Dr. Abbot Saw Momentous Changes

In 78 Years at SI

Dr. Abbot wrote his autobiography, *Adventures in the World of Science*, in 1955, when he was 86 years of age and one of the things he gazed back upon was his rather abrupt arrival at the Smithsonian Institution in June 1895. Twenty-three years old, he was working on his master's thesis in an MIT laboratory when without warning he was informed that Secretary Langley of the Smithsonian wanted to see him. In his dirty, acid-yellowed overcoat he hurried out to meet a stout gentleman with a silk hat.

"How do you do," said Dr. Abbot. "Wouldn't you like to see my experiments?"

"I would like it extremely," replied Langley, "but I regret that my engagements will not permit."

That was that. Langley looked Dr. Abbot up and down for a minute or so, and then turned and left. The next day, the astonished Dr. Abbot received a telegram offering him a job at $1,200 a year as an assistant at the Astrophysical Observatory. He was asked to report immediately to learn his duties. Dr. Abbot did not even know what the Astrophysical Observatory was but the salary seemed a fortune and so he packed and that night boarded the train for Washington.

It had been cold and rainy in Boston and Dr. Abbot got off the train the next morning loaded down with an umbrella, rubber boots and overcoat—only to find Washington's temperature in the high 90's. Dr. Abbot remembered ruefully that he must have looked like a very foolish tutor with his Boston foul weather-gear because a guide spotted him as he was walking down Pennsylvania Avenue and offered to show him around the Botanic Gardens.

Boarding a horsecar that took him by a roundabout route to the Smithsonian, Dr. Abbot hurried into the Astrophysical Observatory, of which he had never heard behind the Castle. He was told that Secretary Langley had left on a trip abroad and that there had been no need for his haste in coming. With Langley away that first day, there was little to do and, with the temperature in the sheds reaching 120 degrees, Dr. Abbot recalled that he learned mainly to stretch out on a table and wait.

A Leisurely Capital

He had arrived in Washington's summer season, in those days meant that the Capitol slowed down and did not awaken again until October. Government workers had given it a 30-day holiday.

Some took the train to resorts and others spent their vacations at home keeping up housework. They could: and perhaps attending a baseball game now and then.

Dr. Abbot remembered that it cost 25 cents to sit in the wooden stands and watch a game. Washington's team was usually in last place and Dr. Abbot, always an admirer of spirit and ingenuity, became a Baltimore fan. Baltimore had John McGraw who had invented the baseball glove and Dr. Abbot got off the train the next night boarded the train for Washington's summer season.

Among his achievements while at the Smithsonian was the organization of the Division of Radiation and Ornaments, now the Radiation Biology Laboratory, which pioneered studies on the dependence of plant growth on radiation.

A major result of his solar studies was Dr. Abbot's theory that the world's weather is correlated with cyclical variations in the sun's energy output.

Dr. Abbot was a scientist who was a religious man, and who also had a lighter side in evidence when he took time to tell an anecdote or sing a popular song. Dr. Abbot was one of the first living persons to sit in the wooden stands and Dr. Abbot, all found his dedication to the Institution and to science an inspiration and some of them were generations younger than Dr. Abbot.

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Highlights of Dr. Abbot’s Years

As a young scientist, Dr. Abbot went to Wadesboro, N.C., to observe an eclipse on May 28, 1900. It was the first of many such trips throughout the world.

Leaders of American government, science and industry met in the Great Hall of the Smithsonian building on February 11, 1927, to plan the Smithsonian’s future. In front row, from left, are Secretary of Treasury Andrew Mellon; Secretary of State Frank B. Kellogg; President Calvin Coolidge; Chief Justice William Howard Taft, and Dr. Abbot who that time was Acting Secretary. Herbert Hoover is between Coolidge and Taft, and the man who would succeed Dr. Abbot as Secretary, Dr. Alexander Wetmore, is the third man directly behind Taft. In a letter 37 years later, Dr. Abbot recalled that the setting included a column 23 feet high, four books square, built of Smithsonian publications (seen in the background).

Early Years

(Continued from page 1)

of Langley and Major John Wesley Powell dining together on a Potomac outing, Langley cutting up the food for the great one-armed explorer. Teddy Roosevelt was a favorite of Dr. Abbot’s, and he tells the story of Langley’s taking T.R. on a Sunday tour of the Observatory and, as each instrument was shown, T.R. exclaiming: “By George! Wonderful! Wonderful!”

Secretary Langley was considered an autocratic man feared by nearly everyone at the Smithsonian, but Dr. Abbot saw him as a shy man with a warm heart, and a great scientist. On his first day on the job, Dr. Abbot remarked at the fact that the grass around the Observatory buildings was growing 10 inches high. “The Secretary loves secrecy and keeps the grass long so that news writers will not think there is anybody here,” he was told. Dr. Abbot offers the opinion that this dislike and distrust of reporters probably cost Langley dearly in 1903 when flights of his airplane were attempted.

“Reporters took their revenge on him when it crashed,” he said.

Dr. Abbot, as it happened, watched the flight. He recalls climbing up to the roof of the Smithsonian Castle’s highest tower and watching through his four-inch telescope Langley’s historic attempt to catapult his four-winged machine into the air from a houseboat on the Potomac.

“I saw the craft go off the houseboat, nose sharply upward, and wheel backward into the water after the front wings collapsed,” Dr. Abbot said. The failure was grievously disappointing to Langley because 10 days later the news came of the Wright Brothers’ success at Kitty Hawk.
Serving and Guiding the Smithsonian

Langley died in 1906 and was succeeded as Secretary by Charles Walcott, who had been Director of the U.S. Geological Survey. Dr. Abbot recalls him as a commanding man who found time to continue actively his paleontological expeditions to the Canadian Northwest.

"We all saw that a man of very different temperament from Secretary Langley was with us," he wrote. "Where Langley was shrinking from publicity, Walcott enjoyed it. He was an athletic, breezy type of man who would go for a brisk early morning walk in Rock Creek Park and turn up for breakfast with some influential Representative or Senator, or perhaps with the President."

It was incredible to see the changes that had taken place in Washington since his arrival, Dr. Abbot observed in the autobiography.

In 1895 there were no houses on Connecticut Ave. past Calvert St. and the new (1889) National Zoological Park, which had only a few sheds to house its meager collection of animals, was literally in the country. The Government was still tiny. Its only buildings were the Capitol; the White House (without its wings); the adjoining Old State, War and Navy Building; the old brick Agricultural Department Building; the Patent Office and Pension Office Buildings, and the Smithsonian—which lay nestled in its beautiful park with curving dirt roads and paths shaded by rare old trees. Its structures then consisted only of the Castle and the adjacent brick National Museum (A&I) where Grover Cleveland, the incumbent President, had held his first inaugural ball.

"When I lived in Washington in the 1890's, Abbot wrote, we traveled in buggies or horsecars and lighted our homes and streets with kerosene, gas or candles... There were no automobiles, no airplanes, no movies, no radio, no television... Yet people lived happily then and for myself I can say truly with far less to worry about."
Plans Made to Cut Energy Use, Spur Carpooling Efforts

Forty representatives of Smithsonian divisions met November 27 to discuss methods of coordinating and improving the Institution's energy conservation efforts.

Richard Ault, Director of Support Activities, and his Smithsonian Conservation Representative, presided. Other participants on the program were Dr. Robert M. Organ, director of the Analytical Laboratory; Don Dorsmutter, editor of the Miscellaneous Division's "The Coast and Geodetic Survey"; and Hal Cohee, Programs Manager, Support Activities.

All Smithsonian employees are being urged to support and participate in energy conservation efforts. Suggestions should be made through the normal chain of command. Opportunities for increasing business trip pooling and car-sharing are stressed.

"We are approaching our goal of a 7 percent reduction in energy consumption and waste disposal," Mr. Ault said.

To make it easier for employees to form or participate in car pools, the Programs Office has produced a computer print-out of Smithsonian employees listed by residence code, telephone extension, parking space, and zip code. Employees may obtain a copy of their residence code or other listings by calling the Program Office. The print-out will be obtained from post offices to aid in locating areas that may be useful for carpooling purposes. With the 5.5 percent increase in the intensity business trip pooling and carsharing programs will be available soon through the Programs Office.

The Programs Office also will process Commuter Club questionnaires distributed monthly by WTOP, the Metropolitan Washington Council of Governments, and the Metropolitan Washington Board of Trade.

Annuity Raise Goes Into Effect

A 5.5 percent cost-of-living annuity increase for retired Federal employees and survivors will be paid.

The increase will be reflected in annuity checks mailed February 1, 1974.

For the first time, employees will no longer be required to retire before January 1. The annuity for those retiring on or after January 1 will be computed up to the actual date of retirement.

Suggestions are being sought for reduced office and area lighting, and new light sources are being used to isolate lighting.

Dr. Abbot expected to get a job teaching in college. Just before his death, he and Professor Langley first obtained experimental indications that there is a relationship between solar variation and the earth's weather.

Solar Studies

Dr. Abbot is credited with the first to suggest that the radiation of the sun might fluctuate. In 1904, he and Professor Langley first obtained experimental indications that there is a relationship between solar variation and the earth's weather.

Dr. Abbot went to Wadesboro, N.C., to observe a total eclipse of the sun. This was the first of many trips by him to make solar observations in far corners of the globe. He was responsible for the first total solar observations on different continents.

Dr. Abbot's main work centered on the solar eclipse of 1901. Observation is related to the rotation of the sun, and that temperature variations are related to another specific solar cycle.

Dr. Abbot believed that the sun could be put to work to provide energy with zero pollution effects—a desirable feature he emphasized especially in recent years as environmental concerns increased. He envisaged great solar-energy power plants built in areas enjoying maximum sunlight. He built a solar cooking oven in 1920 and also harvested the sun's rays to heat his home.

Department of Public Affairs, William O. Craig, Editor.

Dr. Charles Greetley Abbot Dies at 101

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Mr. Graf was a member of many other organizations, including the American Medical Association, the Association of Economic Entomologists, the Entomological Association of Washington, and the Washington Academy of Sciences (President, 1945-1946). He was a member of the Federal Horticultural Board of the United States Department of Agriculture from 1926 to 1931. He was a member of the Cosmos Club (President, 1943-1944), the Cosmos, and the National Academy of Sciences, to which he was elected in 1915. He belonged to numerous other scientific organizations, including the Astronomical and Astronautical Society of America, the Washington Philosophical Society, the National Academy of Sciences, and scientific organizations in France, Germany, and Japan. He was a member of the Cosmos Club of Washington in 1931, and vice-president of the American Astronomical Society in 1932. He was elected to Sigma Xi in 1932.

He is survived by his wife, Virginia Aedes, of the home in Rivard, Md.

John E. Graf, Former Assistant Secretary, Dies

John E. Graf, retired Assistant Secretary of the Smithsonian Institution and for many years an entomologist with the United States Department of Agriculture, died November 24.

Born in 1889, Mr. Graf received his B.A. degree from Pomona College in 1911. He took a career in economic entomology with the Department of Agriculture. With one brief interruption, Mr. Graf worked in the Bureau of Entomology until 1917. In that year he returned to make surveys, conduct insect studies and directed field work in several areas of the South. In 1926 he became senior entomologist in the Bureau of Entomology, and from 1928 to 1931 he served as Assistant Chief of the Bureau of Entomology.

Mr. Graf published in the field of entomology for many years as an editor of the field and truck crops section of Biological Abstracts.

Mr. Graf was also Associate Director of the United States National Museum. In this capacity he assisted Alexander Wetmore in administering the National Museum. When Dr. Wetmore became Secretary of the Smithsonian in 1945, Mr. Graf became Assistant Secretary, a position he filled until his retirement in 1958.

Mr. Graf's primary contribution to the Smithsonian was in funding and management of scientific research and other projects and programs which made possible the growth and new spirit of the Smithsonian during the second world war. Mr. Graf was made an Honorary Fellow of the Smithsonian Institution at the time of his retirement in 1958.

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In order to give appropriate space to an account of Dr. Charles Greetley Abbot's life and accomplishments, some news items that originally were scheduled to appear in this issue of the Torch will appear instead in the next issue.