



AWG Pacific Northwest Chapter

Please join the Association for Women Geoscientists Pacific NW Chapter for our spring Zoom meeting featuring **Dr. Gillian Foulger** (Emerita Professor of Geophysics, Dept. of Earth Sciences, Durham University, UK) presenting alternative theories about the origins of hot spots:

Plumes or not? The status of the debate at Iceland and Yellowstone

Date: Saturday, May 14, 2022

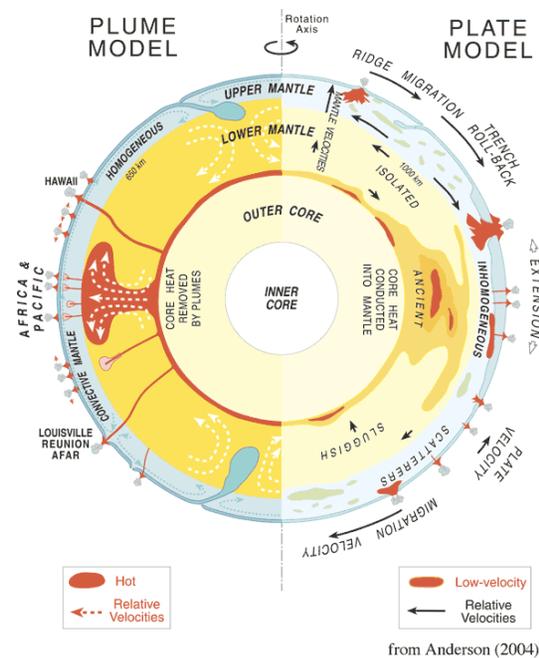
Sign in / Social: 4:15 pm PDT / Presentation: 5:00 pm PDT

We'll have about 45 minutes for people to get signed in and socialize a bit. The presentation will start at **5:00 pm**, and Q&A will end around 7:00. The presentation will last about an hour. Because this meeting will also be of interest to our AWG Iceland field trip groups, they're also invited.

You MUST register for this meeting [HERE](#). You should immediately receive an email from no-reply@zoom.us with a link to enter the meeting. (If you've had trouble reliably receiving Zoom registration emails, copy and paste the "Meeting Registration Approved" page into a Word document – it's often easier to find than an email anyway).

Please register by NOON PDT on May 14.

Abstract: A popular explanation for Iceland and Yellowstone has long been mantle plumes. The strongest advocates of this model are typically geophysicists and geochemists. It tends to be geologists with detailed knowledge of the local geology who dispute it, citing observations that include the distribution of volcanics in time and space and unexplained coincidences with major, active regional structures. The alternative explanations offered for the spectacular volcanics at these locations are rooted in lithospheric dynamics, not mantle dynamics. Clearly both Iceland and Yellowstone lie in regional extensional regimes, Iceland on a spreading ridge and Yellowstone in the Basin and Range province. It is postulated that they lie at lithospheric "sweet spots" in these extensional regions, that give rise to the volcanism. In the lecture I will briefly describe and explain the two theories as a prelude to discussion, so please bring your comments and questions!



Biography: Dr. Gillian Foulger completed her doctorate in 1985 and her MS in Geophysics in 1976, both at Durham University. She also received an M.A in 1978 and a B.A in Natural Sciences in 1974, both from the University of Cambridge. She is one of the leading proponents of alternative models, such as plate theory, to the established deep mantle thermal plume hypothesis. Dr. Foulger is a Managing Editor of Earth-Science Reviews and a major contributor to the website www.mantleplumes.org.