

**Charles Merguerian, Ph.D.**  
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Dr. Merguerian is internationally recognized as the leading authority on the geologic structure and tectonics of New York City. He is Professor Emeritus and former Chairman of Geology at Hofstra University (1981-2014), Principal of Duke Geological Laboratory in Stone Ridge, NY, and has broad range of expert consulting experience with the United States Geological Survey, the California- and Connecticut State Geological Surveys, the New York City DEP, Con Edison, and many prominent megaconstruction joint ventures, as well as geotechnical and engineering firms. He also sits on the Advisory Board of Star America.



Merguerian has gathered 40 years of professional experience in geologic mapping and structural analysis of complexly deformed metamorphic terrains, plutonic- and volcanic districts and areas underlain by sedimentary- and glacial strata throughout the United States. His chief geological expertise encompasses basic geologic mapping, petrography, ductile- and brittle-fault analysis, tectonics, and earthquake-hazard assessment of crystalline terrains with forays into the fields of sedimentary and glacial geology. Since 1972, he has performed pure- and applied research and published over 200 geological maps, papers, technical reports and abstracts from such widely separated areas as New York, New Jersey, Connecticut, Massachusetts, central and southern California and Nevada.

During the past three decades his research efforts have focused on field- and tunnel mapping, laboratory research and geo-technical analysis applied to the subsurface structure of New York City and vicinity. Merguerian has concentrated on the relationship between construction of subsurface



tunnels and shafts and the geological controls that dictate choice of method and performance expectations of tunnel boring machines (TBM) and by mechanized means including hoe rams, roadheaders, excavators and traditional drill and blast methods. This work has paved the way for more efficient tunneling and excavation of rock in the New York City area and has facilitated municipal mega-construction projects including water, utility and transportation tunnels and microtunnels as well as providing in-depth knowledge of the variables in ground conditions for the purposes of planning and bidding contracts of complex civil engineering projects.

Largely, due to his scientific and technical prominence in the geologic arena, Dr. Merguerian has been invited and featured in ongoing national and international broadcasts distributed by the BBC, National Geographic, The History Channel and The Discovery Channel.