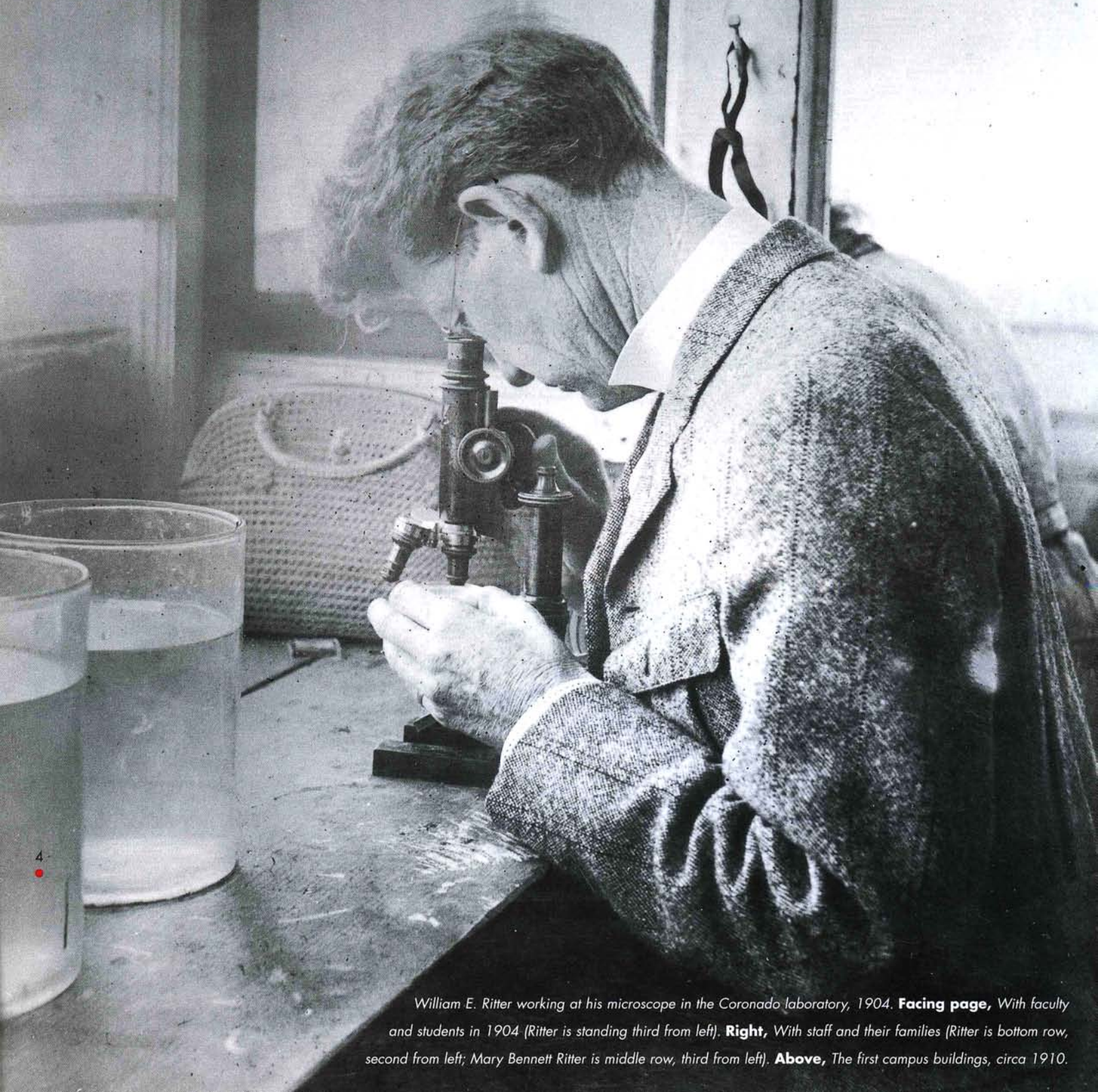


# WILLIAM E. RITTER



William E. Ritter working at his microscope in the Coronado laboratory, 1904. **Facing page**, With faculty and students in 1904 (Ritter is standing third from left). **Right**, With staff and their families (Ritter is bottom row, second from left; Mary Bennett Ritter is middle row, third from left). **Above**, The first campus buildings, circa 1910.



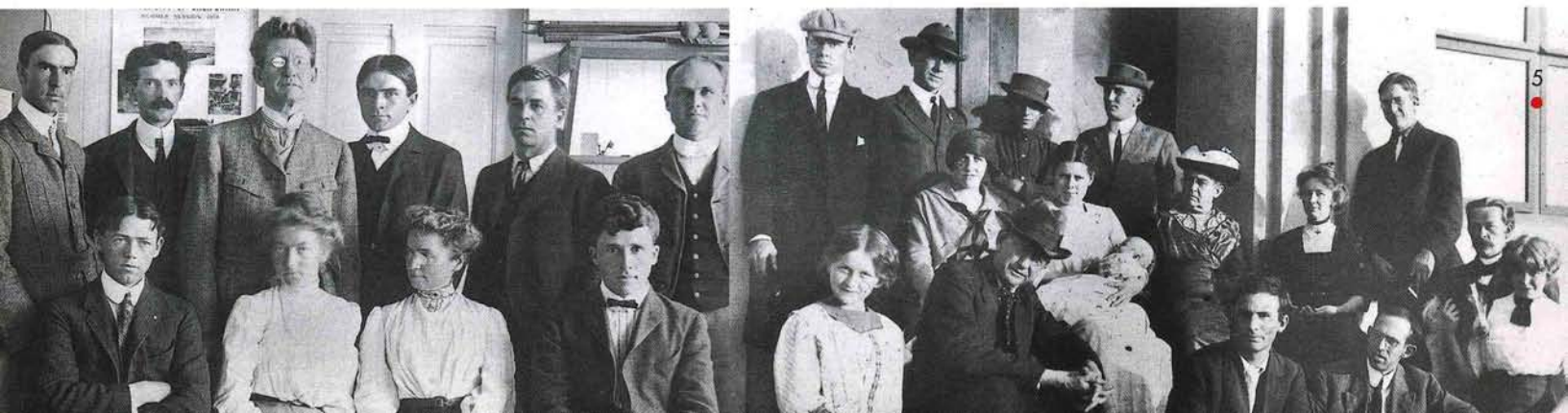
## Scripps Visionary Builds Foundation for Century of Oceanography

**T**HE ESTABLISHMENT OF Scripps Institution of Oceanography is often attributed to the courage and determination of its first director, William E. Ritter, a man whose motto was “neglect nothing.”

Ritter professed a balanced and holistic view of nature that was based on a deep interest in philosophy as well as biology, physical science, and mathematics. He was inspired by, in his words, “the vast scale on which things are done in the ocean, and the literally infinite complexity of cause and law there in operation.”

Ritter embraced ideas that would later be popular-

ized as ecology. He believed that organisms are best understood in the context of their physical environment and best studied by specialists working together. These views were a departure from those of many of his contemporaries, who preferred to reduce the natural world to isolated, quantifiable, laboratory examinations of individual organisms. He was convinced “of both the fundamental unity and the fundamental diversity of all nature . . . that the whole of nature is a system.” These progressive beliefs molded Ritter’s vision of the oceanographic institution that was to become Scripps.





**Above,** Portrait of Ritter as a UC Berkeley professor.

**Above right,** Interior of the "Little Green Lab."

**Below right,** The lab was located above La Jolla Cove. The town of La Jolla, California, circa 1905, is visible in the background.



## ON A SCIENTIFIC FRONTIER

At the beginning of the twentieth century, science and technology were advancing by leaps and bounds in the United States. The Wright brothers would soon propel the world into powered flight. And as some Americans looked skyward, others were looking seaward in an accelerating quest to understand the ocean realm. One of these visionaries was Ritter, then a professor of zoology at the Berkeley campus of the University of California.

From 1892 to 1903, Ritter conducted summer field-study sessions along the California coast with his UC Berkeley students. They collected, sorted, and classified marine animals, always hoping they would find a permanent location for a marine field station. One summer saw them at Pacific Grove on Monterey Bay, but a station had already been established there by Stanford University. They pitched their tents at Avalon on Santa Catalina Island, which was a pristine locale but too remote from the mainland. Later, they worked out of San Pedro Harbor near Los Angeles, a promising location that was to be spoiled by plans for harbor construction.

In 1903 Ritter received a letter informing him that "the splendid bay at San Diego should not be overlooked . . . for such work as you are planning, I feel sure San Diego offers the greatest chances of any point on the coast." The writer was Fred Baker, noted physician, dedicated shell collector, prominent San Diego resident, and an energetic proponent of Ritter's work.





The boathouse of the Hotel del Coronado on Glorietta Bay housed Ritter's first San Diego field session in 1903.



Indeed, San Diego proved most hospitable and promising. The balmy climate, the relatively clean environment, and the support of a generous business community were all considerations. Baker promised to help establish a San Diego site and to introduce Ritter to potential donors. Joining Baker were retired newspaper tycoon E. W. Scripps and his half sister, Ellen Browning Scripps, an indefatigable philanthropist. Led by Baker, the Scrippses, and Ritter business and professional people throughout the community joined together in 1903 to form the Marine Biological Association of San Diego. This is considered to be the year that Scripps Institution of Oceanography was founded.

Baker solicited \$1,250 in donations, no small sum in those days, to help fund a field laboratory. He also secured the use of the boathouse at San Diego's elegant Hotel del Coronado as its temporary location. This site must have seemed a dream come true to Ritter, his colleagues, and students—after roughing it at previous northern encampments. The hotel was one of the era's most prestigious and attractive resorts, and was located near an undeveloped open seashore with ready access to the calm waters of Glorietta Bay.

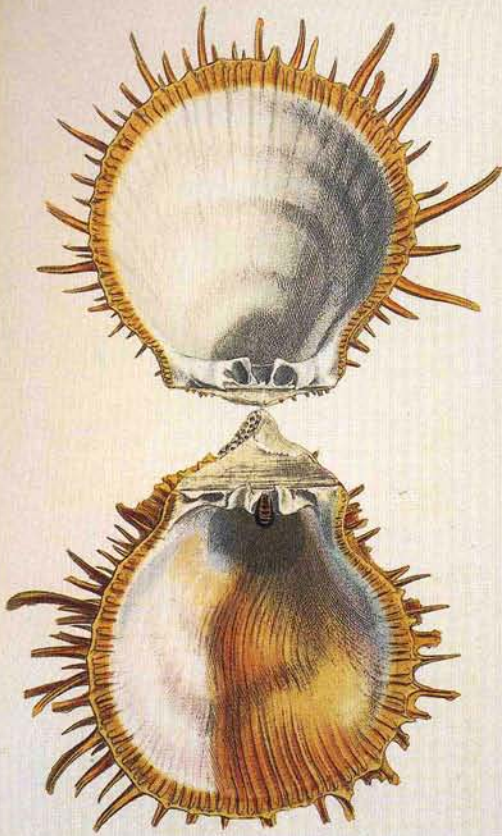
Toward the end of that inaugural summer, the *San Diego Union's* front page of August 1, 1903, read, "Biologists Made Many Discoveries." The article reported on this first San Diego session, led by Ritter and joined by a group of nine colleagues and students—including two women, which was exceptional for the time. With the aid of a local fisherman, the scientists collected specimens of plankton, copepods, and many other marine animals in their nets from the schooner *Laura*. Their studies revealed the biological diversity of the bay and the suitability of San Diego for marine investigations.

Ritter was apparently impressed by the San Diego summers. He later wrote in a report to the University of California, "Who that is accustomed to the sea can fail to recognize that an ocean like that off southern California, where icy tempests never rage and where torrid heat never enervates, must be exactly the sort of ocean where observations and experiments . . . could be best carried on?" In a letter to the San Diego Chamber of Commerce, he also wrote, "There can be no doubt that a laboratory capable of great things for biological science might be built in San Diego."

*continued on page 10*



The 1907 launching of the institution's first dedicated research vessel, Alexander Agassiz, met with considerable fanfare.



*Spondylus aurantius.*



**The Scripps:** Ellen Browning and Edward Willis (E.W.). They were generous and active supporters of the institution and longtime friends of William Ritter.

**Below left,** During the same period, Charles Atwood Kofoed was Ritter's colleague and second in command.

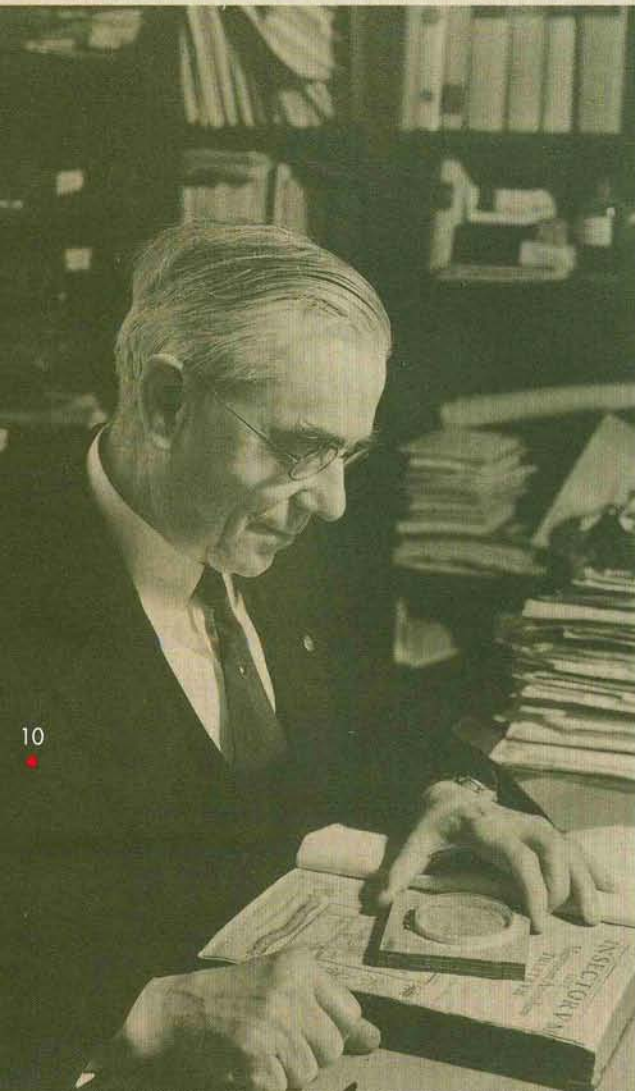


## LAUNCHING A MARINE LABORATORY

In 1905, following two summers of study at the Coronado location, a first home for Ritter's sessions was built at La Jolla Cove, then a holiday community north of San Diego. According to Ritter, the place was "in most ways unsurpassed in natural charm by any other on the California coast."

In establishing the University of California's first permanent marine laboratory, Ritter's stated ambition was "to make a thorough, systematic, and continuing biological survey of the Pacific Ocean along the coast of California." He also sought to extend that study to the deeper waters beyond the intertidal zone, realizing that the chemical and physical properties of the ocean must influence the kinds of animal communities to be found in various locations. Ritter stated in his report to the university, "The future marine station, particularly the California station, must be planned for physical, chemical, and hydrographic, as well as for strictly biological research. The work must go on every hour of the day, and every day of the year."

Known as the "Little Green Lab," the La Jolla facility was constructed under the supervision of Ritter's colleague Charles Atwood Kofoed, who succeeded Ritter as head of the Berkeley



zoology department in 1909 and who was an influential kindred spirit for Ritter. Kofoid said of the marine laboratory they established together, “The biological station of the future is to be a marine or fresh-water observatory with a broad basis and wider scope of action.”

The lab cost nearly \$1,000 and was funded mainly through the efforts of the Scripps. The location at La Jolla Cove soon proved unsuitable because of civic development. Thus, a 177-acre seaside parcel a few miles north of the cove was purchased at auction for \$1,000 by the Marine Biological Association. A gradual move to the new location took place between 1907 and 1910.



Professor Ritter and his wife, Dr. Mary Bennett Ritter, moved to the first building on the new campus, which housed laboratories, aquaria, a classroom, and a library, in addition to their residence. A newspaper article reported that the new laboratory would be, in accordance with Ritter’s far-sighted standards, “fitted throughout with the most modern apparatus for scientific investigation of marine vegetable and animal organisms and the conditions surrounding their propagation and life.”

**MOVING BEYOND BIOLOGY**

In 1912, the affairs and property of the Marine Biological Association were transferred to the University of California, and the official name became the Scripps Institution for Biological Research of the University of California.

Ritter led the small institution into studies beyond the confines of biology. The first additional field to be explored was physics, and physi-

cist George F. McEwen was recruited to head these studies. Other disciplines followed. Ritter continued as director until his retirement in 1923. By the 1930s, Ritter’s legacy included the full range of oceanographic disciplines—biological, physical, chemical, and geological. Much of his original plan and structure for interdisciplinary studies of the ocean environment remains in effect to this day.

In 1927, Baker spoke at the dedication of a portrait of Ritter. “I believe that few institutions of this character have grown up which more fully express the ideas and ideals of one man than does this one,” Baker said. “He was the dominating force which drove us all to the goal which he had set.”

In the nearly one hundred years since the institution’s founding, Scripps has grown and evolved into one of the world’s premier centers for the study of the ocean, earth, and atmosphere. Though he could not have imagined what science would achieve by the end of this century, Ritter’s original vision of an integrated approach to understanding the world lives on.

