

ADVENTURES IN GEOLOGY

We will discuss at least four topics during our 8 sessions.

1) Fifty years ago the Apollo moon rocks began to arrive, and I studied the samples from all six successful Apollo missions and from two Russian (Luna) missions. We will discuss everything you might want to know about the moon, and more.

2) The geology of Princeton and New Jersey. Did you know that Morocco used to be right over there? A useful reference book is "Roadside Geology of New Jersey" by David Harper. However, the main reference material will be the Geologic Map of New Jersey. On a good-weather Saturday (and social distancing permitting), we will take a stroll amongst the building stones of the Princeton University campus. Many of the building stones are from local quarries.

3) Paul Steinhardt, of the Princeton Physics Department, postulated in the early 80's the existence of a new form of matter, which he named quasicrystals. In January, 2009, Paul enlisted my help to determine whether a sample of a quasicrystal, discovered by an Italian mineralogist, formed naturally and, if so, how. Paul has written a book about the saga: "The second kind of impossible."

4) I have been on several expeditions to the Kingdom of Bhutan to study the geology of the Himalayas, beginning in 1987 and continuing to 2012. Our discussions will include addressing the question: why are the Himalayas so high? And: how did I get into Bhutan and do geological research, which was initially not permitted?

5) Most of my geologic career (55 years!) involved field work in the Coast Mts of British Columbia, and several mountain ranges in Alaska. This involved living in the mountains for weeks at a time. Along the way I met with tribal councils and learned to cook porcupine and other delicacies. We will discuss the why and the how for doing the "impossible".

Most of these topics involved overcoming exceptional logistic constraints. They all involve stories about achieving the impossible: getting samples back from the moon, taking Russian snow cats across the tundra, taking yaks across "Shangri La", and taking helicopters into the mountains of British Columbia and Alaska.

Leader: Lincoln Hollister is professor emeritus of geosciences at Princeton University, where he taught geology from 1968 until 2011. He received a BA from Harvard University in 1961 and a PhD from Caltech in 1966.

Tuesdays: 10:00 a.m. to noon, 8 weeks: September 22 through November 10

Maximum: 30