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Memorial to Charles Alexander Baskerville (1928–2009)

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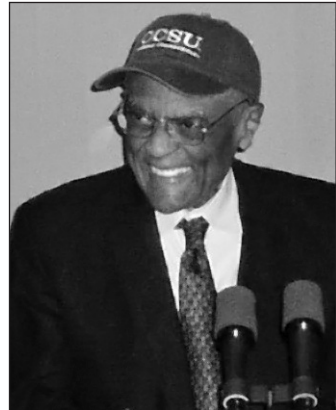
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Charles Alexander Baskerville captured our imagination, as a senior colleague in the practice of engineering geology in New York City. “Charlie” held the seat of master Big Apple Geologist during his matured career. He was the source, he knew the possibilities, he was aware of the pitfalls of this most geologically complex of American cities. His final work was his greatest reach—the four bedrock geologic quadrangles of the city. Baskerville mapped New York City for more than fifty years. He was sought and given access to sites of bedrock and bedrock/overburden interface on the various capitol construction projects undertaken by the City of New York including City Water Tunnel #3.



EARLY YEARS

Like many New Yorkers, Charles Alexander Baskerville was himself born (19 August 1928; Jamaica, Queens) to “emigrant” parents, Charles H. and Annie M. (Allen) Baskerville, formerly of South Hill and Baskerville, Mecklenburg County, Virginia. Father Charles was a journeyman stone mason, and we might suspect that, as with many of us, rocks became central in the lad’s life, from seeing his father lay stone and marveling at the product of fine masonry.

Charles was the first member of his family to attend or to graduate from college. It was at City College New York (CCNY) that he first met his wife Ruth. They married on 5 April 1953 and two children, Mark Dana and Shawn Allison, came from that marriage. In later years, Charles remarried and, with his second wife, adopted two sons, Charlie and Tommy.

While pursuing advanced degrees in geology, Charles worked cleaning Lockheed Constellation airliners at what was then called Idlewild Airport (now John F. Kennedy International Airport) in Queens while going to school at night. Charlie completed his master’s program at New York University (NYU) in 1958, and then followed this with a Ph.D. in 1965 at NYU, having completed a dissertation entitled: *A micropaleontological study of Cretaceous sediments of Staten Island, New York: New York City.*

BASKERVILLE'S DEDICATION TO ENGINEERING GEOLOGY

Fresh with a geology B.S. from CCNY in 1953, Charles took employment as assistant civil engineer with the NYS DOT (New York State Department of Transportation) at Babylon, Long Island, New York. He spent 13 years (1953–1966) on field logging and mapping and learning the true interface between geology and engineering. With the completion of his Ph.D., Charles was brought on to the CCNY faculty, serving for 13 years (1966–1979) as assistant professor of geology and later as professor. Awarded emeritus status in 1982, he was brought into the U.S. Geological Survey (USGS), at its national headquarters, as a project research geologist and handled the deciphering task for New York City (1979–1990). Charlie left the USGS in 1990 and moved to New Britain, Connecticut, as professor of geology and chairman of the department at Central Connecticut State University (CCSU), from which he eventually retired in 2006.

BASKERVILLE'S CONTRIBUTIONS TO NEW YORK CITY GEOLOGY (Khandaker)

Baskerville was truly a giant when it came to understanding the bedrock geology of New York City and we all mourn his loss. Our teacher, mentor, consultant, and very good friend was a relentless geo-catalyst and gave us prominence by gaining recognition from the public agencies for what we do as geologists, and he will be remembered dearly by all of us.

Charlie's "Street Secrets" for Surviving in Urban (NYC) Field Mapping

I learned that as long as you keep your wits about you and remember that you are there to do geology, you'll find that more geology is exposed in devastated parts of cities than in populated areas once you are able to "read the signs." I also found this field season to be a mind-boggling study in social contrasts.

Charles A. Baskerville, 1981, on his 1980 inner–New York City field mapping (GSA, *The Engineering Geologist*)

The Final Baskerville Paper (2003)

Emeritus New York State geologist Robert Fakundiny reports: "The American Geophysical Union asked Grant Heken (Los Alamos National Laboratory) and myself, in 2002 to edit an informative technical book that would portray the importance of the earth sciences, especially engineering geology and geologic hazards evaluation, to the building of the world's cities as a supplement for university engineering and environmental geology courses. Grant and I agreed that New York City must be included in the volume. I, therefore, proposed to Charlie Baskerville, 'Mr. New York City geology,' that we use his geologic framework of New York City. To this, we enriched the story by bringing in Baskerville's mentors and brought out the continuing thread of long and fruitful revelations of the city's geology. The point is made how the puzzle has been completed in detail, by way of the engineering geology studies of Thomas Fluhr, a protégé of Charles Berkey, and how Fluhr's last assessments were directly applied to the design of the World Trade Center (WTC). The concept was to display how these fundamental studies and their compilation, and preservation were type-valuable to all major cities, but especially the cleanup of the WTC after it was attacked on September 11, 2001, and, in particular, the emergency measures put into place toward the prevention of Hudson River water seepage into the WTC basement.

"Charlie's detailed studies formed the backbone of that paper, and provided the proof of this assertion. The paper reported on how Berkey set up the first conceptual geologic model of New York, then trained Fluhr, and how his and Fluhr's work was instrumental to the safe and environmentally responsive cleanup of the rubble left from the WTC's collapse. *Baskerville believed that hard, persistent, careful, and sometimes scientifically dull and sloggish field mapping can be most useful to solving engineering problems associated with the construction of modern cities, especially New York City.*"

Baskerville Deciphers New York City Geology (Hatheway)

Many of us who are somewhat familiar with the workings of the USGS have lamented for years that they have been wholly diffident about stationing bright minds in our major cities—for the purpose of discovery and recording of the nominally obscured facets of the geologic foundations of those cities. Fortunately, for the profession, and for the citizenry of New York City, Baskerville was placed in this potential milieu, and he took to it like a duck to water. It was an orderly presentation of the terrifically complex geology of the greater city.

Involvement in the National Tunneling Scene (Hatheway)

The hugely productive U.S. National Committee on Tunneling Technology, housed at the National Research Council, was active for many years and just one of its many facets was to attempt to link university training in tunnel geology and engineering to competent faculty who could supply even a trickle of “out-the-door graduates who could hit the ground running” in the field of underground construction. Charlie was closely affiliated with this committee and worked towards designing curricula and workshops related to engineering and geotechnical aspects associated with tunneling technology.

BASKERVILLE AT THE USGS (Khandaker)

In 1979, in addition to picking up his New York City bedrock mapping assessment, Charlie took an interest in the slope stability of the weathered Paleozoic meta-volcaniclastic terrane of Vermont. His USGS assignments included time to work on his New York City bedrock mapping and to provide USAID (United States Agency for International Development) planning and project consulting to the People’s Republic of China, on several tunnel schemes (US delegate to the Beijing International Colloquium on Tunneling and Underground Works, 1984). His last USGS assignment was as a project chief specializing in urban engineering, geologic mapping, and research in landslide processes.

ON BASKERVILLE THE PROFESSOR (Khandaker)

In 1990, Baskerville left full-time employment with the USGS and became professor of geology in the Department of Physics/Earth Sciences at CCSU until he retired in 2006. As a passionate teacher, Baskerville greatly emphasized the role of field geology in all practical purposes including slope stability, foundation problems, selecting geologically feasible tunnel routes, and the construction of tunnels. As a teacher, he never compromised on quality and made sure that students received well-rounded geosciences education through his teaching. Baskerville was serious about his work but at the same time, full of humor and laughter. I attended his retirement party at CCSU and his remarks about his geology tests were hilarious: “When students come to take my geology tests, they all pray.” His care for students was remarkable and through his consulting contacts, he was able to assist many students in securing jobs with consulting firms as well as city and local agencies. Baskerville was a great mentor to many professional geologists and his sense of dedication and commitment can easily rival many existing professional geologists. He was very meticulous and thorough, yet straightforward when it came to conveying geologic ideas to engineers or other technical personnel. Since he worked with various professionals of many different backgrounds, Baskerville strongly believed in disseminating macro-scale geological information in a clear and meaningful way to non-geologists, and he was certainly a master and created a professional atmosphere where geologists, engineers, and technocrats could benefit from each other.

PROFESSIONAL REGISTRATION AND SERVICE TO THE PROFESSION

Charles Baskerville was a man of “presence” wherever he chose to appear; but unlike many who have the skill, his presence was invariably characterized by five admirable qualities. He had a genuine smile and friendly demeanor; possessed a willingness to participate on a low-key,

consistent basis; showed unhesitant duty to the task at hand; spoke informed, common-sense truths; and sought practical consensus.

Considering these qualities, it was by no fluke of circumstances that people, groups, and committees naturally wanted “a piece of Charlie.” Charlie always seemed to quietly relish these opportunities, for he sought not personal aggrandizement, but to work toward meaningful progress, on each occasion. Baskerville became a certified professional geologist from the State of Indiana in 1980. In chronologic order, he served on several NRC (National Research Council) panels, was an active member of the U.S. Committee on Tunneling Technology (1987–1989); chairman, NAS (National Academy of Science) Subcommittee on Education and Tunneling; member, American delegation on International Tunneling Association; member, National Science Foundation (NSF) Committee on Earth Science Diversity; Interior Department committees for Minority Participation in the Geosciences; and chairman, NSF Minority Graduate Fellowship Program (1979–1980). Baskerville was affiliated with the review of New York State Low-Level Radioactive Waste Siting Process (1996) and the Commission on Geosciences, Environment and Resources (CGER).

HONORS OF CHARLES A. BASKERVILLE (Khandaker)

During his active professional career, Baskerville received several awards for his outstanding service and some of the notable ones are: an award for excellence in engineering geology, National Consortium Black Professionals Development (1978), and 125th Anniversary medal from CCNY (1973). In 2007, the National Association of Black Geologists and Geophysicists (NABGG) bestowed an honorary award on Baskerville (unfortunately, he couldn’t attend) for his illustrious professional career in furthering engineering geology among the minority, under-represented populations (NABGG 26th Annual Technology Conference, 19–22 September 2007, Arizona).

TECHNICAL LITERATURE CONTRIBUTIONS

Baskerville authored numerous scientific papers dealing with engineering and geotechnical aspects of exposed New York City rocks and constructed geological maps for engineering purposes. He worked on the City Water Tunnel #3 project and established protocols for geoengineering characterization of drilled cores and soils (1992–2005).

SUMMARY

Charles Baskerville had a vision and a sense of duty about his profession: to make the most of his opportunity to practice and to teach applied geology in one of the most difficult of all territories known to geologists—America’s largest city. Professor Baskerville fully knew that the geologic complexities of New York City will never be known to the degree to which new and renovated engineered works can be insulated from huge potentials of cost impacts related to geologic conditions. What he did to improve this situation was to make the most of his determination to solve the emerging riddles and to teach many other geologists, engineers, and public officials to pay attention to what each generation of Big Apple geologists have left us as their legacy. Charlie will hold that record for the foreseeable future, for he worked smart, hard, and gave of his time and knowledge freely and openly.

ACKNOWLEDGMENTS

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SELECTED BIBLIOGRAPHY OF CHARLES A. BASKERVILLE (Khandaker)

- 1965 A micropaleontological study of Cretaceous sediments of Staten Island, New York [Ph.D. thesis]: New York, New York University, Department of Geology, 65 p.
- 1981 The hazards and rewards of urban field geology: The Engineering Geologist, Geological Society of America Engineering Geology Division Newsletter invited paper (illustrated with two synthesis maps), v. 16, no. 1, p. 3–6.
- 1982 Adoption of the name Hutchinson River Group and its subdivisions in Bronx and Westchester Counties, southeastern New York: United States Geological Survey Bulletin 1529-H, Stratigraphic Notes, 1980–1982, Contributions to Stratigraphy, p. H1–H10.
- 1983 (and Merguerian, C.) Stratigraphic differentiation in the Manhattan Schist, New York City: Geological Society of America Abstracts with Programs, v. 15, p. 169.
- 1987 Bedrock [*sic*] and engineering geologic [*sic*] maps of Bronx County and parts of New York and Queens Counties, New York: U.S. Geological Survey Open-File Report 87-360, scale 1:24,000, 3 sheets.
- 1987 (with Merguerian, C.) Geology of Manhattan Island and the Bronx, New York City, New York, *in* Roy, D.C., ed., Geological Society of America Centennial Field Guide: Northeastern Section, p. 137–140.
- 1988 (and Ohlmacher, G.C.) Some slope movement problems in Windsor County, Vermont, 1984: U.S. Geological Survey Bulletin 1828, 25 p.
- 1989 New York City: Juxtaposition of Cambrian and Ordovician miogeoclinal eugeoclinal rocks, *in* Baskerville, C.A., ed., Geology and Engineering Geology of the New York Metropolitan Area: 28th International Geological Congress Field Trip Guidebook T361, p. 39–48.
- 1989 (and Mose, D.G.) The separation of the Hartland Formation and Ravenswood Granodiorite from the Fordham Gneiss at Cameron’s line in the New York City Area: Northeastern Geology, v. 11, p. 22–28.
- 1991 (with Ohlmacher, G.C.) Landslides on fluid-like zones in the deposits of glacial Lake Hitchcock, Windsor County, Vermont: Association of Engineering Geologists Bulletin, v. 28, p. 31–43.
- 1992 Bedrock [*sic*] and engineering geologic [*sic*] maps of Bronx County and parts of New York and Queens counties, New York: U.S. Geological Survey Miscellaneous Investigations Series Map I-2003, scale 1:24,000.
- 1993 (and Ohlmacher, G.C.) Northern New England landslides, *in* Fickies, R.H., ed., Geologic Complexities in the Highway Environment: 42nd Annual Highway Geology Symposium Proceedings, New York State Department of Transportation, p. 203–215.
- 1994 Bedrock and engineering geologic maps of New York County and parts of Kings and Queens Counties, New York, and parts of Bergen and Hudson Counties, New Jersey: U.S. Geological Survey Miscellaneous Investigation Series Map I-2306, scale 1:24,000.
- 2003 (and Fakundiny, R.H.) Engineering geology of New York City: Continuing value of geologic data, *in* Heken, G., Fakundiny, R., and Sutter, J., eds., Earth Science in the City: A Reader: Washington, D.C., American Geophysical Union, Special Publication Series 56, p. 43–59.



