

Random Walk



Millikan Museum

ROBERT A. MILLIKAN'S roll-top desk, covered with letters, notes, and family photographs, looked as if he had just left for a minute. The apparatus for his classic oil drop experiment to measure the charge of the electron appeared exactly as it had when he performed it.

But it was only a stage set — for program 12 of “The Mechanical Universe,” Caltech’s TV physics course currently in production (*E&S*, November 1983). Based on the version of Physics 1 developed by David Goodstein, professor of physics and applied physics — with a little help from location shots, computer graphics, and drama from the past — the series is funded by the Annenberg/CPB Project, from whom it has recently received an additional grant of \$2.85 million.

After a lot of heavy mathematical sledding in the initial programs, the one on Millikan’s oil drop experiment is part of a respite designed to introduce a

deeper dimension with some history and philosophy of science — and how physics is *really* done. Under the direction of associate producer Mark Rothschild, Millikan’s office and lab were carefully and authentically recreated in the basement of West Bridge after photographs of the real thing (with the exception that office and lab were never in the same room). Pictures and documents came from the Archives, as did Millikan’s desk, which archivist Judy Goodstein uses. Most of the scientific equipment was provided by Professor of Physics Eugene Cowan, who never throws anything out. (“When people left, they’d leave the stuff around, and I’d just squirrel it away.”) As for the rest of the period items, according to art director Nelson Willis, “There are places in Hollywood that will rent *anything*.”

The set lasted only a few days. Then it was dismantled and everything returned — to the Archives, to Cowan’s laboratory junkyard, and to Hollywood.

Like It Is

USING A RECOGNIZABLE symbol, mark, or name is one way to promote a distinct identity — as, for example, the big “M” that leads a subset of the hungry to McDonald’s Family Restaurants for a hamburger, or the word “Kleenex” that has come to stand for all brands of paper handkerchiefs. Since 1968 the Caltech symbol — or logo — has been a hand or hands holding a torch, but times change and so do fashions in graphics, so that logo has recently been updated. The new version, also created by designer Doyald Young, appears on the back cover, and its use is being encouraged throughout the Institute. It will appear as a watermark on the official stationery and on many publications, and, no doubt, on car stickers, sweatshirts, and beer mugs. There were several variations on the original torch, which led to some confusion, so it is hoped that the new one will be used exclusively from now on.

And while we’re on the subject of identities and correct usage, discrepancies also tend to creep into the spelling of the short form of the Institute’s name. CalTech, Cal Tech, and Cal-Tech are some of the unauthorized versions. Caltech is the way it is supposed to be.

Watson Lectures

TO CELEBRATE the 21st year of Beckman Auditorium and what became known as the Earnest C. Watson Lecture Series, Victor Neher, professor of physics, emeritus, recreated Watson’s famous “Liquid Air” lecture and demonstration on February 22. Watson had begun the series with that lecture in the fall of 1963.

Coming up during the remainder of this academic year are four more Watson Lectures: “Turbulent Flow,” by Paul Dimotakis, associate professor of aeronautics and applied physics (March 14); “The Evolution of Computer Graphics,” by Alan Barr, research fellow in computer science, and James Kajija, assistant professor of computer science (April 4); “The Legends of Caltech,” by alumni W. A. Dodge, Jr., R. B. Moulton, H. W. Sigworth, and A. C. Smith (May 2); and “Gravitational Wave Experiments — A New Challenge for Laser Techniques,” by Ronald Drever, professor of physics.