

AGS Distinguished Scientist Award. Gesner Medal 2009 John Waldron

John completed his undergraduate degree in geology at Cambridge University (1974-1977) and his graduate studies at the University of Edinburgh (1977-1981), where his thesis project was on the geology of the Antalya Complex, southwestern Turkey. He came to Memorial University of Newfoundland in January 1981 for post-doctoral research in western Newfoundland, and joined the Geology Department at Saint Mary's University later that same year.

He taught sedimentary and structural geology, field methods, and introductory geology at SMU until 2000, when he moved to the Department of Earth and Atmospheric Sciences at the University of Alberta in Edmonton. However, he continues to do field work in Atlantic Canada, which remains first in the list of his research interests on his U of A website. For example, he led a highly successful field trip looking at the Cobequid – Chedabucto fault zone as part of the Halifax 2005 GAC-MAC meeting.

John's research deals mainly with deformed sedimentary rocks from both sedimentary and structural perspectives; although he has refused to be classified into either camp, he admits to being a "deformed sedimentologist". He is well known nationally and internationally for his work in western Newfoundland and in the Meguma terrane of Nova Scotia, and his work is widely referenced. In addition to numerous articles published in peer-reviewed journals, many more are in the form of government publications, maps, and abstracts; John has also been a major contributor to AGS meetings for over 25 years.

John's most significant contributions can be grouped into three major categories:

1. Unravelling the stratigraphy and structural architecture of the Paleozoic Laurentian continental margin and foreland basins of the Appalachians in western Newfoundland and the Gulf of St. Lawrence. John was a major contributor to the Lithoprobe East program during the 1980s and 1990s, and his recognition of a "triangle zone" in seismic data interpretations is well documented in papers in CJES in 1993 and 1998 on which he is the lead author. This work led to a collaboration with Cees van Staal that resulted in the ground-breaking recognition (published in Geology in 2001) of the Dashwoods block as a piece of Laurentia that detached and rejoined to produce the Taconic Orogeny. This recognition explains Grenvillian outliers throughout the Appalachian Orogen, and provides an explanation for the previously enigmatic problem of how lapetus Ocean could open and close more than once.

- 2. Understanding the role of transpression and transtension in the evolution of the Late Paleozoic Maritimes Basin, Atlantic Canada. John's detailed work with his students in the Carboniferous sedimentary basins that lie north and south of the Cobequid-Chedabucto Fault Zone led to a major new understanding of the complex history related to the dextral interaction between Avalon and Meguma terranes. Although this work continues, a major paper on the geology of the Stellarton graben in 2004 (*Geologcial Society of America Bulletin*) summarized his earlier insights. This work has led also to exciting and innovative interpretations of the role of evaporite withdrawal in preservation of trees in the Joggins section, published in *Geology* in 2005.
- 3. Details of stratigraphy and structure in the Meguma Group of southern Nova Scotia. John's work (1992, CJES and NSDNR Open File Reports) on the Meguma Group led to new understanding and redefinition of the Halifax Goldenville transition zone, and its linkages to sea-level changes. His discovery of fossils in the upper part of the Goldenville Formation on Tancook Island (published with Brian Pratt in 1992) was a milestone in understanding the depositional environment, age, and provenance of the Meguma Group. John's work on the Meguma Group is on-going, with current collaborations focused on the significance of trace fossils and detrital zircon dating.

Over the years, John's work has provided us all with many new insights about the geology of Atlantic Canada. In addition, with his careful work and attention to detail, John has been and continues to be an excellent role model for numerous students.