

# **stripping**

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with an introduction  
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## 5. Cost-benefits: Who pays?

“Supply and demand” has always been the two-word catechism of economics in America, serving to explain simply the incredibly complex way in which goods are produced, marketed and consumed. In fact, the rhythm built of repetition should have been reversed to “demand and supply” because the doctrine has forever implied that if something was needed, then, with efficiency and a certain moral rightness, it would be produced.

This abbreviated wisdom has applied as well to minerals as to automobiles or mink coats. If a consumer waved a dollar, an entrepreneur could normally be counted upon to produce the product to attract that dollar. Such was the way the system worked, or was thought to work, and that way was good. The consumer’s dollar paid the quick-witted producer for his effort and skill and, of course, for the product itself. The compensation for effort and skill was called profit and that was very good, too. The price of the product always

included the price the producer paid for his raw material. If he took that material from the earth—whether precious metal or fuel or ore—it was his for the price of extraction. America never insisted on its ownership of America's natural resources; they have always belonged to the men who have had the money and foresight to mine them.

There have, of course, been exceptions to the rule that what is in the ground belongs solely to those who dig it out. Oil, with the attraction of extraordinary profits, was quickly claimed by state governments and then by the federal government, both of which insisted on a small royalty from the extractor. Public land, nearly a third of the total acreage in America, is held by the federal government, and the mineral wealth lying beneath those lands is supposedly treated as public property.

But in the great coal fields of the East and Midwest, the coal was private property. No state, until recently, exerted much claim to ownership by insisting on a share of the revenues the mineral produced. The wisdom behind this generosity presumably lay in the free enterprise thesis that the public benefit was served simply by having the resources delivered in a usable form. Nor was this arrangement of ownership particularly bad—at least until it became obvious that not only did the corporations own the minerals, they also owned a rather broad right to leave mile upon mile of smoldering spoil heaps, acidic streams and highwalls as a direct result of their effort to supply a public demand.

Yet, what is it that we really need? And if we need it, what in fact are the costs and how are they divided and by whom will they be paid?

From Machiasport to Santa Barbara and from the

Everglades to Prudhoe Bay, the great environmental controversies of the last few years involve that very question—*Who pays?* In every case, the industry seeking to exploit the resource insists that there is no price tag. In Maine, the oil industry seeking to develop the coast for oil transportation and refining claimed that there was only profit for all concerned. In Alaska, the same industry insists that everyone—from Eskimos to English teachers—will be covered with money flowing from the wells on the North Slope. Industry, we are told ad nauseam, brings jobs. But Harvey Kincaid knows, for example, that jobs for some can mean ruin for others. And the rest of us too are beginning to understand Barry Commoner's warning: "There is no such thing as a free lunch." No one denies the social utility of oil or coal or natural gas or iron ore or bauxite or the rest. But to what extent is the utility offset by environmental and personal damage involved in the production of these resources? And just how are these costs allocated? Regrettably, no one is quite sure. We have never been cautious enough to find out.

Even in the absence of sophisticated analysis, it is clear that strip mining is a case in which the cost distribution has not been at all equitable. The final costs of production are not borne by the industry nor by those who consume the coal stripped out of the ground. The costs are spread randomly across the land, taxing some families very severely—at a "confiscatory rate," a corporation attorney would argue if it were his firm being taxed. Others are penalized not so severely, but taxed nonetheless. Strip mining has been, in a word, exploitive. It has rewarded producers and consumers, but the costs not covered in the price of the coal have been

paid by the public. The system makes no sense economically, or environmentally.

Only very rudimentary efforts have been made to pin down the costs of strip mining. Most of these have focused on particular communities or states, or on single aspects of the problem. In 1969, for example, the Appalachian Regional Commission estimated that to clean up the streams polluted by acid-mine drainage in Appalachia alone would cost about \$6.6 billion. That estimate, while including drainage from deep mines as well as strip mines, covered only half the region's 10,500 miles of stream polluted with all varieties of runoff, from sediment to manganese.

But no one has calculated the taxes lost from 2,450 square miles of land already destroyed as productive real estate because of stripping. No one has weighed the municipal tax burden of water treatment facilities necessitated by pollution from mining. No one has measured the lost or damaged personal property values that have gone either totally uncompensated or so meagerly restored as to amount to an insult rather than indemnification.

Rough guesses *are* possible on the costs of returning strip mined lands to some usable state. The Interior Department claims that a total of 1,024,000 acres of land has not been reclaimed from stripping. (The figure grossly underestimates the amount of land still lying ravaged, since to be classified "reclaimed" land need only have met very minimal state reclamation requirements.) Reclamation experts estimate that successful reclamation—and the concept of successful reclamation is, at best, highly optimistic—can cost from \$200 to \$2,000 an acre. Choosing a median figure of, say,

\$1,000 an acre, the cost of restoring even the minimal acreage Interior classifies as unreclaimed to a questionable state of productivity would be more than a billion dollars. Using the total 1969 strip and auger coal production in the United States of 213 million tons and multiplying by a conservative average price of \$6 per ton, the cost of even minimal reclamation is nearly the equivalent of the gross revenues from strip mining production in a whole year.

The balance of costs and benefits emerge more dramatically when considered on a limited geographical scale. In the midst of struggles to tighten regulation of strip mining or to abolish it altogether, the industry public relations men have pressed their contention that stripping is too valuable an enterprise for the state to add any burden whatsoever to their operation. Indeed, in December, 1970, a group of eight small strip companies sued to have the 1969 Coal Mine Health and Safety Act ruled unconstitutional because it would require them to install roll bars above the drivers' seats and back-up warning sirens on their earth-moving equipment. This requirement, they contended before the federal bench in Pittsburgh, would result in the unconstitutional confiscation of private property by preventing them from mining coal. But as the less absurd but no less specious claims of impending economic disaster mounted, researchers in several states began to look more closely at the real benefits and real costs derived by strip mining.

One such analysis came from Professor William Miernyk of the West Virginia University Department of Economics. Miernyk, in a series of papers, concluded that the benefits to the state of West Virginia from strip mining were more than canceled out by the damage the



practice causes. Miernyk first examined the assumed benefits. The industry had claimed that 22,500 people in the state depend on strip mining for their livelihood. Accepting that figure, Miernyk made the obvious but essential point that 1.2 million West Virginians must pay for the damage stripping causes. The Appalachian Research and Development Fund, Inc., in Charleston, had pointed out that these warnings of job losses come from the same industry that has systematically replaced 300,000 miners with machines over the past several decades. Miernyk went on to question the basic claim of the industry that 22,500 people in the state are dependent on strip mining for their jobs, and suggested the figure is closer to 7,300.

The professor further asserted that job loss would be reduced by the fact that the state's personal income levels were rising at the time, thus creating an annual crop of new jobs. Beyond that, Miernyk examined the convertibility of job skills among strippers and found that some workers—tipple operators and the like—could easily find work in the deep mines which, at the time, were seeking new workers to staff expanding underground operations. Others, like heavy equipment drivers, could find work in the state's expanding highway building program. Some experts say 65 percent of all strip mining jobs are easily convertible to other occupations. In short, Miernyk showed that strip mining is not a labor intensive industry and that its loss or reduction would not destroy the job market of the state of West Virginia. It also must be remembered that industry now warning of a job crisis is the same industry that systematically replaced 300,000 miners with machines over the last several decades.

And what of the money the state would lose—even

accepting the unlikely possibility that deep mines would not take up the slack in production? In 1969, strip mining produced 26.9 million tons of coal in West Virginia. At the modest \$6 per ton price, that meant gross sales approximated \$181.4 million. Estimates of reclamation costs in West Virginia—and once more this is a difficult concept at best—range from \$1,200 to \$2,000 an acre. That would put the reclamation costs at between \$38 million and \$64 million, reducing the net worth of the coal produced by as much as a third had those costs been paid by the companies responsible instead of the people of West Virginia.

To whom did the money go? It is not totally clear. But another study by Michael Adams for the Appalachian Research and Defense Fund gives some indication. The research done by Michael Adams concerned land ownership patterns in the state's coal counties. Adams found in the nine counties that accounted for 70 percent of the state's coal production in 1968, nine corporations controlled 32.2 percent of the real estate holdings. These properties were assessed at more than \$90 million. "We therefore find," he concluded, "in these nine counties a massive control by relatively few large corporations or estates. These owners also most likely control the coal industry. Nearly every one of them is involved in either coal land ownership and leasing, or coal mining itself or both." Only one of the nine corporations, Adams found, was a West Virginia firm. While the money is flowing out of the state, some is retained by a timid little tax instituted after Governor Arch C. Moore vetoed the legislature's attempt to put a severance tax on all coal. The tax takes roughly 2 percent of total sales and would thus produce about \$3.6 million a

year or one-tenth minimal estimated reclamation costs the state faces. That figure can also be set against an estimate by the U.S. Soil Conservation Service of the costs of stopping stream sedimentation in just one river watershed in West Virginia. That estimate was \$28 million.

While the public cost-benefit ratio is grim, the private equations fully explain the rampage of strip mining in America. Samuel M. Brock, an associate professor at West Virginia University, told an Ohio legislative committee that on a strip mine site he had studied in northern West Virginia the net private benefits yielded by stripped coal came to \$5,170 per acre, or about one hundred times the value of the land for agricultural use.

Brock's study also revealed the astounding fact that "the pre-tax rate of return on investment realized by the mine operator was *102 percent*." Another mine operation studied by Brock was returning, before taxes, *126 percent* on the investment. With classical academic understatement, Brock went on to tell the committee:

The rates of return on investment earned by the two surface mining operations I studied are relatively high compared to those realized by other industries. For example, the Federal Government's General Accounting Office recently concluded that firms handling defense contracts realized a rate of return on investment of 28 percent in 1969. The Defense Department considered this to be unreasonably profitable, and the GAO report may set off considerable controversy in Congress. Yet the surface mining firms I studied were earning far better returns than that.

It has been estimated that one foot of coal under one acre of land produces 1,800 tons. In Ohio, the coal seams average five feet in thickness and thus, at \$6 a ton, an acre would produce \$54,000-worth of coal. A 100-acre farm could therefore become a \$5-million property if turned to coal.

For the coal operator, the money is as abundant as the spoil piles he creates. But the benefit doesn't usually go to the seller of those coal lands. In Ohio the average price farmers are getting for their farms from coal operators runs about \$40,000 overall, or less than 1 percent of the real value. Attorneys representing land holders in the state report the top lease price for coal lands is fifty-four cents a ton, or, again, less than 1 percent of its value. Leases as low as fifteen cents a ton have been executed by some giant coal companies, and in West Virginia, there is a lease on file at twelve cents a ton—and that was executed in 1970 when coal prices were averaging well above \$6 a ton.

This is not to say, whatever the tiny share landowners receive from leases or sales, the offers are not usually more attractive than the prospect of small annual farm incomes. Thus, sales to coal companies continue to grow. But once the coal is extracted and both seller and producer have banked their cash, the benefits vanish. A paper presented by Timothy A. Albright at Case-Western Reserve University in 1971 charted the decline in land values in areas affected by stripping. In one heavily stripped township in Belmont County, Ohio, Albright measured the trend in assessed value of buildings per acre and found a decline from \$20 to \$9.75 from 1957 to 1970. (Even before stripping is begun, the operators either destroy or make all buildings uninhabit-

able to reduce tax payment.) In another township, also heavily stripped, Albright found a one-third decrease in the average assessed value of land per acre over a thirteen-year period; valuations in a nearby township with no stripping remained constant. While those who sell or lease their land may earn up to 4 percent of the total value of the extracted coal (compared to the usual oil royalty of 12 percent), the land is laid to waste and few people choose to remain on or near it. "I feel like we're an underdeveloped country being exploited by a rich, industrialized nation," says Richard Lancione, a Belmont County attorney. "Our money and our farmers are leaving."

In Kentucky in 1970, coal from both deep and strip mining became a billion-dollar industry for the first time. The average price for coal from that state reached nine dollars a ton. The *Louisville Courier-Journal* was less than ecstatic:

But before anyone indulges in any orgy of self-congratulations on this achievement, there should be a pause to look at the other side of that coin. Even a cursory glance once again emphasizes how few benefits have been bestowed by this "crown of sorrow," as Harry Caudill has dubbed it.

In the seven largest coal-producing counties—Muhlenberg, Pike, Hopkins, Harlan, Ohio, Letcher and Perry—per capita personal income ranges from about \$1,100 below the national average to almost \$2,000 below. In not one of the counties is this figure equal to the state average.

Hopkins at \$2,325 was the best off, ranking 31st in Kentucky. Perry was 98th in the state in in-

come, with a figure of \$1,326. These compare to the national per capita average of \$3,421 and Kentucky's average of \$2,645. A recitation of the coal counties' dreary statistics—how they also rank in educational attainment, have swollen welfare rolls, and a low level of public services—could continue to the point of boredom. Statistical overkill is not necessary to drive home what is already widely known: Very few economic benefits trickle down from the extraction of King Coal. . .

Coal is a major and precious natural resource. In gross terms, it is a source of great national wealth and it is undeniably a source of tremendous national power. But the process by which those benefits are distributed when coal is stripped from the earth is perverse. It has become a Robin Hood in reverse, robbing the poor to give to the rich. And the rest of the country has become an accessory to this larceny by permitting it to go on and grow without much restraint, and with pitifully little complaint.