

Horace R. “Buzz” Collins, Jr. (1930-2018)

By Robert Van Horn and James McDonald

Horace R. “Buzz” Collins was born in February 4, 1930, in Shawnee, Oklahoma, in the early years of the great Depression to Horace R. Collins, Sr. and Lois E. (Lee) Collins. He moved to Barnesville, Ohio early in his childhood and graduated from Barnesville High School in 1948. Buzz then attended Ohio University, where he majored in geology and obtained his B.S. degree in 1954. After two years’ service in the U.S. Army Corps of Engineers, where he attended officer and aviation schools, Buzz continued his geologic training at West Virginia University and received a M.S. degree in geology.

In August 1959, after completing his graduate work at West Virginia, Buzz joined the staff of the Division of Geological Survey, which at the time was headquartered at Orton Hall on the campus of the Ohio State University. Buzz was hired as a Conservationist 1 and was assigned as an assistant to George Denton in the Coal Geology Section. In this capacity, the field description and mapping of coals were his primary responsibility. George Denton resigned in March 1960 and Buzz became supervisor of the Coal Geology Section, in which capacity he served until 1963. In that year, the Coal Geology Section was incorporated into a larger section, The Areal Geology Section, and Buzz was appointed as its Head. The Areal Geology Section subsequently evolved into what was known as the Regional Geology Section. After three years as Head of the Areal Geology Section, Buzz was promoted to Assistant Chief, a position he held for two years, until 1968, when he was appointed Division Chief and State Geologist, replacing Ralph Bernhagen. Buzz thus became the 10th State Geologist in the 150-year history of the Ohio Geological Survey.

At the time Buzz assumed the position of Chief, there were approximately 20 people on staff and the annual personnel budget was slightly over \$150,000. In the ensuing 20 years the Division staff increased threefold and the budget increased to almost \$3 million. Along with staff and budget increases, Buzz was able to initiate and complete many major programs and projects through his tenure. The following paragraphs highlight some of his more notable accomplishments.

Until the Division’s move to its Grandview office in 1962, the Survey had limited capability to conduct chemical analyses of rock, mineral, and fuel resources. In 1972, Buzz was able to acquire the funds needed to hire a chemist and purchase an atomic absorption spectrophotometer (AAS), which was installed in the cramped, makeshift laboratory at the Grandview office. This investment was the beginning of the Division’s Geochemistry Laboratory at Fountain Square (where the Division moved in 1973), which expanded from the original AAS to an array of modern instrumentation providing the Division the capability of performing many types of inorganic chemical analysis.

With environmental concerns and energy crises looming in the 1970s, Buzz engaged the Survey in a program of coal characterization. This program was geared towards development of data on deep, unmined coal resources, especially those having potentially low sulfur content, and on development of a detailed database on the chemical composition and physical properties of Ohio coal. This program led to the generation of the single, largest database on coal in Ohio.

Several major coal-resource programs were successfully completed during the 1970s. These programs were tremendously expensive as drilling was conducted through contract drilling. In a move to enable continued resource exploration within tight budget constraints, Buzz was able to divert monies accrued through other studies to purchase the Survey’s first core-drilling rig, a Mobile B-61 Pacemaker, in 1980.

A drilling crew was assembled, and drilling began in May 1981. This program proved to be so successful that Buzz directed the purchase of two other drill rigs in 1986 – a Longyear Hydro 44 which was capable of core drilling to a depth of almost 6,000 feet, and a CME auger rig which could obtain continuous, oriented core samples of unconsolidated sediment. In addition to the purchase of these other rigs, the Division's drilling program had gained sufficient appreciation from Ohio mineral industries that one company, the France Stone Company, donated a fourth core-drilling rig to the Survey.

A major milestone in the Division's drilling program was attained in 1985 when the deepest, continuous cored hole in Ohio was drilled in Seneca County. This hole, drilled to a depth of 2,870 feet, also set a manufacturer's depth record for that model of drill rig. New records continued to be established, as the Division's Hydro 44 rig drilled to a depth of 5,380 feet in Warren County. This was the last deep hole initiated under Buzz's direction.

One of Buzz's goals was to establish a repository where sample cuttings and corer samples could be stored and retrieved for public use. The beginning of this goal was realized when the Survey leased warehouse space at 810 Phillipi Road. Under Buzz's guidance and direction, the 27,500 square feet of space evolved into a true sample library; a significant upgrade to the storage space on the south side of Columbus. The sample repository eventually evolved into a state-of-the-art facility located at Alum Creek State Park. Dedicated in 1999, the Horace R. Collins Laboratory and Core Repository is one of the finest facilities in the United States for the archiving, storage, and research of geological specimens and materials.

Another major piece of equipment acquired through Buzz's efforts was the Leitz Textural Analysis System, which is a microscope connected to a computer which not only controlled the microscope but also processes the image. At the time the instrument was purchased, the Division of Geological Survey was one of only several organizations in the United States possessing such a sophisticated imaging system. It was used for coal analysis and the study of pyrite in coal for many years.

Buzz secured funding for many major studies which not only greatly expanded our knowledge of Ohio geology, but also brought the Division through desperate financial times. Examples of these programs are the Eastern Gas Shales Project funded by the U.S. Department of Energy; the Coal Washability Program funded by the Ohio Air Quality Development Authority; the Shale Gas Project funded by the Gas Research Institute; Deep Coal Studies funded by the former Ohio Department of Energy, the U.S. Department of Health, Education, and Welfare, and the National Air Pollution Control Administration. Other major programs included the Abandoned-Underground-Mines Inventory and crucial studies such as intensive investigations conducted to support Ohio's bid for siting of the Superconducting Super Collider. The Abandoned-Underground-Mines Inventory, which ran from 1977 through 1988, provided the first detailed and comprehensive mapping of the abandoned underground mines in Ohio. One of the last major projects under his tenure was the geologic mapping program to support the U.S. DOE proposal for the Superconducting Super Collider.

Perhaps, however, the most important program won and implemented by Buzz is the Statewide County Mapping Program. The goal of this program was to develop maps and reports on the geology and mineral resources of each county in Ohio. The significance and importance of this program cannot be overemphasized; in fact, this was undoubtedly the most important, most intensive, and ambitious program ever initiated during the 150 years of the Survey's history. Buzz was responsible for the campaign which led to passage of the enabling legislation in 1981. Buzz, of course, was also key to the

effort in 1988 to permanently allocate a portion of the mineral severance taxes to support these mapping activities.

Due to the accomplishments over the course of his career, Buzz was honored by a number of different organizations. For his outstanding leadership in research on Ohio's geology, the Ohio Geological Society awarded him Honorary Membership. When Buzz retired in 1989, the Ohio Aggregates Association honored him with their "Rocky Award", recognizing leadership at a state of national level regarding the aggregates industry. In particular, he was cited for his work in developing the state-wide county geologic mapping program. Finally, and most prestigiously, Buzz Collins was awarded the Mather Medal by the Ohio Geological Survey, on June 6, 1995. Buzz was awarded this medal for his outstanding contributions to the advancement of knowledge of Ohio geology.

The long-term benefits from these accomplishments made by Buzz Collins were incalculable but were immense. Buzz Collins retired from state service on April 30, 1988 after serving as State Geologist for 20 years. He died on December 19, 2018 at Allay Senior Care of Meyers Lake in Canton, Ohio.

Bibliography

Collins, Horace R., 1958, The preparation of peel sections of fossil plants found in coal balls: *Compass of Sigma Gamma Epsilon*, Vol. 35, Issue 3, p. 207-210.

Collins, Horace R., 1959, Small spores assemblages of the Harlem Coal (Pennsylvanian, West Virginia): M.S. Thesis, West Virginia University, 66 p.

Denton, George H., Collins, Horace R., DeLong, Richard M., Smith, Bradley E., Sturgeon, Myron T., and Brant, Russell A., 1961, Pennsylvanian geology of eastern Ohio, Field Trip 4: Geological Society of America Guidebook for field trips, Cincinnati meeting 1961, p. 131-205.

Webb, David K., Jr., and Collins, Horace R., 1967, Geologic aspects of a recent landslide in Vinton County, Ohio: *Ohio Journal of Science*, January 01, 1967, Vol. 67, Issue 2, pp. 65-74, <http://hdl.handle.net/1811/5282>.

Collins, Horace R., Kohout, Douglas L., and Struble, Richard A., 1971, Deep-core investigation of low-sulfur coal possibilities in southeastern Ohio Ohio Division of Geological Survey Report of Investigations 81, 29 p., <http://hdl.handle.net/1811/80327>.

Clifford, M. J., and Collins, Horace R., 1974, Structures of Southeastern Ohio [abstract]: *AAPG Bulletin*, Vol. 58, Issue 9, pp. 1891.

Collins, Horace R., 1976, Coal production in Ohio, 1800-1974: Ohio Division of Geological Survey Information Circular 44, 33 p., <http://hdl.handle.net/1811/80380>.

Collins, Horace R., DeLong, Richard M., and Struble, Richard A., 1976, Coal resources of a portion of the Pawpaw Creek watershed, Monroe, Noble, and Washington Counties: Ohio Division of Geological Survey Geological Note 4, 16 p., <http://hdl.handle.net/1811/79899>.

Smith, B. E., and Collins, Horace R., 1977, Geology and mineral resources of Washington County, Ohio: Ohio Division of Geological Survey Bulletin 66, 134 p., <http://hdl.handle.net/1811/86077>.

Hansen, M.C., and Collins, Horace R., 1979, A brief history of the Ohio Geological Survey: Ohio Journal of Science, January 01, 1979, Vol. 79, Issue 1, pp. 3-14, <http://hdl.handle.net/1811/22586>.

Collins, Horace R., 1979, Ohio, *in* The Mississippian and Pennsylvanian (Carboniferous) systems in the United States: U.S. Geological Survey Professional Paper P 1110 E, p. E1-E26, <https://pubs.er.usgs.gov/publication/pp1110AL>.

Collins, Horace R., 1979, Devonian bentonites of Ohio: AAPG Bulletin, Vol. 63, Issue 4, pp. 655-660.

Collins, Horace R., and Frank, J., 1979, Minerals in the economy of Ohio, *in* State mineral profiles: U. S. Department of the Interior, Bureau of Mines, Washington, D.C., United States, 15 p.

Collins, Horace R., Helgesen, John O., and Crouch, Thomas M., 1980, Abandoned subsurface coal mines as a source of water for coal conversion in eastern Ohio: Ohio Division of Geological Survey Report of Investigations 118, 25 p.

Collins, Horace R., 1986, The Hanging Rock iron region of Ohio: Ohio Geology, Vol. Winter, pp. 1-5, <http://geosurvey.ohiodnr.gov/portals/geosurvey/PDFs/Newsletter/Winter86.pdf>.

Collins, Horace R., 1987, A historical sketch of the mineral industries in Ohio: Ohio Division of Geological Survey Information Circular 54, 6 p., <http://hdl.handle.net/1811/80391>.

References

Van Horn, Robert G., 1988, Horace R. Collins – 10th State Geologist: Ohio Geology, Summer 1988, p. 2-3, <http://geosurvey.ohiodnr.gov/portals/geosurvey/PDFs/Newsletter/Summer88.pdf>.

Weisgarber, Sherry L., and Van Horn, Robert G., 1995, Mather Medal awarded to Horace R. ("Buzz") Collins: Ohio Geology, Summer 1995, p. 4, <http://geosurvey.ohiodnr.gov/portals/geosurvey/PDFs/Newsletter/Summer95.pdf>