PHYSICS COLLOQUIUM

Wednesday, September 11 | 2:00 - 3:00 p.m. | RNS 210

ST · OLAF COLLEGE

Hidden Rivers and Lakes of the Northeast Sahara and Implications for the Origin of Mars Channels

The past million years of the northeast Sahara has seen several climate cycles from temperate to hyper arid conditions, resulting in rivers and lakes drying up, taken over by dunes and sand sheets, with the process repeating. On Mars, a similar process occurred three billion years ago, but the cyclicity is still in question. Lessons learned from field and remote sensing studies of the Sahara help interpretations of the martian landforms, although the much longer timescale of martian channels adds additional complexity. This presentation will highlight years of work in southwest Egypt and northern Sudan that was aided by Space Shuttle radar and multi-year remote sensing comparisons to determine the causes of landscape change.

Dr. Maxwell with a ground penetrating antenna near Kiseiba Oasis in southern Egypt, where he worked for many years.

Dr. Ted A. Maxwell
Senior Scientist Emeritus
Smithsonian National Air and Space Museum

Dr. Maxwell joined the staff of the National Air and Space Museum in 1976 following a Visiting Graduate Fellowship at the Lunar Science Institute in Houston. He graduated from Franklin and Marshall College in 1971, received his MS degree in geology from the University of Utah in 1973, and his PhD also from the University of Utah in 1977.

Maxwell's planetary research includes more than 50 publications in the professional literature and numerous lectures to both professional and public audiences.

His terrestrial research concentrates on the use of remote sensing data to study environmental change in desert regions, particularly Egypt and Sudan, where he has been conducting field studies since 1978.