

504 499

# A glimpse of DuPage as we peer

When the shuttle "Discovery" places the Hubble Space Telescope in orbit, a little bit of Wheaton will be on board.

The billion-dollar plus space telescope will allow astronomers to see farther and more clearly than ever before. It is expected to give mankind revolutionary new insights into the nature of the universe. The device is named for a man who attended public school in Wheaton, astronomer Edwin P. Hubble.

Without the discoveries of this man, who grew up in the same small rural DuPage town where Grote Reber invented and built the world's first radio telescope, this astronomy spectacular would not likely be possible.

Edwin Hubble was born Nov. 20, 1889 in Marshfield, Mo., the third of seven children born to Mr. and Mrs. John Hubble. His father was a lawyer and broker who was transferred to the Chicago office of his fire insurance firm.

The family first went to Evanston, but two years later moved to Wheaton, where the train service took John Hubble closer to his office in the city. At the time, Wheaton had a population of less than 4,000.

The family lived on the 200 block of Franklin Street. Young Edwin attended school in the Old Red Castle (now Longfellow School) for seventh-grade through high school.

In the Hubble and Reber years, both elementary and high school education was available in the Old Red Castle, although the two schools occupied different areas of the building. Hubble went to school there for a longer period of time than he spent anywhere else, including the University of Chicago where he did both his graduate and undergraduate work, or Oxford University, England, where he was the Rhodes Scholar from Illinois.

Young Edwin graduated from Wheaton High School in the spring of 1906. A picture of the class, though not the original copy, hangs in the principal's office at Wheaton Central High School. Hubble was nearly the tallest member of



Richard Crabb  
Overview

the class. In these early years, he gave no hint that he would become a world-famous astronomer. Instead, it appeared that his career might lie in the field of sports.

He was the star athlete of Wheaton High School during his junior and senior years, taking part in six sports: football, high jump, broad jump, shot put, discus, and relay team. At an interscholastic track meet held at Northwestern University in the spring of 1905, he won the high jump event at six feet and one-fourth inches.

Football was his favorite sport, but his mother exacted a promise from him that if he went to the University of Chicago, he would not go out for that sport. What a fullback he would have made for the young Chicago coach, Alonzo Stagg!

Scholastically and in sports, Hubble was always handicapped by the fact that he was one and sometimes two years younger than the other members of his class. His grades at Wheaton High School tended to be in the B range, but he was offered a scholarship to the then 14-year-old University of Chicago.

Entering the University as a 16-year-old freshman, Hubble again devoted much of his time to sports. He won letters in both basketball and track, and in his junior and senior years was a mainstay of two championship teams. When he was a junior, Chicago was national track champion and the next year the school's basketball team won the Big Ten Championship.

Hubble was not always a model

citizen on the Midway campus. A member of Kappa Sigma fraternity, on one occasion he and some fraternity brothers were publicly censured for throwing raw eggs from their upstairs windows at the black-clad divinity students passing below.

But the next year, as a junior, he was appointed one of the university marshalls to guide the senior class at the graduation ceremonies. In his senior year he was vice president of his class.

During his senior year he took the competitive examination and won the right to represent Illinois as a Rhodes Scholar. In October 1910 he went to England to attend Queens College at Oxford.

His passion for sports did not subside at Oxford. He was awarded a "blue" for track events that included quarter-mile to mile races, the high jump, broad jump, shot put, hammer throw, and swimming. He had also taken up boxing seriously and he attracted so much attention that he boxed in an exhibition match with the French champion, George Carpentier. A promoter even proposed to him that he train and challenge Jack Johnson, the world champion.

Hubble stayed at Oxford a total of three years and traveled extensively in Europe during vacations. He returned to the United States in 1913 and set up a law office in Kentucky. After one year, he decided the law was not for him.

He taught Spanish and physics at the high school at New Albany, Ind., for a year where he was also basketball coach and took his team to the state finals. But teaching was not his cup of tea, either.

He returned to the University of Chicago to do graduate work and his career in astronomy took root. His doctorate dissertation was based on observations he made at the university's Yerkes telescope at Lake Geneva, Wisc. In 1917, when America entered World War I he enlisted in the Army and did not leave the Army of Occupation until 1919.

Before he left for Europe, Hub-

WHEATON - BIOGRAPHY - HUBBLE  
REF. OFF. DO NOT CIRC

# toward the edge of universe

**Without the discoveries of Edwin Hubble, who grew up in the same small DuPage town where Grote Reber invented and built the world's first radio telescope, this astronomy spectacular of April 1990 would not have been possible.**



ble had met George Hale, director of the Mount Wilson Observatory at Pasadena, Calif. Hale was so impressed with Hubble's observations with the Yerkes telescope that he offered him a job at Pasadena when he returned from Europe.

In 1919 Hubble went to Pasadena. At that moment, one of the great strokes of good fortune in his career occurred. The Mount Wilson Observatory was just taking delivery of its new Hooker 100-inch telescope, the largest in the world.

During the next five years, using observation techniques he had developed at the University of Chicago, Hubble pushed the Hooker telescope to its absolute limits, and in 1924 he announced a discovery that stunned the world of astronomy.

Until this announcement, the Milky Way was believed to be the outer limits of the universe.

To a degree, the Hubble Space Telescope takes up where Hubble, working with the Hooker telescope, was forced to leave off. The Associated Press this past week says, "It will enable astronomers to study stars and galaxies so distant that their light has been traveling toward Earth for a billion light years. It will be capable of detecting objects 50 times fainter and with ten times greater clarity than the best ground-based telescopes."

Begun in 1977, the new space telescope costs \$1.5 billion, is 43 feet long and weighs 24,500

pounds. It will be placed in orbit 380 miles above the Earth. It can be serviced and repaired without leaving its orbit and can be returned to Earth for a major overhaul if need be.

Astronomers believe the Hubble space telescope will achieve three long-sought goals:

■ It will determine how fast our universe is expanding with an accuracy close to 10 percent.

■ It will determine the age of the universe. Estimates now vary from 10 to 20 billion years.

■ It may even determine the fate of the universe. Will it keep on expanding forever, reach a stable point at some time, or collapse in upon itself and disappear?

There is a more direct, and a homier, link between the two great astronomers who came from Wheaton than the answering of great questions about the universe.

Two years before Hubble's death in 1953, Grote Reber went to see him at his Mount Wilson Observatory office in Pasadena. The two famous scientists, who had both begun their education in Wheaton's Old Red Castle, spent some time visiting.

Asked what they talked about, Reber said Hubble spent much of their time together telling him what a remarkable teacher Reber's mother had been and how much she had influenced his life.

When young Edwin came to Wheaton and entered seventh-grade, Harriet Grote, who after her marriage became the mother of Grote Reber, was his teacher.

Reber reported to Hubble that his mother always referred to young Edwin as "one of the brightest boys she ever knew" and that she followed Hubble's career closely and with great pride. Reber also told Hubble that his mother often held the older astronomer up to him as a model of "how to get the most out of school and go on and do something useful."

She would have been pleased to know that the world's first telescope to orbit the Earth and which will enable humans to see ten times further into the heavens than is possible with even the largest land-based instrument is named for her former pupil.