

# THE LOWELL OBSERVER

EXPANDING OUR UNIVERSE

The quarterly newsletter of Lowell Observatory

Issue 99 Special Bill Putnam Edition

## Bill Putnam's Legacy

by Kevin Schindler

In this special issue of *The Observer*, we pay tribute to William Lowell Putnam IV (Bill), who served as trustee of the observatory for 26 years before retiring on his 89th birthday on October 25th, 2013. During Bill's reign as sole trustee, the observatory enhanced its scientific and educational reputation with the additions of new facilities such as the Discovery Channel Telescope (DCT) and Steele Visitor Center. The number of staff increased significantly and income generated through grants, private donations, and endowment growth soared. Thanks to Bill's leadership, the future of the observatory is pointed in the right direction.

Bill Putnam was born in Springfield, Massachusetts on October 25th, 1924, the third of six children born to Roger and Caroline Putnam. While studying geology at Harvard, he volunteered to fight in World War II, enlisting as a private and joining the elite 10th Mountain Division, a specialized ski unit trained to fight in mountainous and arctic conditions. He served in both the Aleutian and Italian campaigns, rising to the rank of first lieutenant along the way. During a skirmish near Castel d'Aiano in the Apennine Mountains of Italy, Putnam was wounded, picking up some shrapnel that remains in his body today. The resulting



Bill stands next to Percival Lowell's 1911 Stevens-Duryea Model "Y" touring car. Years after repurchasing the car and bringing it back to Mars Hill, Bill would bring out "Big Red" for special events such as the groundbreaking of the William Lowell Putnam Library and Collections Center in 2013.

injury earned him a Purple Heart but didn't keep him out of action for long. He was later decorated for gallantry in action, earning both the Silver and Bronze Stars. After the war ended, Putnam went back to Harvard and finished his schooling in geology. He then landed a job in the geology department at Tufts University, the "third person in a two-person department," as he would later recall.

By 1952, Bill was back in Springfield, working at the Greater Springfield Chamber of Commerce. This job didn't last long, as he soon turned his attention to television, founding in 1953 WWLP, Springfield's first TV station and the first licensed UHF television station in the United States. His Springfield Television Corporation would later buy four more stations before Putnam sold the company and retired in 1984.

In addition to many other broadcasting honors, Putnam was inducted into the Broadcasting Hall of Fame in 2001. While making a name for himself in the broadcasting world, Putnam also became prominent in alpinist circles. He made several first ascents and exploratory expeditions in the

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Bill Putnam inspired all of us at Discovery to think big about ways to use new technologies to create a next-generation telescope to advance basic scientific research in astronomy. The result is the Discovery Channel Telescope, which will pioneer new knowledge of the universe for decades to come.

- John Hendricks, Founder and Chairman of Discovery Communications

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## Director's Update

by Jeffrey Hall

I arrived at Lowell Observatory 21 years ago. In those days, we parked in a small lot between the Slipher Building and what was then called the Planetary Research Center. The staff worked principally in those buildings as well as in a small instrument shop up the hill. Near the campus entrance was a small building piled to the rafters with, among other things, a pool table. There was occasional discussion of a larger telescope than the Perkins 1.8-meter; in fact, I remember giving a talk in 1994 with Ted Bowell to our Advisory Board about the science I could do

Bill Putnam is a true force of nature and he has been a father to many on Mars Hill, including me. His insight, foresight and sheer will to make Lowell Observatory a 21st century showpiece of the astronomical community cannot be underestimated. Bill's influence and commitment have reinforced that perseverance and hard work trump a good challenge just about every time!

- Mike Beckage, Chair of Lowell Observatory's Advisory Board

with a 4-meter class instrument.

Today the old parking lot is a set of walkways and a visitor center with a thriving outreach program. The impromptu storage building was upgraded, thanks to John Hendricks, to house the staff that did a marvelous job building the 4-meter Discovery Channel Telescope, and now houses our fundraising and outreach team. The instrument shop is vastly expanded, thanks to our benefactor John Wolff, and our instrument group will soon have finished the complex DCT first light instrument suite.

Lowell has grown radically in the past twenty years and is a fundamentally different place than it was in 1992. This change was spurred by the guidance and determination of Bill Putnam and Bob Millis, to whom Lowell will forever owe its gratitude. It is fitting, following Bill's retirement as trustee, that this issue of the *Observer* celebrates his lifetime of dedication to the observatory. Many thanks, Bill, for everything. 🍷

I met Bill early in my public service career. I was struck by Bill's persona and genuineness. His compassion for Flagstaff and his willingness to invest in our community is apparent in everything he does. Bill brought so much to Flagstaff, not only through Lowell Observatory, but through the countless hours he invested in making our community a better place. You rarely meet individuals as special as Bill, and I feel I lucky to call Bill a mentor and a friend.

- Elizabeth Archuleta, Coconino County Supervisor, District 2



## Trustee's Letter

by W. Lowell Putnam

I want to thank all of you who have spoken or written to me with your best wishes. Taking over the role of sole trustee after Bill is very daunting. Having known three of the prior four trustees since Percival's death almost a century ago, I consider myself both fortunate and a bit overwhelmed to continue the job they have done.

We are living in "interesting times" as the Chinese expression goes, full of both opportunities and risks. I have spent the past few weeks traveling around and

talking with various of our partner institutions and other research organizations around the country to gain from their perspectives. One consistent theme is the high regard and respect that they have for Lowell Observatory. That is due to the ongoing efforts of our scientific staff, our outreach team and the great support provided by the Advisory Board and the Friends of Lowell. I also know that finding those who want to support science and public engagement is key to our growth going forward. To that end I would ask all of you to be "ambassadors" for the Observatory and the work we do. If you find people who like what we do and have done, please encourage them to visit us, in person or online and be part of building the future.

I look forward to working with all of you to make this place continue to be the gem of an institution we are all so proud to be part of.

Thank you,

W. Lowell Putnam 🍷

# My Boss, Bill Putnam

by Bob Millis, Director Emeritus

When Bill became trustee, almost none of us at Lowell had ever met him. He quickly made it clear that he intended to be an agent of change. He told us he wanted Lowell Observatory to do astronomy in the public interest. We weren't sure what that meant. He told us he wanted us to get over the mindset of institutional poverty. Indeed, we all had come to believe that unflinching fiscal caution was essential and perhaps the effects of that mindset were evident in the condition of our buildings and grounds. And, finally, Bill wanted us to develop a plan to take Lowell to the next level. He had no interest in simply preserving the status quo.

Jay Gallagher, who was director of Lowell when Bill became trustee, stepped down after a couple of years to take a new job in Washington, DC. I became, first, acting director, and then, after a national search, Bill chose me to be the permanent director. Thus began a 20-year close working relationship that saw very substantial growth in the size of the staff (and budget!); major new facilities on the Lowell campus, at Anderson Mesa, and at Happy Jack; and, I dare say, significant enhancement of the observatory's scientific reputation.

As my boss, Bill was steadfast in his support. I remember him telling me early in my tenure as director that if I ever needed to, I could hide behind him. He meant, of course, if I had to make a particularly unpopular decision at some point, I could attribute it to him in order not to harm my own standing with the staff. (I never chose to do that, but it was comforting to know he was prepared to run interference.) Bill also was frequently embarrassingly effusive in his public praise of me. I once told him that as long as he kept believing those things and I didn't start, we would get along fine!

Secondly, Bill was an enabler. He was fully prepared to spend money from the Lowell endowment and to take chances to get us where we wanted to go as an institution. Invest and take chances we did.



Bob Millis (center) listens as Bill (right) speaks at the grand opening of the Steele Visitor Center in 1994. The construction of the visitor center was the first of several capital projects completed during Bill's tenure. The new facility featured a 125-seat auditorium, hands-on exhibit hall, and gift shop. Since the visitor center opened, more than one million people have visited the observatory to learn about the universe and gaze at the dark skies of Flagstaff.

Sometimes, I was afraid we had gone too far, but Bill never wavered.

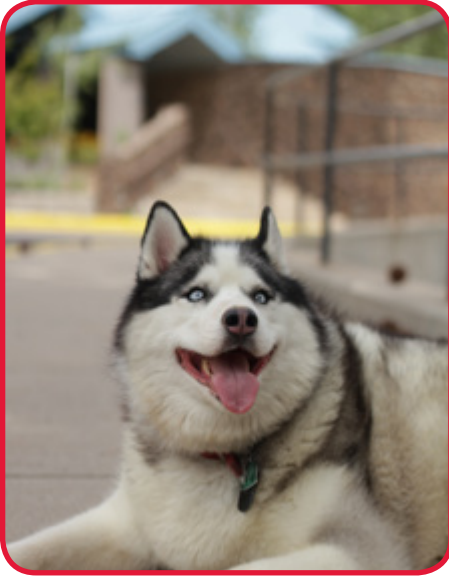
Finally, Bill was an active helper. He worked to make Lowell a better place. He was prepared to spend any amount of his own time and no small amount of his own resources to help us succeed. Bill and Kitty transformed the social life of the Observatory and in the process built valuable relationships with the Flagstaff community, members of the advisory board, and others who ultimately were helpful to the Observatory.

Lest you think all was sweetness and light in my relationship with Mr. Putnam,

he and I would both admit we had our occasional ups and downs. In his personal crusade to beautify the Lowell campus, I would sometimes get my nose out of joint when a tree disappeared that I didn't know needed removing or when his exuberant exploits with Kathy, the observatory's backhoe, scared the hell out of me. No doubt (or at least I hope) I gave him an equal number of spells of elevated blood pressure. But, overall, Bill and I made a good team, I think. We always knew we were working for the same goal – a stronger and ever better Lowell Observatory. 🍷

There are so many reasons to honor Bill and to thank him. Not only for his stewardship of the observatory – a source of important research and civic participation – but also for his commitment to learning, his appreciation of the great outdoors, and especially his service to our country. As Arizona's only member of the House Veterans' Affairs Committee, I thank Bill for his brave leadership during World War II, where he was a decorated officer in the 10th Mountain Division and led the first Allied unit into a critical region of northern Italy. Over the years, Bill's selfless actions have made a difference in the lives of countless others.

- Congresswoman Ann Kirkpatrick



(Left) Bill's trusty Siberian Husky, Lena. (Right) Bill and Kitty in front of the Discovery Channel Telescope's primary mirror at U of A's mirror lab.

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Selkirk Mountains of British Columbia, establishing himself as a distinguished American climber. He served as president of the American Alpine Club and vice president and councilmember of the International Mountaineering and Climbing Federation (UIAA). He also was the U.S. delegate to the UIAA for 30 years. In 2002, an alpine hut in the Selkirk Mountains was renamed the Bill Putnam Hut in his honor.

Always with an opinion or thought, Bill took up writing years ago and has authored books about topics as diverse as mountain climbing, Lowell Observatory history, his wartime adventures, his recollections of the early days of WWLP, railroads, merchant ships of World War I, and freedom of the press.

From decorated soldier to groundbreaking broadcaster to fearless mountain climber, Bill lived the equivalent of several lives during his first sixty years. But he wasn't done...

## The Lowell Years

After retiring from broadcasting, Bill Putnam, man of action, was not about to sit around during the twilight of life. He soon assumed a new challenge, one that he took very seriously and into which he put all of his energy and resources. His brother Michael was ready to step down as trustee of Lowell Observatory and Bill gladly jumped into the position, one that he would hold for 26 years.

As examples of Bill's contributions to the observatory, we need only look at the fundamental nature of the institution. Lowell Observatory is a unique fusion of current cutting edge research, past cutting edge research (which we put into the category of "history"; if you keep doing something long enough you build a strong legacy) and outreach. During Bill's 2½-decade stretch as trustee, he addressed each of these areas and ensured future success in each by promoting capital improvements.

The first of these came soon after Bill took over as trustee with his decision that the observatory should make itself better known to the general public and expand its outreach efforts. Since the days of Percival Lowell, the observatory held an open stance toward visitation, offering tours and telescope viewing to interested parties. However, these efforts were on a very small scale, reaching hundreds to thousands of visitors per year. Bill realized that with a new visitor center, the observatory could vastly increase its visitorship and general public awareness. As a result, the Steele Visitor Center was opened in 1994 and visitation now reaches 75,000 to 85,000 per year.

Bill's most important contribution to the observatory was his leadership in securing the new research telescope that would help keep Lowell astronomers at the forefront of research. When then-director Bob Millis and others pointed out in the early 1990s that Lowell was falling behind other observatories that were building larger and much more

technologically advanced instruments than we had, Bill listened. By 2004, plans were being drawn up and, thanks to a partnership with the Discovery Channel, the project moved ahead. In 2013, the Discovery Channel Telescope, the fifth largest telescope in the continental U.S., saw first light.

The third major component of the observatory, history, had always been of interest to Bill. He has written several books about Lowell's history and took his role as family steward very seriously. In one of his final significant acts as trustee, he guaranteed the construction of a new collection center that will properly house the observatory's rich array of archives and artifacts, including manuscripts, letters, books, instruments, and some 32,000 photographic glass plates. This new facility will be completed soon and dedicated in June 2014.

While Bill focused on the betterment of the observatory, he also believed that the observatory should always be an active member of the local community. He thus contributed both time and money to local causes, including the Flagstaff Symphony Orchestra, United Way of Northern Arizona, and the Flagstaff Festival of Science. Because of his long record of philanthropy in the community, he was honored with the Viola Legacy Award in 2013, given annually to a citizen for a lifetime of contributions to the arts and/or sciences in the Flagstaff area. 📍

# Kitty Putnam

## 1916 - 2014

by Kevin Schindler

**K**itty Putnam – Grand Dame of Mars Hill, gracious friend to all who knew her, hostess extraordinaire, and loving wife of Bill – passed away on January 5th at the age of 97. In this special issue of the *Observer* dedicated to Bill Putnam, we also pay tribute to his partner in business and life, Kathryn (“Kitty”) Elizabeth Putnam.

Kitty was born in Pittsburgh on February 5, 1916 to Francis and Florence (Morgan) Flynn. After attending Carnegie Mellon College and the University of Pittsburgh, she married Paul Weidner and in 1942 moved to Springfield, Massachusetts. She enjoyed a modeling career and participated in several amateur plays before marrying Paul Broman in 1952 and landing a job as secretary/receptionist at the Greater Springfield Chamber of Commerce. Here she would meet the Chamber’s manager of the Merchant’s Bureau, Bill Putnam.

Bill soon left the Chamber to launch a new TV station and Kitty joined him to help get the project off the ground. The FCC awarded a license in 1952 and the programming on WWLP, Channel 22 – the first licensed UHF television station in the United States – aired the following year. Kitty initially carried out clerical duties but, one day when the hostess of the daytime lifestyle program didn’t show up for work, Kitty temporarily stepped in to host the show; she would go on to hold this position for three decades.

During the years spanning 1953 to 1984, Kitty Broman became a household name and local legend in western Massachusetts while hosting “At Home with Kitty” and later, “Kitty Today”. She interviewed thousands of local politicians, business people, school groups, sports personalities, chefs, fashion designers, authors, and visiting celebrities. Guests on her show over the years included Senator Edward Kennedy, conductor Arthur Fiedler, singer Robert Goulet, Massachusetts Governors Volpe, Sargent, Peabody, Dukakis and King, and painter Norman Rockwell. In later years, Kitty often told the story of interviewing a young and very soft-spoken Jacqueline Kennedy in the mid-1950s.

Kitty was also known for television



*Kitty was an astute business woman, gracious hostess, and generous supporter of community activities. During her three-decade-long TV career (top right), she was a welcome face in people’s living rooms. Years later, faithful watchers would stop her on the street and reminisce about her shows. Eventually, Kitty and Bill (bottom left) served as the first family of Mars Hill, hosting various banquets, fundraisers, and celebrations for staff members and the community at large. Even as Kitty advanced well into her nineties (top left), she remained a vivacious spirit and consummate hostess, always quick to tell a story, refill an empty dinner plate, or scold Bill because of some nefarious act by Lena, Bill’s faithful dog and unofficial mascot of Lowell Observatory.*



coverage of annual local events, including the Holyoke Saint Patrick’s Day Parade, the Eastern States Exposition (the Big E), Storrowton Theater, and her own annual luncheon to raise funds for local non-profit services, notably the Western Massachusetts Mental Health Association.

She was a genuine trailblazer for women in radio and television. Her many accomplishments included being the first woman elected to the television board of the National Association of Broadcasters and president of the Springfield Television Corporation. She won the McCall’s “Golden Mike” award for special programming and served as president of the New England Chapter of the American Women in Radio and Television.

Well-known in western Massachusetts for her support of local social service organizations, Kitty served as president of the Carew Hill Girls Club, president of the

Springfield Public Forum, general chairman of the Tip-Off Classic, trustee of Bay Path College, and trustee of Springfield Technical Community College. She was also a recipient of the William Pynchon Award from the Springfield Advertising Club.

In 1999, Kitty married her longtime business partner Bill and together they served as the first family of Mars Hill, hosting annual Lobsterfest parties and board dinners, as well as tea socials for Lowell Observatory staff and events for local groups such as United Way of Northern Arizona and the Flagstaff Symphony Orchestra.

Though Kitty stood just five feet tall, she was a giant in all other aspects of life and got the most out of her 97-plus years, entertaining generations of TV viewers, leading the charge on countless social and philanthropic efforts, inspiring businesswomen of her own and later generations, and raising four children along the way. 🍷

# The Putnam Family and Lowell Observatory

by Kevin Schindler

The Putnam and Lowell families have been linked for generations, and these close familial ties transcend into the operations of Lowell Observatory. In the mid-1880s, the Augustus Lowell family, including eldest son Percival, retained William Lowell Putnam II (1861-1924) to manage a large segment of the family's financial concerns. Putnam, an 1882 graduate of Harvard, was a lawyer, banker, and Percival's third cousin. He was a fifth-generation descendant of Colonel David Putnam, brother of American Revolution hero General Israel Putnam.

In 1888, William married Percival's sister Elizabeth while continuing to handle many of the family's business affairs. When Percival established his observatory in 1894, he retained Putnam to manage related legal matters. From 1897 to 1901, Percival took a leave of absence from his astronomical pursuits due to nervous exhaustion. Putnam stepped in to handle large-scale business decisions of the observatory, leaving the management of day-to-day operations in the hands of director pro tem Andrew Douglass.

In 1913, Lowell executed his will,

Bill's contributions to Lowell Observatory were of great significance to Lowell's success and to Arizona's preeminent place in astronomical research and education. Arizona would not be the same without Lowell and Lowell likely would not exist without Bill.

- Janet Napolitano, President of the University of California System, Former US Secretary of State, and Governor of Arizona



The role of trustee has traditionally been handed down through the Lowell-Putnam family as outlined in Percival Lowell's will. After 26 years as the observatory's trustee Bill retired on his birthday in October 2013, handing over control to his son Lowell Putnam. Bill and Lowell are pictured here at Bill's retirement party in front of Percival Lowell's portrait in the Rotunda Museum. Lowell Putnam is the observatory's fifth trustee since Percival's death.

stipulating, among other things, his vision for the future management of the observatory. He formally recognized the position of a single trustee, following the example of the Lowell Institute, founded in 1839 by Percival's great uncle John Lowell, Jr.

*"...all the rest and residue of my property I give to my brother-in-law, William Lowell Putnam, to be held subject to the provisions hereinafter made for my wife, in trust for the Lowell Observatory. Ten percent of the net income shall be added yearly to the principal, and the balance of the net income shall be used for carrying on the study of Astronomy, and especially the study of the Solar System and its evolution...*

*The trustee shall also have full control of the management of the trust and shall have power to appoint, select and discharge the director and all other employees and agents of the Observatory...*

*Each trustee shall appoint his own successor...*

*In selecting a successor, I hope that preference will be given to a male descendant of my immediate family if a suitable one exists."*

In a modification made only a week after he executed the will, Lowell designated his third cousin and college friend, Harcourt Amory, Jr., to replace William Lowell Putnam II as trustee. Several months later, a codicil designated Percival's eldest nephew, George Putnam,

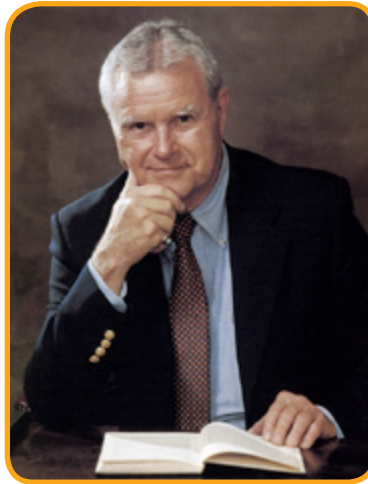
as trustee in place of Amory.

Largely due to the aggressive efforts of Percival's widow Constance to take control of the observatory upon Percival's death in 1916 — an effort that would drag on for 10 years and compromise the financial stability of the organization — neither Amory nor Putnam would become the observatory's first trustee. Instead, Percival's third cousin, Guy Lowell (1870-1927) took on the role.

Guy attended Harvard and MIT and later graduated from the Ecole des Beaux-Arts at Paris, studying architecture. In 1898 he married Henrietta Sargent, daughter of botanist Charles Sprague Sargent, first director of Harvard's Arnold Arboretum (Percival was an amateur botanist and sent many specimens of plants from Arizona to Sargent, one of which was a new species of ash tree that Sargent named *Fraxinus lowellii* in Percival's honor. One of these trees lives today between Percival's mausoleum and the Clark Telescope dome on Mars Hill).

Guy became a well-known architect who designed such facilities as the Quadrangle of Radcliffe College, Boston Museum of Fine Arts, the New York State Supreme Court building and the Slipper Building at Lowell Observatory.

Constance originally encouraged Guy to become trustee because she thought she could dominate him, but he proved to be a worthy adversary. In fact,



*(Left) Roger Lowell Putnam, former trustee and father of Bill Putnam. (Above) Michael C.J. Putnam, former trustee and younger brother of Bill. Between them they oversaw the observatory for a combined 60 years.*

Guy spent most of his time as trustee wrapped up in the decade-long fight with Constance for control of the observatory. During this time, Guy tried to maintain some semblance of normal scientific pursuits for the observatory and had the idea of recommending Percival's search for a trans-Neptunian planet. In 1925, he purchased (with his own funds) three unfinished pieces of glass from the estate of optical craftsman Reverend Joel Metcalf of Massachusetts. This glass would later be used to build the 13-inch photographic triplet instrument that Clyde Tombaugh used to discover Pluto.

Guy's tenure as trustee ended abruptly with his untimely death from a stroke in 1927. Seven years earlier, in a codicil to his will, Guy had designated Roger Lowell Putnam (1893-1972), second son of William Lowell Putnam II and nephew of Percival Lowell, as the next trustee. Roger took to the role quickly and would serve as trustee for the next four decades.

Roger Putnam graduated magna cum laude from Harvard in 1916 with a degree in mathematics (just like his Uncle Percy had done exactly 40 years prior). His studies in mechanical engineering at MIT were interrupted by the United States' entry into World War I. After serving in the Navy during the war, he married Caroline Jenkins, a social activist who would go on to earn 12 honorary

doctoral degrees for her contributions to social issues. The couple had six children, including future observatory trustees Michael and Bill.

During his tenure as trustee, Roger also served as the mayor of Springfield, Massachusetts and earned political appointments as deputy director of the Office of Contract Settlement under Franklin Roosevelt and director of the Economic Stabilization Administration under Harry Truman. In his successful business, Roger served as president and later chairman of the board of the Package Machinery Company and helped son Bill establish TV station WWLP in 1952.

The list of Roger's contributions to the success and growth of the observatory is impressive. After clearing up the remnants of the decade-old struggle for control of the observatory between Constance and Guy, he worked with Lowell staff to push forth with a new search for Percival's Planet X. By securing funds from his uncle (and Percival's younger brother) Abbott Lawrence Lowell, Roger enabled the construction of the 13-inch telescope that Clyde Tombaugh would later use to discover Pluto.

During Roger's tenure, the observatory acquired several other important research instruments, including the 69-inch (later converted to 72-inch) Perkins Telescope, 42-inch Hall Telescope,

24-inch Morgan reflector, and 20-inch Morgan refractor used for moon mapping. The observatory also successfully campaigned for Flagstaff's first lighting ordinance and established the dark sky research facility at Anderson Mesa. Lowell also supported the American space program by hosting a major moon-mapping effort and building the Planetary Research Center.

The observatory, under Roger's direction, began securing research funds from government and other outside sources, helping to reinvigorate research programs that had in many cases grown stagnant due to limited funds.

As Roger lived into his seventh decade, he decided the time had come to turn the reins over to his youngest child, Michael. In 1967, Michael Courtney Jenkins Putnam (1933-) took over as third trustee of the observatory. Michael earned his Ph.D. from Harvard in 1959 and, after teaching at Smith College for a year, moved to Brown University. A classicist specializing in Latin literature, Michael was a professor of classics and literature for nearly five decades, retiring in 2008.

Michael served as trustee of Lowell from 1967 until 1987, overseeing operations during a period of unprecedented funding for research thanks to the space race. He came on board as the country escalated exploration of the moon and solar system beyond, efforts that included contributions from most Lowell astronomers and often took advantage of the observations made with unmanned spacecraft such as Mariner, Viking, Pioneer, and Voyager. During Michael's tenure, Lowell also established itself as a leader in occultation studies, with Lowell scientists serving on teams that famously discovered the rings of Uranus and atmosphere of Pluto.

In 1987, Michael turned the reins of the Observatory over to his younger brother Bill, who had retired from his career in broadcasting. Bill served as trustee until 2013 and his contributions are listed on page eight of this newsletter. Bill's son, William Lowell Putnam IV (Lowell), now carries the baton, creating his own legacy and continuing the Putnam clan's long tradition of leadership at Uncle Percy's observatory. 📍

## Highlights of Bill's Tenure as Trustee

- Served as sole trustee for 26 years, second longest tenure behind his father (40 years).
- Advisory Board established. This board consists of distinguished astronomers, business people, and other advisors who help guide the operations of the observatory.
- Friends membership program established.
- Modern visitor program established, highlighted by construction of 6500-square-foot Steele Visitor Center.
- Scientific staff size increased, growing to as large as 20.
- Local dark skies ordinances enhanced and Flagstaff recognized as First International Dark Sky City. Bill contributed both leadership and personal donations to this effort.
- The Discovery Channel Telescope, the fifth largest telescope in the continental U.S., is envisioned, designed, funded, constructed, and now being operated by scientists at Lowell and our partner institutions. This was a \$53 million project.
- Navy Precision Optical Interferometer envisioned, funded, constructed, and now being operated, made possible by new partnerships with the U.S. Naval Observatory and Naval Research Laboratory.
- New archive building envisioned and funded, with ground breaking in 2013.
- Lowell's grounds beautified with stone walls, gardens, and educational walkways.
- Observatory visited by approximately 1.5 million guests.
- Significantly expanded financial resources of observatory, through both astute management of the observatory's endowment and procurement of previously limited private sector donations.



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