

Dr. Thomas C. Hanks,
U.S. Geological Survey, Menlo Park

The Travels of Clyde Kluckhohn and the Photographs of James Hanks, 1927-1928: Repeat Photography, Virtual Repeat Photography, and Earth Surface Change in the Photographic Era

Long before he established himself as the pre-eminent anthropologist of the Navajo (Kluckhohn, 1946), Clyde Kluckhohn had journeyed extensively through the American Southwest, even as a teenager (Kluckhohn, 1927). During the summers of 1927 and 1928, Jim Hanks, the speaker's father, accompanied Kluckhohn, as did Bill Guernon, Nel Hagen, and Lauri Sharp, while all were undergraduates at the University of Wisconsin. Their adventures are recounted in *Beyond the Rainbow* (Kluckhohn, 1933).

Hanks took almost 500 photographs in northern Arizona and southern Utah. These include photographs of the Red Lake Trading Post, Betatakin, Navajo rangeland, individual Navajo people and families, the plateau country from the top of Navajo Mountain, Rainbow Bridge, the Colorado River still free in Glen Canyon, Hole-in-the-Rock from river level and the old Mormon Trail (now beneath Lake Powell), fields of hoo-doo's formed in huge landslides beneath Fifty-Mile Bench, previously unknown Anasazi structures and pictographs just beneath the rim of the Kaiparowits Plateau, cattle grazing on the Kaiparowits Plateau in 1928, lightning strikes in the black of night, and, not surprisingly in this country of sensational scenery, a variety of general scenery pictures. 451 of these pictures may be found in the Colorado Plateau Digital Archives of the Cline Library, Northern Arizona University, Flagstaff, AZ (www.nau.edu/library/speccoll/, search on "Hanks").

Using the 1927 and 1928 photographs as the baseline, this presentation will emphasize the ecologic, geologic, and hydrologic changes evident in repeat photographs taken in 2003-2006 on that part of the Colorado Plateau traversed by the Kluckhohn trips of 1927 and 1928. This presentation will also feature the use of "virtual repeat photography" developed by J. Luke Blair, also of the U.S. Geological Survey, to locate Hanks' camera stations with modern computational methods operating on 10-m resolution DEMs.

Biography: Dr. Thomas C. Hanks, one of three sons of James J. Hanks, graduated from Princeton University in 1966 (B.S.E.) and from the California Institute of Technology in 1972 (Ph.D.). He has been Research Geophysicist at the U.S. Geological Survey since 1974. According to Wikipedia, Dr. Hanks is a seismologist and a member of many geological societies, and has authored dozens of scholarly papers in strong-motion seismology and tectonic geomorphology