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EDWARD WILBER BERRY

1875—1945

A Biographical Memoir by
ERNST CLOOS

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Biographical Memoir

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Edward Wilber Berry

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February 10, 1875–September 20, 1945

BY ERNST CLOOS

EDWARD WILBER BERRY died twenty-nine years ago, and several of his colleagues undertook the writing of his memorial. John B. Reeside, Jr., was assigned it, but he died in 1958. Ralph W. Chaney then accepted the task, but died before he completed it. In 1971 I accepted the assignment because I knew Berry well at Hopkins for fourteen years, admired him greatly, and am close to source material. Lloyd W. Stephenson wrote an excellent account for the Geological Society of America (1946), which I used extensively.

Berry was an extraordinary man who owed his success to inherited abilities and hard work. He is an outstanding example of what an energetic and intelligent man with motivation can achieve if given an opportunity. He graduated from high school, never went to a college or university, became an outstanding geologist and paleontologist, and was elected to the National Academy of Sciences in 1922 at the age of forty-seven, which is early for a geologist. His list of publications includes more than 500 entries and almost 8000 printed pages. He became Professor of Paleontology at Johns Hopkins, then dean of the College of Arts and Sciences and provost of the university. He died at age seventy when he was President of the Geological Society of America.

BEGINNINGS

Edward Wilber Berry was born at Newark, New Jersey, on February 10, 1875. His parents were Abijah Conger Berry and Anna Wilber Berry. Of his father and mother he said, "I don't believe there ever lived a kindlier man. My mother was the much more dominating of the two, with an infinite capacity for sacrifice and love." The family included a younger sister, Winnetta, and a still younger brother, Clinton.

Berry graduated from high school in 1890 and would have liked to go to college, but family finances did not permit it. While he was still in high school his interest in botany led him into the field in the region around Raritan Bay in New Jersey, where he collected and identified fossil plants from Cretaceous clays along the south shore. With a friend, he studied the flora of bogs and swamps, and the boys read U.S. Geological Survey reports and books on botany. He must have studied intensely and thoroughly because even before coming to Baltimore, in 1905, he published about thirty paleobotanical papers displaying considerable knowledge of the subject and skill in illustrating.

After high school Berry worked as office boy for the cotton goods commission house of Denny Poor and Company, and in a few years he became traveling salesman in the southern states. In 1897 he accepted a position as business manager for the *Passaic Daily News* and between 1897 and 1905 became, in turn, managing editor, president, and treasurer. During this time he by no means neglected his primary interests, but intensified his studies in geology, biology, and paleontology. He began writing for publication and worked part-time for the New Jersey Geological Survey (1904-1906) and the Geological Survey of North Carolina (1905-1907). In 1901 he received the Walker Prize of the Boston Society of Natural History.

In 1898 Berry married Mary Willard of Passaic. They had

two sons, Edward Willard, born in 1900, and Charles Thompson, born in Baltimore in 1906.

HOPKINS CAREER

At a field conference of geologists of Maryland, New Jersey, and the U.S. Geological Survey, William Bullock Clark, head of the Maryland Geological Survey and also chairman of the geology department at Johns Hopkins, was so impressed by Berry's knowledge and personality that he persuaded him to come to Baltimore. Clark's recommendation of April 3, 1906, to President Remsen describes the beginning at Hopkins as follows: "I recommend the appointment of E. W. Berry as assistant in Paleontology at \$500.— a year, the understanding being that he will have charge of our rapidly growing collections in geology, paleontology, and mineralogy and will also aid in the laboratory in paleontology. I know of nothing that will more strengthen the work in geology than the appointment of a capable man like Mr. Berry to take charge of the work outlined. Our collections have gotten beyond our control and have reached that point where they are frequently unavailable for instruction. We have tens of thousands of specimens and with no one who has the time to give to the care of this material. Mr. Berry has special aptitude for such work and is furthermore an experienced paleontologist and for a number of years past has written extensively on paleontological subjects, particularly in the field of paleobotany where he is recognized as an authority on certain portions of the subject. At my urgent request he has been in residence with us here for a year and I am anxious to hold him here if possible. He is a mature man who does not contemplate going forward to the attainment of the Doctor's degree but is a thorough scholar and a most admirable man for us to retain." A second letter, by the Hopkins botanist, Professor Duncan S. Johnson, endorsed this recommendation, and the appointment was made.

This was Berry's opportunity, and he accepted the challenge. In the president's report for 1906 the following item appeared: "Mr. Berry has been engaged in a study of the Potomac floras of New Jersey, Maryland, and North Carolina for the surveys of those states, and is already engaged in the preparation of several interesting articles on the same." He was then not yet listed as faculty and carried no courses, but in 1908 Clark recommended that Berry be made an instructor and the salary doubled. During these first years he listened to geology classes unobtrusively in the back of the room, quietly absorbing information. From 1907 he worked as a staff member of the Maryland Geological Survey. In 1910 Mr. Berry was promoted to associate (now called "assistant professor"), and his name appeared in the university catalog as "Mr. Berry, Paleobotany" and jointly with Clark under Paleontology and General Geology. In April 1913 the chairman recommended promotion to associate professor: "Mr. Berry is carrying on investigations of much moment in his special field of paleobotany, several monographs and more than a score of other significant papers having been issued by him during the past three years. Mr. Berry has rapidly come to the front as the leading paleobotanist in this country and his work has elicited much favorable comment on the part of the leading paleobotanists in Europe." In 1916 Professor Clark urged that Mr. Berry be advanced to Professor of Paleontology because "the influence which he exerts over our students is very pronounced, probably greater than that of any other member of our staff." From then on, he was listed simply as "E. W. Berry, Professor of Paleontology," in contrast to all other members of the faculty, who listed degrees, dates, titles, and, at times, several lines of data. His entry remained unchanged until he became dean. The contrast was striking and very typical of the man, who was no friend of pomp, glitter, and prima donnas.

After the death of W. B. Clark, Berry became the dominating personality in the department. He taught a variety of courses

reaching a large number of students who were profoundly affected, and nobody in the department remained untouched.

PROFESSOR AND STUDENTS

Berry was an inspiring teacher, and he "turned on" many students who owe him a great deal. He was intolerant of laziness or mediocrity, and his appraisal of his fellowman was prevailingly by instinct and common sense and rarely inaccurate. He made mistakes, but since he was very kind and warmhearted he was sympathetic to those who tried hard but did not quite succeed. One of his students who was not in his field and was afraid of his oral examination writes, "But what I remember most about him was his exceeding kindness to all graduate students. His action during that oral was that of a gentleman."

Another student writes, "When I was at Hopkins he gave courses in paleobotany, invertebrate paleontology, and on classic European localities. He lectured, for example, on the Paris basin as though he had been all over it, but he was never in France."

Berry gave a whole generation of geology students a feeling for creative research, inspired by his own example. He was never hurried or harassed and was always accessible in his room, seated at his big rolltop desk, on which was placed a board that was used for all his writing. The walls around him were lined with bookshelves and books.

If the function of a graduate professor is not to teach facts and theories but to inculcate a critical attitude toward one's own ideas, as well as those of others, Berry did extremely well.

His Saturday morning seminars were famous and are well remembered by all who ever attended. They lasted four hours and typically began with a critical review of some famous textbook. Deflation of the near great was legendary, and though he was caustic he really intended to amuse and shock his audiences.

Following the review was a report by one of the students on

a self-selected topic. The last portion of the seminar was a topical discussion on, for instance, cross-bedding, mudcracks, sorting, or anything else having to do with stratified rocks. Berry tried to keep arguments going. He rarely lectured, but made the students dig things out by themselves. He would demolish an illogical report, but mostly he encouraged the students to criticize each other. He had a remarkable gift for creating interest. Some of the sessions became a bit sterile at times but never for long. He would try to stir things up, but never took the floor for more than a few minutes. He was an excellent blackboard artist. He illustrated all his lectures and could make his fossils quickly come to life by a few deft strokes with the chalk.

Once a month the Berrys invited the students and faculty into their home after dinner. Everybody gathered in the living room or, in later years, in the library, where he would read from a classic work in geology or an outside speaker would tell of his works and travels. Ensuing discussions were at times quite heated because Berry held strong opinions, and if he disagreed he said emphatically what he thought about an idea or the person who proposed it. Nobody was spared, no matter how high a position or scientific reputation he held. He taught his students to examine ideas carefully and never to be afraid to challenge them. Many of his students still appreciate the direction their whole lives were given by E. W. Berry.

SCIENTIFIC PRODUCTION

Berry's scientific output was amazing. There are numerous short notes but also many longer articles and very substantial monographs. The number of entries exceeds 500, most of which are illustrated. The bibliography of Stephenson (1946) lists 1028 figures and 585 plates, but some articles are listed as "illustrated," and numbers are therefore only approximate. Even if many illustrations are photographs, almost all plates also

include drawings. The preparation of the illustrations alone must have consumed very much time, and the total for writing and illustrating is large. If one has seen the lack of assistance of those days, one wonders how this was accomplished. When I arrived at Hopkins, in 1931, the Maryland Geological Survey had one secretary-typist, the Department of Geology none. A general assistant mailed publications for the survey and took photographs with an old box camera for publications of the survey. Otherwise the faculty did their own work in their offices. There were no research laboratories for faculty or students. There also was no "Illustration Division"; neither were there National Science Foundation grants or research assistants.

Berry's first publications were mostly notes and brief, illustrated descriptions of fossil plants or localities. They reveal a growing familiarity with the subject as well as with techniques of handling the material, identification, description, terminology, and publication. This was during the time when he was working at the *Passaic Daily News*, where he must also have been successful, judging from his advances within that organization.

In the annual report of the New Jersey Geological Survey for 1904, published in 1906, there are two of Berry's articles. One is "A Brief Sketch of Fossil Plants"; the other is "The Flora of the Cliffwood Clays." Both are most revealing and much above the average for a state survey report. The sketch on fossil plants is of interest to anyone interested in natural science. It is a broad review outlining the relevance of paleobotany from the botanical or biological and from the geological points of view. Berry discusses evolution, definition of a species, and relation of fossil to recent plants and reaches far back into history and the first recognition of fossil plants. The sketch is also a summary on geologic time, evolution, and plant classification and is well illustrated. Considering the background and the author's job this reveals a considerable amount of reading and understanding, not only as a fossil collector but as a scientist

and geologist. He wrote the report in 1904 at age thirty-four in his "spare time," which cannot have been plentiful. The second report contains extensive lists of paleobotanical data and species, many of which were named by Berry himself, showing that he must have collected extensively in the field and prepared his material at home.

One may divide Berry's publications into four broad categories. First is a vast number of short, mostly illustrated notes, a page or so long, with descriptions, observations, corrections of nomenclature, and general paleontological inventory. Second are many papers in which the cataloged data are placed in broad geological, historical, and biological context. These articles are good reading, as are the New Jersey report mentioned above, an address to the Philosophical Society on "Tertiary Floras of the Atlantic Gulf Coast," and several articles in the *Scientific Monthly*, such as "Rilly, A Fossil Lake" or "The Mayence Basin, A Chapter of Geologic History." Here Berry's vivid and interesting style is delightful and brings dull subjects to life in an extraordinary way. The "Jurassic Lagoons of Solnhofen" deals with paleontology, general philosophy, history, and geology and should be read by all students who feel that paleontology is a dull subject. There are many similar examples, such as "Far Away and Long Ago," where Patagonia becomes an interesting area and geologic history an important factor in today's discussion of tectonics. Other articles deal with tectonics, continental drift, or the origin of the Andes. The article "Shall We Return to Cataclysmal Geology" is a gem and good reading for all scientists. The third category of Berry's publications includes the large monographs of the U.S. Geological Survey and the Maryland Survey and his contributions to the geology and paleobotany of South America. The latter are the fruit of his travels to South America on several expeditions. The comprehensive works are Berry's major contributions, and his keen

appreciation of the meaning of fossil plants led him to see forests and prairies, coastal swamps and steaming jungles, where most geologists saw merely fossil leaves. Finally, there are many short publications in newspapers, such as an article on the contributions of Charles Lyell, editorials, discussions of educational policies at Hopkins, and others.

As can be expected with such a volume of publications, not all are of equal quality or weight, and some of Berry's work has been severely criticized. It has been said that he was too quick in submitting manuscripts for publication. He was aware of that himself and once told a student who referred to the encyclopedia as authority, "That stuff is no good; I wrote it myself." On the other hand, when we were discussing publications needed by younger faculty for advancement, he said, "If a man has something he must say, it will come out, because he is alive. All we want are signs of life."

In spite of the administrative diversion, Berry's production continued, if at a declining rate. The crest, however, is between 1920 and 1930, when he was forty-five to fifty-five. After that the writing focused on larger papers with broader application and scope. One of the most interesting and readable papers, "The Origin of Land Plants," was published in 1945.

DEAN AND PROVOST

In 1929 Berry was appointed Dean of the College of Arts and Sciences as successor to Professor Ames, who became president. Though Dr. Ames did not appoint a provost, Professor Berry served as his right-hand man and adviser, essentially as provost.

The appointment was noted by many, inside and outside of the university, and Berry said in 1929, "Most people may feel that Hopkins took a radical step, making a dean out of an uneducated man. But the truth of the matter is that education

need not stop with the end of schooling. After all, it is not what we learn at an institution that is of value to us as much as the attitude we develop toward all learning."

The dean did not organize an administrative apparatus, but dealt with students' needs and problems and with those of the institution in a very direct and uncomplicated way. He was accessible, and nobody remained in the dark about the dean's views, because he expressed them openly and very forcefully.

Berry made many important contributions to university policy and scholarly efforts, largely enforcing fundamental Hopkins philosophy, which was not then and is not now universal in the country.

Two important areas stand out: the educational purpose of the university and college, and the role of athletics at Hopkins.

Berry thought there should be three distinct kinds of colleges: one where rich men's sons spend a pleasant four years in contact with culture; a second one for drifters who need strict supervision and persuasion to find out what they want; and a third one for the rare minority of bright young men who have selected a goal and are willing to work toward it. He felt four years of college are not necessary, because after two years a student is ready for either serious graduate work or for business. For the mature student there should be as few rules as possible and no credit or marking system. A student should be allowed to select his own course and pursue it unhindered.

This system had been introduced as the "Goodnow plan," making it possible for a student to bypass the A.B. degree and to enter a department for graduate work after two years or after making up fundamentals. Berry very forcefully favored and applied this philosophy, which is still working at Hopkins today and has recently been reinforced.

A second concern of the dean was the abolition of intercollegiate and commercialized football. He felt that the university should provide ample facilities for all kinds of sports,

indoor and outdoor, with competition among all sorts of intramural groups. All students who are not physically unfit should participate in some form of activity.

The deanship did not slow Berry's teaching or departmental activities, but it took some of his time and reduced his scientific output. When Dr. Bowman became president he appointed him provost and P. S. Macauley secretary. This reduced the time Berry could devote to writing, research, and his students, which was regretted by all. Dr. Bowman leaned heavily on his provost and delegated much of the internal administration to him. President Bowman described the relationship as follows:

"In 1935 when I asked him to associate himself with me as Provost I did so because preliminary discussions of University problems with faculty members showed that he had unusually good judgment and a wide range of interest and experience. He was instinctively inquisitive about men and wanted to know what made them click. He tried to get at the roots of a man. He disliked fine words and undocumented praise. In judging his associates he was apt to be severe. I think his best friends would also say that he was somewhat rough in the expression of his opinions. But when it came to action that affected an individual person he habitually went into reverse and became critical of his own judgment, often proposing a milder course than he himself had advocated at the beginning. He was never a man to spend time on mere amiable discourse about policies or appointments. He kept his eye on the action that would have to be taken and was ready with mature judgment when the time for action came."

As Berry approached retirement, friends of his had a portrait painted, and at its presentation to the university President Bowman summarized the esteem in which the dean and provost was held:

"If I were adequately to express the appreciation of the University for the gift of Dean Berry's portrait, I would be

obliged to employ terms as wide and diverse as the procedures and interests of students and colleagues who have known their unique Dean for so many years. This would require me at one stage to sing my words, at another to consult an appropriate committee, and at still another to express myself in the symbols of science and the compositions of art. It is with deep gratitude that I receive and accept on behalf of the Trustees this portrait of our College Dean, our distinguished paleontologist, and our efficient Provost who is known to and deeply respected and beloved by so many generations of Hopkins men."

In 1942 Berry retired as dean and provost and in 1943 as professor. On September 20, 1945, Edward Wilber Berry passed away.

IN ASSEMBLING data for this memorial I received help from many sources. The following former students supplied very important information: Christina L. Balk, A. Lincoln Dryden, James Gilluly, J. Edward Hoffmeister, Shailer S. Philbrick, Vernon E. Scheid, Hobart E. Stocking, Edward H. Watson, and Wendell P. Woodring. The manuscript has been checked by some of these and several Hopkins colleagues. I also received assistance from the Department of Geology at Campbell College, Buies Creek, North Carolina, where the Berry papers are on deposit, and from the archives and library here at Johns Hopkins.

The memorial by Lloyd William Stephenson, published in *Geological Society of America Proceedings* for 1945, was of great help.

HONORS, DISTINCTIONS, MEMBERSHIPS

- New York Academy of Sciences, 1899–1938
American Association for the Advancement of Science, 1900
Torrey Botanical Club (Secretary, 1904; Honorary Life Member, 1937–1945; Editorial Board, 1939–1945)
Geological Society of America (Fellow, 1909; Vice President, 1924; Depositories and Exchange Committee, 1924–1933; President, 1945)
Paleontological Society (President, 1924)
American Philosophical Society, 1919 (Council, 1933–1936)
American Academy of Arts and Sciences, 1921
National Academy of Sciences, 1922 (Marsh Fund Committee, 1933–1937)
Executive Committee, National Research Council, 1929–1932 (Chairman, Committee on Paleobotany; Member, Committee on Quantitative Data of Geological Processes and Committee on Paleocology)
Board of Control and Editor for Paleobotany and Evolutionary History, *Botanical Abstracts*, 1918–1926
Assistant State Geologist of Maryland, 1917–1942
Senior Geologist, U.S. Geological Survey, 1910–1942
American Society of Naturalists
Société Géologique de France
Paleontologische Gesellschaft
Academia Nacional de Ciencias en Córdoba (Argentina)
Sociedad Geológica del Peru
Washington Academy of Sciences
International Committee Paleobotanische Zeitschrift
Editor Paleobotany, *Biological Abstracts*, 1926–1943
Associate Editor, *American Journal of Science*, 1921–1938
Pan American Geologist, 1922–1939
Member, Research Committee of 100, A.A.A.S.
Member, Committee on Grants, A.A.A.S., 1934
Member, International Commission Paleobotanical Nomenclature, 1930–1945
Walker Prize, Boston Society of Natural History, 1901
Phi Beta Kappa, Alpha Chapter President, 1933–1934
Sigma Xi, Gamma Alpha, Omicron Delta Kappa, Phi Delta Epsilon, Scabbard and Blade

Medal Houra a los Colaboradores de la Instrucción Publica, Republica de Venezuela, 1933

Sc.D., honorary, Lehigh University, 1930

Vice President, Section Paleobotany, Fifth Institute of Botanical Congress, Cambridge, 1930

Mary Clark Thompson Medal for Paleontology (1942), 1945

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KEY TO ABBREVIATIONS

- Am. J. Sci. = American Journal of Science
 Am. Museum Novitates = American Museum Novitates
 Am. Naturalist = American Naturalist
 Asa Gray Bull. = Asa Gray Bulletin
 Bol. Petról. = Bolétin de Petróleos
 Bot. Gaz. = Botanical Gazette
 Bull., Can. Geol. Surv. = Bulletin, Canada Geological Survey
 Bull. Geol. Soc. Am. = Bulletin of the Geological Society of America
 Bull. Torrey Bot. Club = Bulletin of the Torrey Botanical Club
 Can. Dep. Mines Geol. Surv. Mem. = Canada Department of Mines, Geological Survey Memoir
 Fla. Geol. Surv. = Florida Geological Survey
 Geol. Mag. = Geological Magazine
 Johns Hopkins Univ. Alumni Mag. = Johns Hopkins University Alumni Magazine
 Johns Hopkins Univ. Circ. = Johns Hopkins University Circular
 Johns Hopkins Univ. Stud. Geol. = Johns Hopkins University Studies in Geology
 J. Geol. = Journal of Geology
 J. Paleontol. = Journal of Paleontology
 J. Wash. Acad. Sci. = Journal of the Washington Academy of Science
 Natur. Hist. = Natural History
 N.J. Geol. Surv. Ann. Rept. = New Jersey Geological Survey Annual Report
 Pan-Am. Geol. = Pan-American Geologist
 Proc. Am. Phil. Soc. = Proceedings of the American Philosophical Society
 Proc. Nat. Acad. Sci. = Proceedings of the National Academy of Sciences
 Proc. Roy. Soc. Can. = Proceedings of the Royal Society of Canada
 Proc. U.S. Nat. Museum = Proceedings United States National Museum
 Sci. Monthly = Scientific Monthly
 Smithsonian Inst. Ann. Rept. = Smithsonian Institution Annual Report
 Trans. Roy. Soc. Can. = Transactions of the Royal Society of Canada
 U.S. Geol. Surv. Prof. Paper = United States Geological Survey Professional Paper

1896

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1897

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A new common name. *Torrey*, 1:147.

1902

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1904

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