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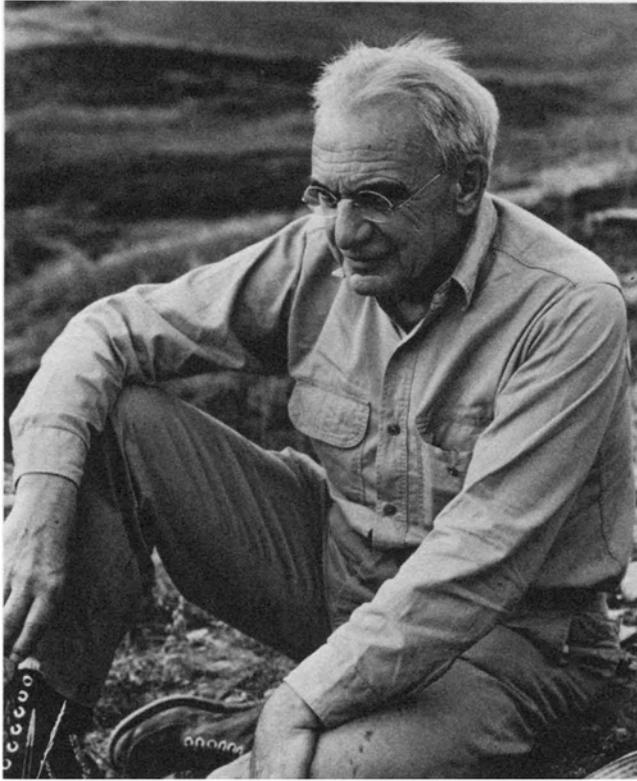
ALFRED SHERWOOD ROMER
1894—1973

A Biographical Memoir by
EDWIN H. COLBERT

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Biographical Memoir

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WASHINGTON D.C.



Alfred S. Tompkins

ALFRED SHERWOOD ROMER

December 28, 1894–November 5, 1973

BY EDWIN H. COLBERT

ALFRED SHERWOOD ROMER was a man of many aspects: a profound scholar whose studies of vertebrate evolution based upon the comparative anatomy of fossils established him throughout the world as an outstanding figure in his field; a gifted teacher who trained several generations of paleontologists and anatomists; an effective administrator who never allowed the burden of office to diminish his research activities; a lucid writer whose books and scientific papers were and are of inestimable value; and a warm person, loved and admired by family, friends, and colleagues. Al, as he was universally known to his friends, lived a full and rewarding life, during which he led and influenced paleontologists, anatomists, and evolutionists in many lands. His absence is keenly felt.

Al Romer was born in White Plains, New York on December 28, 1894, the son of a newspaper man who was editor, and sometimes owner, of several small-town newspapers in Connecticut and New York, and who later worked for the Associated Press. On the paternal side he was descended from Jacob Romer, an emigrant from Zürich who settled among the Dutch residents of the Hudson River Valley about 1725. The Sherwood from whom he derived his middle name, the son of a British soldier, was brought to

Burlington, Vermont by his widowed mother about 1815. As for other forebears, Al has written that he had "a good dash of Scotch-Irish blood. . . . All the rest that I know of were part of the Puritan migration to New England between 1628 and 1640, whose descendants moved on westward to New York State."* Thus Al was a Hudson Valley New Yorker by inheritance and birth, but through his adult life he was a confirmed and enthusiastic New Englander.

At about the time he was ten years old, his parents, who then lived in New York City, were divorced, and he remained with his father. There was a second, unhappy marriage for Al's father, during which young Alfred was, as he says, "in a somewhat miserable situation" for a time.† He was rescued by his paternal grandmother, who lived in White Plains, and there he went to high school. After high school he was entirely on his own; because there was no tradition of a college education in his family, he was not encouraged to apply for entrance to any college or university. During the year after high school he worked as a railroad clerk. Perhaps this experience led to one of his hobbies, that of a railroad buff. In his later years he had an encyclopedic knowledge of American railroads and could rattle on by the hour about various railroad lines—their routes, their histories, and their prime personalities.

After a year of railroading he decided on college, and he obtained a scholarship at Amherst. There he spent four very active and rewarding years, studying hard, while at the same time supporting himself with a variety of jobs. He decided that since he had to work he would not get involved in too many extra-curricular activities, but he did join the college newspaper staff where he became the editor-in-chief. That

* Alfred Romer to Hugh L. Dryden, 5 June 1961, Archives, National Academy of Sciences.

† *Ibid.*

was all to the good; he got some practical writing experience that was to be most useful to him in later years.

At Amherst Al had a double major in history and German literature, yet in spite of the hours devoted to these subjects there was one course, initially taken to fulfill a requirement, that was to determine the direction of his life. He needed to have a science course, so he opted for evolution, recommended to him by fellow students as "interesting and not too tough."* Part of the course was taught by Frederick Brewster Loomis, a vertebrate paleontologist, and soon after becoming involved in this course Al knew exactly what he wanted to do in life.

Here it may be enlightening to backtrack a bit. When Al was in grade school in Connecticut, he was bitten by his fox terrier, which had become rabid. Al was taken to New York for treatments at a branch of the Pasteur Institute. It was a protracted ordeal, and when Al was not at the Institute receiving injections he stayed with some aunts in Brooklyn. When he was not at either the Institute or at his aunts' house, he spent many hours at the American Museum of Natural History, where he lost his heart to the fossils on display there. When he later heard about fossil vertebrates from Professor Loomis, he understood the significance of his old museum friends. That made his decision.

One of Al's delightful traits was his pixie sense of humor. To hear him tell it, everything he accomplished during his life was the result of some sort of an accident. One would think that he blundered through his world in an aimless way, every now and then bumping into good fortune. If Al could be persuaded to tell about his life history, he would generally begin by recounting how he became a vertebrate paleontologist because he was bitten by a mad dog.

**Ibid.*

His training in his now-chosen field was necessarily delayed for a couple of years, because during his senior year at Amherst the United States became involved in the First World War. Al felt the call of duty and joined the American Field Service. Immediately after commencement he went to France, expecting to drive an ambulance; instead, because no ambulances were available, he drove an ammunition truck. In November of that year he joined the U.S. Air Service, where through the months he advanced from the status of a private to the rank of second lieutenant. His service in France culminated with his appointment to a post in command of about five hundred French ladies at a special camp where they were sewing covers on the wings of airplanes. Al's hilarious account of this assignment was just one of the famous Romer stories.

In 1919 he was back in New York, a graduate student at Columbia University with a teaching fellowship, all on the basis of a recommendation from Professor Loomis. There he studied under Professor William King Gregory, who taught on the graduate faculty at Columbia and who at the same time was a curator at the American Museum of Natural History. It should be explained that Professor Gregory had a dual appointment in the two institutions, the result of a long-standing arrangement that had been instituted by Henry Fairfield Osborn in 1891. Graduate students in paleontology at Columbia spent much of their time at the Museum. It was an advantageous arrangement for all concerned; the students had the use of unparalleled collections and instruction, in the case of Gregory, from a man who had a superb knowledge of all of the vertebrates, from fish to man. It was a golden opportunity to study under a man of Gregory's attainments, and Romer made the most of it. Professor Gregory's influence on Romer was inestimable. I have heard Al remark that in his opinion nobody ever had so

complete an understanding of the vertebrate skull as did Gregory, and certainly the young Romer benefited from that; he too had a marvelous understanding of the skull.

At Columbia Al enjoyed the advantages not only of studying under some famous teachers—W. K. Gregory, J. H. McGregor, T. H. Morgan, and E. B. Wilson—but also the stimulating companionship of a talented group of fellow students and associates—Charles Camp, G. K. Noble, James Chapin, H. H. Johnson, Franz and Sally Schrader, and A. H. Sturtevant.

The following is another typical Romerian story, taken from a biographical sketch that he prepared for the Academy Archives:

How I happened to take up a thesis topic is mildly amusing. As soon as I arrived at Columbia, I went to see Gregory, and discovered that I could not take his regular course because of conflict with laboratory teaching. "But," said Gregory, "a few of us are interested in comparative myology, and we're planning to have a special course in that subject. Would you care to join?" I said that I would love to take this, and then went down the hall in search of a dictionary. I thought that myology had something to do with clams, and was pleased to discover that it had to do with muscles. Within a few weeks after I took up the course, I proposed a new theory as to the classification and evolution of limb muscles (which I found held up very nicely after later work on embryology) and was embarked on a thesis which consisted of a consideration of muscle evolution and the probable musculature of primitive fossil amphibians and reptiles.*

This anecdote nicely illustrates one of Romer's endearing qualities; he was serious about his work, but he never took himself too seriously. It also illustrates his remarkable ability to cut through the puzzling aspect of a problem and to resolve its difficulties with an elegant solution. His thesis emerged as a classic paper entitled "The Locomotor Ap-

**Ibid.*

paratus of Certain Primitive and Mammal-Like Reptiles" (see bibliography, 1922).

After the completion of his graduate course work and his thesis, all within the incredibly short span of two years, Romer was appointed an instructor in the Anatomy Department of the Bellevue Medical School at New York University. He spent two years at Bellevue, teaching histology, embryology, and gross anatomy—courses to which he had never been exposed—all the while working feverishly to keep ahead of his students. During such intervals as he could find within this frenetic schedule, he was continuing his research. One result of such concentrated activity was a spastic colon, for which a regimen of chloreton was prescribed.

Next came an offer from the University of Chicago. The manner in which he obtained his appointment at Chicago is perhaps one of the most amusing of the Romerian stories, and it is here set down in Al's words as recorded in a taped interview made on February 9, 1973.

They started feeding me some sort of capsules. They probably told me what they were, but I didn't pay any attention. . . . Well, along came the anatomists' meetings that spring, in April. They were out at the University of Chicago, and I went out. God, I was getting sleepy. I tend to go to sleep when people read papers at me, but here, even during ones I was really interested in, I just couldn't stay awake. I was just dopey. Well, they were looking for a vertebrate paleontologist and heard I was in town. So I was invited over to lunch by the chairman of the appropriate department. I was very sleepy, and he started the proposition—could I come up for a quarter, give a course or two—(yawn) I wasn't sure—he went on, could I come out and give a few lectures—(yawn) I wasn't too sure about that either. If I had been awake, I would have jumped at this, but dopey as I was, I didn't jump. Well this blasé attitude apparently was pretty good, because I no sooner got back to New York than I got a letter offering me an assistant professorship, which is one up from instructor. . . . Well, I was sleepier than ever, so I wrote back, "Well, I don't know, this time of the year is pretty late for my boss to get a successor for me, and so forth. Hoping you are the same." And sent it off. Well, a few days later I came to. I had gone to sleep in the middle

of the morning with my eye on a microscope barrel. I went down and saw the medicine man and said, "Look here, either I've got sleeping sickness, or else it's whatever dope I'm taking." He said, "You damn fool, don't you know what you're taking?" "No." "Chloretone." And the idea was, as you know, it's a nice anesthetic. They thought it might put my large intestine to sleep. Instead, it was putting *me* to sleep, and so they took me off it and I woke up, at which point arrived a telegram offering me an associate professorship. I thought, gee, this has worked out pretty well. I've made two jumps now. Could I play it still further and jump from instructor to full professor? I finally decided not, and signed on the dotted line. So chloretone did it. I don't know if it would work for other people or not.*

While Al was a graduate student at Columbia he spent summers at the Woods Hole Biological Laboratory, and there he met Ruth Hibbard, the younger sister of Dr. Hope Hibbard, a zoologist studying at Woods Hole. When he went to Chicago in 1923 he again encountered Ruth, working as a labor statistician and living in the vicinity of the University. They became friends, they fell in love, and the next fall were married in Columbia, Missouri, where Ruth's father was a professor at the University of Missouri. It was a fortunate and a happy marriage.

One cannot contemplate the career of Al Romer without giving full attention to the contribution Ruth made to that career. She was Al's devoted partner through the years, working closely with him at home and away from home. It must not be thought that Ruth was a self-sacrificing non-entity, subjecting herself in every way to the advancement of Al's career. She was not. Ruth was always a forceful person with her own definite views about the world in which she lived. But she complemented Al in a marvelous fashion; together the two of them cooperated in a mutually advantageous manner. Al fully appreciated Ruth's role in their

* G. E. Erikson, "Alfred Sherwood Romer" (Proceedings of the Ninetieth Meeting of the American Association of Anatomists), *Anatomical Record*, 189 (1977): 314-24.

partnership; he wrote that their marriage was "the best thing that ever did happen, or could have happened to me."* There are three children: Sally (Mrs. Paul Evans), a librarian at Amherst College; Robert, professor of physics at Amherst College; and James, who lives and works in Providence, Rhode Island. There are seven grandchildren.

Circumstances do affect the directions that our lives follow, a point that Al liked to emphasize in lively tales according to which he just happened, more or less by accident, to develop his career. Of course the favorable circumstances were there; but Al saw his opportunities and developed them with unparalleled acumen and ability. One wonders what direction his life would have taken if he had not gone to Chicago, if he had stayed at Bellevue, or if he had gone to some institution lacking a program in vertebrate paleontology or a collection of fossil vertebrates. He certainly would have become a leading anatomist (as indeed he was) but perhaps an anatomist working more on modern than on extinct animals.

As things turned out, he went to a university that had on hand a fine collection of ancient backboned animals, particularly Permian amphibians and reptiles. These fossils had been amassed by Romer's distinguished predecessor, Samuel Wendell Williston, with the able cooperation of his field and laboratory assistant, Paul Miller, who was still at Chicago when Romer arrived. Al Romer soon became involved with Permian tetrapods, and this field of research remained the dominant center of his scientific effort for the remainder of his life. It is interesting to note that from 1922 through 1924 he was the author of eight anatomically oriented publications. From 1925 through 1935 (which may be taken as the years during which his contributions originated in Chicago) there

* Romer to Dryden.

were thirty-seven publications, most of which might be characterized as primarily paleontological. This remained true of his subsequent publications. Although Al entered upon a program of research based to a large degree on the Permian collections at Chicago, at the same time he began a vigorous campaign to augment those collections by field work in the Permian sediments of Texas and New Mexico. In 1929 he extended his paleontological horizons by going to South Africa with Paul Miller and making an important collection from the famous Permo-Triassic Karroo beds.

He spent eleven productive years at Chicago, studying, publishing, and teaching. Among other things, he was involved, together with several colleagues, in the presentation of a general education course in science for nonscience students. A text was needed, so the participating professors collaborated on a book, edited by H. H. Newman, entitled *The Nature of the World and of Man*, published in 1926. Al's chapter in this book, "The Evolution of the Vertebrates," was expanded by him into a book, *Man and the Vertebrates*, published in 1933. During the same year the first edition of his invaluable textbook, *Vertebrate Paleontology*, was published. Both of these books have enjoyed well-deserved success in this country and abroad and have appeared during subsequent years as revised editions.

Although Al enjoyed his work and his colleagues at Chicago, he declared that he "had no particular love for midwestern country."* As has been mentioned, he was an enthusiastic New Englander, so in the summer of 1932 the Romers went to Massachusetts and began to look around in the vicinity of Amherst for a country retreat. The search continued during the following summer, when they were fortunate to find a place completely to their liking in the town

**Ibid.*

of Pelham, near Amherst. It was a two-hundred-acre tract of abandoned farmland, mostly grown up into woods, occupied by a dilapidated old house, the earliest section of which had been built in 1740. They bought the property, and through the years it was their much-beloved second home, where they usually spent several months of each year. The house became one of Al's hobbies. Single-handedly he began a long-term project of restoration, eventually resulting in a choice example of a New England colonial farmhouse. Al was a dedicated purist and insisted that everything about the house should be as nearly authentic as possible. For example, he bought an old house that had been condemned because it was on a reservoir site, and he used the woodwork from that house in the restoration of his Pelham home.

The Romers had contemplated a long trek each summer from Chicago to Pelham and back, but the year after they had purchased their New England place Al was offered a position at Harvard. He was to be professor of zoology and at the same time curator of vertebrate paleontology at the famous Museum of Comparative Zoology (the MCZ as it is known to museum people around the world). It was exactly the type of situation that he had wanted and had never been quite able to achieve at Chicago. The Romers moved to Cambridge, where they bought a picturesque old home near the MCZ; through the years they graciously entertained hosts of visiting paleontologists and other guests visiting the MCZ. Al divided his time between an office in the Biological Laboratories and another office in the Museum. Al would be busily and happily occupied in Cambridge and in Pelham for just short of forty years.

When Al arrived at Harvard the program in vertebrate paleontology at the MCZ was in a state of desuetude; collections were available but were not being used to any great extent, nor were they being augmented. Romer changed that

situation by inaugurating a very active program of research and field work on Permian tetrapods. He continued his collecting activities in Texas, and within a few years the Permian collections at the Museum were well known and well used. A steady outflow of research, recorded in various scientific journals, emanated from the Museum—research by Romer and by his students. It should be emphasized that during his years at Harvard, Professor Romer trained an outstanding cadre of vertebrate paleontologists, anatomists, and vertebrate zoologists, men and women who now hold positions in universities and museums across the land, and in some foreign countries as well.

During this earlier years at Harvard, the MCZ was under the directorship of Thomas Barbour, a distinguished herpetologist. It is said that Barbour ruled the Museum as a benevolent autocrat. He was wealthy, and he contributed considerable sums to the Museum from his personal fortune, particularly before the depression of the thirties. Perhaps because of his wealth he lacked understanding of the needs of his subordinates. Consequently, at the time of his death, the staff was woefully underpaid, and the Museum was insufficiently financed.

In the meantime, following the depression and immediately after the war, Romer had attracted worldwide attention to the MCZ with his vigorous program in paleontology. Thus he was appointed director of the Museum, relinquishing his position as director of the Biological Laboratories. He directed the Museum for fifteen years. It meant much time diverted from other activities to administration, yet Al accepted the extra burden, to become a vigorous and imaginative leader of the Museum. During his tenure as director, the endowment of the Museum was increased tenfold, and the salaries of an enlarged staff were brought into line with other university salaries. Along with this financial improvement,

there was insistence by Al on a high standard of scientific performance and on high standards for staff appointments, following the procedures in Harvard's regular academic departments. As has been said, Al did not allow this important work to submerge his research productivity; in the continuation of his research he was ably assisted through the years by Nelda Wright.

At Harvard Romer augmented his scientific-literary output with revisions of the texts previously mentioned, as well as by the production of a massive source book, *Osteology of the Reptiles*, which appeared in 1956. A book with this same title had been published years earlier by Romer's predecessor at Chicago, S. W. Williston. But Romer's book is more than an updating of Williston's text (which was perhaps the original intention); it is a completely new, authoritative survey of reptilian osteology, widely used by paleontologists throughout the world. He also wrote books for a more general audience, such as *The Vertebrate Body*, published in 1949, now translated into several foreign languages; an immensely popular work, *The Vertebrate Story*, published in 1959; and *The Procession of Life*, published in 1968.

During the last decade of his life, Al organized and conducted a series of expeditions to Argentina, where he worked in close cooperation with Dr. Rosendo Pascual of La Plata in the collection of a very significant suite of Triassic reptiles. The series of papers on these fossils, some of them published in collaboration with other paleontologists, was one of Romer's last extended research projects.

Al was active in many scientific societies. Perhaps his greatest satisfaction in this connection was his role in the organization of the Society of Vertebrate Paleontology, of which he was the first president in 1940. He was also president of the American Association for the Advancement of Science (1966), the American Society of Zoologists (1951), the

Society of Systematic Zoology (1952), the Society for the Study of Evolution (1953), and the Sixteenth International Zoological Congress, held in Washington in 1963. In addition to these societies he was a member of the American Philosophical Society and the American Academy of Arts and Sciences. He also served on the governing boards of various societies.

Many honors were deservedly bestowed upon Professor Romer. He was elected to the National Academy of Sciences in 1944 and was made a foreign member of the Royal Society in 1969. He was a fellow or foreign member of other British societies and also societies in Germany, Argentina, and India.

He received the Thompson Medal and the Elliot Medal of the National Academy of Sciences in 1956 and 1960, respectively, the Penrose Medal of the Geological Society of America in 1962, the Hayden Geological Award of the Academy of Natural Sciences of Philadelphia in 1962, the Paleontological Society Medal in 1967, the Linnean Society Medal in 1972, and the Wollaston Medal of the Geological Society of London in 1973. He received honorary degrees from Harvard (1949), Amherst (1952), Dartmouth (1959), Buffalo (1960), and Lehigh (1963).

Such honors never went to Al's head. He was about the unstuffiest person who ever lived. His ebullient behavior and breezy conversations, often interspersed with comic songs, were frequently the cause of raised eyebrows among visiting European scientists, who probably expected a man of Al's eminence to act in a thoroughly formal, perhaps even a funeral manner.

Romer published considerably more than two hundred papers and books on a wide variety of subjects within the general fields of vertebrate paleontology, anatomy, and evolution. He was especially interested in those fishes most closely related to the tetrapods, presenting valuable papers

on the crossopterygians and lungfishes. His largest and most numerous contributions were, however, on fossil amphibians and reptiles. As has been indicated, his studies of these tetrapods revolved around the Permian amphibians and reptiles found in Texas and adjacent regions. Such fossils afforded opportunities for significant papers on the labyrinthodont amphibians, the stem reptiles known as cotylosaurs, and the early synapsid reptiles known as pelycosaurs.

Particular mention should be made of his monographs, *Review of the Pelycosauria* (published in collaboration with L. I. Price in 1940) and *Review of the Labyrinthodontia* (published in 1947). Among other papers on amphibians were those devoted to the relationships of the labyrinthodonts to stem reptiles; he also published a significant paper in 1939, showing that the branchiosaurs, often separately classified, represented in fact ontogenetic stages in labyrinthodont development. Romer was especially interested in the relationships of the pelycosaurs to the therapsids (the higher "mammal-like reptiles"), and in 1956 he published a revised classification of the therapsids in collaboration with Professor D. M. S. Watson of the University of London. But it was not until the last decade of his life that he did extensive work on the therapsids, contained in his series of papers on the Chañares reptiles from the Triassic beds of Argentina.

Romer published little on the mammals as such (except, of course, in his books), but he was interested in the transition from mammal-like reptiles to mammals. He stoutly maintained at an early date that the crucial prehomimid anthropoid, *Australopithecus*, was not a chimpanzee.

Many of his papers were in a sense concerned with comparative anatomy—particularly the anatomy of extinct tetrapods. There were, however, important basic anatomical studies, such as his early papers on limb musculature, his papers on crossopterygian fins and on the foot in early tetra-

pods, his paper on the transformation of the hyomandibular bone into the tetrapod stapes, his studies of skull structure, his essay on the somatic and visceral duality of the vertebrate, his paper on cartilage as an embryonic adaptation, and the papers on the nature of bone in early vertebrates.

Although Al never pretended to be a geologist, he completed some very important papers on the stratigraphy of the Texas red beds, on the stratigraphic sequence in Argentina, and on Gondwanaland.

Needless to say, the theme of evolution permeates a large proportion of his publications. It was not his practice to write essays on evolution, or to theorize on the mechanisms of evolution, but he did introduce evolutionary principles and considerations in his descriptions and discussions of the fossils with which he was concerned. He felt that this was the most effective manner in which he could discuss larger evolutionary problems.

Romer bequeathed his magnificent personal library covering the fields of vertebrate paleontology, anatomy, and embryology to the Museum of Comparative Zoology, and it is located in his old office, a spacious and comfortable room. The library, a separate facility of the Museum, is kept up to date with current publications in the fields mentioned above, and it is widely used.

Alfred Romer died on November 5, 1973, after a brief illness. He is mourned by all who knew him.

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