

Sherman Wu

1928-2020

Dr. Sherman Shou-Chou Wu passed away on August 22, 2020 at the age of 92 with family members by his side. With his passing, our profession lost a very unique person who was a renowned leader in the field of planetary photogrammetry and topographic mapping. He was an avid supporter of ASPRS and ISPRS and his contributions to the field have had a significant global impact. Dr. Wu's colleagues and friends will miss him greatly.

As background to Dr. Wu's significant scientific achievements, it is of interest to note his humble beginnings in his hometown, a remote village in China accessible only by foot. When he visited, the villagers would welcome their celebrity home with banners and firecrackers in the Chinese tradition. They also prepared a feast to show their respect and to thank him for the roads and schools he built for them. They are currently working to erect a monument in his honor as a beacon of hope to future generations.

From those humble beginnings, Sherman was only able to attend college through a scholarship from a military school, although anyone who knew Sherman knows he didn't fit the model of a military man.

Sherman later attended The Ohio State University for his Ph.D. while Dr. Fred Doyle was Chairman of the Department of Geodetic Sciences. However, he did not complete his dissertation while at Ohio before getting a job with USGS. He completed his dissertation while working and received his Ph.D. from the University of Arizona.

Dr. Wu began his professional career in 1965 with the U.S. Geological Survey (USGS) in the Branch of Astrogeology as a photogrammetrist. For over 30 years he made significant contributions to planetary mapping by engineering a mapping program for NASA which was essential to the planetary exploration program for the Moon, Mars, Venus, Jupiter and their satellites. The topographic maps and products of this program were critical to planning and executing many of NASA's space flight missions including Ranger, Lunar Orbiter, Apollo, Mariner 9, Viking, Voyager, SIR-B and the Magellan radar mission to Venus.

The results of Dr. Wu's research contributions are represented in over 150 published papers in journals and book chapters including the *Encyclopedia of Planetary Science*, the *ASPRS Manual of Photogrammetry*, *Nature*, *International Journal of Solar System Studies*, and chapters of planetary science by Cambridge University, University of Arizona, ASPRS and ISPRS journals, and NASA's Lunar and Planetary Science conference proceedings and special publications. He shared his knowledge and research findings to the planetary community by organizing numerous national and international scientific and technology conferences which also bought



others together to share their research work.

He advanced in his career at the USGS to become the supervisory physical scientist in charge of the Branch of Astrogeology photogrammetry group. He is recognized as one of the world's rare authorities and leader in planetary topographic mapping for which he received the Department of the Interior's Meritorious Service Medal.

Dr. Wu's supervisor and co-workers also contributed their memories of Sherman while at USGS. Dr. Jerry Schaber was the Chief of the Branch of Astrogeology and described Sherman as a good supervisor and one of the best section managers in the Branch. He relied

on Sherman to just get the job done with limited funding through his resourcefulness and professional contacts. Sherman is often fondly called a "wheeler-dealer" or an "operator", meaning that whatever task he undertakes, no matter how difficult or complex, he will find the necessary resources, support, and personnel to achieve it well.

Annie Howington and Jenny Blue who have fond memories of working for Sherman as students recall that he only hired students that made straight A's but also said that he was always looking out for their careers even though they didn't realize it at the time.

The Asteroid (2075) discovered on October 9, 1980 was named after Dr. Wu's (WU) in honor of his unique achievements and contributions in the field of planetary topographic mapping.

Everyone also knew that Sherman would know that he would not let retirement from the USGS be the end for passion for working and learning new technologies. It was no surprise that he soon started working for Bechtel Nevada's Remote Sensing Laboratory where he worked on application of new technologies including Radar, Lidar, and Interferometric Radar (IFSAR) to construction projects. Of course, as always, Sherman was dedicated to his work and he received Bechtel Nevada's Science and Engineering Award in 2002. Laure Ogiela along with other co-workers in Image Science Section of the Remote Sensing Laboratory summarizes Dr. Wu's characteristics as: brilliant, intellectual, resourceful, creative, aggressive, persistent, patient, enthusiastic, passionate, inspirational, likeable, lovable, and a hard worker with a great sense of humor and highly skilled at interpersonal relationships. Others who have come to know Sherman would probably agree. Heather Gledhill, another co-worker, in the Remote Sensing Laboratory describes Sherman as "My Best Teacher and Best Mentor." Dr. Wu can be proud of what he has done for the profession and what he has done for others.

Dr. Wu's career awards and honors also include the ASPRS Fairchild (Photogrammetric) Award in 1992, the ISPRS

Gino Cassinis Award in 2004, and the Outstanding Alumnus Award from the National Defense University's Chung-Cheng Institute of Technology. Dr. Wu believed in the significant value of giving back to his profession and was a career-long member and contributor to both ASPRS and ISPRS.

An ISPRS special conference was held in Urcumchi, China in 2008 to celebrate Dr. Wu's 80th birthday. His colleagues, co-workers, friends and family members were invited to share their thoughts, memories and pictures for this event. The proceedings of this celebration provide a complete picture of Dr. Wu's academic background, his professional career and his contributions and achievements. Moreover, they provide a glimpse of his values and his philosophy on life. Among those who contributed to this event included Dr. Frederick Doyle, Dr. Gottfried Konecny, Dr. John Trinder, Dr. Charles Toth and Larry Fritz. Each of these luminaries in ISPRS acknowledged the significance of Dr. Wu's research and contributions to the field of planetary mapping and considered him as an esteemed scientific colleague. Moreover each of these leaders in ISPRS considered Sherman as a personal friend and described his generosity and give back attitude. He is well known as the ultimate host by his ISPRS colleagues, co-workers and friends. Although Sherman was always very busy with his work, Sherman always made time to contribute significantly to the activities of the ASPRS and ISPRS. When Dr. Wu received the prestigious ISPRS Gino Cassinis Award in 2004 which includes a significant honorarium, he promptly doubled it and donated it to the ISPRS Foundation's Scholarship Fund.

Even while contributing significantly to the photogrammetry and remote sensing profession, Sherman was actively involved in his x children's lives and, just as he pushed himself and his employees towards excellence, he also pushed his children to perform well in school. Even games they played as children had mathematical lessons in it. While his children probably thought it as "Forced learning" because there were no summer vacations for them since Sherman had summer assignments for them. It must have "taken" given all of them have achieved significant academic and professional success. As accomplished adults they now understand the love of their father and the struggles he endured to get his own education. Sherman appreciated the richness (value?) that an education brought to him and he wanted no less for his children. One of his daughter describes "The Seven Axioms of Sherman Wu which was Sherman's philosophical "rulebook" which he believed everyone should live their lives. One phrase he liked very much was, "Imagination is more important than knowledge." Sherman used his imagination to get things done.

And, last but not least, while Sherman enjoyed working and learning new things, he also enjoyed hosting dinners for his friends and family as well as playing blackjack. He is known for his card-counting in Las Vegas casinos but John Rush, Supervisor and Manager, at the Bellagio Casino considered Sherman a friend and welcomed his visits, saying that "Sherman wins a prodigious amount of the time, but is a gentleman win and lose."

So, for all who knew Dr. Sherman Wu, we would agree that he worked hard, played hard, and was respected by all.

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