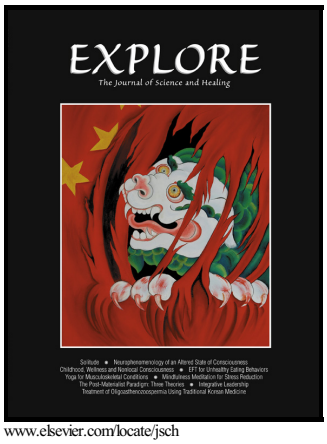

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THE UNSEEN FORCE THAT SHAPES THE WORLD

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SECTION HEAD: SCHWARTZREPORT

The Unseen Force that Shapes the World

Stephan A. Schwartz

The Schwartzreport tracks emerging trends that will affect the world, particularly the United States. For EXPLORE *it focuses on matters of health in the broadest sense of that term, including medical issues, changes in the biosphere, technology, and policy considerations, all of which will shape our culture and our lives.*

Magnetism is one of the most mysterious and least understood forces in our world. It occurs naturally in rock known today as magnetite, a mineral with high iron content. But iron was not the metal of choice for weapons until someone or some group in the Hittite culture, in present day Turkey and Syria, figured out a reliable smelting technology in about the 14th century BCE.[1] And it took hundreds of years to spread across human culture. In Central Europe this technology didn't happen until the the 8th century BCE, and in Northern Europe it was not until the 6th century BCE.[2]

But one of the first things people did notice was that some rocks with high iron content, attracted other similar rocks as well as pieces of iron. Magnetite we call it today but in the West, at least from the early 1500s, it was known as lodestone literally "way-stone." But no one knew why this happened, nor did they understand that Magnetite becomes magnetized by the Earth's geomagnetic field (GMF); and the discovery of the GMF lay centuries into the future. One of the earliest references to this magnetic power can be found in the 6th century BCE writings of Thales of Miletus, a polymath who is generally acknowledged to be the father of the Greek tradition of philosophy. The ancients also credited Thales with discovering this magnetic attraction.[3]