nate view is that arms control agreements have significance greater than their immediate effect on the arms race so that any questions, infractions, or minor violations are serious issues independent of their immediate strategic significance.

Two particularly compelling examples that could illuminate this discussion are, first, the Soviet SS-25 land-based, mobile intercontinental ballistic missile, which the United States claims is a violation of several provisions of the SALT II Treaty, unratified but heretofore observed (excepting the recent United States action that exceeded a sublimit of the treaty); and second, antisatellite and ballistic missile defense activities, such as the construction of a large phased-array radar in Krasnoyarsk, in relation to the Antiballistic Missile Treaty. One can make valid arguments on the significance of these possible violations that support both points of view.

The author of *Verification* expends considerable effort on reviewing the politics of verification. Addressing an international audience, he attempts to explore the same political issues discussed in *The Verification Challenge* but from an "even-handed" comparison of Soviet and United States positions that often is not convincing. For instance, the discussion of the role domestic politics plays in verification points out the effect bureaucratic politics has on the process. Clearly, the United States suffers, and to some extent benefits, from the competing interests and perspectives various parties bring to the process. However, while justifiably critical of the shortcomings of the United States system, *Verification* diverges from the issues at hand to compare the two countries' systems in the following manner:

> If it were true that arms control monitoring data are almost totally controlled by the military, this would have serious implications for Soviet conduct of the compliance process. High-level policy makers are inevitably dependent on analyses by experts, especially on such complex technical questions as those which arise in arms control verification. It has already been noted in the US context that the temptation for such experts to bias their analyses is great, especially when major bureaucratic or economic interests are involved. However, the historical record of Soviet handling of compliance issues does not show evidence of such a pro-military bias, so it seems reasonable to conclude that the Soviet political leadership has found ways to keep this problem under control. Just what those ways are, however, is not possible to determine [p. 136].

Besides the questionable interpretation that Soviet compliance concerns are unaffected by bureaucratic politics, the differences between United States and Soviet views toward the compliance process are more significant than can be accounted for by bureaucratic politics. Furthermore, the author fails to mention that since the United States depends more on national technical means than does the Soviet Union, which has extensive human intelligence activities and can count on the openness of American society, intelligence estimates here are naturally more controversial. In general, it seems that Krass dilutes the political discussion by convoluting issues in an undiscerning manner.

Thus, the debate over verification is certain to remain as important and contentious as ever. Equally certain is the fact that views on the proper role for verification will, correctly or not, continue to seriously affect the debate over arms control agreements and treaties. In the post-Reykjavik era, as before, "the manner in which the issues of verification and compliance are dealt with by both sides will be an excellent gauge of the seriousness with which they are approaching these new negotiations" (*Verification*, p. 259).

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Anorogenic Granite Complexes

Ring Complex Granites and Anorogenic Magmatism. BERNARD BONIN. Elsevier, New York, 1986. xiv, 188 pp., illus. $45. Translated, with revisions, from the French edition (Orléans, 1982) by John Renouf.

This useful and thought-provoking treatment of granite genesis, emplacement, and evolution during continental anorogenic magmatism reflects the gradually shifting interest from plate margin magmatism to intraplate magmatism. The book, by a single author, has a clear focus that is often absent in collective volumes. Bonin presents his own views eloquently while also offering critical appraisals of other points of view. The translation is of a very high standard.

Starting with the example of Corsica, a country with 20 granite ring complexes and over 1000 meters of vertical exposure, Bonin discusses the structural setting and intrusion mechanisms in an initial chapter that includes a brief historical review, a summary of experimental approaches, and an outline of magma generation in the asthenosphere with subsequent movement into the crust. After dealing with the textures and mineralogy of ring complex granites, Bonin presents chemical data (expressed in various graphical plots of major and minor elements) and strontium isotope data. These data are then set in the context of a discussion of magmatic evolution and postmagmatic processes based on examples of anorogenic granite complexes in Corsica, the Greenland Gardar province, Skye, and the Jos Plateau of Nigeria. A penultimate chapter entitled "The origin and evolution of anorogenic alkaline magmatism" pulls the discussion together. The question of origin is approached by an examination of the petrological and geochemical constraints combined with an essential constancy of composition throughout geological time, characterized by a K_2O content of up to 7%, a very high rare earth content, and an initial $^{87}Sr/^{86}Sr$ of 0.702 to 0.709. The contrasting views of fractional crystallization of basic magma and partial fusion are examined. The rise of the magma into the crust is considered along with the role of crustal contamination, magmatic evolution, and the role of water. Finally, the postmagmatic processes of hydrothermal alteration and mineralization are outlined.

Bonin summarizes his views in a succinct final chapter. He concludes that anorogenic magmas originate in the mantle but that the crust superimposes a final character on them. Bonin does not pretend to offer a definitive explanation of ring complex granites, but in a modest 172 pages he presents an eminently readable summary of their nature, composition, structural setting, and probable origins.

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Particle Detectors

Introduction to Experimental Particle Physics. RICHARD C. FERNOW. Cambridge University Press, New York, 1986. x, 421 pp., illus. $44.50.

In most fields there are a few unwritten books that everyone agrees are needed but that no one has time to write. For particle physics, one such book has been a comprehensive survey of the experimental techniques used to unlock the secrets of the subatomic world. Richard Fernow's book fills this need.

Fernow covers most aspects of particle experiments, from the fundamental interactions of elementary particles with matter to how these interactions are exploited to build particle detectors and finally how the detector components are integrated into the large detector systems that form the basis of modern particle experiments. Most of the book is devoted to particle detectors. There are sec-