GEOL 710: Washington DC: The Land Before the City

Instructor: George Stevens, Professor of Geology
CRN: 86426 Natural Sciences GCR
In ACAD 301, TR 10:00 to 11:15
Includes weekend field trips
Open to freshmen only

Regular weekly inquiry-based lectures and discussions will serve as a prelude to several day-long field investigations to observe, explore and describe the geological underpinnings of such areas as Great Falls National Park, Roosevelt Island, Shenandoah National Park, the C and O Canal National Park and others. We will explore the influence of natural geomorphic features, the natural landscape, on development patterns of the Washington metropolitan area. Taken together the field sites span the spectrum of geologic and geomorphic provinces of the east coast (i.e. the Coastal Plain, the Piedmont, the Blue Ridge Mountains and the classic Valley and Ridge of the Appalachians). Each of these provinces is characterized by unique topographic, physiographic and geologic conditions that give rise to a host of botanical and cultural differences. Each of these provinces has made an indelible imprint on the subsequent human settlement/land use patterns. To cite one example; it is no coincidence that Dulles International Airport is located in the center of the Mesozoic-age Culpepper Basin. The underlying geology closely controls the extraordinarily flat terrain needed for its extensive runway system.

Three to four mandatory one-day field trips will be held on selected Sundays during the semester. These trips will serve as the laboratory component required to meet the Natural Sciences curriculum requirement in the CCAS.

George Stephens is Professor of Earth and Environmental Sciences. He is a field geologist who specializes in the structure and evolution of mountain ranges. He has published widely on the results of his field research in the Appalachians, the Wyoming Rockies, the Alaska Range, and, most recently, the Andes Mountains of Argentina.