



The Meinel Partnership and the Founding of the National Observatory

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As we begin to mark the 50th anniversary of the creation of a national observatory for optical astronomy (see related article in June 2008 *NOAO/NSO Newsletter*), we are saddened by the loss of one of the key early figures in the founding of Kitt Peak National Observatory.

Marjorie Pettit Meinel, professional colleague and life partner of Aden Meinel, the first director of Kitt Peak National Observatory, passed away on June 24 in Henderson, Nevada, at age 86. An accomplished scientist and researcher, Marjorie Pettit Meinel was an essential component of the partnership that realized an optical observatory open to all astronomers based on the merit of their scientific ideas.

Marjorie was the daughter of astronomers Hanna Bard Steele Pettit and Edison Pettit, one of the early staff astronomers of Mount Wilson known for his movies and measurements of solar prominences. Marjorie and Aden were born and attended school in Pasadena, CA, where Aden eventually worked for Don Hendrix, chief optician for the Palomar 200-inch and Lick 120-inch telescopes. They first met at Pasadena Junior College in a special 11th grade high school class for gifted students. Marjorie received her BA in astronomy at Pomona College and her MA in astronomy from Claremont College in 1944. During World War II, Marjorie edited manuscripts and reports for the Navy Rocket Project at Caltech, and Aden became a specialist under Willy Fowler in designing and testing rockets. Near the end of the war, he traveled to Europe with others to learn about German developments in rocketry.

After the war, Aden completed a PhD at Berkeley by building a fast high-dispersion spectrograph and showing that the aurorae were due to incoming protons from the Sun through the identification of the airglow lines. Marjorie suspended her own professional career to raise a family that would grow to include seven children, while continuing to support Aden's professional activities.

In the early 1950s, the Meinels were based at Yerkes Observatory and the University of Chicago, where Aden served as associate director for both the Yerkes and McDonald observatories until 1956. In 1957,

Aden was tapped by the NSF to lead the effort to determine the site of the new national optical observatory.

Aden led the scientific search to identify a first-class site for astronomy and worked with the Tohono O'odham Nation (known then as the Papago Tribe) to secure a lease for the observatory. Kitt Peak, known as Iolkam Duag to the O'odham and part of a range of mountains sacred to the O'odham people, was selected in 1958. The Meinels, who had moved to Phoenix from Illinois during the start of the site-testing program, relocated to Tucson and became involved in all the many aspects of launching the new national observatory, with Aden becoming its first director.



Photo courtesy: A. Meinel

Though Aden left Kitt Peak National Observatory in 1961 for the University of Arizona (where he later served as the third director of Steward Observatory and founded the Optical Sciences Center, now the College of Optical Sciences) and the Jet Propulsion Laboratory (where he and Marjorie were Distinguished Visiting Scientists throughout the 1980s and 90s), he left a lasting imprint on what has evolved into the National Optical Astronomy Observatory.

As was the case throughout his professional career, the strength and support of his partner, Marjorie, was a critical part of Aden's success. The Meinels retired from JPL to Santa Barbara and then to Henderson, where Aden has recently been studying cosmic rays that come from somewhere in the northern sky, as evidenced from elements such as 10Be

and 14C in Greenland and Antarctic ice cores.

Marjorie's ashes were distributed in Red Rock Canyon. Her legacy includes her accomplished children, her books with Aden on solar energy, and her multifaceted help to Aden throughout their 64-year marriage. Seldom has a pair of scientists worked together so closely and so well for so long.

We acknowledge the following online articles about the Meinels at SPIE as valuable sources of information for this article: spie.org/x25747.xml and spie.org/x25772.xml?pf=true.