# *Book Review*

**Beynon, J. & Mackay, H. (Eds.). (1992). *Technological literacy and the Curriculum.* The Falmer Press, $29.00 (paperback), 207 pp. (ISBN 1-85000-986-4)**

Reviewed by Mark Snyder

The reviewed book consists of a collection of essays purported to contribute to the so-called debate over the content and meaning of the phrase "technological literacy." In the preface, the editors, from the Polytechnic of Wales, defined their perspective of the topic as follows: "Our view of technological literacy is very different from a narrow, skills-based, technical perspective. We see the cultural and social as central to the technology curriculum, not marginal" (p. vi). Indeed, the editors (and most of the contributors to this reading) are academicians in the realm of the social sciences. Clearly, the intent of the publication is to broaden the accepted definition of technological literacy and to alter the consideration of technology in education to that which includes primarily a cultural-orientation. Second in a series of three books published by The Falmer Press, which is based in England, *Technological Literacy and the Curriculum* was preceded by the book *Understanding Technology in Education*. This initial volume may perhaps serve as the first indicator that the editors themselves are not fully aware of the aims of technology education or, given the benefit of the doubt, that they would prefer it be something other than it is. As a result, the content of each book is focused primarily upon the separate topic of educational technology rather than technology education. In fact, the majority of the essays included within are specifically concerned with computer literacy. The following statement by Beynon, from *Technological Literacy and the Curriculum*, clearly indicates the filter through which he has drawn his perception of technological literacy:

> We have made it clear that I dislike the term computer literacy and prefer the more generic term technological literacy. Why? Quite simply I would prefer that computers were not decontextualized and studied separately but as part of a

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> wider culture of technology that includes, for example, television, cable and satellite, teletext and viewdata, and telephones. (p. 23)

Indeed this book does much to cloud, rather than contribute to, the so-called debate over the use of the phrase "technological literacy." Mackay did include some very thoughtful questions related to technological understanding in his article "From Computer Literacy to Technology Literacy" and identified some potentially beneficial aspects of the National Curriculum Technology. However, he continually limited his discussion to computer-based technology and implied, in his final statement, that the National Curriculum Technology is not educationally sound. Perhaps this is due to the editors' opinion that "education is too important to be left to technologists" — a quote from an article by Beynon and Mackay titled "Information Technology into Education: Towards a Critical Perspective" printed in the 1989, volume 4, number 1, issue of the *Journal of Education Policy*. Still, there are at least two more articles contained within this book that are worthy of further consideration by Technology Education professionals for their discussions of the Technology portion of the recently mandated National Curriculum of England and Wales. Peter Medway's investigation of how and why technology was included in the National Curriculum is extremely severe. His article, "Constructions of Technology: Reflections on a New Subject" consists of a number of possible scenarios, based on speculation, as to what were the aims of the developers of the technology curriculum. Perhaps Mr. Medway could have simply spent more time trying to gain the perspective of the developers firsthand. Nevertheless, herein lies an open declaration against the consideration of technology as a discipline. Medway, a former English and Humanities teacher who led the national evaluation of technology education, wrote:

> Not only is the technology curriculum based on a "discipline" which has no real existence as an integrated entity outside the aspirations of the curriculum designers; it is also a highly selective construction in which ideology plays a conspicuous part. (p. 76)

That the technology curriculum is being described as a discipline rather than simply a rehabilitation of "the practical" seems to be Medway's greatest concern. Medway concluded that the new technology curriculum is in fact "at odds" with the other required curriculum areas. He perceived it as an attempt to "address the entire principle of the practical in one subject" (p. 80). Michael Barnett, another contributor to this book, agreed that the new approach might cause merely a modest improvement of "the old craft subjects" (p. 96). Barnett's "Technology, Within the National Curriculum and Elsewhere" was decidedly aimed at proving that the National Curriculum Technology was not thoughtfully linked with the technology of the "real world" — going so far as to call it "mickey mouse." Drawing attention to the fact that most of the activities in the technology curriculum are relatively "low tech" he declared that they do little more than "scratch at the surface" of current key technologies such

as biological materials, semiconductors, ceramics, ion beam implantation, optoelectric devices, mechatronics, sensors, image processing, flexible manufacturing, etc. In Barnett's opinion, then, the National Curriculum Technology should only be considered "a circumscribed intervention in the field of general education" (p. 96).

Barnett also expressed the concern that societal issues and the wider implications of technology cannot be addressed except through a cross-curricular approach, and that the present technology curriculum falls well short of being interdisciplinary in nature. Not to fault the developers, Barnett recognizes that this is largely due to the nature of "the lumbering circus-train of the National Curriculum" (p.100). In the past few years, there have been many comparisons and contrasts of the American and English approaches to teaching technology. Many aspects of the English system of teaching technology have been considered superior to the American system. As part of a National Curriculum, however, it has been presented quite differently in England and Wales than in the technology education curricula in the United States. Perhaps, because it was a mandate, it has caused conflicts with other agendas and has invited the opposition to technology education that is evident in this publication. More likely, however, it is the result of misunderstanding the aims of technology education and/or a reluctance to accept a new paradigm. Regardless of that which compelled it, this biting commentary is valuable to technology educators worldwide as it is one of the first extremely critical reviews of technology-based curricula.