

Presentation of the Mineralogical Society of America Award for 1988 to Raymond Jeanloz

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President Stewart, Ladies, and Gentlemen of the Mineralogical Society

"There is no substitute for talent. Industry and all the virtues are of no avail" A. L. Huxley

Many years ago when I had appointments with such people as dentists or lawyers or bank managers, I was often asked to wait in the outer office, presumably while the dignitaries inside composed themselves, and I occasionally picked up the *Readers Digest*. It always had an article on "the most unforgettable character that I have met"; today we are here to pay tribute to just one of those people. I first got to know Ray well on United Airlines as we flew, convivially, from Boston to San Francisco in a period when Berkeley tried to cajole him away from Harvard; for those of you here today who were "in the know" then, this was a far more daunting and uncertain operation than it may have appeared. I learned that his education had involved a congeries of colleges: Deep Springs College, Hampshire College, Amherst College, and a College of Technology in southern California. I soon became impressed and amazed by the breadth of his interests, and we seldom touched on a topic without an authoritative and informed announcement. Later, after he had settled in Berkeley, we observed the source of his erudition; books bought and read voraciously and then scattered at whim to rest at their angle of repose all over his room. Quickly his influence became evident, and those familiar lackadaisical, time-honored, Berkeley ways of doing things were scuttled in favor of the effective and efficient.

He has incredible energy, for he is always working, and he immersed his graduate students in his style, and in his hours. They must be among the best supervised group of graduate students anywhere, never at a loss to know what their supervisor thought of a problem, or of them, or where he was! It was a superb example for us to follow, and all of us tightened our academic belts, encouraged our students to write more, read the literature, and became familiar with such esoteric concepts as citation in-

dices; in a word (often used by him) we became "professional." Almost singlehandedly he elevated the level at which we conducted business, and the department profited greatly. His service to the committees that guide our science has been prodigious.

His research has been involved with the properties and equations of state of the alkali halides and of the alkaline-earth monoxides at high pressures. He has an enduring interest in silicate perovskites and the properties of iron. He has contributed to our knowledge of shock-loading, spectroscopy, deformation, phase equilibria, and coordination changes in liquids at high pressures. His scientific stalking grounds are the mantle and the core of the Earth.

Browsing through his publications I am struck not only by the range of his interests, but by the people he has collaborated with; he and they have substantially created the exciting new field of mineral physics. His list of publications contains another lesson for us; if you represent the annual number of these on a growth curve, he should entirely fill the volumes of *Contributions to Mineralogy and Petrology* in 2002 on his own, and he has yet to publish his first paper in that journal! I wondered why, and then a manuscript came the other day from an old Berkeley student, and on the envelope was written "Caution: contains 18th century science. Do not expose to Jeanloz."

There is an aphorism that you can tell the measure of a scientist by the choice of problems that he tackles; Raymond has pursued silicate perovskite, the most abundant silicate mineral on earth, and he has done much to constrain the uncertainties on the properties of the core. Combined, they became the subject of a lecture "The Igneous and Metamorphic Geology of the Earth" that he gave at Harvard a year or so ago. Few would have thought of such a global epic, fewer would be qualified by their own experience to give it, but only Raymond could make it eponymous.

May I present Ray Jeanloz, the 1988 MSA award winner.