

The Need for Materials

Philip H. Abelson, in his 7 July editorial "Domestic exploration for materials" (p. 7), begins with the sentence "A civilization with a high standard of living is dependent on adequate supplies of many kinds of materials." He ends with "[This country] must begin to develop a more vigorous materials policy." The entire editorial reads as if it were written by the American Mining Congress, and its assumptions and proposals only perpetuate the kind of thinking that has led to our current difficulties.

The major fallacy in Abelson's argument is the assumption that a high standard of living is closely linked to the production of virgin raw materials. This is indeed true in a once-through, throw-away economy where materials are dug from the earth, fabricated, used briefly, and then dumped in landfills. It has often been pointed out that recycling could reduce the demand for virgin materials were it not for subsidies that favor primary extraction, such as discriminatory freight rates, depletion allowances, and the free use of public lands. Abelson's proposals would further favor primary extraction by providing public funds for research and exploration, thus hastening the exhaustion of our remaining non-renewable resources.

What is really needed is a national materials management policy that would minimize the use of virgin materials. Such a policy would reduce the present inflationary pressure caused by reliance on ever lower grades of ore with their ever higher materials production costs. Elimination of subsidies for primary extraction would be only a first step. Creation of subsidies favoring recycling would be the next logical step. These measures, however, can lead to only limited materials savings because low-quality alloys tend to result from the agglomeration which occurs in present-day recycling.

In the longer term, policies are needed that will specifically encourage the design of products that are durable and can be easily repaired and recycled. These goals pose unusual scientific and engineering challenges that individual companies may find little economic incentive to meet. If public funds are to be used to solve our resource problems, this is where such monies would best be spent for the benefit of the general public.

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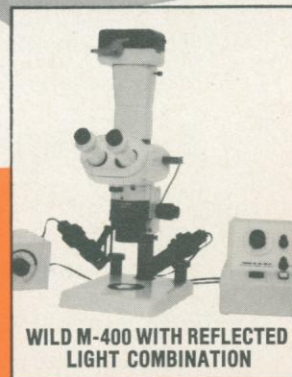


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