

his years at Reed, from which he graduated in 1967, John continued his interest in German and in biology and chemistry, and expanded his interest in history under Dr. Dorothy O. Johansen.

John next spent two years at Harvard Medical School. But his love of the outdoors and his desire to combine this interest with his scientific research endeavors finally led to his transfer to Cal-Tech where he turned his attention to geology and geochemistry, bringing to bear all the wide range of studies in which he had previously been engaged.

At the time of his death, John was working on a project to determine the climatic history for part of the earth over the past 8,000 years — dry spells, cool years, wet years.

Concerning John and his work, his faculty adviser, Samuel Epstein, professor of Geochemistry at Cal-Tech wrote:

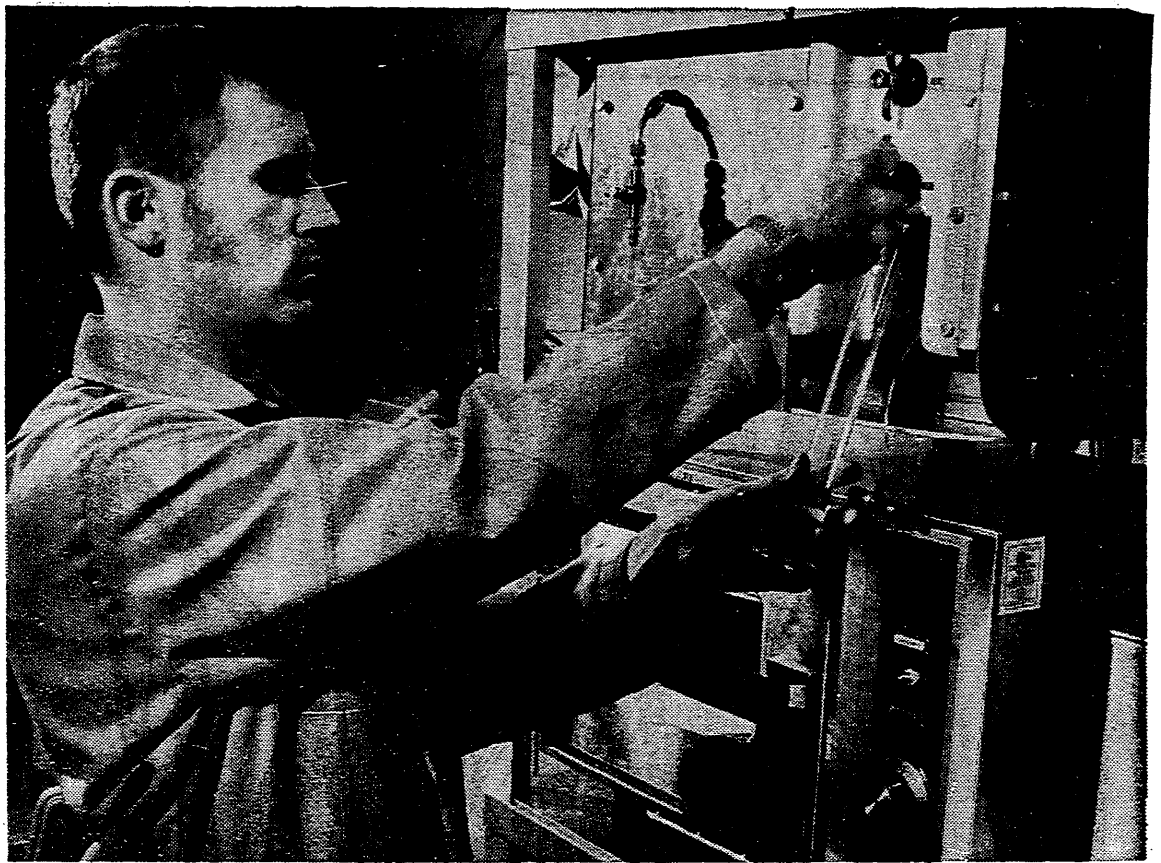
"John Hall was the kind of student who comes along only once in a long while. He was intelligent, imaginative, mature, practical, and just the right man for the research problem he was investigating.

"The problem was to work out the climatic history for part of the earth for the past 8,000 years, by isotopic analysis of ancient wood. It required an understanding of biology, chemistry and geology and the imagi-

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*John Hall was the type of person who would work to extend research to aspects of great scientific and historic interest.*

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*John Henry Hall tests reclaimed water in laboratory.*

*To sound the alarm, the lone survivor of the avalanche struggled for two days to reach a cached transmitter. The call was answered almost immediately by a bush pilot.*

nation and talent to mix these disciplines in the proper proportions to obtain exciting results. He had this talent."

Prof. Epstein went on to note:

"At the time of his death, John Hall had already worked out the techniques of extracting hydrogen from cellulose, and he was well on his way in a program to analyze wood from individual tree rings from locations where the climatic record is already known.

"Indeed, he had shown that the variation in isotopic composition of the hydrogen extracted from tree rings corresponded to that predicted from observed climatic records. The next step in his planned investigation was to apply the techniques to tree ring samples that would provide information on the earlier climatic history of the earth."

The implications of the project "are numerous and very exciting," the professor pointed out. "Imagine the possibility of obtaining a detailed climatic record of the historic past of ancient countries. It is certain that climate was important in shaping history.

"Samples of wood are available from many locations, from old structures and living or dead trees. The bristle cone pine trees in Southwestern United States provide samples dating back more than 8,000 years, almost to the end of the last ice age.

"John Hall was just the type of person who would take advantage of the many possibilities in extending this research to aspects of great scientific and historic interest."

Another colleague in the Cal-Tech division of geological and planetary sciences, Robert P. Sharp, wrote of his expectations for John to assume a major responsibility in the division's teaching program.

Recalling his experience with the Portland man during a summer field geology camp three summers ago, Sharp said, "I learned to rely on him to an extraordinary degree. His maturity, competence, gentleness with people, perceptions and industrious nature made him a most valued colleague."

Covering another aspect of John Hall's activities at Cal-Tech, as master of one of the student houses, Dean of Students R.A. Huttenback wrote, "He possessed those qualities of simplicity, tolerance and sympathy belonging only to the very strong. He gave of himself selflessly for the benefit of the students in his House.

"He cooked for them, got them out of jail, and most important, listened to their troubles and assuaged their fears.

"In a place like Cal-Tech it is very important that students see about them ideal examples of persons upon whom they can model themselves. The men of Ricketts House could have found no finer model than John Hall. He was a remarkable young man."

Eugene M. Shoemaker, chairman of Cal-Tech's division of geological and planetary sciences, recently told John Hall's parents that efforts are moving forward to establish an endowment fund which would

provide for a perpetual scholarship.

He said faculty, staff and students of the division are contributing to the fund, members of the Geology Club have voted to assign income from vending machines in the Geological Sciences Building amounting to several hundred dollars a year, to the scholarship fund and corporate gifts are being solicited.

Oregon friends of John Hall are also being invited to subscribe to the memorial scholarship.

In a fascinating article published in the Cal-Tech monthly, Engineering and Science, John Hall reported on "A Summer Trip To Nowhere," the experiences which he and three other graduate students in other scientific fields encountered during their 90-day "holiday" confined in a Space Station Simulator at McDonnell-Douglas Astronautics Corp.'s plant in Huntington Beach.

Telling of an incident when a hot soldering iron touched a piece of cotton rag and immediately began to char in the oxygen-enriched atmosphere of the SSS, he said the accident points up the consideration which must be given to all manner of construction materials to be used in a closed environment, materials such as paints, wood and adhesives which release organic vapors.

"In a spacecraft the air cannot be used as a sewer, for simple dilution results in rapid buildup of potentially noxious substances which may adversely affect the health and well-being of the crew or even adversely the Life Support System equipment performance."

Preparing for the 90-day test, John told how "Ten times I went through my choices of reading material. In the end I decided to limit professional materials to one anthology of recent articles and to mollify my libido with Fanny Hill. Far more enticing during the actual run were a host of psychological and travel excursions: Inside South America; Mood; States and Mind; Log from the Sea of Cortez; Amazon Headhunters; In Cold Blood; Cancer Ward; and Nansen in the Frozen World."

Pointing to the uses of the data gained from the test incorporated into the planned for Skylab I, John said eventually regenerative life support modules will be

installed in the larger orbital space stations in the late 1970s. He suggested that the preparation may mean the next step will require a 180-day Space Station Simulation. To this he commented, "I still think 90 days is a long time."

It was the summer following this experience that John Hall headed back north in company with fellow Reed graduates Susan Jane Deery and Lucille Adamson and her husband, Stanley, part of a party of six which planned to scale three major peaks in continuous assault.

Beginning the trip in mid-June, the party was plagued with setbacks and delays, car breakdowns, bad roads, inclement weather. Finally the pinnacle of Mt. Logan, 19,850 feet, was reached, the highest point in Canada, only to have one member of the party become ill and require evacuation. A plane bringing in supplies crashed and the weather grew worse.

But the remaining five headed on for Mt. St. Elias, 18,008 feet high, located 150 miles northwest of Whitehorse in the Canadian Yukon. They continued on despite threatening weather which brought winds reaching 120 miles-per-hour.

To sound the alarm of the avalanche, the lone survivor, Leslie Wheeler, 22, of San Francisco, struggled for two days to reach their second base camp at the foot of Mt. Jeanette on Seward glacier where a transmitter had been cached. Luckily his May Day call was heard almost immediately by a bush pilot in the area who was equipped with skis on his plane.

He said the climbers encountered the avalanche on their first stage of their ascent. They attempted to take cover, but the others were buried under wet snow and ice. Their bodies were not recovered.

Writing to John's parents, Prof. Sharp described the Mt. St. Elias range where he spent three summers on field trips, as "one of the most rugged, starkly beautiful places on the North American continent."

The letter concluded, "He died doing what he loved to do, and his burial place has no equal on this continent."

James Marlowe is a Portland writer. Photographs supplied by the author.