Alembic RARE ⊖ BOOKS

FIRSTS ONLINE
FEBRUARY 2022

1. **(Art Deco) The American Products Company. Zanol. The Better Way to Buy. Catalog No. 20. Edition A.**
Cincinnati, OH: The American Products Company, May, 1925.
Perfect bound (355 x 280 mm). Original brown wrappers printed in blue and cream, brown cloth backstrip. 78 pages, of which 16 are in full colour and the rest being uncoloured lithographs on single-colour backgrounds. With the original order form loosely inserted. Light rubbing at the extremities, small chips at the ends of the spine. A fresh copy in excellent condition.

A beautiful, 78 page chromolithographic catalogue for the American Products Company's Zanol line of cosmetics, food products, and home goods, including 16 pages in full colour. A superb example of Art Deco marketing design.

The American Products Company was founded in 1907 by three brothers, Albert, Edgar and Clarence Mihalovitch (Albert later changed his surname to Mills), of Cincinnati, who hoped to capture the growing Midwestern consumer market (see "Cosmetics by the American products Company", *Collecting Vintage Compacts* blog, January 2012).

This catalogue promotes "Shopping in Your Own Home the Zanol Way", and explains that "the Zanol plan affords you the opportunity of buying the finest products possible to produce, direct from the maker, delivered right to your home, absolutely fresh, unconditionally guaranteed... The complete Zanol line comprises more than 350 products... all of them made from the choicest ingredients in our sanitary, daylight Pure Food Kitchens and Laboratories, under the direction of skilled chemists, chefs, and dieticians".

Advertised here are a wide array of consumables, with a focus on powders and syrups that could be shipped easily and would appeal to an emerging middle class who were time and money-conscious. For the kitchen there are food flavourings and colours, and numerous instant mixes for soft drinks, jams and jellies, icing, cakes, pies, and puddings. Among them are Ezemade pumpkin pie filling, Flakykrust instant pie crust; Mapelade instant maple syrup ("now you can afford delicious maple syrup whenever you want it"); and even Ezemade ice cream powder.

The broad selection of home goods include medications and hygiene products, house cleaning and repair supplies, hot water bottles, paints, insecticide, and even a set of salt and pepper shakers.

Perhaps the most appealing section is the beauty line, comprising soaps and toothpaste ("don't envy pretty teeth - have them"); face and body powders; scented lotions ("keep the alluring charms of radiant youth"); shampoos and hair tonics; cosmetics like powder compacts and tubes of lipstick. The Zanol line included three perfumes, Fleur d'Orient, Dream Girl, and La Bara (named after the silent film "vamp" Theda Bara, best known for playing Cleopatra). There are also gift sets packaging together perfumes, soaps and cosmetics, including a shaving kit for men, sets for new mothers, and an attractive La Barra manicure kit.

00385 **£450**

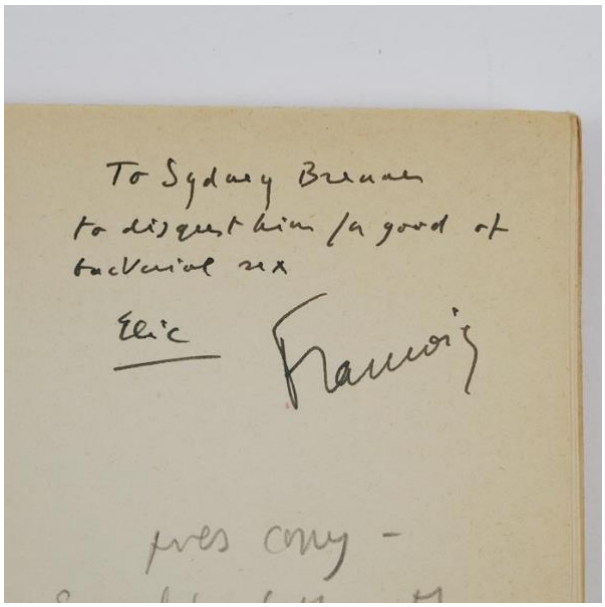
2. **(Aviation) Max Rigo Selling Company. International Aviation Meet. Grant Park Chicago. Panoramic Post Card.**
Chicago, IL: Max Rigo, 1911.
Folding panoramic postcard (290 x 195 mm). Professionally mounted, gazed, and framed using archival materials. Composite photographic image depicting the Chicago lakefront and early planes. The sender's and receiver's details filled out in black ink, and four landmarks noted on the image in the same hand. Marks from stamp, some toning and spotting of the verso, creasing and wear, particularly near the original folds (which are fragile) and at the corners and slightly affecting the image, small tape repair to one corner on the verso. Very good condition.

A striking, oversized panoramic postcard photomontage depicting one of the most important aviation events prior to the First World War, the August 1911 International Aviation Meet at Grant Park in Chicago.

The Chicago meet was the largest airshow held up to that time, only eight years after the first powered flight by the Wright Brothers. Over the course of nine days thirty-three amateur and professional aviators competed for cash prizes totalling just over $100,000, watched by an estimated 300,000 spectators. Lincoln Beachey, the world's premiere stunt pilot, set a world altitude record of 11,642 feet and two pilots, William R. Badger and St. Croix Johnstone, died in crashes.

This postcard is a fantastical composite image incorporating photographs of the lakefront buildings, Grant Park, railway tracks, and crowd shots, and all merging into painted backdrops and "crowds". Fourteen planes are visible in the sky, and while most are painted, a few may have originally have been photographs. Another three are depicted on the ground or taking off, surrounded by people. This copy of the card was posted by "Laurie" of 1859 Sedgwick St, which is adjacent to Lincoln park on the north side of town, and the recipient was "Miss Florence Ort" of Defiance Ohio. Laurie has additionally annotated the image, labelling for her friend Michigan Avenue, the famous Blackstone Hotel, opened just two years previously, the Auditorium theatre, and the Art Institute of Chicago.

00384 **£850**



THE MEETING OF TWO NOBEL LAUREATES JUST PRIOR TO THEIR TRAILBLAZING JOINT PROJECT

3. **(Brenner, Sydney) Wollman, E. L. & F. Jacob. La Sexualité des Bactéries.**
Paris: Masson et Cie, Libraires de l'Académie de Médecine, 1959.
Octavo. Original grey wrappers printed in black. 3 double-sided plates from photographs. Wrappers rubbed, a little creased, and partially tanned with a few small spots and marks. Slight crease affecting the margins of the first half of the contents. A very good copy.

First edition, first impression of this uncommon and important monograph on bacterial genetics. An exceptional presentation copy signed by author François Jacob, with whom Brenner would partner only a year later to perform one of the most elegant experiments in the history of biochemistry, proving the role of messenger RNA and elucidating a key mechanism in the cell's process for decoding DNA. Cheekily inscribed by Jacob's co-author, Elie Wollman (1917-2008),

"To Sydney Brenner, to disgust him / a good of bacterial sex" (possibly missing the word "dose" or similar before "bacterial sex"). And with Brenner's ownership signature in pencil on the upper cover.

Wollman and Jacob were bacteriologists at the Pasteur Institute who, by investigating bacterial reproduction, made groundbreaking discoveries in genetics. They published one of the first examples of a gene regulatory mechanism; discovered plasmids (portions of genetic material independent of the chromosomal DNA); and created the first model of gene mapping in a living organism" (Dantzer, "Elie Wollman 1917-2008: A Biographical Memoir, National Academy of Science, 2008). The present volume covers the breadth of contemporary knowledge of bacterial reproduction, including conjugation and the resulting genetic recombination. Jacob was later awarded the Nobel Prize for work on the regulation of enzyme levels in cells, and Wollman received several awards, including the French Legion of Honour.

Recipient Sydney Brenner (1927-2019) was a leader in the field of genetics almost from the moment he received his doctorate at Oxford in 1954. He joined Francis Crick's Cambridge laboratory in 1956, and they performed innovative research on how DNA is decoded by cells. He would later win the Nobel Prize for his work establishing the nematode c. elegans as a key model organism for genetics, neurobiology and developmental biology research.

Brenner met Jacob and Wollman at a symposium on microbial genetics in Copenhagen in 1959 (it was almost certainly on this occasion, or shortly afterwards, that this copy was presented). Jacob hoped to discuss new evidence for the existence of an intermediary molecule responsible for transporting information from DNA in the nucleus to the site of protein production in cellular structures called ribosomes, located outside the nucleus. It was known that ribosomes contained an analogue to DNA, ribosomal nucleic acid (RNA), but it was not clear whether there were intermediaries between DNA and RNA.

The following spring Jacob again brought up the subject during a meeting with Brenner, Crick, and other biochemists at Cambridge. As Jacob later recalled, when he pointed out recent experimental results suggesting that, unlike normal RNA, the messenger molecule was unstable, "Francis and Sydney leaped to their feet. Began to gesticulate. To argue at top speed in great agitation. A red-faced Francis. A Sydney with bristling eyebrows. The two talked at once, all but shouting. Each trying to anticipate the other. To explain to the other what had suddenly come to mind" (Jacob, *The Statue Within*, p. 312). What Brenner and Crick had suddenly remembered was another experiment showing that when a certain virus attacked bacterial cells it blocked the creation of new ribosomes, and the only RNA then manufactured by the cell was both unstable and had the same base composition as DNA, strongly suggesting that it was the messenger molecule.

That afternoon Brenner and Jacob also learned that they had both been invited to spend June as visiting scholars at Caltech, the perfect opportunity to collaborate. Brenner and Jacob developed a plan "to distinguish whether, after phage (virus) infection, new RNA went to new ribosomes, or whether there were no new ribosomes, just the pre-existing ones 'for hire' – Brenner's phrase at the time – to the new message when it came along." (Judson, *The Eighth Day of Creation*, p. 423).

With only four weeks to complete the experiment, Brenner and Jacob worked at speed and had to overcome numerous setbacks. But the final result was "spectacular. Eyes glued to the Geiger counter, our throats tight, we tracked each successive figure as it came to take its place in exactly the order we had been expecting. And as the last sample was counted, a double shout of joy

shook the basement at Caltech. Followed immediately by a wild double jig. This was merely one experiment, performed in extremis… But we now knew that we had won. That our conception explained the transfers of information in the synthesis of proteins… Scarcely was the experiment over than we gave a seminar at Caltech to demonstrate the existence of X and its role as magnetic tape. No one believed us. The next day we left, each to his own home. The bet had paid off. In the nick of time" (Jacob, p. 317).

00604 **£4,750**

RARE IN THE JACKET

4. **Chapman, C. H. Murray. Dragons at Home. Illustrated by the Author.** London: Wells Gardner, Darton & Co. Ltd., [1924].
Octavo. Original blue cloth blocked in orange with the image of a triceratops on the spine and a stegosaurus on the upper board, publisher's device in blind on the lower board. With the dust jacket replicating the design on the binding. Frontispiece and 12 engravings within the text, 1 plate from a photograph of the author. Gift inscription dated Christmas 1924 to the front free endpaper. Spine rolled, just a little rubbing at the extremities but otherwise the cloth is fresh and bright, small spot of dampstain and minor abrasion to the top edge of the text block, endpapers partially tanned, light spotting to contents and edges of text block. A very good copy in the rubbed and lightly spotted jacket with a short split and streak of dampstain to the lower panel, and slight loss at the corners.

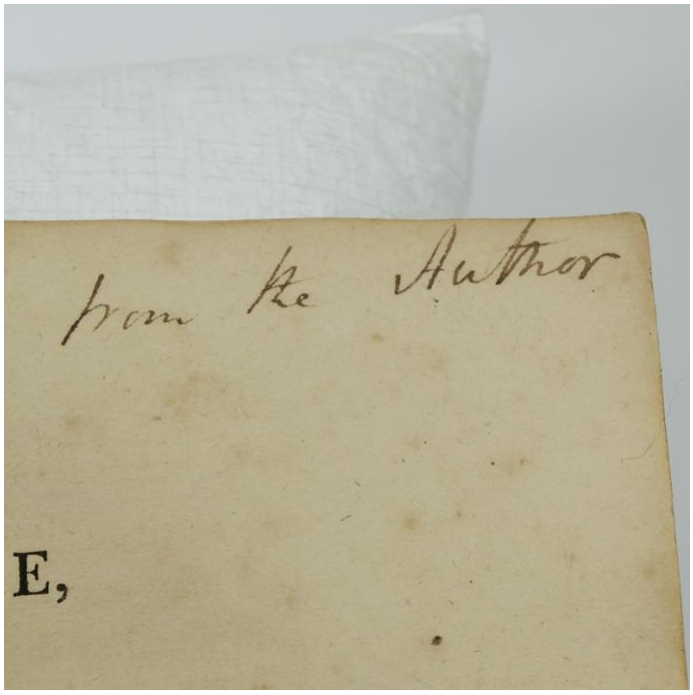
First and only edition of this rare children's book describing a fanciful tour through prehistory led by talking dinosaurs. A lovely copy in the scarce jacket. WorldCat locates only eleven institutional copies, and none appear in recent auction records.

Dragons at Home was published posthumously following the death of author C. H. Murray Chapman (1892-1918), who had studied geology at the University of Manchester. "His fascination with geology and astronomy was a constant source of inspiration to him and he contributed to several journals and wrote a book on pre-historic animals which he hoped to publish. Unfortunately, he struggled academically and left Manchester University in 1912." (University of Manchester Roll of Honour biography).

Chapman enlisted in the Royal Navy in 1914 and was commissioned to the Royal Naval Air Service for pilot training in 1915. He endured with good humour a series of accidents, including one that broke his jaw, and apparently "relished the opportunity it gave to write vivid accounts of the sensations of crashing to earth". Chapman died in February 1918 when his plane was involved in a mid-air collision during an escort flight. His wife Olive Murray Chapman later became a well-known traveller and author, and it was she who was responsible for the publication of *Dragons at Home*.

The plot of the book follows four English children who, in a nod to Peter Pan, are spirited away to prehistoric times by a friendly Pterodactyl named Ptero who "casually picks up with them at the Natural History Museum" (preface). The tour begins in the Jurassic, where they meet a Stegosaurus and are introduced to him as "four young animals from the Holocene". A series of gentle adventures follow, in which the group traverse the geological ages and speak with creatures such as Diplodocus, Brontosaurus, Archaeopteryx, Triceratops, Iguanadons, and Plesiosaurs, and eventually find themselves in the Eocene, where they encounter early mammals – the Mastodon and Deinotherium – followed by the Ice Age mammoth and Irish deer.

00623 **£650**



PRESENTATION COPY OF THE RARE OFFPRINT

5. **Davy, Humphry. The Bakerian Lecture on some Chemical Agencies of Electricity. [Offprint] from the Philosophical Transactions.**
London: W. Bulmer and Co., 1807.
Quarto. Recently bound to style in plain blue paper wrappers. Engraved plate. Spotting to contents, particularly the title and early leaves, two raised, reddish-brown spots to B4, and a short closed tear at the bottom edge of the same leaf. Very good condition.

The rare offprint of this important paper on electrolysis, presentation copy inscribed by Davy on the title, "from the Author". Only one copy of the offprint appears in recent auction records, sold at Christies in 2008.

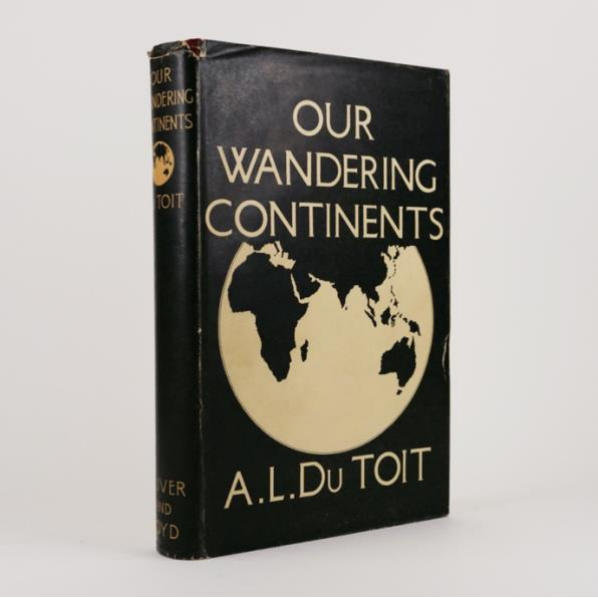
Davy's belief that "electricity was a force or power, not a substance" (ODNB) led to a remarkable series of experiments that laid the groundwork for his electrical theory of chemical affinity and raised British physical science to the same level as that being done in France.

"In 1806 Davy was able to return to electrochemistry, and in November of that year it formed the subject of the Bakerian Lecture, which he delivered before the Royal Society. The first part of the lecture was concerned with the decomposition of water on electrolysis... Davy established that when pure water, redistilled in silver apparatus, was electrolyzed in gold or agate vessels in an atmosphere of hydrogen (so that nitrogen could not combine with the nascent hydrogen or oxygen), it was decomposed into oxygen and hydrogen only... Nobody had reasoned and experimented with a clarity approaching this. Davy then proceeded to discuss the use of electrolysis as a method of chemical analysis and the transport of substances during electrolysis, and to propose an electrical theory of chemical affinity... Davy found that the electrical condition of a substance can modify its chemical properties; negatively electrified zinc is inert, and positively electrified silver is reactive. This, and that an electric current decomposed compounds, led Davy to propose that chemical affinity is electrical" (DSB).

This lecture was read on November 20, 1806, and the experiments described here led Davy to discover sodium and potassium the following year, and in 1808 barium, calcium and boron. "Davy's papers describing these researches were chosen as the Bakerian lectures of the Royal Society and marked him as one of the greatest men of science of the day. British science was provincial compared to that in Paris, but now patriots and upholders of freedom could rejoice that a Briton had given chemistry a new direction, making it seem the fundamental science" (ODNB).

References: Source Book in Chemistry p. 243; Sparrow 52; Wheeler Gift 2511.

00697 **£3,500**



6. **Du Toit, Alexander L. Our Wandering Continents: An Hypothesis of Continental Drifting. With 48 Diagrams.** Edinburgh & London: Oliver and Boyd, 1937.

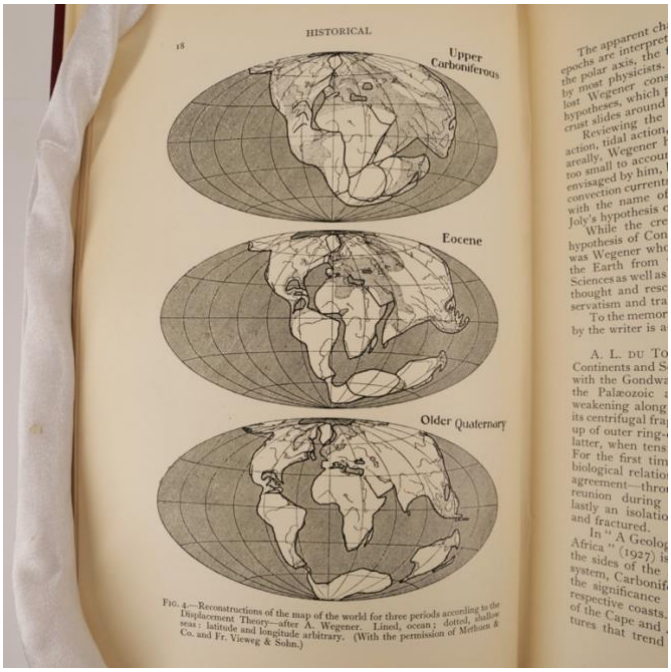
Octavo. Original red cloth, titles to spine gilt. With the dust jacket. 2 Folding plates, illustrations throughout the text. 1 leaf of integral ads at rear. Ownership signatures of Albert Wolfson on the front free endpaper and page 101, ownership ink stamp of the same on the title. Small pencilled note to the verso of the jacket. Edge of upper board bumped also affecting the dust jacket, spine rolled, cloth and contents fresh. An excellent copy in the jacket that is toned along the spine panel and lower panel, and a little rubbed with a small chip from the head of the spine panel.

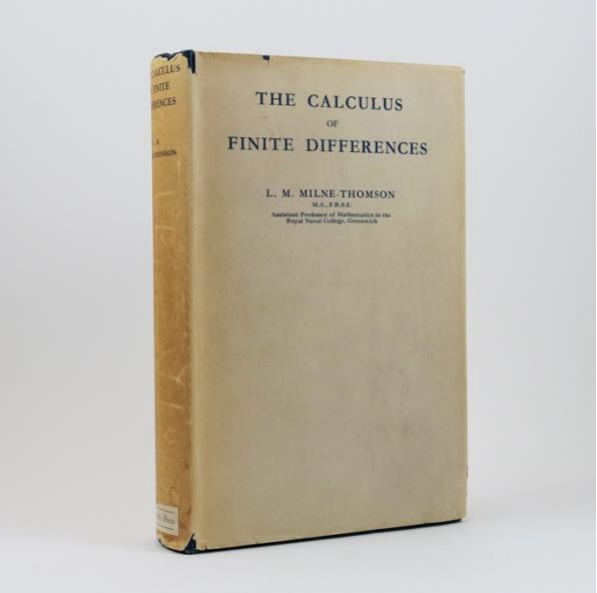
First edition, first impression, an attractive copy in the rare dust jacket. *Our Wandering Continents* presented some of the most important geological evidence for the theory of continental drift and included the first proposal of the existence of the supercontinents Laurasia and Gondwana. This copy from the library of prominent Northwestern University ornithologist Albert Wolfson (d. 2002), with his ownership stamp and signature. Wolfson specialised in migration, discovering how birds prepare for and time their migrations. Of relevance for this copy, he developed a theory of migration based on the movements of the continents over geological time (*Chicago Tribune* obituary, February 21st, 2002).

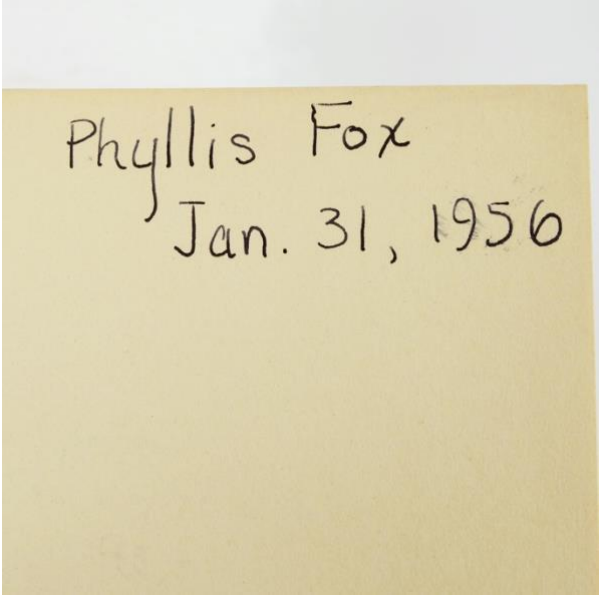
South African researcher Alexander Du Toit (1878-1948), known to his contemporaries as "the world's greatest field geologist" (LeGrand, *Drifting Continents and Shifting Theories*, p. 82), was the leading supporter of Alfred Wegener, who had first advanced the theory of continental drift in 1912. Du Toit collected a vast body of evidence for drift as he mapped strata over large tracts of South Africa between 1903 and 1920, and he became the leading authority on the Karroo region, whose anomalies he believed were explained by continental movement.

Du Tuoit eventually determined that the Karroo extended across all of the southern continents, leading him to reformulate Wegener's theory. Instead of one previous supercontinent, Pangea, he postulated that there had been two, Gondwana and Laurasia (we now know that both men were partially correct, as Pangea split into these two supercontinents). Though continental drift was not fully embraced by the scientific community until the 1950s, Du Toit's work made crucial contributions to our current understanding of the Earth's history.

00502 **£575**







COMPUTER SCIENTIST PHYLLIS FOX'S COPY

7. **(Fox, Phyllis) Milne-Thompson, L. M. The Calculus of Finite Differences.** London: Macmillan and Co., Limited, 1951.
Octavo. Original blue cloth, titles to spine gilt. With the dust jacket. Lower corner of upper board bumped, tips lightly rubbed, contents faintly toned. A very good copy in the price-clipped jacket with tanned spine panel and a few small chips and splits.

Second edition of this classic in applied mathematics, originally published in 1933. With the ownership signature of computer scientist Phyllis Fox and the date January 31, 1956, indicating that Fox purchased this volume while working on the numerical solution of partial differential equations for UNIVAC.

During the late 1940s Phyllis Fox (1923 -) earned undergraduate degrees in mathematics and electrical engineering and worked as an operator for GE's differential analyser. In 1949 she obtained her master's in electrical engineering at MIT, writing for her dissertation a program for the school's unfinished vacuum tube computer the Whirlwind I. Fox then earned her doctorate in mathematics at MIT, supervised by the prominent applied mathematician Chia-Chiao Lin (1916-2013).

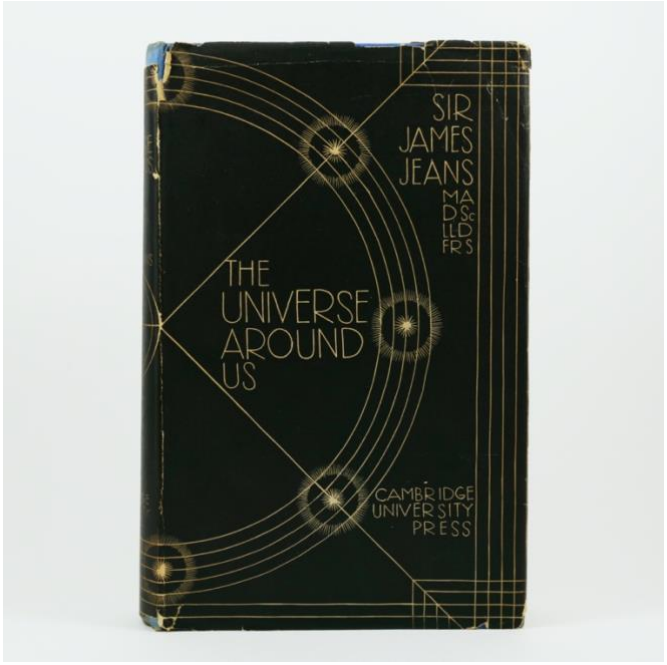
As Fox explained to an interviewer from the Society for Industrial and Applied Mathematics in 2005, between 1954 and 1958 she worked at the Courant Institute, an Atomic Energy Commission-funded department of the City University of New York. "[Richard] Courant ran it, but Courant, Kurt O. Friedrichs, Levy, all these famous, really, applied mathematicians were there, and I got a job. As what, I don't know. But I wasn't really a fluid dynamicist. They had bought a computer, a Univac. Now, none of these applied mathematicians really wanted to bother with the machine, but a physicist named Bob Richtmyer who came out of AEC and Los Alamos was there. He was interested in doing computations on the Univac... At that time, the main problem thing they were looking for was controlled thermonuclear. Now this isn't the bomb. The controlled fusion, of course, is the source of all power, if you can make it work. Fine. Theoretically it was clean, and an infinite source of power, once you got it going. And the Russians were probably working on it, so it was very secret. But of course, the technique would apply also to Teller and his bomb. I wasn't in the abstract analysis part of the research, but I

helped with the computer probably, and some of the analysis of the equations involved, because I had that experience from MIT."

After leaving CUNY, Fox worked on the DYNAMO programming language and the first LISP interpreter and manual, taught at the Newark College of Engineering, and consulted for Bell Labs until her retirement in 1984.

The author of the present volume, Louis Melville Milne-Thomson (1891-1974), was a professor at the Royal Naval College at Greenwich who made significant contributions to applied mathematics, including the Milne-Thomson circle theorem and the Milne-Thomson method for finding a holomorphic function. He was particularly concerned with "making mathematics accessible to the beginner or non-specialist" and in 1933 "published the first of several textbooks. *The Calculus of Finite Differences* was based on his own experience of making tables and, in its preface, he states that one motivation for writing it was the lack of other texts suitable for his students" (ODNB).

00704 **£750**



8. **Jeans, James. The Universe Around Us.**
Cambridge: Cambridge University Press, 1929.
Octavo. Original blue cloth, titles to spine gilt. With the dust jacket. 24 plates, illustrations and diagrams within the text. Long manuscript note quoting Seneca to the front blank. A few small spots to the cloth, light dampstain affecting the edge of the upper board, partial toning of the free endpapers, some faint toning of the contents. A very good copy in the rubbed, tanned, and price-clipped jacket with slight dampstain corresponding to that on the cloth, a chip from the head of the spine panel, and some smaller chips and short closed tears.

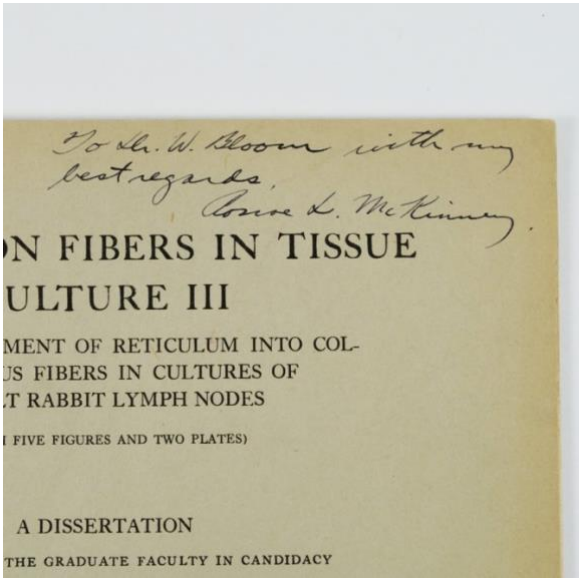
Second printing, in the rare Raymond McGrath-designed dust jacket.

Author James Jeans (1877-1946) was a respected Cambridge mathematician and astronomer, best known for his work on rotating, gravitational bodies, "a problem of fundamental importance that had already been tackled by some of the leading mathematicians" (ODNB), and the motions, structures, and life-cycles of stars and stellar clusters.

"In 1928 Jeans's academic work *Astronomy and Cosmogony* came to the attention of S. C. Roberts, the secretary of Cambridge University Press, who appreciated the general interest of its subject matter and the attraction of Jeans's writing style. He persuaded Jeans to write a popular account, *The Universe Around Us*, which was published by the press in 1929" (ODNB). Jeans's popularity as a writer "depended partly on his topic-new, thought provoking views of the universe-and partly on his style, which combined an authoritative knowledge of the subject with a vivid turn of phrase" (ODNB).

The dust jacket designer, Raymond McGrath (1903-1977) was a printmaker, illustrator, architect, and interior designer whose first commission was the interior of the BBC's Broadcasting House in 1930. He later completed commissions for Imperial Airways and the War Artists' Advisory Committee, and spent the latter part of his career as Senior and the Principal Architect at the Office of Public Works in Dublin.

00517 **£150**



DISSERTATION OF THE FIRST BLACK PHD IN ANATOMY,
INSCRIBED TO HIS DOCTORAL ADVISOR

9. **McKinney, Roscoe Lewis. Studies on Fibers in Tissue Culture III.** The Development of Reticulum into Collagenous Fibers in Cultures of Adult Rabbit Lymph Nodes (with Five Figures and Two Plates). A Dissertation Submitted to the Graduate Faculty in Candidacy for the Degree of Doctor of Philosophy, Department of Anatomy, 1930. Reprinted from Arch. für Experimentelle Zellforschung IX: 14-35.
Chicago, IL: The University of Chicago, 1929.
25 page pamphlet. Original grey wrappers printed in black. Together with another offprint of the paper as published in English in a German journal in the same year. 4 colour plates, 5 illustrations from microphotographs within the text. Closed tears to the wrappers at the head and tail of spine, light toning and dulling at the edges of the wrappers, a few light marks, contents faintly toned. Very good condition. The German offprint in good condition, the wrappers separated and chipped.

The rare offprint of the dissertation of the first Black American to earn a doctorate in anatomy, a presentation copy inscribed by the author to his doctoral advisor on the upper wrapper, "To Dr.

W. Bloom with my best regards, Roscoe L. McKinney". WorldCat locates only three institutional copies: at Duke, the University of Chicago, and the Bibliothèque Nationale. Together with another offprint of the same, from *Abdruck aus Archiv für Experimentelle Zellforschung besonders Gewebezüchtung*, with McKinney's pencilled ownership signature to the upper wrapper.

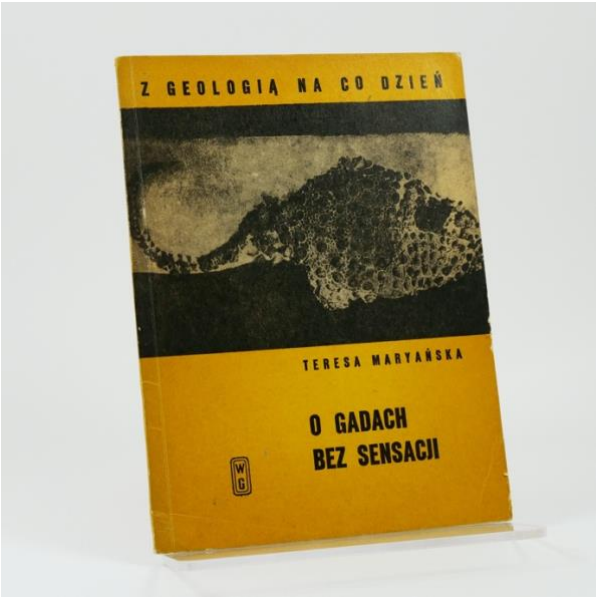
Roscoe L. McKinney (1900-1978) earned his bachelor's degree from Bates College in 1921 and then worked as a biology professor, first at Morehouse and then at Howard University, where his department head was the famed zoologist Ernest Everett Just.

McKinney's doctoral work was done at the University of Chicago where, with the support of the Rockefeller Foundation, "he became involved in tissue culture studies under the late Alexander Maximow and later under professor William Bloom. Illustrations and citations of work contained in his PhD thesis there were later included in several succeeding editions of the *Textbook of Histology* by Maximow and Bloom" (obituary in the *Journal of the National Medical Association*, volume 71, number 5, May 1979).

After completing his doctorate, McKinney founded the Howard University anatomy department and was its chairman between 1930 and 1947, concurrently serving as vice-dean of the College of Medicine. During the 1950s and 60s he spent significant time overseas, first as a Fulbright fellow at the Royal College of Medicine in Baghdad, then as an instructor at the Osmania Medical College of Hyderbad. He worked as a consultant in anatomy at the University of Saigon during the height of the Vietnam War, between 1969 and 1971.

The recipient of this offprint, McKinney's advisor William Bloom (1899-1972), was a prominent histologist, "well-known for his research on cells of connective tissue and their interrelationships; the ionizing radiation on cells and tissues; and the development of clinical hematology" (finding aid for the William Bloom Papers, University of Chicago Library, 2009).

00557 **£1,250**



10. **Maryańska, Teresa. O Gadach bez Sensacji.**
Warsaw: Wydawnictwa Geologiczne, Muzeum Ziemi pan Warszawa, 1970.

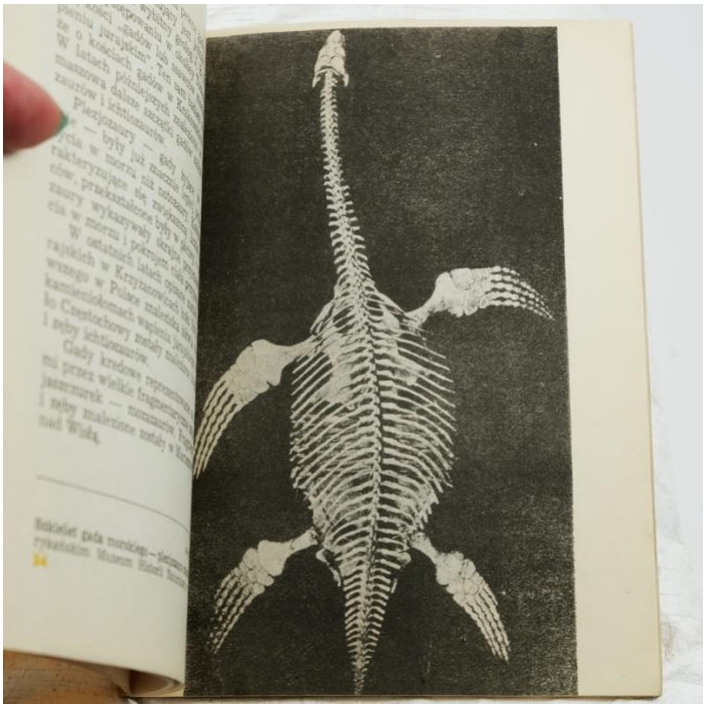
Duodecimo. Original yellow wrappers printed in black with a black and white photo of fossilised dinosaur skin to the upper wrapper. Folding map. Diagrams and illustrations from black and white photographs throughout the text. Contemporary price sticker to the rear cover. Wrappers a little tanned and rubbed, tail of spine bumped. A very good copy.

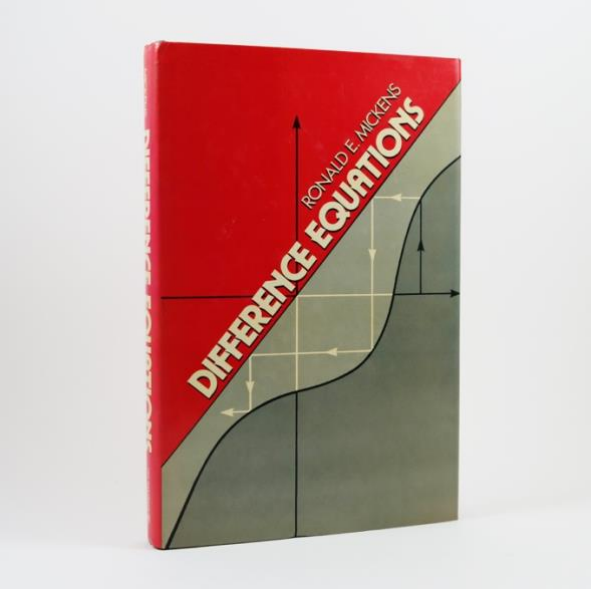
First edition, first impression. A rare copy of this charming, illustrated booklet on dinosaurs published by Warsaw's Museum of the Earth. WorldCat only locates one copy, at the National Library of Poland. The detailed edition statement records that this book was submitted for typesetting in October 1969 and approved for printing in March 1970, with the order number dated 1969, for a total of 5,200 copies. Though the date 1979 appears above the statement, this is a typo, likely for 1970 (many thanks to Philip Penka of Bernett Penka Rare Books for the translation).

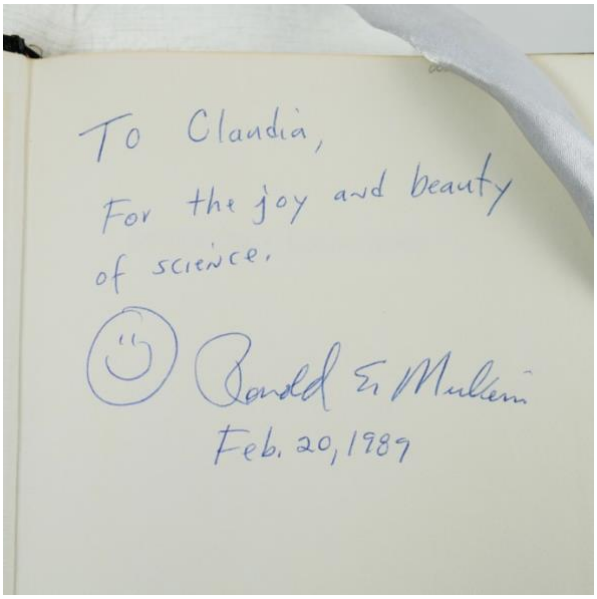
Author Teresa Maryańska (1937-2019)) was a leading dinosaur palaeontologist associated with the Museum of the Earth at the Polish Academy of Sciences in Warsaw, where she was vice-director between 1976 and 2006. "Her research was initially on invertebrate palaeontology. Her thesis concerned the Bryozoa, but she was always interested in vertebrates and looked for an opportunity to study them. Eventually, she was invited to participate in the Polish-Mongolian Palaeontological Expeditions to the Gobi Desert, and became an active, highly appreciated participant of all four expeditions" (Borsuk-Białynicka & Jakubowski, "In Memoriam: Teresa Maryańska", *Acta Palaeontologica*, volume 64, number 4, 2019).

Maryańska's first dinosaur research was on the ankylosaurs, and her magnum opus on their anatomy and taxonomy was published in 1977. She then worked on specimens of the pacycephalosaurs, protoceratopsians, hadrosaurs, and oviraptors, and many of her discoveries were made while working closely with her colleague and friend Halszka Osmólska (1930-2008). She was also a co-author of several chapters of 'The Dinosauria', one of the most important scholarly reference works on dinosaurs, first published in 1990 and "unparalleled for its comprehensiveness at the time" (Borsuk-Białynicka).

00681 **£250**







"THE SATISFACTION OF DEALING WITH A CHALLENGING PROBLEM"

11. **Mickens, Ronald E. Difference Equations.**
New York: Van Nostrand Reinhold Company, 1987.
Octavo. Original black boards, titles to spine in silver. With the dust jacket. Equations and graphs throughout the text. Small bump to the edge of the upper board also affecting the jacket. Faint partial toning of the pastedowns. An excellent copy in the jacket that is just a little rubbed and faded along the spine panel.

First edition, first printing. An attractive copy inscribed by the author on the front free endpaper, "To Claudia, for the joy and beauty of science [smiley face] Ronald E. Mickens, Feb. 20, 1989". Rare signed and with the stylish jacket in such nice condition.

Ronald E. Mickens (1943 -) "is a physicist who has advanced the general understanding of the role that pure mathematics can play in science. He is perhaps best known for his work on difference equations – a type of equation that is now considered fundamental to the development of chaos theory" (Krapp, *Notable Black American Scientists*, p. 229).

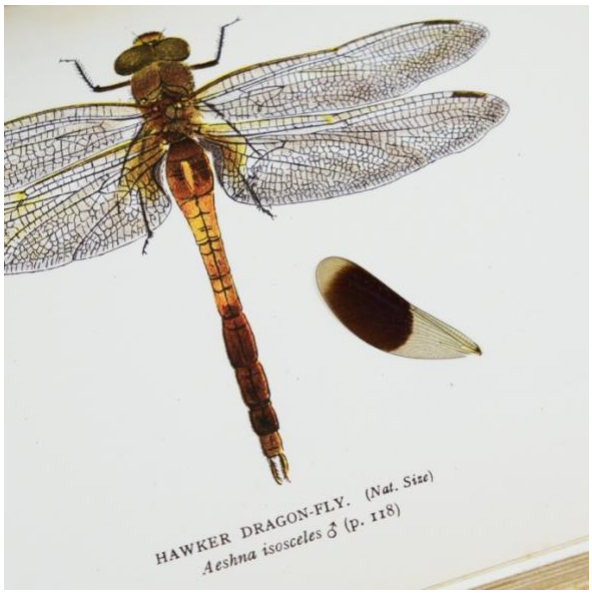
In an interview with the American Physical Society Mickens has described how, "Even at two or three years of age, I was curious about the 'workings' of the universe and of the human mind". His maternal grandfather introduced him to the scientific outlook, and his childhood in a farming community provided opportunities to see science in action: "There was an implicit scientific understanding involved in all these processes, [picked up] just from working the farm". Mickens went on to earn his bachelor's in physics at Fisk University and his PhD at Vanderbilt in 1968, then became a postdoctoral researcher at MIT.

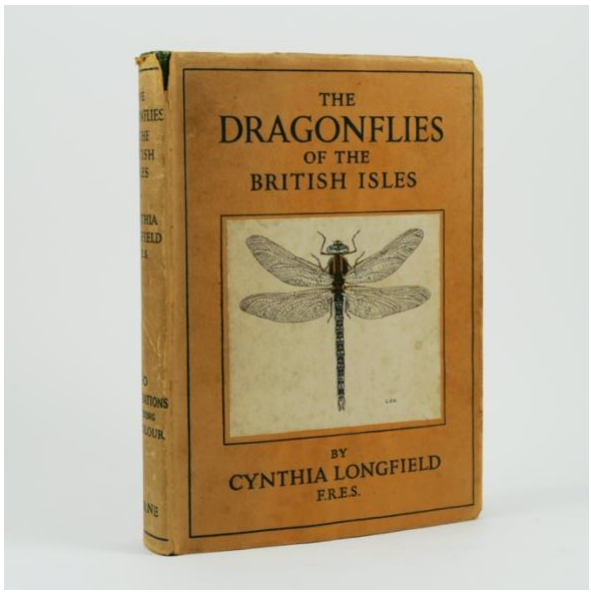
Mickens has had an extensive teaching career at institutions including Fisk, Clark Atlanta University, Howard University, MIT, and Vanderbilt. He has been the recipient of numerous grants and awards allowing him to study a wide range of topics, including "nonlinear equations, numerical analysis, mathematical biology, and the history and sociology of science" on which he has published more than 170 papers and five books (Krapp). Mickens's most recent research projects have focused on mathematical models for epidemiology and vibrations and oscillations in materials science. As he told the APS, "There's really no area of physics that doesn't have real

world applications... Even if it seems like the applications for something aren't too significant, you still have the satisfaction of dealing with a challenging problem and making progress with it".

"Ron is also deeply involved in documenting African American contributions to science and technology. He has already written a biography of Edward Bouchet, the first African American to earn a Ph.D. in any subject—it happened to be physics. He continues to research and write a biographical work on Elmer Imes, the second African American to earn a Ph.D. in physics" (APS interview). He has served as historian of the National Society of Black Physicists and was one of the founders of the National Conference of Black Physics Students.

00565 **£450**





12. **(Miller, Peter L.) Longfield, Cynthia. Dragonflies of the British Isles.**
London and New York: Frederick Warne & Co., Ltd., 1949.
Duodecimo. Original green cloth, titles to spine and upper board and dragonfly device in gilt to upper board, publisher's name and borders to boards blocked in black, pictorial endpapers. With the dust jacket with dragonfly illustration pasted-on to the front. 16 colour plates, 12 double-sided black & white photographic plates, illustrations within the text. Ownership signature of Peter L. Miller to the front free endpaper, some short notes in his hand in the text, and his and his wife's bookplate to the verso of the same. Spine rolled, cloth lightly rubbed at the extremities, a little spotting to contents, particularly the edges of the text block. A very good copy in the rubbed, spotted, and dulled jacket with small nicks and chips from the ends of the spine panel.

Second edition, enlarged, of the authoritative guide of the period. From the library of dragonfly specialist Peter L. Miller, with his ownership signature and bookplate, two manuscript notes in ink in the text, notes and sketches of dragonfly nymphs on a blank postcard, and a dragonfly wing loosely inserted.

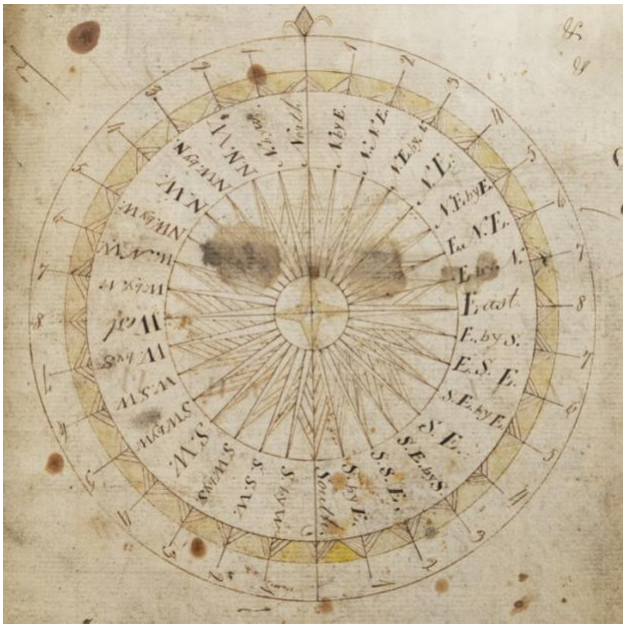
Miller was a lecturer in Zoology at Oxford who "became widely respected for the excellence of his research on insects, being awarded the prestigious Medal of the Zoological Society of London in 1972. Until the early 1980s he explored physiology and neural control … From the early 1980s Miller focused his research on dragonflies, a group of insects for which he had developed a strong affection while in Uganda. His highly developed skills - for interpreting subtle elements of behaviour, for micro-anatomical dissection and for quantifying neural processes - allowed him to reveal much of the structural and behavioural framework on which dragonfly

reproduction is based. This work has far-reaching comparative value and provides a definitive reference point for future contributions to the field" (Peter Miller obituary, the *Independent*, May 6, 1996.)

In this copy Miller has made two notes in the text: On page 126, under the entry for the Downy Emerald, he wrote, "2 emerged c. 25/5/58 from [?] F. B. A. Windermere". On page 139, under the entry for the Black-lined Orthetrum, "Nymph from F. B. A. Windermere... emerged c. 25/5/58". The most extensive notes are on a blank postcard loosely inserted at page 181. They describe the larva (nymphs) of four dragonfly species, with pencilled drawings of three, and discuss the effect of temperature on dragonfly development.

The author of this guide, Cynthia Longfield (1896-1989?), was one of Britain's leading dragonfly specialists. She spent her career as an unpaid worker at the British Museum of Natural History, where she played a major role in collecting and systemising the records of British dragonflies (Ogilvie, *Biographical Dictionary of Women in Science*, p. 802). The Dragonflies of the British Isles, originally published in 1939, was "accepted immediately as the authoritative guide" (Ogilvie).

00523 **£175**



13. **(Navigation). Educational manuscript titled The Mariner's Compass.**
England, late-18th or early-19th century.
Folio, 114-page manuscript. Early 20th-century marbled boards, black morocco label to the spine, endpapers contemporary with binding. Spine panel detached and loosely inserted, edges of boards rubbed, marbling faded, heavy spotting to title and early leaves, particularly in the lower corners of the fifth and sixth leaves, small torn and creased area affecting the gutter and limited portions of the contents in the final half of the text.

An elegant and substantial 114-page "schatkamer" educational manuscript produced by a student of navigation in Georgian England.

As historian Margarette E. Schotte explains in *Sailing School: Navigating Science and Skill 1550-1800* (2019), between the 16th and 18th centuries northern European navigation developed from a craft learned by practice aboard ship to a profession taught in specialised schools. Central to this

pedagogy was the creation of "manuscript 'treasure chests' (schatkamers) – in which members of the maritime community puzzled through lessons related to their profession" (Schotte, p. 9).

As is typical for schatkamers, the present manuscript comprises both notes and practice problems, and combines traditional nautical knowledge with trigonometry. It opens with the compass rose, "perhaps the most fundamental of all navigational devices. One early seventeenth-century English maritime writer likened the ability to recite the thirty-two points to mastering the rudiments of alphabet... Mariners used this framework not only to orient themselves geographically – with the help of a simple magnetic compass and the stars – but also as a type of notional clock, to keep track of tides in various ports" (Schotte, p. 31). Another set of traditional skills was determining tides. The required pieces of information were the Golden Number, the epact, the Sunday letter, and the Moon's age in the current month, which could be determined by calculations on the knuckles and then combined with times from local tide tables for the final result. Explanations of the method and calculations for determining all these numbers, as well as the Moon's "southing" or angle above the horizon, are recorded here.

Much of the manuscript addresses different techniques for reckoning, including notes, practice problems, and diagrams. Eleven pages are on plane sailing, a simplified form of trigonometric reckoning used over small ranges of latitude and longitude; fourteen cover middle latitude sailing, a method of determining departure by assuming that a course is steered at the middle latitude; and eleven are on Mercator sailing, which utilises a Mercator projection to solve navigational problems. Oblique sailing, in which a course oblique to the meridian is charted, and current sailing, the technique of predicting the current's effect on a vessel's course, also make appearances.

Of particular interest are the five pages on traverse sailing, including two completed traverse course diagrams with charming illustrations of ships. As Schotte explains, these diagrams were not generally used aboard ship, but in the classroom they helped students develop the skill of precisely tracking a ship's location. "Once a day, at least, the navigator added up the numerous legs from the preceding twenty-four hours to determine a vessel's current position. Navigators were accustomed to tracking their progress on traverse boards, but these pegboards could document only the barest essentials of the course. As expectations increased about the accuracy of the day's records, sailors were taught how to record their motion in geometric terms and then to analyze the resultant shapes with trigonometry. Textbook authors devoted whole chapters to the 'traverse course', explaining the fairly straightforward process of converting a day's travel into a form compatible with a tabular logbook. Instructors walked students through the construction of a right-angled triangle that represented the 'difference of latitude' and 'course' for a single trajectory and then demonstrated how to add together multiple triangles'... Teachers believed in the pedagogical value of drawing such courses and included set examples in their teaching. Although publishers chose to conserve paper rather than print these sprawling diagrams, students frequently produced them in class" and "regularly pushed beyond the printed text. When it came to traverse courses, teachers took opportunities to make exercises more interesting and memorable" by using both real and fanciful place names and designing courses in "witty shapes" like hearts, anchors, spirals, and fortifications (Scotte, pp. 127-129). In this manuscript, one of the traverse charts includes a delightful drawing of a three-masted sailing ship, remarkably detailed for its diminutive size.

As important as these mathematical techniques was the navigator's ability to keep accurate records and to correct dead reckoning while at sea, to which twenty pages of the manuscript are devoted. These lessons culminate in a remarkable 17-page exercise charting in detail a ship's progress from London to Madeira, based on a sailing of the Nancy, commanded by "A. B." with

the log kept by the mate T. Weir. The exercise includes elaborate calculations as well as notes on the weather and astronomical information. A second exercise, based on the sailing of the Frances of London, commanded by William Johnson, from London to Madeira and Tenerife was begun but seems to have been left incomplete. There are also sixteen pages on surveying coasts and harbours, including two carefully drawn charts of fictional coasts. Finally, the manuscript ends with a short chapter on the curvature of the earth and its effect on one's view of objects at a distance.

Schatkamers like this one could have a long life, and might be returned to for reference, or plumbed for practice questions when the mariner needed to take tests to advance in their career. Today they are an important and under-utilised historical source on the ways that individuals learned their craft, as well as how the teaching and practice of navigation adapted to the new realities of long-distance voyages (Schotte). This is a superb example, comprehensive, complete, and neatly written, with great care taken in preparing the charts and drawings.

00696 **£1,250**

14. **Petri von Hartenfels, Georg Christoph. Elephantographia Curiosa, seu Elephanti Descriptio, juxta Methodum et Leges Imperialis Academiæ Leopoldino-Carolinæ Naturae Curiosorum adornata, multisque selectis observationibus physicis, medicis et jucundis historiis referta, cum figuris æneis.**

Erfurt: for the author by Johann Heinrich Grosch, 1715.

Quarto (210 x 157 mm). Contemporary sheep rebacked with the original spine laid down. Quadruple rules to boards and triple rules to spine panels. Engraved frontispiece and 27 copperplate engravings of which 1 is folding, half-page engraving within the text, elaborate head and tail-pieces and historiated initials. Presentation and ownership inscriptions to the front pastedown, title and recto of the frontispiece. Rebacked as noted, spine a little rolled, a little wear at the corners, occasional small spots to contents but overall clean. A very good copy.

First edition of the first monograph on the elephant. Presentation copy inscribed by the author on the front pastedown to the Monastery of St Peter in Erfurt: "Instructissimae Bibliotheca Regalis Monasterii Petrensis hunc de Elephanto Tractatum in sui memoriam offert Author. Erfordiae, die 3 Novembris, Anno 1714". Also with the ownership inscription of the monastery library on the title and a later ownership inscription on the recto of the frontispiece, "H. Graf du Moulin, München 20 Nov. 1839".

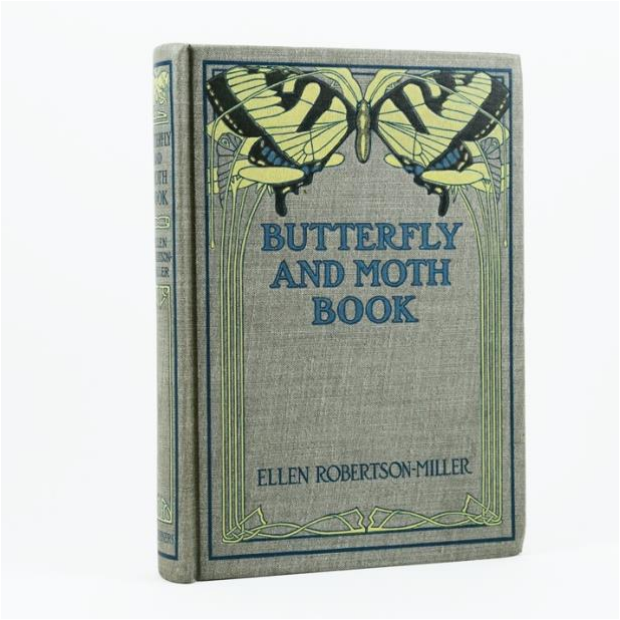
This copiously illustrated work – uncommon with all 28 plates – explores every aspect of elephant life as understood by 17th-century Europeans. The first part of the work is devoted to fossil remains and the anatomy of elephants, their lives and habits, and the differences between Indian and African elephants. The author is particularly concerned with elephant teeth and tusks, their properties, and their use in art. The second part deals with elephants' moral virtues and attributes, such as sympathy, gratitude, intelligence, and courage. The third part is devoted to the use of elephants in war, hunting, construction, and entertainment.

The frontispiece was designed by T.J. Hildebrandt and engraved by Jakob Petri, an Erfurt engraver; the plates are signed by the latter only. They depict a variety of scenes involving elephants, some being depictions of historical events, others showing elephants in their natural habitats engaged in various activities. The folding plate depicts elephant anatomy, including the skeleton, skull, internal organs, and dissected trunk.

Author Petri von Hartenfels (1633-1718) was a Leipzig Burgomaster and professor of medicine who was named count palatine by the Emperor Leopold. The monastery to which this copy was presented was constructed in the 12th century on St. Peter's Hill in Erfurt, and was one of the largest and most significant church structures in the region at the time. The monastery building was destroyed, and the adjoining church severely damaged, when Prussian forces tried to retake the town from the French in 1813.

Nissen ZBI 3149

00581 **£8,750**



15. **Robertson-Miller, Ellen. Butterfly and Moth Book. Personal Studies and Observations of the More Familiar Species. With Illustrations from Drawings by the Author and Photographs by J. Lyonel King, G. A. Bash, Dr. F. D. Snyder and Others.**
New York: Charles Scribner's Sons, 1912.
Octavo. Original grey cloth elaborately blocked with an Art Nouveau design of a yellow swallowtail butterfly to the upper board and spine, buff endpapers, Photographic frontispiece with tissue guard, illustrations throughout the text from both photographs and drawings. Lower corners of the boards bumped, spine slightly rolled. An excellent, fresh copy.

First edition, first printing. A lovely copy of this uncommon and attractively designed work on butterflies and moths with numerous illustrations by the author.

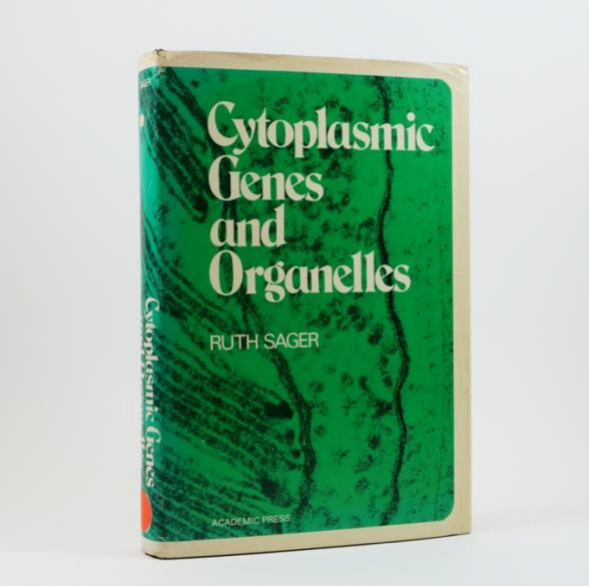
Ellen Bell Robertson-Miller (1859-1937) was a noted painter, naturalist, and columnist who studied at the National Academy of Design and the Art Students' League of New York. In addition to entomology, Robertston-Miller was interested in marine life and ornithology, and often held speaking engagements and published articles on natural subjects. She was co-author of *Wild Flowers of the North-Eastern States* (1895) with Margaret Christine Whiting.

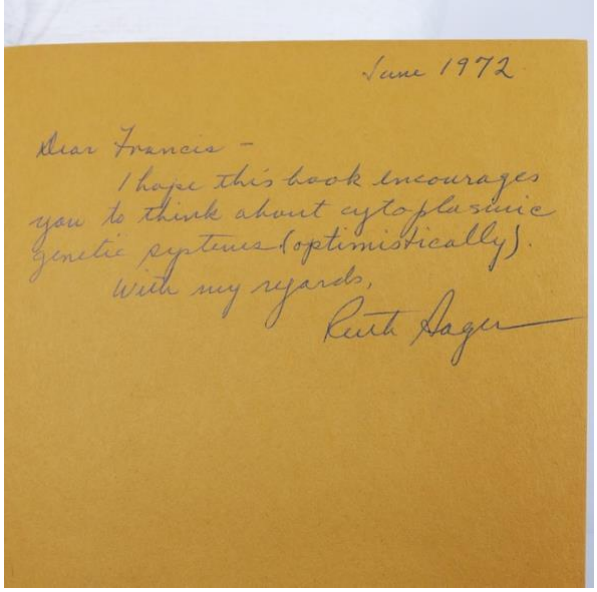
00653 **£250**

16. **Rockstroh, Heinrich. Das Mikroskop, oder Anweisung zur näheren Kenntniss und zum Gebrauche desselben, behufs einer belehrenden und nützlichen Beschäftigung in den Stunden der Musse; nebst angabe, wie die interessanten mikroskopischen objekte aus den drei naturreichen aufzufinden...**
Berlin: Wilhelm Schüppel, 1835.
Duodecimo. Original blue boards printed in black. Hand-coloured frontispiece and 11 engraved plates of which 5 are hand-coloured. Manuscript library ticket to the head of the spine, small pencilled note to the upper board, contemporary manuscript notes in German to both pastedowns, ownership signature and library ink stamp to the title. Boards rubbed and spotted, hinges cracked and repaired, corners bumped, some spotting and offsetting to contents. Very good condition.

First and only edition of this charming and early book on microscopy for young people, including advice on how to use microscopes and how to collect and prepare specimens. A nice copy in the publisher's boards and featuring 5 hand-coloured engravings depicting plant, insect, and mineral specimens, as well as uncoloured plates illustrating how light behaves and microscopes work. Uncommon, particularly in the original binding. WorldCat locates just nine institutional copies, and only three others appear in auction records.

00328 **£575**





INSCRIBED TO FRANCIS CRICK

17. **Sager, Ruth. Cytoplasmic Genes and Organelles.**
New York & London: Academic Press, 1972.
Octavo. Original green cloth, titles to spine gilt, publisher's device to upper board in blind, yellow endpapers. With the dust jacket. 8 double-sided plates from photomicrographs, diagrams and illustrations from photos throughout the text. Library card pocket on the front pastedown. Corners bumped, margins faintly toned. A very good copy in the rubbed and toned jacket with some ceasing and small chips at the edges.

First edition, first printing of this foundational work. Presentation copy inscribed by the author to Francis Crick, "Dear Francis - I hope this book encourages you to think about cytoplasmic genetic systems (optimistically). With my regards, Ruth Sager".

Ruth Sager (1918-1997) obtained her PhD under Barbara McClintock at Columbia and went on to become "renowned for her work on nonchromosomal genetics and cancer genetics" (Ogilvie, *Biographical Dictionary of Women in Science*, p. 1144). When she began this research in the 1950s, "the prevailing view stated that in eukaryotes (cells containing structures such as nuclei), the genes occur only in the nucleus on the chromosomes. While she was at the Rockefeller Institute, Sager began to suspect the existence of genetic material outside the nucleus" (Ogilvie). Using the Chlamydomonas genus of algae as her model organism, Sager carried out classical genetic experiments that allowed her map the nonchromosomal genes and show that they were especially stable. "She suggested that they represent a second genetic system that provide the organism with stability, and perhaps represented the existence of an earlier genetic system that existed before the chromosomes" (Ogilvie). Sager also began to suspect that "an increasing number of human diseases resulted from mutations in genes in respiratory organelles, and turned her attention to human genetics, especially the genetics of cancer", becoming one of the first scientists to study the role of mutations in suppressor genes as a primary cause of tumours.

00718 **£650**

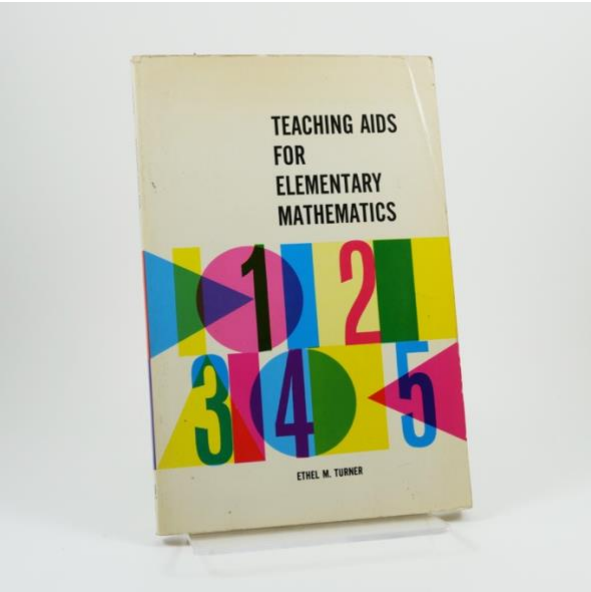
18. **Schmid, Bastian. Vergleichende Anatomie der Wirbeltiere: Rana esculenta. Wasserfrosch. [Comparative Anatomy of the Vertebrates: Rana esculenta. Water Frog.]**
Munich: J. F. Schreiber & Deutsche Hochbild-Gesellschaft, c. 1920s.
Painted plaster anatomical relief display in wooden frame (240 x 302 mm). Printed paper label to the rear. Housed in the original box with the stamp of the publisher's archive and two handwritten labels – one giving the name of the display and the other reading "F21". Also with the original tissue-covered cotton insert to protect the relief. A few very minor scratches and spots to the frame. There is some wear to the box and the tissue covering for the cotton padding is torn. Excellent condition.

Uncommon, early-20th century anatomical relief of the European frog species Rana esculenta (the common European water frog, or green frog). The publisher's archive copy, in excellent condition in the original box.

This relief was one of a series produced for schools, *Vergleichende Anatomie der Wirbeltiere* (*Comparative Anatomy of the Vertebrates*), designed by the German behavioural scientist and educational writer Bastian Schmid (1870-1944) for the major educational publisher J. F. Schreiber. They were published in co-operation with the Deutsche Hochbild-Gesellschaft (German Society for Relief Pictures), which published scientific relief pictures using a method analogous to the Wenschow Process.

The printed paper label on the back gives the names of the frogs' body parts and also introduces the diagram: "This relief is the second in the series *Comparative Anatomy of the Vertebrates* and, like the Fish, is intended to be useful both for theoretical instruction and for biological exercises in higher schools. To the left a female, on the right a male animal, both natural size with the brain and spinal cord enlarged. In the female we see the entire intestines, the respiratory system, the heart with its anterior chambers, the aortic arch..."

00302 **£750**



"MATHEMATICS AS A WAY OF THINKING,
FORM OF BEAUTY, AND AS HUMAN ENRICHMENT"

19. **Turner, Ethel M. Teaching Aids for Elementary Mathematics.**
New York: Holt, Rinehart and Winston, 1966.
Octavo. Original white wrappers printed with a design of numbers and geometric shapes in colour. Colour illustrations and diagrams throughout. Inked-out signature and pencil erasures to the front free endpaper. Wrappers a little rubbed and toned, with some small spots and a crease to the upper wrapper, which is also a little curled from use. Contents clean and fresh. A very good copy.

First edition, first printing of this book of cutting-edge teaching aids by the Black mathematics professor Ethel M. Turner.

Turner earned both her MA and doctoral degree in education at Columbia University, then became chairman of the Department of Mathematics at Cheyney State College, now Cheyney University of Pennsylvania, the first of the Historically Black Universities in the United States (Sammons, *Blacks in Science and Medicine*, p. 235). She published several books on mathematical education, with this one geared toward early learning.

As she writes in the preface, "This book is offered as a sourcebook of teaching aids and ideas for the elementary teacher... In the face of the current revolution in mathematics education, educators have been forced to examine the school curriculum. This examination has brought new topics and ideas into the content of courses. Also, subject matter that had for years been reserved for the high school curriculum, has found its way into the elementary school... The traditional content is now in a new framework. Its philosophy has been centered on teaching through the 'discovery' approach, which emphasizes learning mathematics through the study of patterns and structure. Consequently, those teachers who have considered arithmetic only as 'number work' must restructure their thinking on the meaning and significance of mathematics education. They must teach more than computation. Other aspects to be stressed are conceptual learnings, seeing relationships and developing reasoning. Also, mathematics should be shown as a way of thinking, an art or form of beauty, and as human enrichment."

The lessons offered here cover a variety of elementary mathematical concepts in original and engaging ways, often as simple games and puzzles. Among them are "Climbing the Steps to the Fairy Castle" to review fundamental operations and learn to carry the ten; "Mathematical Cookie Cutters" to "increase interest in mathematical activities, to review knowledge of symbols, and to relate mathematics to the world of industrial arts"; the Sieve of Eratosthenes to find prime numbers; a lesson on applying the Fibonacci sequence to botanical life; constructing "Jesse's Rods" (based on Napier's bones); lessons on ancient numeration systems, including Egyptian, Greek, Hebrew and "a Roman boy's arithmetic" and medieval algorithms for addition and multiplication, all of which could be incorporated into history lessons; magic squares; mathematical "crisscross puzzles" similar to crosswords; using points on graphs to create pictures; and even instructions for creating a Moebius Strip.

Of particular interest are the lessons dealing with computing: deciphering binary code on punched paper tape; using algorithms for cryptanalysis; and a lesson on "some uses of computers": "counting and tabulating, such as votes, census figures... (UNIVAC)", "handling telephone calls (AUDREY)", "bookkeeping for bank accounts (ERMA)", "detecting planes and missiles (SAGE)" and, in what may be the greatest understatement in all of mathematical education, "working out details for constructing new weapons (ENIAC)".

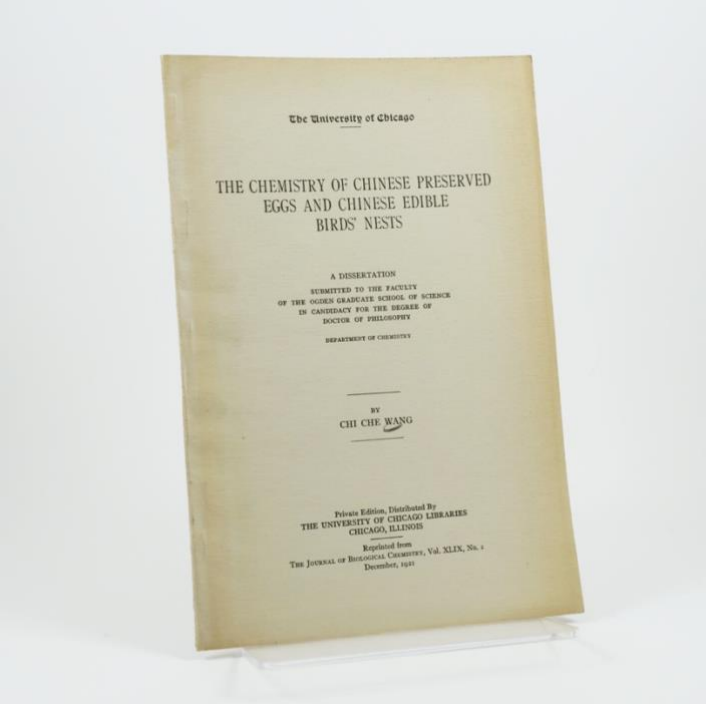
00563 **£50**

20. **Velley, Thomas. Coloured Figures of Marine Plants Found on the Southern Coast of England; Illustrated with Descriptions and Observations: Accompanied with a Figure of the Arabis Stricta from St. Vincent's Rock. To Which is Prefixed an Enquiry into the Mode of Propagation Peculiar to Sea Plants.**
Bath: B. and J. White; T. Edwards; S. Hazard; and J. Barratt, 1795.
Folio (450 x 280 mm). Recent green quarter morocco, green cloth sides, title to spine gilt, new endpapers. 5 hand-coloured engraved plates. Lacking the front blank. Very short closed tear and minor creasing affecting the top edge of the title and B1, associated minor abrasions to the top edges of B2 and C1. An excellent, fresh copy, the contents clean.

The first edition of the first English book devoted to marine plants. A handsome copy, recently rebound and with all five of the delicate, hand-coloured plates. Only one other copy appears in auction records after the 1970s, at Bloomsbury in 2008.

Author Thomas Velley (baptised 1748-1806) was educated in the law at Oxford but devoted much of his time to botany, "especially to the study of algae. He collected in Essex, the Isle of Wight, and along the south coast. He was the friend and correspondent of Sir James Edward Smith, Dawson Turner, John Stackhouse, Sir Thomas Gery Cullum, Sir William Watson, and Richard Relhan, and became a fellow of the Linnean Society in 1792" (ODNB). *Coloured Figures of Marine Plants* was his only book, but he also published three scientific papers. At his death, his extensive herbarium was purchased for the Liverpool Botanic Garden.
Freeman, British Natural History Books 3820

00694 **£1,750**



21. **Wang, Chi Che. The Chemistry of Chinese Preserved Eggs and Chinese Edible Birds' Nests.** *A Dissertation Submitted to the Faculty of the Ogden Graduate School of Science in candidacy for the degree of Doctor of Philosophy, Department of Chemistry. Private Edition, Distributed by the University of Chicago Libraries. Reprinted from the Journal of Biological Chemistry, Vol. XLIX, No. 2, December, 1921*. Chicago, IL: The University of Chicago Libraries; Journal of Biological Chemistry, 1921.
26 page pamphlet, wire-stitched. Original grey wrappers printed in black. Small pencil mark emphasising the author's name. Edges of wrappers a little toned. An excellent, fresh copy.

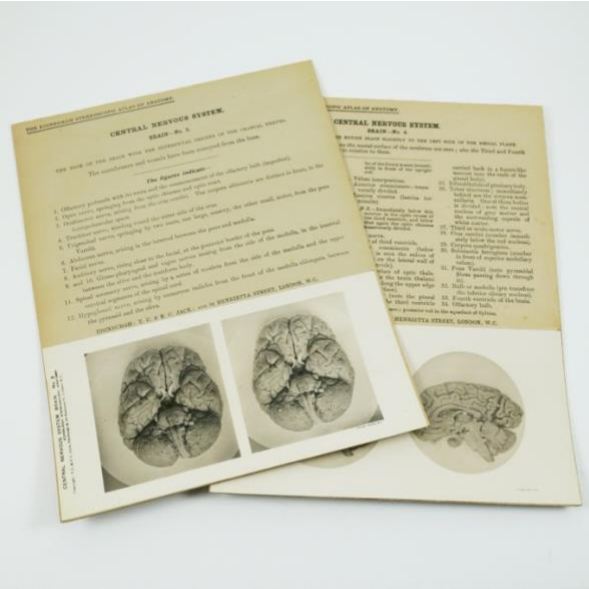
A lovely copy of the rare offprint of the dissertation of Chinese-American biochemist and civic activist Chi Che Wang (1894 - 1979). WorldCat locates only one copy, in the Bibliothèque Nationale.

"Wang received her bachelor's degree from Wesley College in 1914 and came to Chicago to attend the University of Chicago, where she received a Master's degree in chemistry in 1916 and a Ph.D. in nutrition and chemistry in 1918. Soon after her arrival, Chi Che helped found the

Chicago Chinese Women's Club, a group with which she remained active for a decade. After teaching for several years at the University of Chicago, she became a department head conducting medical research for Michael Reese Hospital. Due to the importance of her work, she was elected as a fellow of the American Association for the Advancement of Science in 1922. Between 1931 and 1940, Chi Che lived in Cincinnati where she researched children's metabolism. In 1943, she accepted a position as assistant professor of physiology at the Northwestern University Medical School. In this position, she specialized in the study of nephrosis in children, and her research headquarters were at Children's Memorial Hospital. She left Chicago to work for the Mayo Clinic, but returned several years later when she accepted a position with the Hines Veterans Administration Hospital. Among many civic efforts in which she participated, she provided clinical laboratory demonstrations for the Woman's World's Fair in Chicago." (biography on the website of Chi Che Wang Park Advisory Council, Chicago).

Wang's research, "resulting in numerous publications, was on the chemistry of biological fluids, food products, energy, mineral and protein metabolism of obese and undernourished children and adults" (Ogilvie, *Biographical Dictionary of Women in Science*, p. 1345). She was a member of numerous professional organisations, including the American Association for the Advancement of Science and the American Society of Biological Chemists.

00558 **£350**



22. **Waterston, David & Edward Burnet. The Edinburgh Stereoscopic Atlas of Anatomy. New Edition. Together with a contemporary stereoscope.**
Edinburgh: [T. C. & E. C. Jack], [c. 1909-1918].
250 printed cards, each with a stereoscopic photographic print pasted at the bottom. Housed in 5 cloth cases with printed title and contents labels. Wood, metal and glass stereoscopic viewer, manufactured in Britain circa 1900-1920. Stereoscopic cards slightly curved from upright storage, occasional dampstain or spotting to the card portions. Some wear at the edges of the boxes, darkening and some loss affecting the paper labels. A very good set.

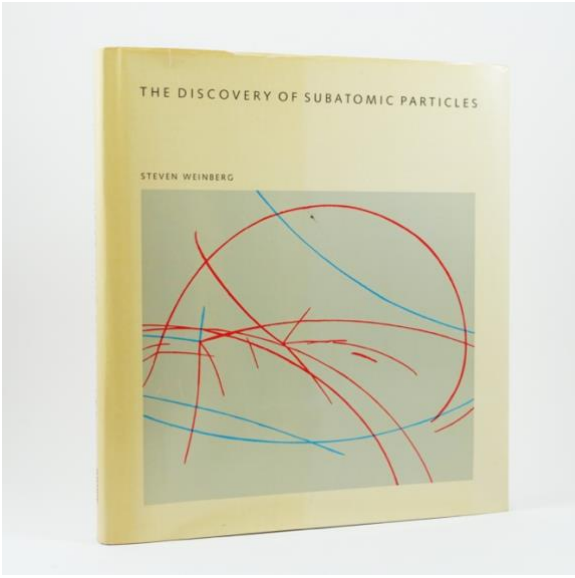
The complete *Edinburgh Stereoscopic Atlas of Anatomy*, the first publication of stereoscopic images for the study of anatomy. A new edition, probably the second, published sometime in the decade after the first edition of 1905-1906. Together with a contemporary stereoscopic viewer.

Stereoscopy takes advantage of humans' binocular vision – two eyes spaced slightly apart creating depth perception – to create the illusion of three-dimensionality from two-dimensional photographs taken at slightly different angles. The earliest stereoscopes were invented during the 1830s by Sir Charles Wheatstone, and during the 1850s simpler and more economical models were developed, most notably the one designed by Oliver Wendell Holmes. This device contained two prismatic lenses in the eyepiece, which was connected to an adjustable wood or metal card holder. The accessibility of the Holmes stereoscope made stereoscopy a popular medium for both parlour entertainment and education.

The first publication of stereoscopic images for the study of anatomy was by the Scottish physician Daniel John Cunningham (1850-1909), whose *Stereoscopic Studies of Anatomy Published under Authority of the University of Edinburgh* appeared in 1905 and had as one of its co-authors David Waterston (Rubio, "Stereoscopy in Surgical Neuroanatomy: Past, Present, and Future", *Operative Neurosurgery*, Vol. 18, Issue 2, February 2020).

Cunningham died in 1909, and Waterston went on to republish the atlas as *The Edinburgh Stereoscopic Atlas of Anatomy*. In 1919 he prepared a greatly expanded edition comprising 324 photographs in ten volumes. The present example is undated but, given the above timeline, was probably published sometime in the years between 1909 and 1918. It comes with a contemporary, and fully-functional, Holmes-style viewer which works with the cards but is not original to the set.

00599 **£750**



23. **Weinberg, Steven. The Discovery of Subatomic Particles.**
New York & San Francisco: Scientific American Library, an imprint of W. H. Freeman and Company, 1983.
Quarto. Original blue cloth, titles to spine in silver, grey endpapers. With the dust jacket. Double-page frontispiece and illustrations throughout the text. An excellent copy – the cloth and contents fresh – in the jacket that is lightly toned with minor creasing and short splits at the edges, some scratches primarily affecting the upper panel, and a small dark spot on the illustration on the upper panel.

First edition, first printing of this important popular history by "the preeminent public intellectual of fundamental physics", Steven Weinberg (1933-2021) (Arkani-Hamad, "How

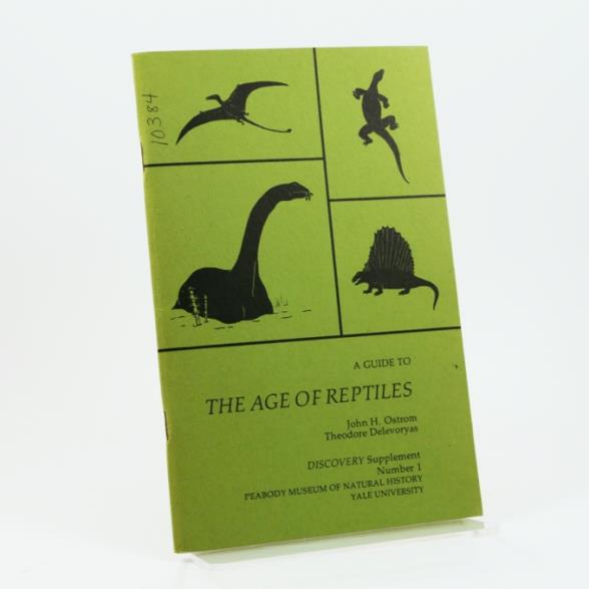
Steven Weinberg Transformed Physics and Physicists, *Quanta Magazine*, August 11, 2021). Uncommon in nice condition in the dust jacket.

Weinberg was one of the most important physicists of the 20th and 21st centuries and was awarded the 1979 Nobel Prize for the electroweak theory, which unified two of the fundamental forces: electromagnetism and the nuclear weak force. "Working separately, Dr. Abdus Salam, a Pakistani theoretical physicist, came to the same conclusions as Dr. Weinberg. Their model became known as the Weinberg-Salam Theory. It was revolutionary, not only for proposing the unification of the electromagnetic and weak forces, but also for creating a classification system of masses and charges for all fundamental particles, thereby forming the basis of the Standard Model, which includes all the forces except gravity" (*New York Times* obituary, July 29, 2021).

"Though he had the respect, almost awe, of his colleagues for his scientific abilities and insights, he also possessed a rare ability among scientists to communicate and explain abstruse scientific ideas to the public. He was a sought-after speaker, and he wrote several popular books about science, notably *The First Three Minutes: A Modern View of the Origin of the Universe* (1977)" (NYT).

As Weinberg explains in the introduction, *The Discovery of Subatomic Particles*, "grew out of a course that I gave at Harvard in the spring of 1980... to engage students who were not assumed to have any prior training in mathematics or physics in learning about the great achievements of twentieth-century physics". It "covers the discovery of the fundamental particles that make up all ordinary atoms: the electron, the proton, and the neutron" and was written "for readers who may not be familiar with classical physics, but are willing to pick up enough of it as they go along to be able to understand the rich tangle of ideas and experiments that make up the history of twentieth century physics".

00682 **£175**



24. **(Zallinger, Rudolph) Ostrom, John H. & Theodore Delevoryas. A Guide to the Rudolph Zallinger Mural The Age of Reptiles in the Peabody Museum, Yale University. Discovery Supplement Number 1.**
New Haven, CT: Peabody Museum of Natural History, Yale University, 1966.
38-page pamphlet, wire-stitched. Original green wrappers printed in black. Folding plate depicting the mural and "Earth Clock". Pencilled number to the edge of the upper wrapper. A fine copy.

Reissue of this illustrated visitor's guide to the magisterial *Age of Reptiles* mural in the Great Hall of Yale's Peabody Museum, written by John Ostrom, one of the most important palaeontologists of the 20th century. Originally published in 1966 in the same pamphlet form. A beautiful copy in unusually nice condition.

"*The Age of Reptiles* mural is an artistic masterpiece and was, for its time, perhaps the most scientifically accurate representation of the Mesozoic world ever created" (Black, "Creating the Age of Reptiles", *Smithsonian Magazine*, January 3, 2012).

The 110-foot-long, 16-foot-high mural was completed between 1943 and 1947 by art student Rudolph Zallinger (1919-1995), who had previously been employed at the museum painting seaweed specimens. Museum director Albert Parr had initially envisioned the space broken into panels illustrating individual species, but Zallinger developed the idea for a "sweep through time" from the Devonian period to the Cretaceous, "more than three million years of earth history" (introduction to the present).

"With the format established, Zallinger was rapidly schooled in vertebrate paleontology, paleobotany and anatomy by the museum's experts. The animals had to be scientifically accurate, their environments appropriately stocked with plants from the right era, and the whole fossil cast had to fit together in an aesthetically pleasing style. Accuracy was of extreme importance, but so was making the painting visually appealing to visitors... The artist also faced the technical decision of how to execute the mural. Zallinger decided on a fresco secco, a classic method in which pigments are combined with egg and water and are painted on dried plaster that is moistened at the time of application. As Zallinger composed each successive rendition of the mural, the space he was going to paint on was prepared and covered in plaster. What is remarkable is how early Zallinger arrived at what became the final layout for his Mesozoic panorama. While the fine details of the plants and animals changed with each ever-more-detailed version, their general shapes and poses were established by the time Zallinger created a 1943 'cartoon' version of the mural on rag paper" (Black).

The mural is one of the largest paintings in the world and earned its creator a Pulitzer Fellowship in Art in 1949. It was highly influential in both paleontological art and in popular culture during the mid-century. A number of guides to the mural have been published over the years, including this one by John H. Ostrom (1928 - 2005). Ostrom was a Yale professor, director of the Peabody Museum, and "the most influential palaeontologist of the second half of the 20th century" (Dodson & Gingerich, "John H. Ostrom", *American Journal of Science*, volume 306, number 1, January 2006). His discovery that dinosaurs had fast metabolisms and were closely related to modern birds lead to the "dinosaur renaissance" of the second half of the century.

00708 **£35**