling them to learn about Earth from the unique perspective of Space. During "EarthKAM" missions, his students were able to request photos of specific locations on Earth from the International Space Station.



His students are seen above working with the "EarthKAM" website to choose their location for the camera on board the International Space Station. The project was initiated by Dr. Sally Ride (America's first woman in Space) in 1995. The "EarthKAM" camera is a permanent payload on board the International Space Station, and it supports approximately four missions annually.

Since Chambers' school was near The Lyndon B. Johnson Space Center (JSC), he was able to involve core groups of students with the Lunar Sample Laboratory Facility to expose them to "Moon rocks" and procedural activities. Each trip to the lab conjured up his memories of his involvement with Project Apollo at the Lunar Receiving Laboratory.



His students are seen above at the Lunar Sample Laboratory Facility looking at and discussing the "Moon rocks". Three samples are seen in the bottom-left photograph. This process/exposure empowered the students to gain more confidence with their education, and it provided career stimulus in STEM.

Chambers was selected ... along with 24 other teachers around the world ... by ISTE (International Society of Technology for Education)/NASA to help develop curriculum for NASA's MMS (Magnetospheric Multiscale) 2014 Mission. He developed and implemented the following curriculum:

DA_NASA_MMS_RYSS (Digital Art_NASA_Magnetospheric Multiscale_Raul Yzaguirre School for Success):

His students participated in a classroom assignment involving GIMP (Photoshop equivalent) photo software and research re: Space weather and NASA's MMS (Magnetospheric Multiscale) 2014 Mission. They were tasked to research the various topics/concepts about Space weather (Sun, Sunspots, solar flares, CMes (Coronal Mass Ejections), solar winds, Earth, Earth's magnetic fields, Earth's magnetosphere, magnetic reconnection, Auroas) as well as NASA's MMS 2014 Mission, and then translate the information in photo software as Digital Art. As a result, greater understanding and retention of the information came to the forefront with acquired skills of manipulating photographs, utilizing the various tools and filters within the software.

This cognitive and creative process placed the students in an environment of hands-on with photo software and the requirement of researching the information (notetaking in Word) to translate it into Digital Art through "knowledge visualization".

A few student examples follow:



Chambers' students then traveled to Dublin, Texas to set up a student workshop to teach their middle/primary school students how to use photo software to make Digital Art as it related to Space weather and NASA's MMS (Magnetospheric Multiscale) 2014 Mission.

Representatives from NASA (MMS 2014 Mission), representatives from ISTE (International Society of Technology for Education), and others tuned into the "Summit Challenge" via Adobe Connect video conferencing to showcase the Digital Art workshop process, and discuss other methods of challenging teachers and students to participate in dynamic curriculum activities for greater understanding and retention of Space weather concepts and the NASA MMS mission approach.

A portion of the student workshop is seen below:



Chambers' students are seen in the maroon shirts teaching the fifth grade class in Dublin, Texas. This student workshop was one of empowerment for all the students. His students felt a sense of pride in being able to teach/transfer skills and information to others via "knowledge visualization".

Chambers continued his personal work in Digital/New Media Art showing in galleries and museums, internationally, and he expanded his approach with Kazimir Malevich's "Black Square" under the namesake of "Black Square Interpretations". He was able to have two major exhibitions in the United States involving "My Dear Malevich" and "Black Square Interpretations":

"My Dear Malevich", "Black Square Interpretations and Other Suprematist Explorations" (two-person show with Max Semakov), CaviArt Gallery, Russian Cultural Center, Houston, Texas, March 6 - April 7, 2015:



Chambers is seen with his hand raised explaining one of his art pieces to the curator. The kinetic component, "Red Sweep Black Square" is seen on the monitor. "My Dear Malevich" is seen on the wall to the right.

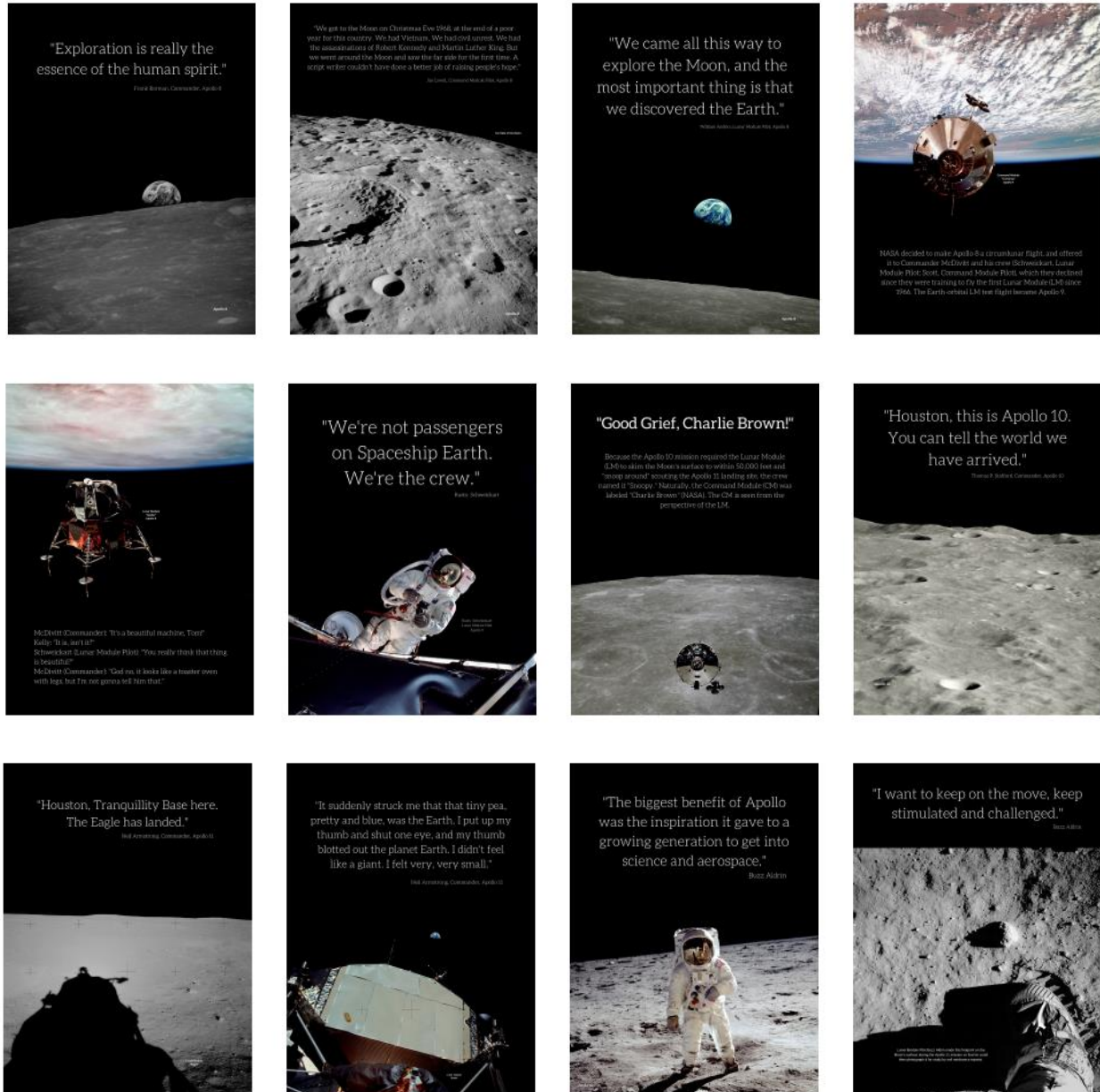
"My Dear Malevich"/"Red Sweep Black Square", "Suprematism Infinity: Reflections, Interpretations, Explorations" (Group Show), Atrium Gallery, Harriman Institute, Columbia University, New York City, New York, U.S.A., December 1, 2015 - January 22, 2016. This exhibition was in conjunction with the "100 Years of Suprematism" conference, Shapiro Center, Columbia University, New York City, December 11 - 12, 2015. (Note: this work was donated to the Russian American Cultural Center [RACC] Art Collection, New York City.)



Chambers is seen center (left) talking with Mark Khidekel, son of Lazar Khidekel who studied with Kazimir Malevich. In the background, "My Dear Malevich" is seen to the left, and "Red Sweep Black Square" is seen to the right.

In October, 2015, high-resolution photos from the NASA Moon missions were added to the Flickr photo database, and Chambers as a photographer, visual artist, educator, and publicist jumped at the chance to edit/enhance the images made by the Apollo astronauts re: poster production for education and Space promotions, not to mention the bringing back of this era of extraordinary, manned, Space exploration.

Chambers has produced an extraordinary series of Apollo posters that excite and motivate. Composite examples follow:




These posters and many others can be accessed at:

[Project Mercury/Gemini/Apollo and Other Posters \(tomrchambers.com\)](http://tomrchambers.com)

In July of 2019, Chambers was invited by the Wings Over the Rockies Air and Space Museum (Denver, Colorado) to give a presentation about his days at the Lunar Receiving Laboratory during Project Apollo as a part of the Apollo 11 50th Anniversary Celebration). The title of his presentation: "Fifty Years Ago at the Lunar Receiving Laboratory:


[PowerPoint Presentation \(tomrchambers.com\)](http://tomrchambers.com)




Catalog Date: 12 September 1969
Film Type: 35mm BW
NASA image: S69-63216

Tom R. Chambers
Landrum Young

NASA





DM, 2016

Team Leader, Landrum Young injects a quail as I assist him. A suspension of saline and Lunar soil ... brought back from the Moon by the Apollo 11 astronauts ... was prepared for the injection. Notice the containment cabinet that we were working in as a part of the Lunar quarantine program.

I am seen in front of the Lunar Receiving Laboratory (Building 37) in 2016. I visited my workplace after 44 years (1972-2016).

Chambers is seen above in 1969 (left photo) and again in 2016 in front of the Lunar Receiving Laboratory (right photo).

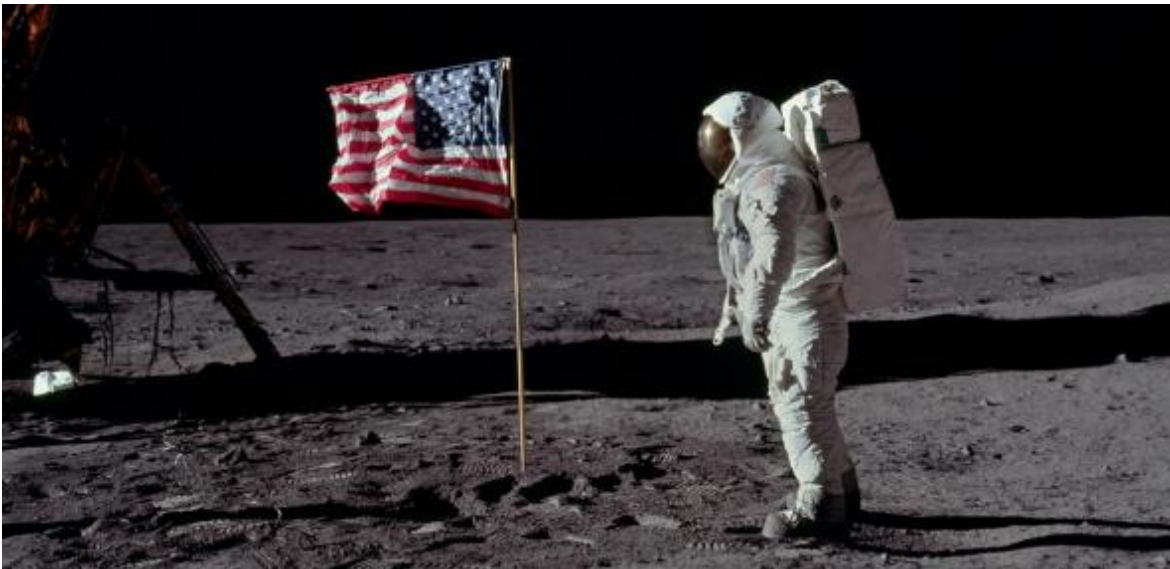
While at the museum, he also taught a full-day workshop as part of their Younger Summer Space Camp:

[apollopalooza summer camp results.pdf \(tomrchambers.com\)](#)

"MY EARTHRISE": LTP (Literacy Through Photography) activity.

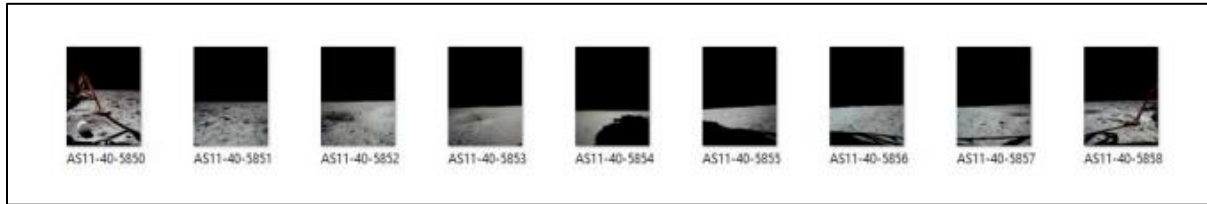
"MY AND ARMSTRONG'S FIRST STEP" (The students vocalized/practiced Armstrong's statement, "That's one small step for [a] man, one giant leap for mankind" together, and then each student came up and recorded his/her voice making the statement.

"MY APOLLO 11" (An iconic Apollo 11 image [AS11-40-5875] was projected, and the students were asked to draw/interpret the image via Crayons/pencils on an art pad.)



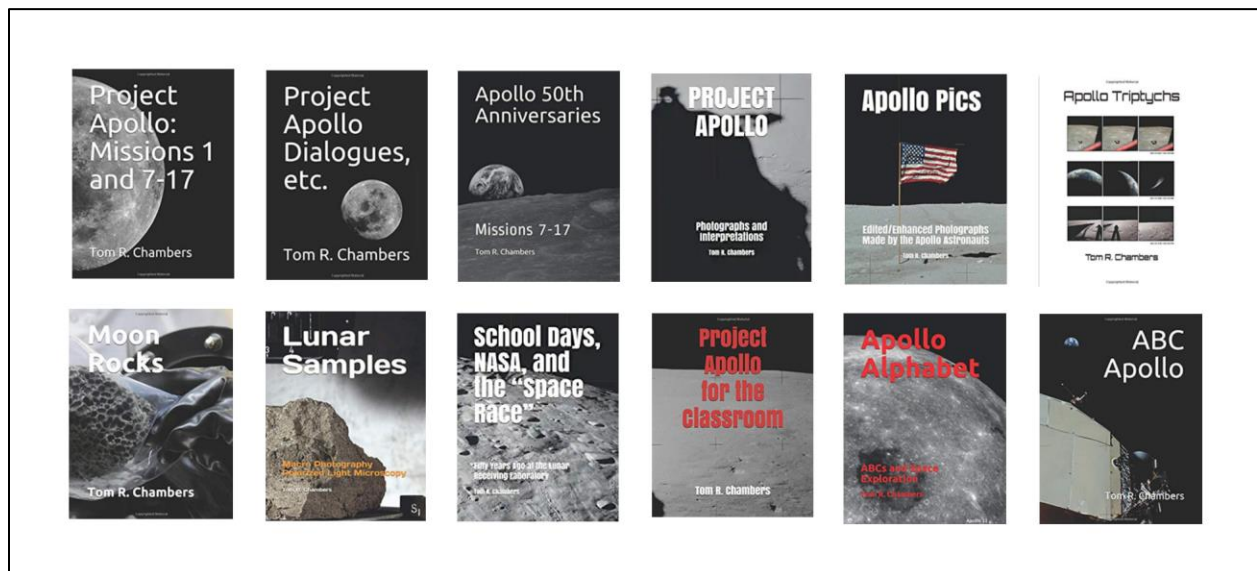
Lunar Module Pilot Buzz Aldrin is seen posing with the American flag [AS11-40-5875].

"MY AND NEIL ARMSTRONG'S PHOTO PAN" (The nine images that comprise this photo pan were printed (11"x14") by the museum's education department, and then affixed to the walls to approximate a 360-degree display. The students were asked to use their cameras/phone cameras to make photographs of Armstrong's images just as he did when standing on the Moon's surface ... one at a time ... approximating the 360-degree approach.)



Thumbnails of Commander Armstrong's photo pan are seen above. He had been on the Lunar surface only eight minutes. He is the first human being to make photographs while standing on another celestial body (Moon).

He has also produced/published numerous books on Amazon re: Project Apollo.



His bibliography can be accessed at:

[Amazon.com: Tom R. Chambers: Books, Biography, Blog, Audiobooks, Kindle](https://www.amazon.com/author/tom-r-chambers)

Today, Chambers continues with his Digital/New Media Art projects focusing on Suprematism, and if chosen as a dearMoon crew member to circumnavigate the Moon, he hopes to “realize” his project proposals:

tomrchambers.photo-art.proposals.dearmoon.mission.pdf

He continues to conceptualize additional projects, particularly those that would help promote Space tourism and Space Science education in the classroom.

PDF documents for perusal:

RESUME:

[CV 2016.pdf \(tomrchambers.com\)](#)

BIO:

[bio 2016.pdf \(tomrchambers.com\)](#)

EXHIBITIONS:

[pers_exhibs 2016.pdf \(tomrchambers.com\)](#)

ED TECH SPEAKER'S PAGE:

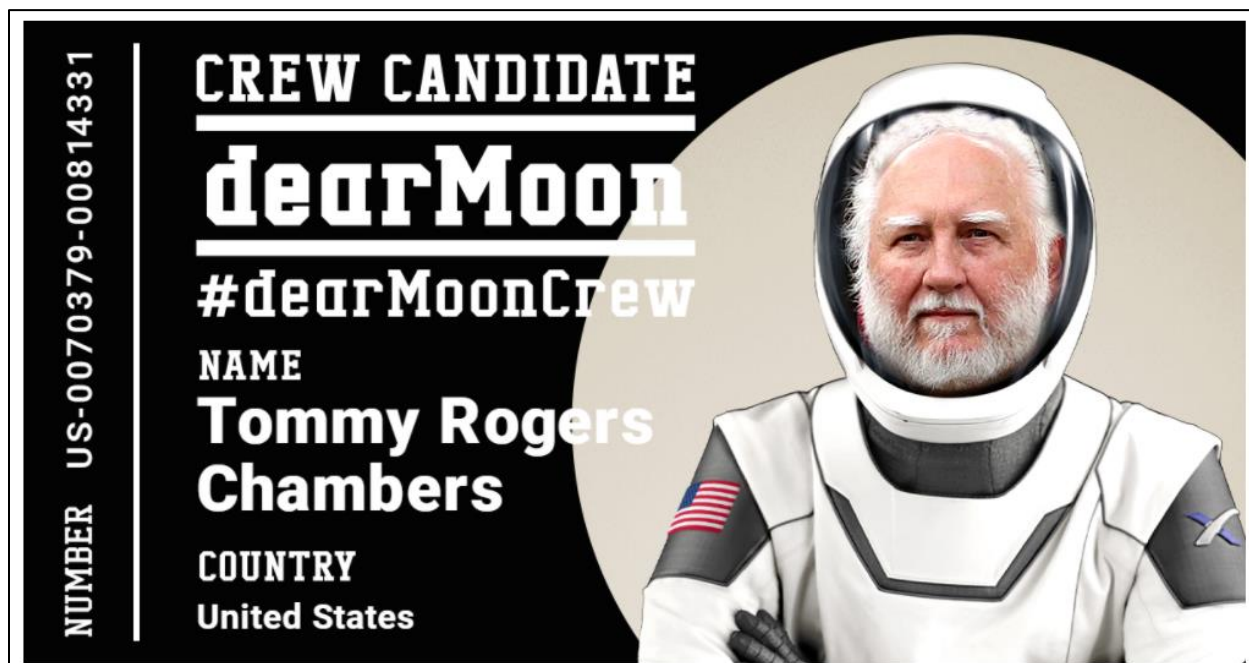
[Tom R. Chambers, Educator \(Technology Applications\) and Speaker](#)

APOLLO/LRL:

[Lunar Receiving Laboratory/Apollopalooza/Links \(tomrchambers.com\)](#)

LOC REFERENCES:

[Reference letter excerpts for Library of Congress Literacy Award Nomination/The David M. Rubenstein Prize \(2013\) \(tomrchambers.com\)](#)



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