THE GAIA HYPOTHESIS AS A PARADIGM FOR ATTRACTING WOMEN AND MINORITY STUDENTS TO THE SCIENCES

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A significant concern for many of us who teach science has been the oft-reported declining interest in science on the part of secondary school students and majors at undergraduate institutions. One approach to attracting new students involves examining the tenets by which science is conducted and considering a variety of paradigms as teaching tools. Nearly twenty years after its reintroduction to science by James Lovelock (Lovelock acknowledge numerous predecessors, not the least of whom is James Hutton, the 'father' of modern geology), the Gaia hypothesis is being taught in secondary schools and undergraduate institutions, and is being actively tested at numerous research centers around the world (based on presentations at the 1988 Chapman Conference on the Gaia Hypothesis, sponsored by the American Geophysical Union and others). With the publication of Lovelock's new book *Ages of Gaia* and a fairly extensive literature throughout the 1980's on everything from computer models of theoretical Daisyworld to discussions of the role of phytoplankton in Gaian feedback systems, there is sufficient material to examine Gaia in a science curriculum.

Gaia may be much more than a simple hypothesis; it has the hallmark of a new paradigm from which to engage in scientific research. Because this paradigm from which to engage in scientific research. Because this paradigm corresponds well with criticisms of science from the extensive literature in feminist philosophy and related areas, and because Gaia resonates with belief systems of nominally underdeveloped cultures/tribal systems around the world, I am suggesting that examination of the Gaian paradigm may lead to a significant interest in science from people (especially women and minorities) who are currently very underrepresented in science fields. At the very least, a willingness to listen to the critiques of science about the way in which problems are formulated, solutions conceived, and research methods selected is a prerequisite to augmenting interest in science.