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Looking Back at the Observatory to the Stars

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BLOOMINGTON, Ill. – At this year's Illinois Wesleyan University Homecoming alumni will gather to mark the 40th anniversary of students peering toward the heavens from the Mark Evans Observatory. Tours of the observatory will be from 9-11 a.m. on Saturday, Oct. 9, with a reception at 4:30 p.m. in the Commons of the Center for Natural Science Learning and Research (CNS) (201 E. Beecher St., Bloomington).

When it was completed in 1970, the Mark Evans Observatory – like space exploration itself – offered hope in a turbulent time. Even the building of the observatory brought excitement to campus. In March of 1969, Col. Frank Borman, commander of the Apollo 8 space mission, arrived on campus for Founders' Day to lay the cornerstone of the observatory and receive an honorary degree.

"He piloted his own jet into Bloomington," then-University President Robert S. Eckley recalled in his memoir, *Pictures at an Exhibition: Illinois Wesleyan University: 1968-1986*. "He generated more interest and excitement than any other visitor to the campus during my years at Wesleyan." Though he was not the main speaker for Founders' Day, Eckley noted that Borman, "captivated the audience and the campus," by offering a message of hope during a time when racial tension and war gripped the nation. "For a man who just returned from circling the moon, nothing was impossible," wrote Eckley.

The same impetus that pushed Borman to the stars also inspired the construction of the Evans Observatory. Emeritus Associate Professor of Physics Ray Wilson came to Illinois Wesleyan in 1962, five years after the launching of the Soviet "Sputnik" satellite that kicked off the race into space between the United States and the Soviet Union. "I was about to go and get my doctorate at the University of Arizona," said Wilson, "and I remember President [Lloyd] Bertholf looking at me and saying, 'Well, I guess we need to get the observatory working again.'"

Illinois Wesleyan had been home to an observatory since 1894, when University friend C.A. Behr donated an 18.5-inch telescope crafted by an Englishman named George Calver. At the time, it was one the largest telescopes in the United States and rivaled many of the largest in Europe. The small decagon-shaped building housing the telescope served the students who studied the stars until plans were made to move the building in the 1950s to make way for the construction of Shaw Hall. "It was small enough to move with a crane," said Wilson. When the time came, movers hoisted the entire building off the ground, thinking the telescope had been secured. It had not. "The telescope was destroyed, all except the mirror," he said.

By the 1960s, the space race had launched more than rockets. Students flooded into astronomy classes with renewed interest in the science of space. "There was a time when I was teaching classes of 120 in the auditorium of Sherff Science Hall," said Emeritus Associate Professor of Physics Lew Detweiler, who joined Illinois Wesleyan in the fall of 1968. President Bertholf knew a new observatory was needed, and physics instructors on campus set to the task of rebuilding the telescope with student Barry Beaman '65, using the original mirror. "It was quite a sight," said Detweiler. "Of course, you needed a ladder to reach the eye piece because it was so tall."

Funding for the new observatory came from a combination of University funds, a grant from the U.S. Department of Health, Education and Welfare, and the wife of a late Illinois Wesleyan trustee, Nan Morgan Evans. She wanted the observatory named in honor of her husband Mark Evans, a member of the

Board of Trustees from 1917-1936. She donated nearly $30,000 for the construction of the observatory, or about one third of the final cost.

When it came to locating an architect for the observatory, the University looked to Mark Evans' son, J. Orme Evans. The younger Evans originally designed the telescope base to rest on a pyramid shape that would descend into the lower floors of the three-story observatory. Later, a consultant suggested creating a column instead of a pyramid, noting it would be similar to those used on interstate overpasses. The column would be anchored into the ground under the observatory.

Walking into the first floor of the observatory today, one can see a large block of bricks that surrounded that very column. "Takes up a lot of space, doesn't it?" said Detweiler, knocking lightly on the dark brick. "It wasn't supposed to be this big around." At one point during construction, Detweiler and Physics Department Chair Gary Kessler brought a small telescope to the observatory to test the steadiness of the column. "What bothered us was not so much that it wobbled, but that it *continued* to wobble like a pendulum for about a minute," he said, waving his hand slowly back and forth to show the movement.

As it turned out, the consultant and the construction crew had not communicated fully, said Detweiler, leading the crew to construct a column *exactly* like an interstate overpass, complete with the flexibility to absorb constant shocks. "Movement on a highway overpass, good. Movement for a telescope, not so good," said Detweiler with a smile. The remedy came with pouring more concrete around the column, expanding the width of the bottom by six feet.

Truly secure this time, the observatory opened for classes in the fall of 1970, and at times has served as a classroom, a research area, and an office for the chair of the physics department. Wilson and Detweiler have seen the fluctuation in class sizes over the years, from 120 students each semester during the height of the space race, to a much more personal 20 students today.

A year after the observatory opened, instructors were dismayed that John Calver's mirror from 1894 was finally seeing wear. "There is a precision process to creating a mirror for a telescope," said Wilson. "Temperature changes can affect it over time, and slowly render it useless." The department applied for a grant from the College Science Improvement Program (COSIP). The grant, coupled with funds from the University enabled the purchase of a new Ealing 16-inch telescope for around $16,500 in 1971.

The Ealing telescope stands in the dome of the Mark Evans Observatory today to be used by current classes studying astronomy. According to Detweiler, the draw to see the stars will continue, even though more detailed views are available with the click of a button. "These days students can see the view from advanced telescopes around the world via the Internet," he said. "Yet students still like to look at something live. Even with the gorgeous images they can get online, seeing it through a telescope just seems more real."

For additional information on the Homecoming celebrations, visit the Titan Pride website, or call the Alumni Office at (309) 556-3251.

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