Monday 21 July: America as Frontier: A View of Our Past, by Patrick Griffin, Chair, University of Notre Dame Department of History. Steve and I were fascinated to hear him say that we must look eastward to Britain and its relation to Ireland and Scotland, which was a model for how Americans treated Indians. The Brits regarded the Irish and Scots on its frontiers as uncivilized, uncouth, inferior and beyond redemption, as well as relying on whisky! To secure their flanks they employed cruel, despoiling violence the Battle of Culloden in 1746 was particularly brutal. During the French-Indian War beginning in 1763, the Indians had to choose sides. With the Pontiacs, General Amherst resorted to biological warfare, giving Indians blankets used in a small-pox hospital, leading to their decimation. In the 19th century British attitudes changed to reforming and civilizing Scots and Irish, but in America Andrew Jackson forcibly moved even the Five Civilized Tribes. In John Ford's film, "The Man Who Shot Liberty Valance," John Wayne's character represents the violence of westward expansion; Jimmy Stewart's character is a reformer.

Tuesday, 22 July: Cynthia Truelove, Director/Visiting Scholar, Water-Energy Policy Research Initiative, Program for Water in the West, Woods Institute for the Environment, Stanford University, spoke on the importance of integrating water and energy resources. Native Americans understood the need to consider them together, even spiritually. Whites began to split them for fast gains at high cost. In California, oversight is unwieldy:

Water: 80% is managed by local boards; 20% is controlled by private utilities regulated by the State. Water is highly subsidized, under-priced and scarce. *Energy:* 80% is private; 20% is generated by State's hydroelectric sites. Energy prices are largely set by the Federal government; Regional utilities control the supply. Central Valley project in 1970s was Federally-financed and extremely energy-intensive. In 2006, California passed a law to reduce Green House Gases by 20% by 2020; another law aims for 33% renewable energy by 2030.

Crises have motivated change. A steam leak in two nuclear reactors in 2012 shut down 20% of the power in Southern California. Since January 2014 there has been a 20% decrease in the Sierra snowpack, a principal source of water. This shortfall is already causing wildfires and costing billions. "Politicians need to move from maintaining positions to meeting urgent needs."

Wednesday 23 July: Museums of the American West in the 21st Century: Transformational Journey in Interpretation, by W. Richard West, Jr., president and CEO, Autry National Center of the American West. West, a member of the Cheyenne and Arapaho tribes, was a founding director of the Smithsonian's National Museum of the American Indian (NMAI), which opened in 2004. I've visited the NMAI many times, but after his lecture I want to go back. He called it an anti-museum, a "safe place for unsafe ideas," rather than a "Temple of the Arts." It houses a collection of Native artifacts covering the entire Western hemisphere and originated in the multiculturalism of the 1980s. The Autry Center in Los Angeles, is *inter*-cultural, seeking to tell *all* the stories of the American West with multiple voices. For example, the Autry's exhibit of Native American beadwork highlights the interplay of natives creating art from Eastern European beads, expressing their resistance to whites in visually-coded messages. Now I want to see the Autry, as well as two others he mentioned--the Heard Museum in Phoenix and the Fenimore Art Museum in Cooperstown NY. West ended his lecture with a benediction in the Cheyenne language.

Thursday 24 July: The Politics of the American West, Bruce Babbitt, former governor, Arizona; Robert List, former governor, Nevada; Juliet Eilperin, White House reporter, The Washington Post. Eilperin's first question was "How did growing up in the West affect your choices?"

List's family were orange growers in southern California with plenty of water; they moved to Nevada and ranched on thousands of acres with little water. That ranch is now owned by a coal-powered power plant. He grew up loving the outdoors. Babbitt's family were ranchers. He is now working to ensure a sustainable future in the Amazon Basin, which is much like the western United States 150 years ago—deforestation, elimination of indigenous people, prospecting for gold—how to do it better this time.

Babbitt noted that the Federal government owns 86% of Nevada land, but it really belongs to all of us. On average, he thinks the Feds have been better stewards of the land than the States. List commented that the bast majority of ranchers are very responsible and love the land. Water resources are governed by the States. As Interior Secretary, Babbitt launched a program to increase Bureau of Land Management oversight of grazing It was a painful experience, as was reintroducing wolves, which eventually turned out well.

List wants to balance energy needs with wilderness goals. Most promising alternative to oil is nuclear, which currently supplies 20% of US power with no emissions. Babbitt says we must transition from fossil fuels with "all of the above"—wind, solar, and nuclear. He feels that BLM is not managing fracking well placements effectively and has turned a blind eye to regulating fracking.

Eilperin asked for comments on climate change and water scarcity. List responded that agricultural use is particularly hard to deal with. Babbitt said that 80% of water is for irrigation; in urban areas 50% of water is used for lawns and gardens—can we sustain that? Will the market place take care of a move away from water-intensive crops like almonds (now highly subsidized)?

Western politics are different from those in the East or South. Romney carried the former Confederacy. The North is more inclined to support government actions. The West is conditioned by the gold rush. Before 1849 there were fewer than 10,000 people in California; within two years, there were 250,000 from all over the world. There was no tradition of government; everybody was on their own, prospecting for the next big strike, relatively Libertarian.

Keystone pipeline? List favors building it, though he is concerned about the ultimate destination of the fuel. Babbitt says there is less at stake than meets the eye, since there are already thousands of miles of pipeline. He is concerned about the amount of greenhouse gases generated by treatment of the tar sands; isn't sure how he would vote, had he the opportunity.

Friday 25 July: Forces Shaping Silicon Valley, Leslie Berlin, Project Historian, Stanford's Silicon Valley Archives. Berlin has written a book about Robert Noyce, co-inventor of microchip technology and consulted on a PBS special on the Silicon Valley. As an aside, she reported enjoying Stewart O'Nan's *Emily, Alone* and others of his novels set in Chautauqua.

As Leslie was introduced, Steve turned to me and remarked "You and I were almost Silicon Valley pioneers!" When we were planning our wedding in 1966, still quite early in the development of the computer industry, he was ready to accept a job offer from Sylvania Electronics in Mountain View CA. Then his scholarship to Harvard Business School came through and we headed for Boston instead. I wonder how our lives might have been different?

In 1959 there were 600,000 people living in Silicon Valley. It was the "Valley of the Heart's Delight," with orchards producing prunes and plums. Now no orchards are left. Wallace Stegner described the loss: "Silicon Valley is good, but the Valley of the Heart's Delight was a glory. We should have found a way to save it, but we didn't." Today there are 1.8 million people; real estate values have skyrocketed.

Berlin told the story of a woman who had come to the Valley in 1959 with her two children. She went to work as an assembler for Fairchild Industries and bought a three bedroom house in Cupertino, where the schools were good. Then she switched to Lockheed, then GTE Sylvania and ROLM. Along the way she developed the skill of "breadboarding," transferring ideas to chips, earning twice the salary, plus health insurance. Her story highlights the importance of women for the precise work of assembling semi-conductors and the prevalence of job-hopping. Not all her jobs were start-ups; the U.S. government was the primary customer for early products. Federal spending fueled and sustained growth.

Many believe that this woman's first company, Fairchild Industries, was done in by its parent company in the East, where West coast ideas, such as stock options, were regarded as creeping socialism. Spin-off companies, termed "Fairchildren," include Intel, Advanced Micro Devices and National Semi-Conductor. Xerox PARC was another West Coast venture misunderstood by its parent company in Rochester NY. Xerox PARC had developed a revolutionary desktop computer with a network and printer in 1974, but Rochester, mired in "East Coast thinking," failed to recognize its value. These conclusions fail to consider the big risk Sherman Fairchild took with the eight young engineers he funded in 1957. Xerox's support to Xerox PARC was extremely generous, but the timing was wrong. Xerox may have missed the personal computer wave, but it did commercialize the laser printer. Lilli says she feels some East-West tension at her company, Autodesk, but with offices all over the world, that hardly matters.

The wealth of Silicon Valley is incredible. Ten per cent of the zip codes have median incomes over \$2 million. Immigrants are vital and essential; innovation depends on attracting the brightest minds in the world. One-third of SV residents were born outside the US; half speak at least one other language. Sixty-five percent of people with Bachelors degrees are foreign-born. Most traveled East or North to get to Silicon Valley. Anti-establishment little guys have become Establishment Big Guys.