



A reconstruction of the armaria of the Great Library of Alexandria. At its peak, it contained more than half a million volumes, almost all of which have been irrevocably lost.

rather than confront the world. But those with the courage to explore the weave and structure of the Cosmos, even where it differs profoundly from their wishes and prejudices, will penetrate its deepest mysteries.

There is no other species on Earth that does science. It is, so far, entirely a human invention, evolved by natural selection in the cerebral cortex for one simple reason: it works. It is not perfect. It can be misused. It is only a tool. But it is by far the best tool we have, self-correcting, ongoing, applicable to everything. It has two rules. First: there are no sacred truths; all assumptions must be critically examined; arguments from authority are worthless. Second: whatever is inconsistent with the facts must be discarded or revised. We must understand the Cosmos as it is and not confuse how it is with how we wish it to be. The obvious is sometimes false; the unexpected is sometimes true. Humans everywhere share the same goals when the context is large enough. And the study of the Cosmos provides the largest possible context. Present global culture is a kind of arrogant newcomer. It arrives on the planetary stage following four and a half billion years of other acts, and after looking about for a few thousand years declares itself in possession of eternal truths. But in a world that is changing as fast as ours, this is a prescription for disaster. No nation, no religion, no economic system, no body of knowledge, is likely to have all the answers for our survival. There must be many social systems that would work far better than any now in existence. In the scientific tradition, our task is to find them.

Only once before in our history was there the promise of a brilliant scientific civilization. Beneficiary of the Ionian Awakening, it had its citadel at the Library of Alexandria, where 2,000 years ago the best minds of antiquity established the foundations for the systematic study of mathematics, physics, biology, astronomy, literature, geography and medicine. We build on those