

A Celebration of Women in STEM

Among the most popular (and hard to stock) sections of our shop is Science – and especially books by women in the field. So as we get into the year and realize what good pieces we currently have in, we're excited to share them with you. Across the present offering are women studying the stars, women encouraging young children to engage in biological observations, women presenting new theories on corals and climates, and women considering how best humans should feed their bodies and brains for strong development.

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An important and accessible work on astronomy, seeking to encourage a more diverse population of children to enter the field

1. [Astronomy] Proctor, Mary. Evenings with the Stars.

London and New York: Cassell and Company, 1924. First edition. Original publisher's pictorial cloth binding with gilt to spine and front board. Rubbing to spine and boards, with some fraying to cloth on extremities. Lacking the front endpaper, else complete including frontis and 8 plates. With OCLC reporting fewer than twenty copies in the U.S., and no appearance in the modern auction record, this important work on popular astronomy has become quite scarce.

For her deep love of the stars, Mary Proctor credited her father, the famous astronomer Richard Proctor, and Caroline Herschel, the first woman to present an astronomy paper at the Royal Society. At an early age, she began writing articles for the popular science periodical Knowledge under the pen name Stella Occidens, and by 1893 she began using her own name to speak and publish work on astronomy. Renowned for her conversational lectures, she was most comfortable delivering talks without the use of notes, relying

instead on her expertise in the work of her father and her desire to make that complex information accessible and interesting to non-specialist audiences. A degree from Columbia University added to her credentials and increased her interest in speaking; a year later, in 1898 she was elected a member of the American Association of Astronomical Studies (ODNB). "By 1901 she had delivered nearly 500 lectures, and she has been identified as one of 288 professional lecturers on the Lyceum circuit in the US -- one of just 23 women (8%) and the only woman on the list who lectured on astronomy" (Prosser).

The present work, Evenings with the Stars, was part of Proctor's project of encouraging people to find opportunities in daily life for understanding the movement of stars. "This book is specifically written for those who have not made study of astronomy, but who may wish to know something about the stars -- when and where to look for them in the sky, the origin of their names, and a few facts of interest concerning them from an observer's standpoint...The idea is to stimulate a desire to know more about a subject which fascinated the great Herschel, who first adopted it merely as a hobby, as to lead to becoming one of the greatest pioneers of this science which the world has ever known." To this end, Proctor blended her engaging and conversational tone with references to the humanities (including poetry from the likes of Milton and Tennyson) with charts, diagrams, and illustrations from some of the most powerful telescopes of the time. An important work in its time, Evenings with the Stars can teach us much today about making scientific fields welcoming to a more diverse population, and encouraging a broader range of children to become curious and grow into the field. Very Good +. (2772) **\$1,250**

Breaking new ground in elementary level scientific pedagogy

2. [Biology] Mayo, Elizabeth.

Lessons on Shells, as Given to Children Between the Ages of Eight and Ten, in a Pestalozzian School...

London: R. B. Seeley and W. Burnside, 1832. First edition. Publisher's drab boards rebacked to style with morocco spine label. Measuring 165 x 105mm and collating complete including half title, all ten plates with facing explanations and publisher's advert to rear: x, [2], 222, [42]. A Near Fine copy with some spotting and shelfwear externally. Bookplate of Mary Ames to front pastedown and contemporary gift inscription from the same to the front endpaper: Mary Jane Pinney from her Aunt Ames. Dec. 27th 1842." Minor foxing to preliminary and terminal leaves, and gentle toning to plates; else internally fresh and unmarked. A scarce scientific primer, we were able to locate 8 copies in the U.S. via OCLC; it has appeared twice at auction (with the most recent being 15 years ago) and the present is the only example currently in trade.

Following the paths blazed by fellow citizen scientists Jane Marcet, Priscilla Wakefield, and Mary Roberts, Elizabeth Mayo created a succinct but detailed guide to collecting, identifying, and scientifically examining shells. Like these women, Mayo's text utilized a familiar dialogic method -- presenting readers with conversations about shells and their inhabitants unfolding among children and their teachers. It also encouraged readers to engage in hands-on activities and exploration within local spaces where they could access their physical subject matter. These pre-existing techniques aligned well with the



Pestalozzi method in which Mayo herself had been trained, and through which she educated her own students. Indeed, it is in this way that Mayo differed from earlier citizen scientists. Rather than being a response to women and girls' exclusion from STEM fields, her work was based in her own instructional experience. Further, her product was intended to shape how others in the field approached science lessons in formal schools, encouraging play, touch, and tactile components to learning. In this sense, Mayo broke new ground for women in the field of scientific pedagogy.

(5503) \$1,500

A work encouraging the intersectional study of mollusks and their shells, by one of the most influential women scientists of the Victorian period

3. [Biology] Roberts, Mary.

<u>A Popular History of the Mollusca; Comprising a Familiar Account of their Classification, Instincts, and Habits, and the Growth and Distinguishing Characters of their Shells.</u>



London: Reeve and Benham, 1851. First edition. Finely bound in full crushed morocco with gilt to spine and boards. Original endpapers present. Measuring 160 x 125mm and collating [x], 396, [2], 8: complete, including all 18 colored plates and publisher's adverts at rear. A square, tight copy that is internally unmarked, with only the lightest scattered foxing to preliminaries and occasionally near plates. This important work by one of the leading female scientists of the Victorian era is scarce in institutions and in trade, with its most recent appearance at auction occurring a decade ago.

"Growing up in the Gloucestershire countryside, Mary Roberts developed an interest in natural history [...and] became a keen amateur botanist. This love of nature and her keen observations gave rise to the works for which she is best known" (ODNB). Roberts, who was devoted to promoting women's intellectual worth as writers and thinkers, used her scientific books to welcome in a range

of readers to the fields of botany and biology. "She had a writing career that spanned the early 1820s to the early 1850s, during which she produced over ten natural history works on conchology, zoology, vegetables, and trees" (Lightman). Mary Roberts has been credited with helping to popularize the sciences for young readers and women. Connecting Mollusca to her previous book The Conchologist's Companion, Roberts clarifies that while the two fields are related, there are key distinguishing points. Thus her book will "treat not so much of shells as of their animal occupants; and this is desirable, because shells are too often regarded as merely objects of ornament or fancy. Owing to the retired habits of Mollusca and to their soft and perishable nature, Conchology has but slowly advanced in the true spirit of science." Roberts believes in the importance of recognizing not only the beauty of shells, but also their function; therefore, conchology should be accompanied by the biological study of mollusks, and the study of mollusks can advance the quality of conchology. "It is hoped that the following popular account of the instincts and habits of the constructing animals will render their shells more intelligible and of greater [scientific] interest." In what follows, Roberts writes in her accessible and lucid way about cephalopods, gastropods, and a range of other species that rely on shells for life. She walks readers through the construction of shells by those creatures, as well as how those animals employ their shells; and she includes information on the study of mollusks of different regions. Accompanying the text are 18 plates, all beautifully colored, with 90 different examples of mollusk life. A beautiful copy of an important work of science, encouraging a wider diversity of students as well as a recognition of scientific fields' intersections.

Feminist Companion to English Literature 910. Near Fine. (5680) \$1,750

Science as an entry point for finding religious beauty in the world, and religion as an entry point for celebrating the world's logical functions

4. [Botany] Callcott, Maria. <u>A Scripture Herbal.</u>

London: Longman, Brown, Green, and Longmans, 1842. First edition. Contemporary full morocco with gilt to spine. All edges brightly gilt. Buff endpapers. Measuring 215 x 150mm and collating complete including 105 wood engravings of plants: xxii, [4], 544. A square, Near Fine copy with a bit of scraping to boards near front and rear joints. Contemporary inscriptions to recto of front endpaper: "Mary S. Blythe, given her by the Rev. Horation Walmsley, August 21, 1848" in ink and in pencil, "Left Deepdale June 28th 1850." Internally fresh and unmarked. A lovely example.

The last work published by the travel writer Lady Maria Calcott, A Scripture Herbal showcased her knowledge in both botany and biblical studies by accurately illustrating and describing 105 plants that appear within the Bible. By blending seemingly disparate fields, Calcott suggested that individuals fascinated by the operations of the physical world needn't set aside their spiritual beliefs; rather, their scientific understanding could lend new richness to biblical study. As she stated within her preface, her goal was also to make these areas accessible to "the many millions who read the Scriptures in my native tongue" rather than in the "learned language...written in the Hebrew, in the Greek, and in the Latin!" Her approach to both religion and



science combatted the elitism inherent in scholarly studies that closed certain classes out through the use of classical languages.

As a travel writer, Calcott was notoriously political, and so her motivations in this text would not have surprised readers. Indeed, critics hailed her work for its "details about local customs, flora and fauna, and people....making her one of the most significant writers of the nineteenth century" (ODNB). (5865) **\$750**

5. [Geology] Ogilvie, Miss Maria M. (D.Sc.). Microscopic and Systematic Study of Madreporarian Types of Corals.



London: Dulau & Co., 1896. First edition. From the Philosophical Transactions of the Royal Society of London (Vol. 187, B, 1896): pages 83-345. Complete, including all 75 in text figures and the folding table. Disbound but with spine attached and holding. All edges marbled. Originating from a shorter paper read at and published by the Royal Society in 1895, the present work is the first appearance of Ogilvie's full research report on corals. The only copy on the market, this cutting edge scientific work by a female scientist appears at only two institutions according to OCLC, and none in the U.S.

Four years before becoming the first woman to obtain a PhD in geology, Maria Ogilvie presented and published her works on the multitudinous varieties of Madreporarian corals. Ogilvie's task was a difficult one, given the variable skeletal structures of coral, which prevent the "possibility of accurately defining the limits of the 'species" (British Museum). She nontheless made a major contribution by providing an expansive account that "brings forward the most important contributions, zoological and paleontological, to the study of the origin, the microscopic structure, and morphology of the Madreporarian skeleton," providing researchers with a comprehensive guide to recent discoveries in the field.

Ogilvie's education began during her childhood in the Scottish Highlands, where her brother, the geologist Sir Francis Ogilvie, accompanied her on exploratory trips and encouraged her scientific interests. A graduate of the Merchant Company Schools' Ladies College in Edinburgh, she went on to earn a degree in geology, botany, and

zoology in 1890. "Maria Ogilvie hoped to follow up her studies in Germany, but in 1891, despite a recommendation from the famous geologist Baron Ferdinand Freiherr von Richthofen, she was rejected from the University of Berlin, [where] women were, like England, still not permitted to enroll in higher education" (Bressan). She continued to work under private tutelage until being allowed to enter the university at Munich and earn her doctorate. She once wrote of her experiences "When I began my fieldwork, I was not under the eye of any Professor. There was no one to include me in his official round of visits among young geologists in the field, and subject my maps and sections to tough criticism on the ground. The lack of supervision at the outset was undoubtedly a serious handicap." Persevering nonetheless, Ogilvie became the President of the National Council of Women of Great Britain, in addition to an honorary member of both the Vienna and London Geological Societies and a Lyell Medalist. Despite having never been given a salaried or faculty position, Ogilvie's work as an independent scholar transformed how corals and dolomites were studied (Creese).

OCLC 1031962740. (2804) \$1,300

A young woman organizes her mathematical lessons for future reference and use

6. [Mathematics] Waters, Caroline D.

Mathematics notebook of a 16 year old girl being educated in the 19th century.

[Great Britain]: [c. 1850]. Comprised of 88 manuscript pages of mathematical definitions, tables, methods, and exercises in a single hand, with the ownership signature of "Caroline Waters Age 16 yrs" to the front endpaper. Marbled paper vernacular binding, measuring 8 x 12 inches and stitched at spine. Caroline's metric measurements and English currency reveal her to be a student somewhere in the UK. Though the commonness of her name and the absence of a specific date prevents us from locating her in genealogy records, the manuscript she left behind reveals much about how and why girls of her age and class were being taught arithmetic.

Caroline's elegant, practiced hand suggests that she is a member of the rising middle class, and the opening of the book suggests that she is a beginning to intermediate mathematician. At the top of the first page, she defines Arithmetic as "the art of computing by numbers" which "has five principal [sic] rules for this purpose, viz. Numeration, Subtraction, Addition, Multiplication, and Division." Using this definition, she divides her notebook into a section for each, providing a definition for that principle, plus clear-cut examples of its use in both Simple and Compound formats. Numeration, Subtraction, and Addition are grouped together at the front; and after these sections conclude, Caroline enters in Practical Questions in Compound Addition and Subtraction. These involve word problems involving the exchange of money and the calculation of wet and dry



weights, cloth measurements, and time. She then mirrors this with Multiplication and Division, before adding sections on Decimal Fractions, more Practical Questions, and sections on Federal Money and Simple Interest.

The organization of the manuscript suggests that Caroline copied it out for continued reference, where sections are easy to locate and problems clearly illustrate each of the principles. And the emphasis in sample problems on currency conversion, monetary exchange, and banking implies that her family in some way wanted her to be aware of these concepts.

An exceptional and rich document, Caroline's notebook is a rich resource for study including but not limited to the history of women's education, middle class education, women's domestic use of mathematics, women in business, paleography, genealogy, gender studies. (3448) **\$2,000**

A pioneer of early childhood education calls upon women to encourage physical activity that will develop infants' intellects

7. [Mental Development] Marwedel, Emma.

Childhood's Poetry & Studies, in the life, form, and colours of nature.



London: Kenny & Co., 1888. First edition. Two parts in one, collating 20; 42, [2]: complete with two folding plates bound in at rear. Recent marbled wrappers with title to front. Faint soiling to title and small chip to outer corner of final plate, but in all an extremely pleasing copy. A scarce work on early childhood education and development, OCLC reports 6 institutional copies (3 of these in the U.S.), with this being the only copy on the market.

Instrumental in promoting the kindergarten movement in the United States, Emma Marwedel was a believer in the Pestalozzi whole-child methods of early education. Early in her career, she served as the director of the Girls' Industrial School in Hamburg, Germany (186701868), as well as conducting a kindergarten. "Her work made a deep impression on the visiting Elizabeth Palmer Peabody" and would lead to a long term partnership between the two, as Marwedel sought to open kindergartens and develop kindergarten teacher training in New York and California (Britannica).

The present work opens with instructions to guide mothers in the use of games and physical activities that will encourage their infants to expand in curiosity and develop their intellectual capacities through play; the second part, in continuation, provides a guide to using diagrams that teach form and color to young children. Though Marwedel struggled to gain sufficient funding and interest in her own lifetime to maintain the schools she sought to establish, she was integral to bringing Froebel and

Pestalozzi's ideas on childhood development to the U.S. and shaped progressive views on the intellectual and creative capacities of children.

(4037) **\$1,350**

A young woman attends occupational therapy training courses at the first consent-driven, patient-centered psychiatric program in the country



8. [Nutrition] Nellie K. Allen. Dietetics and Nutrition Class Notes from Sheppard Hospital.

Towson, Maryland: 1916. Quarter cloth over marbled boards with paper label to spine. Manuscript notebook measuring 10 x 7.75 inches and comprised of 49 pages of class notes in nutrition and dietetics and an additional eight pages of recipes to rear. With the exception of some damage to the fore-edge of the first several leaves (not affecting text), notebook is largely clean and legible. Compiled by Nellie K. Allen, a student working at the Sheppard and Pratt Hospital in Towson, Maryland, likely as part of their occupational therapy program.

An exemplar in the field of psychiatric care, the Hospital "served as a mental facility and training school for psychiatric medical professionals. The hospital's administration stressed improved hygiene and sanitation for the treatment of mental illnesses" (The Clio). Designed with input from activist Dorothea Dix, the hospital

offered a corrective to problematic nineteenth and early twentieth century approaches to mental illness by centering patient dignity and providing residents with "comfortable and polite treatment that included privacy, fresh air, sunlight," and healthy diets (The Clio). In the present notebook, Nellie Allen documents her lessons in the spring semester of 1916, including material on Classification of Foods, Liquid Diet, Soft Diet, Soft or Convalescent Diet, Light Desserts, and Diet and Disease as well as a Bibliography at the opening detailing the texts available to her as reference guides. It is a well organized program in which she participates-- and a fairly new one, having only been implemented ten years prior in response to there being "no other formal program of psychiatric training for physicians during the time. A training school for psychiatric nurses was established there in 1905" (Sheppard Pratt). From 1911-1918, the period of Nellie's training, the hospital expanded this program to include occupational therapy including nutrition and recreation.

Nellie's well organized and detailed course notes -- likely designed for use later in her career as a reference -give us insight into evolving medical knowledge about the human body, the human mind, and its relationship to food (as well as alcohol, which is occasionally here advised to be administered as in the cases of fortifying brandy and diarrhea-curative red wine). They also provide insight into how the country's first psychiatric training program, which emphasized whole-care in collaboration with a consenting patient, shaped the future of the field.

Notably, additional research could be done into Nellie Allen's past education and future career. Census records for Baltimore during the surrounding periods locate two different women under this name -- one Black and one white -- and we have been unable to determine which woman created the present notebook.

(5315) \$1,250

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