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Richard Evans Schultes

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RICHARD EVANS SCHULTES

The Father of Modern Ethnobotany • The Last Victorian Explorer

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31 March 2021

"The ethnobotanical researcher ... must realize that far from being a superior individual, he – the civilized man – is in many respects far inferior..."

Richard Evans Schultes was a singular personality in twentieth century botany. While others acknowledged him as one of the world's leading authorities on hallucinogenic and medicinal plants, one of a passing tradition of botanical explorers, a pioneering conservationist, and inspiring teacher and mentor, he said about himself that he was "Just a jungle botanist." During a childhood illness, his parents read to him from Richard Spruce's *Notes of a botanist on the Amazon and the Andes*. Those words inspired a distinguished career. Schultes spent his entire academic career, from undergraduate to Professor Emeritus at Harvard. Early on he fell under the spell of Professor Oakes Ames, who had a similar career at Harvard, his course (Plants and Human Affairs), and his study of the orchid family. Schultes would himself teach Biology 104 through the years, where it became an institution on the Harvard campus. To his students he was link to the naturalists of the Victorian past. Students and colleagues remember that on campus he always wore gray slacks, a red tie, and a starched white lab coat. Harvard through and through!

He would author 16 books and publish over 450 scientific and popular articles. He went on to collect more than 24,000 plant specimens, 300 of them new to science. More than 120 plant species are named in his honor (the first an orchid named by Ames), as were three plant genera (*Schultesiophytum*, *Schultesianthus*, and *Resia*) and curiously a large South American cockroach, *Schultesia*. He took delight in pointing out that while Harvard at the time had ten Nobel laureates, he was the only faculty member that had a cockroach named after him.

He is also credited as being the modern founder of the science of ethnobotany, which he defined as "*the complete registration of the uses of and concepts about plant life in primitive societies... comprising aspects of botany, anthropology, archeology, plant chemistry, pharmacology, history, geography, and sundry other tangential fields of the sciences and arts.*" He personally documented the use of over 2000 medicinal plants, mainly from the Colombian Amazon. His field studies showed that more than 70 plants contained arrow poisons and that curare was a mixture of toxins. He was particularly interested in documenting the plant knowledge of South American Indian tribes. He partook in the use of various hallucinogens, noting that, "it would have unpardonable rudeness to refuse." His general approach is captured in the quote at the top of the page. Several of today's leading ethnobotanists studied under him at Harvard, including Michael Balick, Wade Davis, Mark Plotkin, the late Timothy Plowman, and Andrew Weil. They continue in his tradition. His influence extended to other botanists, including Ghilleen Prance and James Zarruchi.

Much of Schultes well-earned reputation derives from his ethnobotanical studies of psychoactive, medicinal, and poisonous plants. Perhaps less well known was his contribution to the war effort in the early 1940's. It began officially for him in November 1942 when he met with Robert Rands, the head of the *Hevea* rubber project in the Rubber Investigations Division of the Bureau of Plant Industry in Washington, D. C. Rands explained to him that everything needed to win World War II depended on rubber. Ninety-nine percent of the world's rubber latex came from plantations in Southeast Asia that were now under Japanese occupation. He told Schultes that his job was to find every kind of latex plant that grew in the Amazon, especially the *Hevea* trees. They would then be grown on huge plantations. Seven days later, he was in Colombia in search of wild rubber trees. He also looked into the feasibility of growing other plants, such as the rubber vine (*Cryptostegia grandiflora*). In one area over the next several months he counted 16,713 *Hevea* trees, which would yield an estimated seven million tons of rubber latex a year. He also collected over 3500 specimens of *Hevea* and arranged for the gathering of over 600,000 seeds. He returned to Harvard in 1953. His monograph on the genus was put on hold and never completed.

Schultes could read, write, and speak 10 languages. He balanced an intriguing mixture of liberal views on personal and social issues with very conservative political opinions. He was a strong supporter of the British monarchy and was convinced that the American revolution was a mistake. It was dangerous to mention John F. Kennedy or Franklin Delano Roosevelt in his presence. He routinely wrote in the name of H. M. Queen Elizabeth II in various elections. He insisted on the proper British spelling of words such as colour and centre.

I met him on two occasions. As a new faculty member at Humboldt State, I was asked to offer a course in Economic Botany. Having spent two summers in Costa Rica as a graduate student had opened that world to me. The country's oldest course on this subject was at Harvard University and that meant meeting Richard Evans Schultes. What an opportunity. A visit was arranged. Schultes could not have been more gracious and helpful. He took me on a tour of the lab where he taught his famous course and allowed me to photograph any specimens and items of interest, unusual and otherwise. And a private tour of the famous glass flower collection. We spent a few hours in his office.

That's where I learned he was a classmate of JFK.

As I was getting ready to leave, I asked him whether he might be able to visit my campus and offer a lecture on *Cannabis* or any topic of his choice. He quickly agreed and his visit was a great success. He gave two lectures to overflow audiences and was generous in responding to questions. Afterwards, Schultes and a few of us visited a purveyor of adult beverages on the town plaza. He regaled us with more stories and interacted with the students in three languages. I am confident that it was evening we would all remember.

T I M E L I N E

- 1915 Born in Boston (12 January)
- 1933 Enters Harvard University, on a full scholarship, where he planned to study medicine
- 1937 Earns B. A. in Biology (cum laude): his senior thesis on use of peyote by Kiowa Indians of Oklahoma
- 1938 Earns M. A. in Biology
- 1938 Goes to Mexico to study the botanical identity of teonanacatl [to 1939]
- 1941 Earns Ph. D. in Botany, his dissertation on the plants used by Indians in northeastern Oaxaca
- 1941 Named fellow of the National Research Council
- 1941 Travels to the Colombian Amazon for the first time to study plants that yield curare [to 1953]
- 1942 Joins the Rubber Investigations Division of the Bureau of Plant Industry of the U. S. D. A.
- 1942 Receives Guggenheim Foundation grant to ethnobotanical studies in the Amazon
- 1953 Returns to Harvard and becomes Curator of the Oakes Ames Orchid Herbarium [to 1958]
- 1958 Becomes Curator of Economic Botany [to 1985]
- 1959 Marries Dorothy Crawford McNeil [they will have three children]
- 1962 Served as editor of the journal *Economic Botany* [to 1979]
- 1970 Appointed Professor of Biology
- 1970 Becomes fourth Director of the Botanical Museum [to 1985]
- 1971 Elected to membership in the National Academy of Sciences
- 1973 Appointed Paul Mangelsdorf Professor of Natural History
- 1979 Distinguished Economic Botanist, Society for Economic Botany
- 1980 Appointed Edward C. Jeffrey Professor of Biology
- 1984 Receives the World Wildlife Fund Gold medal from H. R. H. Prince Philip
- 1985 Retires from Harvard
- 1985 Appointed Edward C. Jeffrey Professor of Biology Emeritus
- 1986 Receives the Cruz de Boyaca, the Colombian government's highest award
- 1986 The Colombian government names a 2.2 million acre protected area as "Sector Schultes"
- 1987 Recipient of the Tyler Prize for Environmental Achievement
- 1988 Awarded Golden Plate by the American Society of Achievement
- 1992 Awarded the Gold Medal by the Linnean Society of London, botany's most prestigious award
- 1992 Awarded the Harvard Medal for extraordinary service to the university
- 1994 Laureate of the Global 500 Forum of the United Nations Environmental Programme
- 2001 Dies in Waltham, a Boston suburb (10 April)

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