

of these ideas would require some kind of affirmative social policies in favour of the genetically disadvantaged. These may include, specially designed educational packages, privacy of genetic information, and non-discriminatory insurance and employment policies. Such policies may be opposed by special interest groups such as taxpayers and company shareholders in a no-holds-barred market economy but resisting such pressures may be more appropriate than demanding a ban on genetic knowledge which can benefit humanity in so many ways. Indeed, a ban on knowledge is against the very spirit of enlightenment.

Finally, it is somewhat ironical (though not very unusual) that a book that celebrates the wide-ranging explanatory powers of modern biology should be called 'The Web of Life' (emphasis added). For, as has been argued at many places (for instance, see *The Logic of Life* by Francois Jacos, 1974), one of the major consequences of the growth of modern biology has been that 'life' is no longer regarded as a scientific concept. Biologists today study 'living systems' and 'living processes' but not 'life'. Let me elaborate. The concept of 'life' was introduced into science in early 19th century as a postulated (vital) force, present in every individual living organism which enabled its different parts to function in harmony until death; this force was responsible for the highly ordered structures and processes in living beings and for the special position occupied by the atoms in organic molecules; it (life) was a somewhat magical, transcendental entity associated with the whole organism as long as it lived. Progress in biology, starting with the Cell Theory developed in the middle of the 19th century and ending with the birth of molecular biology in mid-twentieth

century, has relentlessly argued against the existence of any such force. Living systems now have flow of information, energy and matter but nothing that can be defined as 'life'.

In conclusion *The Web of Life*, even though somewhat unhappily titled, is mostly a good read. The quality and content of the essays is somewhat uneven but each has useful information and thought-provoking ideas. Some of these are quite original. The editors have done a good job. One can recommend this book to both biologists and non-biologists. I, for one, would eagerly look forward to other volumes in the series.

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Microclimate for Cultural Heritage.
D. Camuffo. Consiglio Nazionale delle Ricerche, Istituto di Chimica e Tecnologia, Inorganiche e dei Materiali Avanzati, Corso Stati Uniti 4, 35127, Padova, Italy. 1998. Price: US \$ 227. 428 pp.

This is a useful microphysics handbook for conservators and specialists in physics, chemistry, architecture, engineering, geology and biology dealing with the environment and works of art. It gives a rigorous treatment and a background familiarity with the underlying physics behind mathematics, giving a detailed description and interpretation of the main micro-physical phenomena, removing un-

sound popular beliefs. The bases are given for non-destructive diagnostics to evaluate causes of damage determined by atmospheric factors, as well as negative consequences of the unsound use of technology and mass tourism. To this aim, suggestions are given on the fundamental principles in designing heating, air conditioning, lighting and in reducing the deposition of pollutants on works of art.

Further, theory and experience are coupled to describe the complex condensation mechanisms and the fundamental role played by water in the stone deterioration and the formation of crusts on monuments. Urban meteorology, air-surface interactions, atmospheric stability, dispersion and deposition of airborne pollutants are also key topics of this book, for which the main aim has been to make comprehensible to a wider audience a matter that is only familiar to a few specialists.

This book combines a theoretical background with many years of accurate laboratory research, field surveys and practice. The first part, devoted to applied theory, is a concise treatise on microphysics, which includes a survey on the basic ideas which are necessary for environmental diagnostic and conservation. The second part of the book focuses on the practical utilization and shows in detail how field surveys should be performed, with many suggestions and examples and the indication of some common errors that should be avoided.

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