Professor Emeritus John L. Heilbron,
Department of History and Office for History of Science and Technology

“Astronomy and Politics in a Roman Bath and Basilica”
Saturday, March 11, 2006

The basilica of Santa Maria degli Angeli, designed by Michelangelo within the ancient baths of Diocletian, functioned as an instrument to detect the motion of the earth after the condemnation of Galileo and as a stone tablet to record symbols of the ambitious foreign policy of Pope Clement XI. Professor Emeritus John Heilbron will illustrate and discuss this unusual and attractive monument at the next luncheon meeting of the Emeriti Association.

Professor (and Vice Chancellor) Heilbron received his B.A. and Ph.D. from Berkeley. Current research interests include relations between science and religion in the 17th and 18th centuries, physics and its institutions in the 20th century, and the use of history of science in the teaching of science. His most recent books include *Geometry Civilized: History, Culture, and Technology* (1998); *The Sun in the Church: Cathedrals as Solar Observatories* (1999); *Rutherford and the Explosion of Atoms* (2003); and, as editor in chief, *The Oxford Companion to the History of Modern Science* (2003). In 2002, Professor Heilbron received the Hubert Howe Bancroft Award given to honor “significant achievement in the support of historical research and scholarship.” He is a member of the American Philosophical Society, the Royal Swedish Academy of Sciences, among others. Professor Heilbron retired to England and now lives in remote Oxfordshire where his lectures are much admired by the sheep.
Pizza is a Vegetable? -- We Have a Problem

On Saturday, January 21, 2006, Professor Emerita Janet King of the Department of Nutritional Sciences and Toxicology spoke to the Association on the subject of what makes our children fat and what is to be done about it. Although the subject of childhood obesity is frequently featured in the press, the figures regarding the prevalence of childhood obesity presented by Professor King were staggering. There has been an upsurge in this malady in very recent times.

The problem is present throughout California and the United States, but is more severe in certain locales and ethnic groups. The highest percentage of overweight children is found in the Latino community, followed in descending order by Native Americans, African-Americans, whites, and Asians. Within the Bay area, according to the maps Professor King presented, the lowest rates appear in suburban areas, but everywhere the incidence is alarmingly high. Nationally, in 1991 not a single state showed more than 19% of the population overweight, but by 2004 there were 10 states with more than 20% of the population overweight. By 2040 it is forecast that 90 to 95% of U.S. adults will be overweight. Most alarming is the projection that one of three children born in 2000 will develop diabetes, a very serious life-threatening disorder. Even today more children die of obesity complications than of gunshot wounds. Obesity increases the incidence of diabetes, heart attacks, and renal and liver complications. The life span of the extra-large generation of today may be less than that of their parents, and for the first time in over 200 years life expectancy in the U.S. may decrease by as much as 13 years.

Has there been a genetic change in the population? This seems highly unlikely, because it is nearly impossible that an evolutionary event could occur in such a brief interval of time. The really significant factors are increased caloric intake, a higher proportion of rapidly metabolized carbohydrates in the diet, and reduced physical activity.

Every day about one-third of children eat fast food where the portion size of high-fat and high-sugar foods (burgers, fries and sodas) has increased amazingly over recent years. Studies have shown that people tend to eat all that is served to them (even gigantic portions of stale popcorn in movies!) so that caloric intake is bound to increase among fast-food patrons.

Eating rapidly metabolized carbohydrates, such as sugar and starches, causes blood sugar to rise very rapidly, stimulating insulin production leading to a crash in blood sugar level that then stimulates the appetite in an inexorable cycle.

The decrease of physical activity is a major contributing factor to childhood obesity. The time spent by children in front of the TV screen now exceeds five hours a day. Surprisingly, playing video games provides even less physical activity than watching television, possibly due to fidgeting while TV watching. Physical education programs in California elementary schools have been cut, and only one of our 50 states requires school PE. The dangers of the street in some urban areas keep children inside their houses after school. Professor King reported a conversation with a Richmond principal who said that children come to school on Monday mornings

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We All Dread Mental Decline. There’s Hope

A modest amount of exercise - as few as three sessions a week - may reduce the risk of dementia in people over 65, new research shows.

From a group of 2,581 participants in a health maintenance organization in Seattle, researchers selected 1,740 people over 65 who showed no evidence of mental decline. They interviewed the subjects about their exercise habits, assessed their general health and then traced their progress for an average of about six years, periodically testing their memory and other mental abilities. By the end of the study, published recently in *Annals of Internal Medicine*, 158 had developed some kind of dementia and about 400 had withdrawn from the study or died.

People who exercised more than three times a week developed dementia at a rate of 13 per 1,000 patient-years, compared with 19.7 per 1,000 patient-years for those who exercised less. (A thousand patient-years is the equivalent of 100 patients observed over a period of 10 years.) The authors acknowledge that their data depend on self-reports, which are not always reliable, that they did not measure exercise intensity, and that although they controlled for diet supplement use, smoking, alcohol use, education and other diseases, separate factors may still influence their results.

Dr. Eric B. Larson, director of the Group Health Cooperative’s Center for Health Studies in Seattle and the lead author on the paper, said: “It’s a robust study. Low levels of exercise cause a 30 to 40 percent reduction in risk for dementia. If someone is starting to decline, it looks like exercise may significantly help.”

From *The New York Times* called to our attention by Susan Irvin-Tripp

...And Now For Some Things Completely Different...

Elizabeth Farnsworth, special correspondent on the *News Hour with Jim Lehrer*, will discuss her forthcoming documentary, *The Pursuers*, which, follows the investigative work of Judge Juan Guzman and others intent on bringing Pinochet to justice in Chile. Monday, March 6, noon, 370 Dwinelle Hall.

*Dream What We Can Become and Rejoice* by George Elfil Ballis documents California farm workers in the grape fields and in the camps. Ballis, who studied with Dorothea Lange, and is now 80, began his documentation in 1956. The exhibit, which includes video and music runs until May 1 in Room 145, Boalt School of Law. Days and hours seem to change, call 559.855.3710 or [www.sunmt.org/dreamboalthall.html](http://www.sunmt.org/dreamboalthall.html).

*Coal Hollow* is an exhibit featuring black-and-white photographs and powerful oral histories chronicling the legacy of coal mining in southern West Virginia taken from the new book by Ken and Melanie Light. It is on display in the Graduate School of Journalism’s Photo Gallery at North Gate Hall until April 28.

*Travelogue*, Mark Shaw, growing up in a U.K. military family, had been twice around the world before five. Now traveling with a camera, he explores places tourists seldom venture. In a Laotian hospital he found a workshop where prosthetic limbs are carved from wood for those maimed by land mines. Photos from Cuba and Southeast Asia, ASUC Art Studio Gallery, lower levels of the MLK, Jr. Student Union, off lower Sproul Plaza, run through April 30.

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*Pizza is a Vegetable?, continued*

unmanageably restless from being confined inside their homes over the weekend.

Early education of children and their parents regarding diet is an obvious step. This should be done taking into consideration the family’s culture. There are ways of reducing the high caloric content of ethnic foods, for example Mexican foods. Illustrating the difficulty of educating some children, Professor King told of asking a 180 pound six-year-old boy (regular fast food patron, six sodas a day) to name his favorite vegetable. His immediate answer: “Pizza!” When the question was modified to name his favorite green vegetable, the answer was the same, because the boy had seen pizza with green peppers on it! Clearly we have a problem.

Larry Waldron
Free Noon Concerts - Hertz Concert Hall

Wednesdays and some Fridays – 12:15 – 1:00 p.m.

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<td>Kathryn Fang, piano              Bach, Beethoven, Chopin, Messiaen</td>
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<td>March 8</td>
<td>All Beethoven                    Rachel Li, piano; Christy Kyong, violin</td>
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<td>March 10</td>
<td>Dvorak, Dumky Trio in E minor    Michael Lam, violin; Clarion Tung, Cello; Jessie Lee, piano</td>
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<td>March 15</td>
<td>Kurt Weill, The Seven Deadly Sins Faculty Recital: Deborah Benedict, soprano; John Shumway, Jordan Eldredge, Joachim Hines, &amp; Steven Hinkle, vocal Quartet; Meredith Wilson, dancer; Inara Morgenstern, piano</td>
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<td>March 22</td>
<td>Mozart, Clarinet Concerto in A major University Symphony, Davic Milnes, conductor; Umesh Shanker, soloist</td>
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<td>April 5</td>
<td>Copland Piano Quartet            Linda Wang, piano; Christy Kyong, violin; Jacob Joseph-Hansen, viola; Gabrial Trop, cello Copland, Vitebsk (Study on a Jewish Theme)</td>
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<td>April 7</td>
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Wednesday, April 18, 1906  
San Francisco in ruins... UC Cadets sent to establish order... Refugee camps set-up on campus...