



Photographing Science Research at the University of California : An Analysis of Ansel Adams' Work in the 1960s



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Introduction

One of the first American photographers to capture the essence of environmentalism in his photographs, Ansel Adams is best known for his pictures of Yosemite National Park in 1958. In the years prior, he gained an international reputation photographing America's national parks, showcasing the Grand Canyon, Rocky Mountain, and Death Valley, to name a few. His sharp focus and the use of a photograph's full tonal range made him the ideal candidate to capture the parks' beauty. In the mid-1960s, he accepted a contract to document university life. Science, as people in the U.S. knew, was changing after the bomb went off in Hiroshima in 1945; this simultaneously propelled the world into the Atomic Age. As a result, universities and research centers around America buckled down on science education, hoping to gain an edge in this "Cold War." A major contributor to this education was the University of California system. Adams was there to document it all, but how exactly did his photographs depict science education at the University of California campuses during the 1960s?

Abstract

Before the 1960s, Ansel Adams was famous for photographing natural landscapes, including Yosemite National Park, bringing environmentalism to American photography. In 1963, however, Adams took on a project celebrating the University of California's centennial year. A resulting book was named *Fiat Lux*, from the Latin "let there be light." The UC system had poured millions of dollars into new buildings, equipment, and technology, and prominent Californians celebrated its state universities, already powerhouses for scientific research, as political unrest with Russia heightened amidst the Space Race. Adams, well known in California, was commissioned alongside curator Nancy Newhall in the 1960s to document these universities. My research mentor, Professor Ronald E. Doel, located additional unpublished project photographs, part of a co-authored book on what historical photographs tell us about American science. My challenge was to analyze what Adams chose to photograph, and how he framed his subjects. Adams captured many aspects of the university--from intimate faculty portraits to modern campus architecture, to fieldwork highlighting California's natural landscape. These powerful photographs are displayed throughout the California campuses and pulled out every 25 years to celebrate the university. His work reveals university life in the 1960s, from student diversity to then-ongoing scientific research. It is unfortunate that Adams only photographed the UC campuses: we lack parallel photographic projects, limiting our ability to compare student life and research efforts across multiple states and other university systems.

References and Sources

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Sweeney/Rubin Ansel Adams Fiat Lux Collection, California Museum of Photography, U.C. Riverside.



U.C. Davis Campus

Dr. G. Ledyard Stebbins takes his students on a field trip to study genetics in the real world.

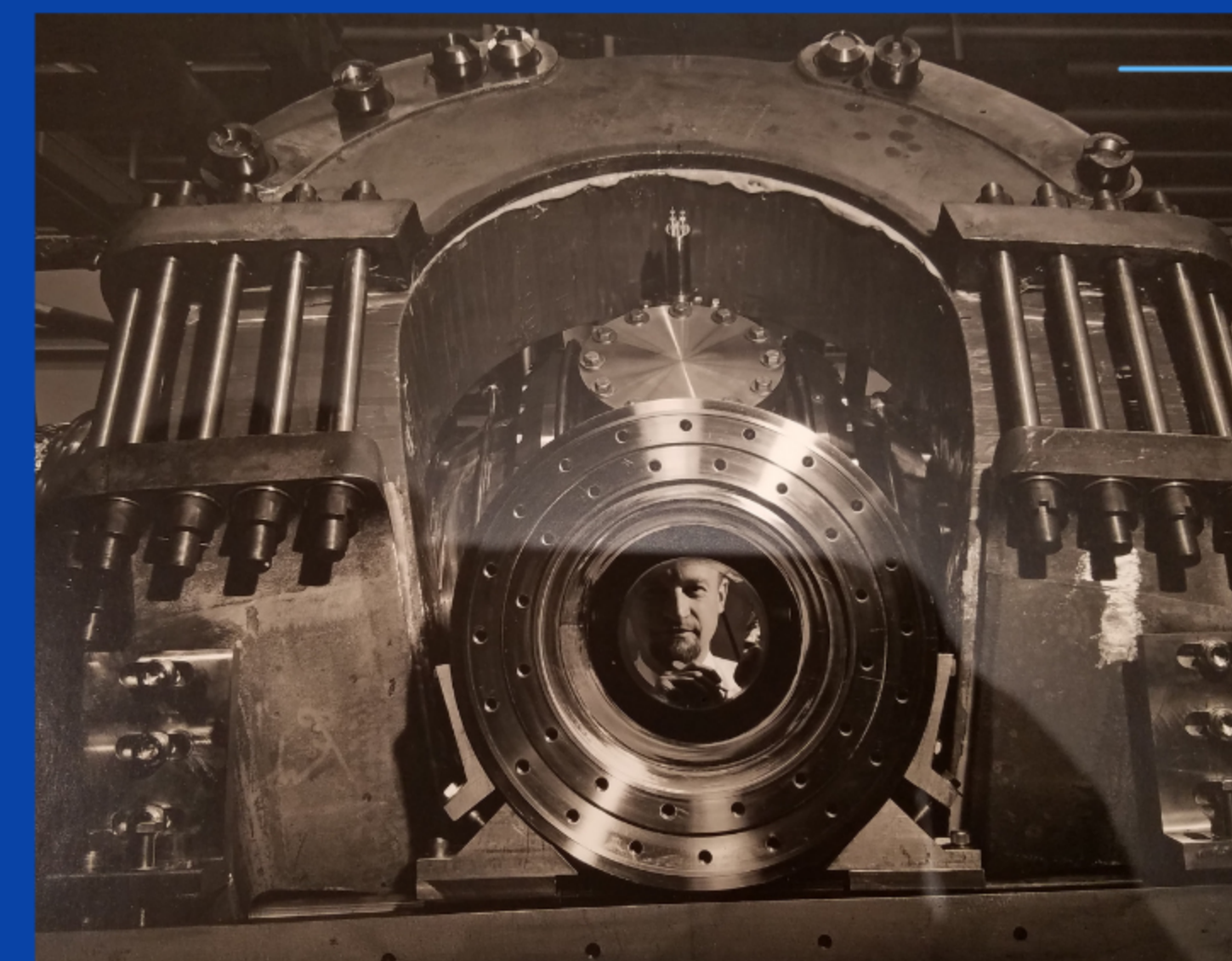
Results

The first aspect to address in Adams's photographs is the diversity of gender and races represented. Before my research, I expected the higher education students at the University of California to consist of white males. However, there were women and students of African and Indian descent all learning together.



U.C. La Jolla Campus

Dr. Geoffrey Burbidge working at his desk amidst piles of geo- and planetary physics papers.



U.C. Berkeley Campus

Dr. William F. Giaque peers through a Cryogenic Apparatus in November 1966. Adams emphasizes the tool's intricate workings as well as the scientist behind the machine.



U.C. San Diego Campus

Dr. Harold Urey stands overlooking the University of California's Urey Hall. Adams shot the photo from another building's balcony to capture the sheer size of the hall.

The University of California's system of campuses is unique because of the natural landscape surrounding it, and UC was committed to using that natural playground for its research. Adams highlights field trips to Joshua Tree, Coyote Canyon, and White Mountain Research Center, to name a few, and his work with prior landscapes made him an impressive candidate to capture this fieldwork. In addition, the hands-on teaching style is shown between professor and student throughout his photos. This method would be beneficial for fieldwork today to inspire an engaging and collaborative scientific environment at modern universities.

U.C. Riverside Campus

Dr. John Middleton shows Adams his greenhouse, doubling as an air pollution laboratory, in Spring 1966.



Leading Lines

So much of science is portrayed in a very quantitative, logical way, but Adams managed to highlight the art throughout his photographs. The close-ups show the human behind the research in a very intimate way. With a world moving everything on Zoom, relying more and more on Artificial Intelligence, it is vital to stay in touch with science's creative and experimental side, so the work reflects humanity.

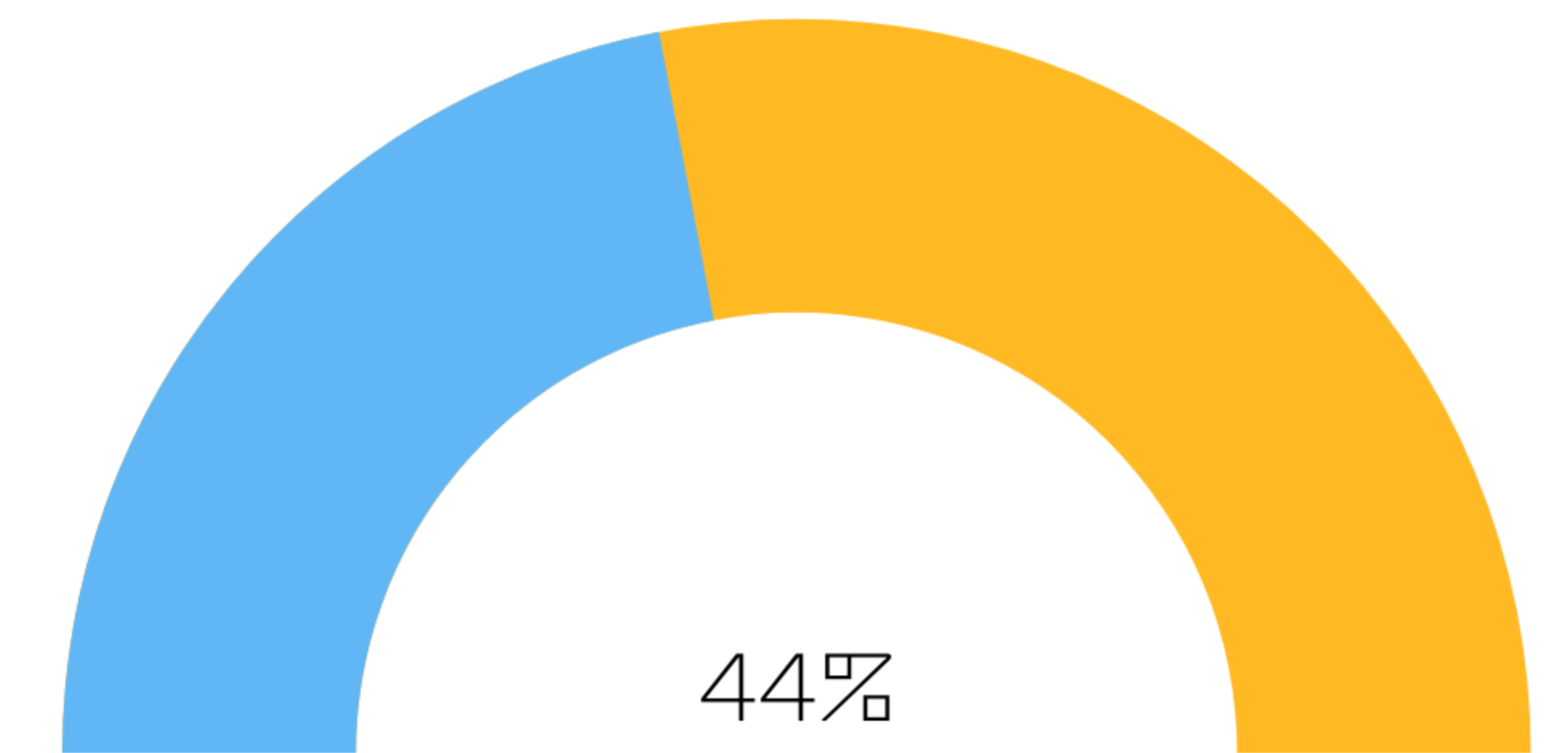


U.C. Davis Campus

Plant Pathologist Dr. Nyland, April 1966, posing before his experimental orchard, just outside of the U.C. Davis campus.

Methodology

- Created a four-column spreadsheet to record details for each photograph: subject/location, field/discipline, photo characteristics, and surprises/questions, tied to the PDF and Frame Number.
- Recorded photo characteristics like the number of people in the photo, what gender and race were represented, and the composition of the landscape or interior spaces. Recorded photographic strategies such as lighting, angles, and leading lines to understand its perspective--that is, what Adams wants the audience to focus on in the photo. The emphasis was on scientific technology in some cases, whereas in others, Adams portrays the scientist behind the technology.
- The "surprises/questions" section was used to write initial thoughts or opinions of the photo, taking note of what isn't represented, those of a certain race or age, for example.
- Revisited notes and researched the historical context of any questions or comments noted to better understand its purpose in Adams's photo collection.



44% of Adams' shots at the University of California emphasized California's natural landscape.

Adams' most famed work is of California's landscape. He was known for photographing the Earth with a sharp, defining look, capturing the details of nature. In his prior work, Adams leaned towards jobs that showcased Earth's natural terrain. Capturing the University of California, this same element can be found in his photographs. Adams took shots highlighting the mountains surrounding the campus and the professors who used nature as their classroom.

Results

Further research is in progress as hundreds of Adams's archived photos remain unexplored. His work helps tell the narrative of higher education in the 1960s at the University of California system, highlighting a space to encourage and teach students of all backgrounds at a time when education was only available to a select few. To this day, the University of California plays an important role in scientific research. Still, with so many perspectives, new findings arise each time a picture is pulled out to be analyzed.

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