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## MEMORIAL OF DUNCAN STEWART VII

October 2, 1905–November 5, 1969

EILER L. HENRICKSON, *Department of Geology*

*Carleton College, Northfield, Minnesota 55057*

Duncan Stewart VII, Professor and Chairman of the Department of Geology of Carleton College, and a world authority on Antarctic petrography, died suddenly on November 5, 1969, shortly after his 64th birthday, at the Northfield, Minnesota City Hospital. He had been ill for a few days, but had worked in his office at the College as usual the previous evening, and had been his normal, active self up until his last day. His death terminated a memorable career, the year before his proposed retirement. The funeral service was held on November 8, at the Church of St. Dominic in Northfield of which he was an active member.

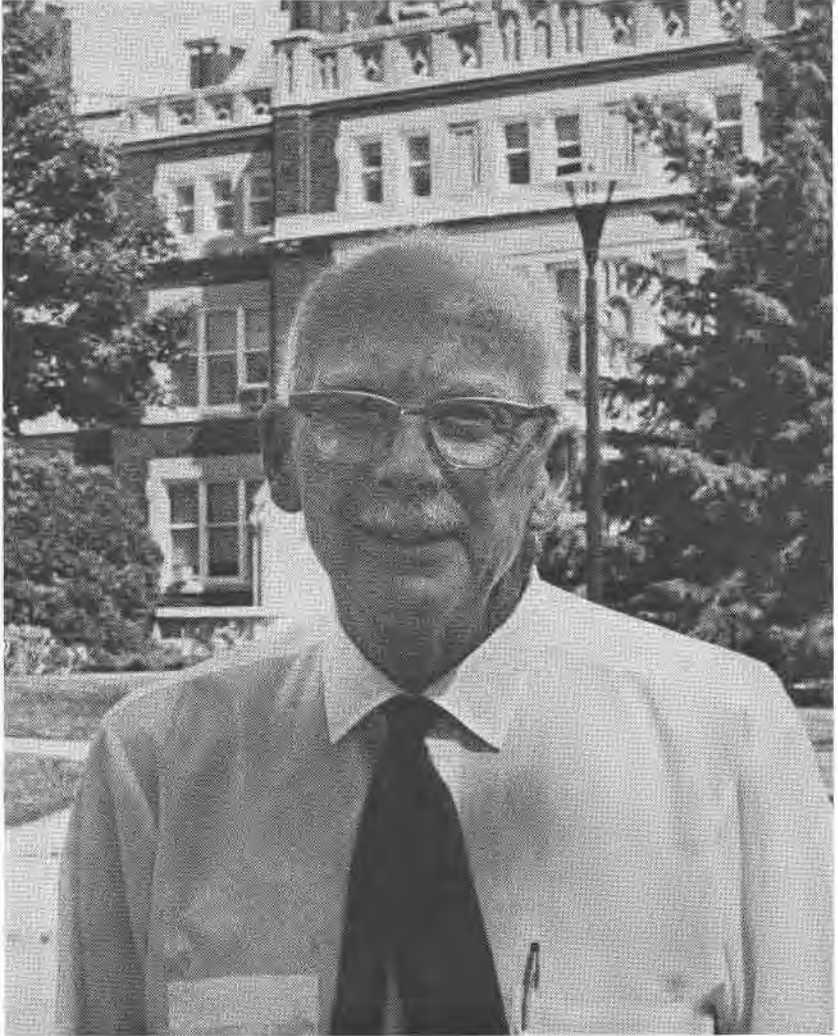
Dunc Stewart was born October 2, 1905 in Detroit, Michigan, the son of Duncan Stewart VI and Stella Woodbridge Stewart, granddaughter of Hon. William Woodbridge, second Governor of Michigan and United States Senator, and grandson of Duncan Stewart V of Stirlingshire and Jane Bell Stewart of Sumfriesshire, Scotland. He was immensely proud of the great Scottish heritage which he bore, and was always ready to display the crest or the plaid of the clan which he cherished. There are now both a Duncan Stewart VIII, his son, and a Duncan Stewart IX, his grandson, who were a source of great pride and delight to him. Raised in Detroit, he attended Central High School and following his graduation in 1923, he spent a year at Evans School in Tucson, Arizona. He entered the University of Michigan in the Fall of 1924 and received the Bachelor of Science degree in Geology in 1928. From 1926 to 1928 he was

an Assistant in Geology at Michigan, a member of Phi Mu Delta, and was elected to Sigma Gamma Epsilon, the honorary earth sciences society, of which he was Treasurer for two years. He was an Assistant in the Michigan State Geological Survey during the summer of 1927. In the Summer of 1928, he served as Assistant Geologist and Geodesist to the University of Michigan Greenland Expedition, where he survived the sinking of the expedition's ship with the loss of most of the supplies, and managed to retrieve the only movie record of the expedition. These pictures were shown over the years along with his amusing stories of his exciting experiences.

Following the Bachelor's degree Dunc Stewart attended Brown University, where he was an Assistant in Geology for two years, and was graduated in 1930 with a Master of Science in Geology and an election to Associate Membership in The Society of The Sigma Xi. After a short recess following the death of his father he returned to the University of Michigan and completed the Doctor of Philosophy in 1933. During this period he worked as an Assistant in the Museum of Paleontology and developed a lasting interest in paleontology which was somewhat in contrast to his major interest in petrography. His doctoral dissertation was based on the rock collection from the Byrd Expedition which his former teacher, Laurence M. Gould, had brought back from Antarctica in 1930. This beginning led to Duncan Stewart's lifelong interest in and fascination with Antarctic petrology.

In 1933 Duncan joined the Carleton College faculty as Instructor in Geology and served until 1935. He temporarily left Carleton to become Instructor and later Assistant Professor at Michigan State College from 1935 to 1939. He was married to Graziella M. Furkart of Providence, Rhode Island, December 28, 1937. He returned to Carleton as Assistant Professor from 1939 to 1941 and was Acting Chairman in 1941, but once again left temporarily and served from 1941 to 1945 and the Summer of 1946 as Assistant and then Associate Professor at Lehigh University. During the Summer of 1947 he was Professor of Geology at Western Reserve University. He returned to Carleton in 1945 as Professor and Chairman of the Department of Geology, succeeding Laurence M. Gould when Dr. Gould became President of the College. In 1962 he was named the Charles L. Denison Professor of Geology and held that endowed chair until his death. Since 1963 he had held the honor of academic marshall of the College as its most senior and one of its most respected faculty members.

Professor Stewart's field experience was varied and involved most of his summers. He normally worked alone, even in snake-infested country. He consulted for numerous corporations and industries throughout the



*Duncan Stewart VII*

world. He became interested in, and an expert on the occurrence of cement rock and explored for such commercial material for Lehigh Portland Cement Company, Boardman-Smith Corporation, Kalstone Corporation, Penn-Dixie Cement Corporation, Missouri Portland Cement Company, and Ash Grove Lime and Portland Cement Company. Other firms with which he was associated included Jones and Laughlin Steel Corporation, Oliver Iron Mining Company, Schultz and Lindsay Construction Company, and Wilson, Nuttall, Raimond Engineers, Inc. He was a commissioned geologist for the U. S. Government and participated in a geological survey in Alaska with USA TRECOM and USARP-NSF. His field reports were models of accuracy and detail.

His Antarctic research has included extensive analysis of the rock collections made during the late Rear Admiral Richard D. Byrd's three Antarctic expeditions as well as by Operation Deep Freeze IV. He also made petrographic studies of specimens collected by several other American in addition to Scottish, Australian, French, German, Swedish, and three British Antarctic expeditions. Dr. Gould says of his former student and colleague: "Duncan has examined more Antarctic rocks than any other person in the world and is recognized by all petrologists as the top authority on Antarctic petrology." He came to know the geology and mineralogy of Antarctica intimately as he followed the work of others, and each year his ability to contribute to the understanding of that continent became more impressive and his knowledge increasingly comprehensive. His many years of Antarctic research were climaxed in 1960 when he was invited by the National Science Foundation to accompany an expedition to Antarctica as a feature of the U. S. Antarctic Research Program. For his "courage, sacrifice, devotion" during that expedition, he was awarded the Congressional Medal in 1968. Earlier a mountain range in West Antarctica—the Stewart Hills, Latitude 84°12' South, Longitude 80°00' West—had been named in his honor. For the past six summers he had conducted research in the jungles and mountains of Costa Rica. Shortly before his death he remarked that due to his busy schedule he had "passed over a chance to study rock samples obtained from the moon." He had been eagerly awaiting the summer of 1970 when he was scheduled to present a paper on Antarctic mineralogy at the SCAR Symposium on Antarctic Geology to be held in Oslo, Norway. During his career, Professor Stewart was awarded a number of grants for Antarctic research from the Society of the Sigma Xi, the Geological Society of America, Michigan State College, Louis W. and Maud Hill Family Foundation, National Science Foundation, and the SCAR Symposium on Antarctic Geology, Cape Town, South Africa. One such grant

provided for study in 1956 at the Scott Polar Research Institute and Cambridge University in England.

His Antarctic library, believed to be the most complete of its kind with the possible exception of that in the Library of Congress, will be housed along with his private papers in the Polar Archives, National Archives, Washington, D. C., according to his wishes. One of his numerous hobbies included the gathering of a complete collection of first edition stamps commemorating Antarctic exploration.

The breadth of Duncan Stewart's interest and his devotion to scientific and other fields is demonstrated by his participation in local, state, and national scientific and other organizations, in many of which he demonstrated his leadership ability by holding numerous offices. He was a Fellow of the Geological Society of America, the Mineralogical Society of America, and the American Association for the Advancement of Science. He was a member of the Society of the Sigma Xi, Michigan Academy of Science, Arts and Letters, Pennsylvania Academy of Science, Minnesota Academy of Science, Society of Economic Paleontologists and Mineralogists, Scientific Research Society of America, American Geophysical Union, National Association of Geology Teachers, the Rochester Earth Science Society, the Yorkshire Geological Society, and a Charter Associate, Arctic Institute of North America. He served for a time as District Chairman, St. Paul Area, of the Boy Scouts of America. He was consultant for a number of years to the Historian of the U. S. Antarctic Programs and a Member of the Governor's Advisory Committee on the Minnesota Geological Survey. Always concerned with the improvement of earth science teaching in secondary schools, Dunc directed National Science Foundation In-Service Institutes for High School Teachers of Earth Science and for many years National Science Foundation Summer Institutes for teachers. He served as consultant to the GEL-Study Survey of the American Geological Institute engaged in making detailed recommendations for improvement of education in the geological sciences and for the development of teaching materials, conferences and institutes in the professional field. His career is summarized in *Who's Who in America*, *American Men of Science*, *Who Knows—And What*, *Who's Who in Minnesota*, Centennial Edition.

Impressive as the above outlined credentials are, he will be remembered more by generations of undergraduates and associates on the faculty and by all who were fortunate enough to cross paths with him on this road of life and in so doing became more complete. For he was a warm, kind, generous friend to all who knew him, a truly selfless person who gave of himself as few are capable of doing. He was jovial and yet quiet, easy-going, and rather slow-paced, with a quiet patience and a congenial and

unhurried attitude which belied the great energy and prodigious drive that was required for him to obtain his successes and achievements. He had a remarkable and delightful sense of humor, and always saw the humorous side of even the most serious or mundane facets of a life which he seemed to thoroughly enjoy. He had the ability to laugh at himself as well as those who took themselves too seriously. One would have to search far and wide to find a more completely honest or fair individual, for he lived with high purpose and was perhaps overly conscious of the needs and desires of others. He was a humble man who was respected for his integrity, his frankness which was never superficial nor hypocritical, and for his dignified friendly manner. He gave generously of his time and effort to many causes and this served to do much to bridge the "town and gown" relationship of the college to its surrounding community, for he was esteemed by the small and the great of the general public, so many of whom he remembered with a card and a bit of humor no matter where his travels took him. He was always generous in giving time to those who sought him out in the sanctuary of his inner office for help, advice, or encouragement, whether a small child with a rock or fossil collection, a non-major with a personal problem, or a farmer who had found a strange rock in his field. He will long be remembered as the Santa Claus of the childrens' Christmas party, which was one of the few times when he was not accompanied by Bobby Marvel, a large Airdale who was his constant companion.

The Geology Department in which he took such pride and to which he truly devoted his life gained national recognition through Stewart's research efforts and through the success of his students with whom he kept in constant contact and to whom he continued to furnish advice and counsel throughout their careers. They occupy positions of importance in colleges and universities, research organizations, government, and industry. The extent of his regular correspondence with scientists, friends, or even with chance acquaintances around the world was almost unbelievable, yet he almost never forgot a name or a face. His students enjoyed a close relationship with him and knew all of his habits and idiosyncracies, and valued him as a popular teacher whose lectures were meticulously prepared. His subtle sense of humor in the classroom, where his accounts of his or other's adventures were accompanied by sly geologic comment and humorous anecdotes, was presented with such serious facial features and poker face that many students did not realize that he was kidding or "pulling their legs." This gentle and kindly wit extended to his colleagues. After attending a Geology Department Tea, one might discover that he had been unknowingly partaking of such delicacies as rattlesnake meat, chocolate covered ants, baby bees, or

French fried grasshoppers. On field trips and excursions his students had to run to keep pace with this energetic walker, because they did not want to miss the gems that might come forth. He was reserved and yet never distant or uncommunicative. He was exacting and expected a good deal of his students, but was a friend who gave generously and unstintingly of his time and energy to help them further their geologic education. He set such an example of hard work and devotion to his chosen profession that it was contagious, and the students practically lived in the department. It led through the years to an amazing *esprit de corps* among the majors, which was recognized and envied throughout the college. For years, before funds became available for additional equipment, he taught whole classes of petrology students with a single ancient Leitz petrographic microscope, often involving evenings and weekends. Strongly influenced by the depression years, he asked for little as long as he could get by on equipment already available. With such a deep sense of responsibility for the education of students in his field, this obligation resulted in his donating to them far and above the call of duty, and relegating his own research, interests, and personal relaxation to a secondary position. His knowledge of his students extended far beyond the mere matter of names and class performance, for he took personal interest in them and their careers, their families, their triumphs and setbacks throughout their subsequent lives. In a situation where all student majors resulted only from personal contact through elementary classes, he had the ability to kindle enthusiasm for his subject such that an unusual number of career geologists were developed during the period of his tenure. He will long be remembered by his students for those abilities that make a great teacher, for on several occasions he was nominated as the "outstanding teacher" in a campus-wide poll.

Duncan Stewart VII is a man whose passing leaves his family and many friends with a deep and lasting sense of loss. He is survived by his wife, Graziella, Westerly, Rhode Island; three children, Duncan VIII, Owatonna, Minnesota, Arz lie (Mrs. Richard Anderson) of Taos Canyon, New Mexico, and Stella, Berkeley, California; three grandchildren; and a sister, Margaret Woodbridge Stewart, Detroit, Michigan.

His real memorial will be what he passed on to his many devoted students during nearly four decades of teaching, and what he gave to his colleagues, friends, and family throughout a thoroughly unselfish lifetime. Dr. Stewart is inextricable from the past of Carleton College and particularly of geology there, and the most direct beneficiaries of his devotion to his calling, the present and former majors, sought an even more direct way to keep alive the awareness of him and of his unique contribu-

tions within the Geology Department, and to seek a way to continue his influence amidst the on-coming geology students at Carleton who will be denied the opportunity to know him personally. To achieve these goals they established a Duncan Stewart Memorial Fund, one specifically dedicated to the cause he so long and effectively served—that of geology and geology students at Carleton College.

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## MEMORIAL OF GEORGE FORBES WALKER

October 24, 1916-February 17, 1970

G. W. BRINDLEY, *Department of Geochemistry and Mineralogy,  
The Pennsylvania State University, University Park, Pa. 16802*

The death of George F. Walker at the age of 53 during a cardiac operation shocked and saddened his many friends; he appeared to have many years ahead of him to continue the clay mineral studies for which he was well known and highly respected. He is survived by his wife Anne, and two sons, Keith and Neil, both in their early twenties.

George Walker was born in Scotland and took a B.Sc. degree, with First Class Honours, in 1939; Ph.D., 1948; and D.Sc., 1959; all in the University of Aberdeen, Scotland. He was a fellow of the Mineralogical Society of America since 1962, a fellow of the Royal Australian Chemical Institute, a member of the Mineralogical Society (London) since 1947, and of the Clay Minerals Group since its inception, a member of the Clay Minerals Society, a councillor and foundation president of the Australian Clay Minerals Society, and Vice President of A.I.P.E.A. (International Association for Clay Mineral Studies).

His earlier professional life was in Great Britain where he held positions with the British Ceramic Research Association (1941-45) and the Macaulay Institute for Soil Research (1945-51). He took a prominent part in the development of the Clay Minerals Group from 1947-51. He moved to Australia in 1951 where he held various positions with the C.S.I.R.O. in Melbourne; at the time of his death he was Chief Research Scientist in the Division of Applied Mineralogy where he headed a team working particularly on clay-water and clay-organic systems, and the development of composite materials utilizing silicates. From correspondence with Dr. D. H. Solomon, an intimate colleague of George Walker in the