

Introduction: New developments in Grenville geology: In honor of James McLelland

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The Grenville Province exposes the interior of an ancient mountain belt whose scale rivals the modern Himalayan-Alpine Orogen (Rivers, 2008; McLelland et al., 2010). The geology of this vast tectonic collage holds a record of mid-Proterozoic continental margin dynamics, including the assembly of the supercontinent of Rodinia. This themed issue of *Geosphere* addresses the recent developments in Grenville geology and originated with the 2008 GSA Annual Meeting in Houston, Texas, sessions: Recent Advances in the Understanding of Adirondack and Southern Grenville Province Tectonics I and 2: In Honor of James McLelland (See GSA Abstracts with Programs, 2008). In all, 27 presentations were given from over 60 different contributors. In these sessions, some long-held views regarding Adirondack and Grenville geology were strengthened, others were questioned, and new ideas were presented.

For over 40 yr, James McLelland has been a major contributor to the advancement in understanding of Grenville geology, with particular emphasis on the Adirondacks. Jim's lifetime commitment to research is paralleled by a teaching career that introduced generations of undergraduates to petrology, tectonics, and the joys and tribulations of field research. Students who mapped with Jim in the Adirondacks

formed a special bond with him and developed a deep appreciation of his dedication to the scientific enterprise. Scores of geologists have visited the Adirondacks with Jim's guidance; graduate students and senior colleagues alike have benefitted from his willingness to share knowledge, ideas, speculations, and good company. Despite the complexity of the geology of the Grenville, Jim McLelland and many collaborators and colleagues have significantly advanced our understanding of this important global-scale orogen.

Proterozoic Tectonic Evolution of the Grenville Orogen in North America (Tollo et al., 2004) is a compilation of papers representing the recent work prior to 2004. Since then, as demonstrated by the 2008 GSA sessions honoring Jim, understanding of the Grenville continues to advance. In particular, we now have a refined geochronological and geospatial framework for understanding the series of events that constructed the Grenville Province. The growing library of data allows for testing of ever more sophisticated tectonic models. Further, the integration of all geology subdisciplines has advanced such that, for example, the boundaries of colliding terranes have been identified, and the kinematics of collision have been connected with regional orogenic events.

This is an exciting time to be working in tectonics and the Grenville province. No longer do the Adirondacks (or the Grenville Province as a whole) seem like an undecipherable puzzle of multiple deformed and metamorphosed rocks. This themed issue recognizes Jim McLelland's creative fervor, unrelenting capacity for hard work, and dedication to the science of geology.

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