THIRD HUTTON SYMPOSIUM: THE ORIGIN OF GRANITES AND RELATED ROCKS. Edited by M. Brown, P.A. Candela, D.L. Peck, W.E. Stephens, R.J. Walker, and E. Zen. Geological Society of America Special Paper 315, 1996. 361 p. $78 (20% discount for Geological Society of America members). Originally published as Transactions of the Royal Society of Edinburgh, volume 87, parts 1 and 2.

The controversies surrounding granites never seem to die. Two hundred years ago a debate raged over whether granites are sedimentary or igneous. With James Hutton effectively putting that one to rest, one hundred years ago the debate shifted to whether granites are magmatic or metasomatic. Fifty years ago geologists still argued about whether granites are magmatic or metasomatic. As the millennium approaches we argue about topics such as how granite magma makes space for itself in the crust, whether isotopic ages can be trusted, and whether granites are magmatic or metasomatic.

These topics flare to life regularly on the Internet's "Granite Channel" (to subscribe, send the message "subscribe granite-research" to mailserv@ac.dal.ca). Every four years, granite scientists gather at Hutton Symposia to debate in person. The first Hutton Symposium was held in 1987 to celebrate the bicentenary of Hutton's work. The third in this series of quadrennial conferences was held in 1995 at the University of Maryland. *Third Hutton Symposium: The Origin of Granites and Related Rocks* is a proceedings volume from that conference.

The book contains 33 papers covering a wide variety of topics. At about 11 pages per paper, the offerings are concise and readable. The volume is well-edited and well-produced. Photos and artwork are crisp and the text is typeset (not author-produced). Typographical errors are rare.

A sampling of topics includes partial melting, stability of trace phases, melt segregation, emplacement, thermobarometry, mafic-felsic interaction, and metallogeny. Several topical studies complement the theoretical and experimental approaches. Significantly, only three papers have field photographs (aside from a stunning color photograph of Yosemite National Park on the cover of the GSA edition), although many have photomicrographs and SEM backscatter photos. This reflects the heavily analytical approach of the volume. Readers looking for field studies and for papers on the relationship of granitic magmatism to tectonics should look elsewhere.

Several of the papers offer excellent summaries of important topics. For example, J.L. Anderson gives a concise and unsparing survey of thermobarometry in granitic systems. R.F. Weinberg and N. Petford give separate summaries of magma ascent mechanisms. F. Bea discusses the effects of trace phases on the trace-element chemistry of granitic liquids, and E.B. Watson discusses the fate of that ever-important mineral, zircon, during crustal fusion. C.M. Johnson and coauthors discuss the applicability of Lu-Hf and Re-Os isotopic systems to granitoids. Most of these papers are restatements of earlier work by the authors, but it is useful to have them updated and bound together.

Third Hutton Symposium: The Origin of Granites and Related Rocks would make an excellent choice as a compendium of papers to accompany a graduate seminar in petrology. Many of the papers attack controversial issues and would lead naturally into discussion (but sadly, none of the papers addresses the question of whether granites are magmatic or metasomatic). Although I cannot state that the book belongs on the shelf of every petrologist, I'm glad to have a copy on mine and refer to it regularly.

ALLEN F. GLAZNER
University of North Carolina
Chapel Hill, North Carolina 27599