

REVIEWS

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Stein, B. R. 2001. *ON HER OWN TERMS: ANNIE MONTAGUE ALEXANDER AND THE RISE OF SCIENCE IN THE AMERICAN WEST*. University of California Press, Berkeley, 380 pp. ISBN 0-520-22726-3, price (hardcover), \$35.00.

“... I do not want to be selfish yet it seems to me we [women] have the right to a considerable extent of disposing of our lives as we think fit.” (A. M. Alexander to her friend M. Beckwith, February 1901).

Over the past few decades historians, scientists, and the like have become interested in the role played by women in the development of various scientific disciplines during the early 1900s (Abir-Am and Outram 1989; Bailey 1994; Bonta 1991; Ogilvie 1986; Rossiter 1982). In an era when few worked outside the home, professional scientific careers for women were unheard of, and educational opportunities were limited, some women still managed to become involved in scientific endeavors. *On her own terms* is the biography of one such remarkable woman, Annie Montague Alexander. Not only was Alexander an intrepid explorer with an insatiable appetite for adventure, but she was also a highly skilled amateur naturalist. Over her lifetime she collected more than 22,000 mammal, 17,000 botanical, and 1,500 fossil specimens, including a number of previously undescribed species. Arguably more important, however, was Alexander's pivotal role as the founder and patron of both the Museum of Paleontology and the Museum of Vertebrate Zoology at the University of California at Berkeley (MVZ).

This book is more than just a biography. Drawing on correspondence, diaries, personal interviews, and other archival material, the author Barbara Stein has written an engrossing account of how science in the early 1900s was influenced by Annie M. Alexander. This occurred not only through the scientific and political impact of the 2 museums Alexander founded and continued to fund throughout her life but through her role as the patron, advisor, and colleague of men who went on to become highly influential and respected scientists. Readers will find her relationship with Joseph Grinnell particularly intriguing, especially in the light of his well-known prejudices against female scientists. The author is not shy about this apparent para-

dox: “Grinnell's willingness to take direction from Alexander and be accountable to her in almost all aspects is an astonishing and key factor in the success of their venture [the establishment of the MVZ] ... Such deferential expressions were counter to the manner in which Grinnell treated all other women (with the possible exception of his wife) and many of his colleagues. . . .” (p. 91). Throughout his tenure as director (1908–1939), Grinnell did not permit women to participate in museum-sponsored field expeditions, and they were denied entry into the graduate program until the 1930s. Despite this, it is apparent that Grinnell held Alexander in high regard both as a field biologist and as a fellow visionary: “This is your enterprise. You have sacrificed a very great deal to bring it to its present estate. The Museum's assets in the way of scientific materials are enormously valuable . . . I want you to know that I am not unmindful of my debt to you for the opportunities I have had here to work in exactly the field I have always preferred to any other. In other words your getting me here meant the realization of my dreams. I am keenly grateful.” (p. 95). This esteem was clearly mutual; although Grinnell was still 5 years from attaining his Ph.D. and had not as yet achieved the reputation he enjoyed later, Alexander made his appointment as director an inflexible condition for her willingness to establish the MVZ. Upon his sudden death in 1939, she wrote: “We have been so closely united in our ambition to make the Museum a center for the study of vertebrate zoology with a reputation for high quality output that his sudden death leaves me stranded. . . .” (p. 253).

The book is arranged in roughly chronological order, with each of the 29 chapters devoted to a different topic, event, or time period. The 1st chapter deals with Alexander's father, Samuel, and his business partner, Henry Baldwin, who together established a Hawaiian sugar empire that was an immense financial success. The wealth provided by this venture opened countless opportunities and provided considerable autonomy for Alexander. There is little doubt, for example, that her underwriting of field expeditions was the original reason she was allowed to participate in them—opportunities that at that time were largely unavailable to other women.

The 2nd chapter deals with the family's move from Hawaii to Oakland, California, and Annie's

late childhood. It is unfortunate that few details were available about Annie Alexander's early life (although this is touched upon again in chapter 25, "Hawaii—my only real home"). I found myself curious about the early experiences that might have contributed to Alexander's inquisitive and adventuresome spirit. And where did her unwavering commitment to fieldwork and science (despite the prevailing social culture) come from? Her father appears to have been a formative influence in the development of her ideas, but this is difficult to assess given that so little of their correspondence was available. The author appears to share this frustration; she comments that few details were available about this period of Alexander's life. Given the extensive research that clearly went into this book (evidenced by the exhaustive footnotes and the wide variety of source material), this is undoubtedly the case. These background chapters of *On her own terms* are followed by a number of chapters that vividly illustrate Alexander's increasing interest in and passion for science and detail her early field expeditions (i.e., "A passion for paleontology," "Meeting C. Hart Merriam," "Alaska, 1906," "Founding a museum of vertebrate zoology").

Later chapters deal with a variety of issues, ranging from her relationship with Grinnell ("An unusual collaboration") and her partner Louise Kellogg ("The team of Alexander and Kellogg"), her loathing of publicity or recognition ("From 'a friend of the university'"), and her establishment of a 2nd museum at the Berkeley campus ("Founding a museum of paleontology") to her continued presence in the field until after her 80th birthday ("Fieldwork—the later years" and "The switch to botany"). Although largely chronological, the temporal scaling is uneven. Consequently, upon reading the book the 1st time, I found the narrative somewhat jarring. Certain chapters, for example, summarize events over many decades, whereas others deal with only a single year. Moreover, there is a great deal of temporal backtracking that occurs between chapters. Chapter 17 ("Founding a museum of paleontology"), for example, covers the period from about 1910 to 1948, whereas chapter 18 ("A restless decade") deals with events from 1917 to 1923. Nonetheless, once I became accustomed to this, I found that aggregation by topic rather than strict chronological order pro-

vided a much more comprehensive and cohesive understanding of the events and issues.

The book includes 32 black and white plates, an appendix listing the taxa named in honor of Annie Alexander and Louise Kellogg (a list that would have been considerably longer had Alexander not circumvented every attempt of which she had foreknowledge), and comprehensive documentation of each footnote. Throughout, Stein has made liberal and particularly effective use of quotations to illustrate her points. In the process, she has animated the central figures very effectively.

Barbara Stein has written a vivid and captivating account of how an intelligent and independent woman circumvented the strict social expectations of her day and realized her ambitions. What set Alexander apart from other wealthy women interested in science is that she did not become involved in science vicariously. Instead, she used her considerable fortune as a vehicle to become an active participant in scientific endeavors. In the process of satisfying her own intellectual yearnings, Annie Alexander profoundly affected the trajectory of natural science in the American West. Because of Alexander's distaste for publicity, her remarkable role as explorer, naturalist, benefactor, and patron of 2 prominent museums has been largely unappreciated until recently (Bonta 1991; Williams 1994). This engrossing book should be required reading for any student of mammalogy or paleontology at the museums Alexander founded, and I believe it will be of general interest for anyone interested in the history of science.—FELISA A. SMITH, *Department of Biology, University of New Mexico, Albuquerque, NM 87131*.

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