Preserving Fundamental Observations:
Processing the Lick Observatory Records and Kenneth Norris Papers

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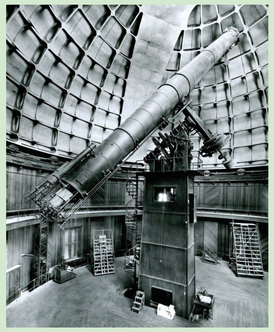
I am a Project Archivist in the middle of a one-year term at UC Santa Cruz. My task this year is to process 2 collections which amount to about 600 linear feet, and provide finding aids that make these collections more discoverable and accessible to a wide variety of campus researchers and community members. These two collections document important local history, namely the construction and operations of an observatory built in the late 1800s, and the life's work of a beloved UCSC professor and pioneer in the study of natural history and marine mammalogy. Both collections include essential records that provide a glimpse into times when important observations were being made in astronomy and natural science, respectively, which laid the foundation for the work that is done today in these two fields. Each of these collections also highlight an innovative way of exploring nature at the time: the Lick Observatory embarked on expeditions all over the world in the early 20th century to study total solar eclipses, and Ken Norris helped establish the Field Quarter class at UC Santa Cruz, which remains to this day a unique opportunity for students to explore and study natural reserves across California for an entire academic quarter.

The Lick Observatory Records

The Lick Observatory was established in 1888 on Mount Hamilton (near San Jose) by the James Lick Trust. James Lick was an eccentric San Francisco millionaire who wanted to leave his legacy in a meaningful way - after several ideas, he finally settled on building a large refracting telescope in order to contribute to advancements in science, technology, and the human record of knowledge. Building this observatory was quite a feat in the late 1800s, as a low-grade road had to be constructed all the way up the mountain so that horse-drawn carriages could bring up the heavy equipment, and a full 30 feet of the mountain was taken off, amounting to about 70,000 tons of rock removed by hand.

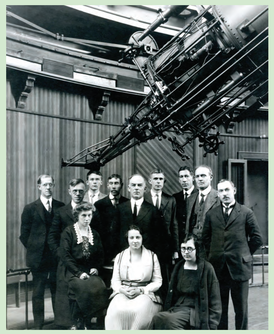
Group at Lick, ca. 1900

At the time of its construction, the Great Lick Refractor was the largest refracting telescope in the world (a title it held for only 9 years, until the refractor at Yerkes Observatory was built in 1897, which remains the world's largest today). In the next several decades, there were many other telescopes and astronomical instruments built and used at the observatory site. Much important work was done at Lick, with the most famous perhaps being the expeditions that director W.W. Campbell organized in the early 20th century. A team of Lick astronomers traveled across the world to study solar eclipses in Russia, Australia, India, and several American cities. At the 1922 eclipse in Wallal, Australia, the astronomers were able to gather enough evidence to support Einstein's newlypublished theory of relativity. The Lick Observatory is still in operation today as part of the UC Observatories.



The Great Lick Refractor telescope

Left: Lick Observatory on Mt. Hamilton, ca. 1890

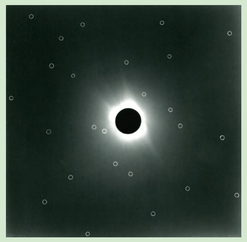


Above: Lick Staff with the Great Lick Refractor, 1922

Efficient Processing and Legacy Data

Processing these collections involves digging through a lot of legacy data, as both collections have been at UCSC for decades and have had varying amounts of processing work already done, with not much documentation. With the guidance of the ***Guidelines for Efficient Archival Processing in the University of California Libraries***, I have been utilizing legacy data where possible and making the most of the work that has already been done.

- Attach existing inventories to finding aids as PDF files
- Assign value score to materials, determine appropriate level of effort
- Use high-level description as much as possible
- Avoid item-level processing
- Assign work to student staff where appropriate



Above: An example of legacy data. Index card showing detailed descriptions of individual pieces of correspondence from the Lick Observatory records, with numbers of letters and cross references to other letters.

Left: The Einstein Plate, taken at the Wallal solar eclipse, annotated to show positions of stars which deflect around the sun, thereby supporting Einstein's theory of relativity, 1922

CART Program

The Center for Archival Research and Training (CART) was established in 2013 at UC Santa Cruz, and was modeled after UCLA's Center for Primary Research and Training. This paid fellowship program gives graduate students from various disciplines the opportunity to process archival collections, use materials in their own graduate research, and create an exhibit to highlight their work and the newly processed collection. The fellowship benefits both the library and the students, increasing the reach of archives on campus through graduate learning and also providing more resources for the Special Collections and Archives department to highlight hidden collections.

We are currently in the second year of this program, and its success can be seen in the exposure of collections to new disciplines, with graduate fellows from literature, art history, and environmental sciences participating this year. The 3 fellows are currently in the process of developing their spring exhibit, "Reading Nature," which will be viewable online on the UCSC Digital Projects site. This program is an example of a greater initiative on campus to bring together the study of science and arts & humanities, and to more closely examine the intersections between these areas, fostering discussions about interdisciplinarity and collaboration.

Kenneth Norris Papers

Ken Norris, often called the "Professor of Wonderment" by his students, was a professor of Natural History at UC Santa Cruz from the 1970s to the 1990s. There are hundreds of alumni and friends who continue to be active in the UCSC community who studied under Ken, either in his famous Field Quarter experiences, in his lectures, or through graduate student mentorship. Norris was a pioneer in the research of marine mammal behavior, and was one of the first to discover that dolphins use echolocation to navigate their environment. Norris' first love was the study of desert environments and organisms, and he often divided his time and his research between the desert and the ocean. In Santa Cruz, he was on the founding team of the Long Marine Lab, and he was integral in forming and supporting the UC Natural Reserve System, which remains a key organization that allows students to research relatively untouched natural environments around California. When he started teaching at UCSC, he quickly became a favorite with his students, and would take them on research trips for several weeks as part of the unique Field Quarter class he developed. His sense of wonder and respect for every part of life is evident in his many published works, his papers in this collection, and the vast network of revering alumni who keep his memory alive.

Ken Norris exploring the natural environment on Field Quarter with his students, ca. 1980

View the finding aids online at the Online Archive of California: **http://oac.cdlib.org** (Search "Lick Observatory" and "Kenneth Norris")