

Random Walk

The third annual Egg Drop Contest, staged by Assistant Professor of Mechanical Engineering Joel Burdick's ME 71 class, drew more than 100 onlookers to the parking lot behind Thomas Lab to watch 66 raw eggs plunge 40 feet to the pavement. Each egg was protected by one of two basic designs: the "standard" package padded the egg with such things as popcorn, toilet paper, and a 19-pound watermelon; while the "bare-egg" package used wings, parachutes, and the like to ease the egg to earth. The final score was eggs 23, parking lot 43.



Honors and Awards

John Allman, the Hixon Professor of Psychobiology and professor of biology, has received the Golden Brain Award from the Minerva Foundation for pioneering research into how the brain processes and interprets visual information.

Don Anderson, the McMillan Professor of Geophysics and director of the Seismo Lab from 1967 to 1989, has been selected the 1991 recipient of the Bowie Medal, the highest honor of the American Geophysical Union, in recognition of his "accomplishments over a distinguished career in geophysics."

Seymour Benzer, the Boswell Professor of Neuroscience, has won the 1991 Wolf Prize, presented by the Israel-based Wolf Foundation. Benzer was selected for the \$100,000 prize, one of the most prestigious in international science, for "having generated a new field of molecular neurogenetics by his pioneering research on the dissection of the nervous system and the behavior of gene mutations."

Edward Lewis, the Thomas Hunt Morgan Professor of Biology, Emeritus, and John Roberts, Institute Professor of Chemistry, Emeritus, received the National Medal of Science from President

Bush last November. The medals are awarded to honor the impact that an individual's career has had on the present state of scientific knowledge; for outstanding achievements that change the direction of scientific thought; and for distinguished service in the advancement of science. In the same White House ceremony Caltech Trustee Gordon Moore (PhD '54), chairman of Intel Corporation, received the National Medal of Technology. Lewis has also been named corecipient of Brandeis University's 1990 Rosentiel Award for research that has "provided mankind with its first glimpses into the process through which organisms, including humans, assemble and correctly position body parts in the growing embryo."

Masakazu (Mark) Konishi, the Bing Professor of Behavioral Biology, has been awarded Japan's 1990 International Award for Biology, established in memory of the late emperor of Japan because of his special interest in biology.

Shrinivas Kulkarni, associate professor of astronomy, has received the 1991 Helen B. Warner Prize for Astronomy from the American Astronomical Society (AAS) in recognition of his work on millisecond pulsars and on developments in the theory of optical and radio interferometry. The AAS also presented its 1991 Newton Lacy Pierce Prize to Kenneth Libbrecht, associate professor of

astrophysics, for his research on helioseismology—"observations of the sun [that] have provided essential new insights into its internal properties." And the AAS gave its 1991 Dannie Heineman Prize for Astrophysics—a

certificate and \$10,000—to Wallace Sargent, the Bowen Professor of Astronomy, in recognition of his pioneering research into the properties and composition of galaxies and the intergalactic medium.

Rudolph Marcus, the Noyes Professor of Chemistry, has been selected to receive the 1990 William Lloyd Evans Award from Ohio State University.

Andrew Myers, assistant professor of chemistry, has been named one of 12 recipients nationwide of a Camille and Henry Dreyfus Teacher-Scholar Award. The award, whose purpose is to promote the development of exceptionally promising young scholars “who combine interest and demonstrated ability in teaching with performing imaginative research,” provides \$50,000 in support of those activities.

Allan Sandage, staff astronomer with The Observatories of the Carnegie Institution of Washington and a longtime Caltech collaborator, has been awarded the 1991 Crafoord Prize in Astronomy, presented by the Royal Swedish Academy of Sciences in recognition of his fundamental contributions to “extragalactic astronomy, including observational cosmology.” The prize, which carries an award of \$260,000, honors outstanding contributions in fields not recognized by the Nobel Prize.

Mel Simon, the Biaggini Professor of Biological Sciences, has received the Selman A. Waxesman Award in Microbiology, administered by the National Academy of Sciences.

Ahmed Zewail, the Linus Pauling Professor of Chemical Physics, has been selected by the Egyptian American Organization as the recipient of their 1990 Outstanding Achievement Award.

Undergrad Confab

More than 860 college students and 500 faculty and administrators from throughout the U.S. will attend the Fifth Annual National Conference on Undergraduate Research, which Caltech is hosting March 21–23 as part of its centennial celebration. This year’s conference is called EUREKA—Excellence in Undergraduate Research: Experience, Knowledge, and Achievement—any resemblance to Archimedes’s exultation upon discovering the principle of specific gravity is purely intentional.

The opening plenary session will have four speakers: Lee Hood, Bowles Professor of Biology and Director of the Center for Molecular Biotechnology; Evelyn Fox Keller, director of women’s studies and professor of rhetoric at UC Berkeley; writer Ray Bradbury; and Louis Sullivan, U.S. Secretary of Health and Human Services. The undergrads will then present their research papers in five sessions. The final plenary session will be a panel discussion on global warming, moderated by Robert Cowen, natural-science editor of *The Christian Science Monitor*.

“It appears that student attendance will be 100 or so more than last year’s conference,” says Carolyn Merkel, chair of EUREKA’s planning committee, “and there’s a significant increase in the number of minority students. The National Science Foundation and JPL’s Minority Science and Engineering Initiatives Office provided funds to help minority students attend. The response has been overwhelming.”

Arthur Amos Noyes first came to Throop College of Technology (later Caltech) part time in 1913 and was finally hired away from MIT permanently in 1919. From 1928 until his death in 1936 he was chairman of the Division of Chemistry and Chemical Engineering. During this time he instituted a weekly research conference in room 27 Gates, which had a small kitchen adjoining it where grad students labored to prepare the seminar refreshments. Noyes left nothing to chance; his laboratory procedure for purchasing, cooking, announcing, and cleaning up (with his own emendations) was posted on the bulletin board. Coauthors appear to have added notes at the bottom. This facsimile was reproduced for the program of the 1968 dedication of Noyes Laboratory.

2 cups
 2 cups
 in board
 yet

boards over the tops of the
 3.45 Put coffee urn on board above left-hand sink.
 Fill outer jacket of coffee urn with hottest water that can be drawn from tap, and put burner (full heat) under the urn.
 3.50 Get quart of whipping cream from organic ^{lab.} ice-chest, and whip it in machine.
RESEARCH CONFERENCE REFRESHMENTS.
 4.00 Pour 3 quarts of milk into urn, and let it heat 10 min. Distribute cakes equally into four platters.

Something
 the pot.

~~12.30 Buy 3 qts. of milk at Safeway's on Lake Avenue, and buy enough selector cookies for 30 people, costing not more than 10.00. Return bottles from previous week. If marshmallows are all gone, buy 8 pounds.~~
 2.00 Put 6 qts. of water into 8-qt. pot, and heat it to boiling.
 2.30 Add 1 1/3 qts. of cocoa beans, ^{cover the pot,} and turn down gas so water boils only very gently (with ~~cares~~) for 2 hours.
 4.10 Pour off cocoa through strainer into ^{coffee urn. Add} second ~~pot~~, put it on stove, ^{stir thoroughly with large spoon.}
 Add 2 cups of sugar, and bring it to a boil.
 4.12 Take ^{one by one from racks,} fill with cocoa from urn, place in ^{spoons} Place out first pot, put into it the 3 qts. of milk, and heat it to ^{not cups on benches beside sinks}
~~4.20 (not to start)~~ Set out cups and saucers on ^{tray} board, putting
 4.25 Put ^{tablespoonful of cream} ~~tablespoonful of cream~~ in each cup. Put spoons, and sugar bowls on tables.
 4.30 2 platters of ^{each} ~~Put cakes, or cookies around on tables.~~ in ^{laminar} ~~urn.~~
 4.30 Announce cocoa is ready. Take ^{one by one from racks,} fill with cocoa from urn, place in ^{spoons}
 4.35 Mix contents of two pots thoroughly, by pouring back and forth.
 4.35 Run out of the urn into milk bottles any remaining cocoa. Fill the urn com-
 4.38 ~~Take out of the urn into milk bottles any remaining cocoa.~~ pletely with hot water, add a tablespoonfull of ^{leaf powder etc. and}
 Take ^{one by one from racks,} fill with hot water, add a tablespoonfull of ^{leaf powder etc. and}
 Announce the end of coffee to ~~last~~ for second helpings. ^{Get stand (till 6.00 P.M.)}

Rinse out the
 basin, and remove it

As soon as pots are empty, ^{the cream} Rinse with hot water.
 6.00 ^{both test} Fill sinks with hot water. To one add 1/2 cup of soap powder. ~~Put cups~~
^{Put cups and saucers} and saucers into racks. ^{the racks} Soak down and up in soapy water a number of times, then rinse in the clear water, and leave dishes in rack ^{on bench} ~~on bench~~
 Send to drain and dry.

4 qts milk
 2 cups sugar
 8 cups H₂O
 2 qts cocoa beans
 1/2 lbs assorted cookies (small)

1 1/2 qt of coffee to 9 qts H₂O
 2 lemon acid - 2 qts lemon juice - 3 lbs lemon
 3 cups sugar
 14 qts

1:15 Start Heating
 1:45 Dump in Cocoa
 Follow to
 sunrise until 3:00
 Put 2 quarts milk
 in other bottle
 heat to 70°, Put in 1/2 cup
 Pour cocoa in this