

*At a Meeting of the Faculty of Arts and Sciences on May 20, 2003, the following Minute was placed upon the records.*

## **RICHARD EVANS SCHULTES**

Born: January 12,  
1915

Died: April 10,  
2001

Richard Evans Schultes, botanist, explorer and teacher, focused his attention and that of his contemporaries on the uses of plants by indigenous peoples of the Amazon, the chemistry of compounds produced by those plants, and the vulnerability of ecosystems and peoples of tropical South America.

Schultes was born in Boston on January 12, 1915; he grew up and was schooled in East Boston. As a child he took an interest in plants but, upon entering Harvard in 1933, he considered his future to be in medicine. This direction changed after he enrolled in Biology 104, Plants and Human Affairs, taught by Oakes Ames. Mentored by Ames, he became an assistant in the Botanical Museum and wrote a senior thesis on the medicinal and hallucinogenic properties of the peyote cactus as used by Indians in Oklahoma. Here he gained first hand experience with peyote and developed his botanical and anthropological skills. Later he generalized, that, "...it would have been an unpardonable rudeness to refuse them [hallucinogens] when the Indians were kind enough to offer them during a ceremony."

In 1937 as a Harvard Ph.D. student with Ames, Schultes investigated the flora of Northeastern Oaxaca inspired by conquest reports of an hallucinogenic mushroom and a vine with psychoactive seeds. He collected both of these – a mushroom and a morning glory – and thus bridged the gap between pre- Columbian ritual uses of plants and 20<sup>th</sup> century practices. With Ph.D. completed in 1941 he received a fellowship from the National Research Council to study the plants used to make curare. In the Amazon curare-tipped arrows were potent weapons; curare, a plant derivative, was known in western medicine but the specifics of its formulation were unclear. Schultes confirmed that curare was derived from plants in the genera *Strychnos* and *Chondrodendron* but discovered that it might be made from one plant species or, more usually and more effectively, from many different species.

The attack on Pearl Harbor briefly brought him out of the Amazon and put his botanical knowledge to patriotic use. With British and Dutch rubber plantations in Southeast Asia under Japanese control, serious rubber shortages resulted. Rubber plants, species of the genus *Hevea*, are native to the Amazon; these wild plants were the principle source of latex prior to establishment of high-yielding plantations in Asia. Securing wild sources of rubber became a national priority. In early 1942, as a field agent for the governmental Rubber Development Corporation, Schultes began work on rubber and concurrently undertook research on Amazonian ethnobotany, under a Guggenheim Foundation Fellowship. His task was to locate *Hevea* trees and to instruct local people on extraction and processing methods. Seeds he collected contributed to breeding programs and allowed high yielding and sturdy plants to be developed. His work with *Hevea* continued in

South America and Asia for the rest of his active career.

During his many years in South America, Schultes traced the journeys of Richard Spruce, 19<sup>th</sup> century naturalist, whose account of travel in South America he had read as a child. In his explorations Schultes suffered hunger, beriberi, repeated bouts of malaria, and near drowning. He lived with the Indians for extended periods, eating their food and learning the names they used for the plants that were a part of their daily lives. He understood two Amazonian languages, those of the Witoto and Makuna, but language did not seem to be essential for communication in his jungle world. He believed that tribal chiefs were gentlemen, bemoaned their westernization and earned from them the title of “white witch doctor.” In reflecting on his experiences he wrote, “The ethnobotanical researcher...must realize that far from being a superior individual, he – the civilized man – is in many respects far inferior...”

With the support of Paul Mangelsdorf, Professor and Director of the Harvard Botanical Museum, Schultes was appointed Curator of the Oakes Ames Orchid Herbarium in 1953; from 1958 to 1967 he was Curator of Ethnobotany in the Museum; from 1967 to 1970 he was Executive Director of the Botanical Museum and was its Director from 1970 to his retirement in 1985. He was named Professor of Biology in 1970, the Paul C. Mangelsdorf Professor of Natural History in 1973 and the Edward C. Jeffrey Professor of Biology in 1980. He taught Biology 104, his distinctive version of plants and human affairs, for 27 years first with Mangelsdorf and then alone. A generation of economic and ethnobotanists are his legacy.

Schultes was a colorful character with many contradictions – despite his Germanic surname he was an anglophile; he could infuriate his colleagues with some of his views yet do so cordially and charmingly; he taught about hallucinogens but did not embrace the drug culture of the 1960s; he was a proper Bostonian whose work influenced Aldous Huxley, William Burroughs and Carlos Castaneda. When Burroughs described a psychedelic trip as an earth-shaking metaphysical experience, Schultes responded, “That’s funny, Bill, all I saw was colors.” He was loyal to Harvard; to his church, Kings Chapel in Boston; and to his beloved family.

In 1959, after a long courtship, he married Dorothy Crawford McNeil, a professional singer. One of his biographers noted, “She knew nothing of science; he was a musical ignoramus. Politically, she was liberal; he was ... a conservative of the first order.” Their son Richard Evans II and twins Alexandra Ames and Neil Parker soon followed. In their large home in Melrose the Schulteses welcomed and sustained students and visitors from near and far.

Richard Evans Schultes died in Boston on April 10, 2001. He had authored more than 400 papers about rubber, hallucinogens, Richard Spruce, and the flora of northern South America, particularly the orchids. In eight books he dealt with the chemistry and culture of hallucinogens. He received many honors, awards and international distinctions. Sector Schultes, a 2.2 million hectare conservation tract in Colombia, was but one of many tributes paid him by the Colombian government. The annual Lindberg Award captures his spirit and contributions in citing him as a “... link to the great natural historians of the 19<sup>th</sup> century and to a distant era, when the rainforests stood immense, inviolable, a green mantle stretching across an entire continent.”

Respectfully submitted,

Otto T. Solbrig  
Edward O. Wilson  
Carroll E. Wood  
Donald H. Pfister, Chair