

# UNEVEN GROUND

APPALACHIA  
SINCE 1945

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WITH A NEW AFTERWORD ON  
THE FUTURE OF APPALACHIA



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ownership and corporate control of the Appalachian economy, but the development faith is not just something that has been imposed on the mountains from outside. As the pages that follow reveal, leaders from within Appalachia were among the first to call for government intervention programs to promote development and reduce poverty. Mountain residents themselves have been among the strongest advocates of growth, and they have engaged in some of the most callous exploitation of the land and of their fellow citizens that has befallen the region. If Appalachia's struggle with development has been uneven and has failed to meet our expectations and dreams, it is because Appalachia's problems are not those of Appalachia alone. They will not be solved in isolation from the dilemmas facing the rest of modern society. For that reason, we are all engaged in the struggle to define the good life in the mountains. We are all Appalachians.

## RICH LAND—POOR PEOPLE

“What crops do they raise in this country?” the officer asked. . . .

“Youngens,” she said. . . . “Youngens fer th wars and them factories.”

—Harriette Arnow, *The Dollmaker* (1954)

There was more than a little sarcasm in the reply of Harriette Arnow's fictional character to the soldier whose car she had stopped on a Kentucky mountain road during World War II. The upper Cumberland area, like most of Appalachia, was still an overwhelmingly rural place, rich in natural beauty and the cultural heritage of the frontier, but it had become a paradox on the American landscape, a rich land inhabited by a poor people. A region of small farms and scattered villages, Appalachia had been swept up by the tidal surge of industrialization that engulfed the United States in the years following the Civil War and had experienced unprecedented growth and economic change. Overwhelmed by an expanding market economy that altered land use patterns, social relationships, and the meaning of work, residents of the region were propelled into a new world of technology, science, and consumer capitalism. When the boom times gave way to depression, much of the old Appalachia survived, but much had fundamentally changed.

The great hillsides of hardwood timber, once among the most diverse and valuable forests in the world, had been cut over and denuded. The thick seams of coal, copper, mica, and other minerals had been sucked from the hills and shipped to the furnaces and factories of the

urban Northeast. Exposed and gouged, the soil on the hillsides had eroded and washed down, and many of the streams, once clear and free flowing, were filled with sediment and the refuse of men and machines. As Appalachia's human and natural resources were tapped to feed the needs of a modernizing nation, the small mountain homesteads that once nurtured large families through diverse forest agriculture had given way to hundreds of little mining camps and mill villages, company towns fed by company stores and governed by company rules. Thousands of families left their farms and migrated to the new industrial camps or to textile towns in the foothills of the region. Along with other rural Americans, mountain people were drawn to the promise of a better way of life, but the new economic order proved to be a shallow cup. The wealth generated by growth and by what mountain people called "public work" largely flowed out of the region, leaving much of the land devastated and many of its inhabitants dependent and poor.<sup>1</sup>

Rural mountain residents had always been close to the land, although that closeness was reflected more in strong ties to family and place than to any ethic to preserve the land. Hard work and large families were important not only to survival on the land but to shaping a way of life around it. Preindustrial mountain farms were family farms run by cooperation and by a strong sense of responsibility to each other. As a result, the extended family became a key social institution in the mountains, affecting not only the traditional economy but almost every aspect of mountain culture as well. With industrialization, the family and the land became even more important to survival. Family linkages provided opportunities for employment, migration, and fellowship, and working with the land continued to provide the primary means of survival, even though the ownership and use of the land had changed considerably.

When the collapse of the first great industrial boom came in the late 1920s, unemployed miners and mill hands struggled to return to the land and to an earlier way of life. Displaced industrial workers moved in with kin on smaller, marginal farms that had been saved from outside buyers at the turn of the century. Never highly productive units, especially in a growing national market and without the productive use of the woodlands, these overcrowded homesteads were even

less able to sustain the new population. In Knox County, Kentucky, for example, over a thousand families who had left earlier in the century to find jobs returned home in the 1930s, increasing the county's population by 30 percent.<sup>2</sup>

During the Depression, thousands of mountain families crowded together to subsist on poor land or to survive on the dole or on government work programs. Those who were able to return to the family farm were fortunate, for many who remained in the now neglected coal camps faced unemployment, hunger, and disease. Almost half of the mountain population laid claim to some kind of public assistance during the Depression, and Appalachia emerged as one of the most impoverished regions in the nation.<sup>3</sup> The Resettlement Administration estimated that about one-fourth of the rural relief cases in the United States in 1935 were in the Appalachian South.<sup>4</sup> Many mountain residents who had witnessed the arrival of the modern age and the transformation of the land and the economy faced the future with uncertainty and frustration. As one Tennessee mountain farmer lamented, "The real old mountaineer is a thing of the past, and what will finally take our place, God only knows."<sup>5</sup>

By 1940 a pattern of growth without development had settled over Appalachia. The region had experienced rapid expansion in jobs and in the capacity to extract its natural resources, but growth had come without the development of an internal capacity to sustain prosperity. With the outbreak of war in Europe and preparation for war at home, the demand for mountain labor rose again, and once more Appalachia's resources became vital to the nation. The expansion of war industries stimulated demand for Appalachian coal and timber, and the new aircraft plants, steel mills, ordnance factories, and uniform manufacturers clamored for additional workers. As early as 1938, coal production began to recover as operators reorganized and consolidated companies in anticipation of wartime markets. After the bombing of Pearl Harbor, a frenzy of production swept the industry as once idle mines were reopened and company towns reawakened.

The effect of war mobilization was to revive hope for a generation of mountain young people, a generation that had known only poverty and hard times. In rural areas farm prices recovered, and workers

slowly returned to the mines and the mills, lessening the pressure on the land. Families and individuals migrated to defense jobs outside the mountains, and thousands of young men and women joined the armed forces. Sawmills that had not operated in years now hummed, turning out hardwood for building materials and military rifle stocks. New coal mines were opened and new sidetracks laid; abandoned tipples were repaired and painted and new mining equipment purchased. Company towns and county seats bustled with life, and a throng of mineral agents, timber buyers, and land developers invaded the region anew.

Much of the wartime boom was facilitated by government expenditures. Not only did federal contracts for ordnance and war materials stimulate production inside and outside the region, but government loans financed the expansion of critical industrial facilities. The Reconstruction Finance Corporation and other federal agencies, for example, helped to finance wartime conversion of the chemical industry in the Kanawha Valley of West Virginia and to underwrite the purchase of new mining machinery and loading equipment across the coalfields. The Tennessee Valley Authority (TVA) provided cheap electricity for the production of aluminum in east Tennessee and for making tents, uniforms, and blankets in North Carolina, Alabama, and Georgia. Throughout Appalachia the new public buildings and improved roads constructed by thousands of Works Progress Administration workers during the Depression provided critical infrastructure for the war effort.

The mountain population, moreover, responded to the call for national defense with enthusiasm. Even before the attack on Pearl Harbor, the attraction of military service and war industries jobs had begun to empty mountain public relief rolls of young men and mountain schools of some of their brightest students. Appalachian people had always been quick to serve their country in times of war, and enlistment rates in the region were among the highest in the nation during World War II. The war also provided an opportunity for escape from poverty and idleness. The promise of steady employment, higher wages, and better living conditions drew thousands into the armed services and into the defense plants of Chicago, Cincinnati, Dayton, Baltimore, and Norfolk. Companies from as far away as Michigan and

Massachusetts recruited employees, including teenage boys and girls, from mountain hollows and transported them to mills and assembly lines in urban centers. When asked how he liked the army, one mountain youth responded, "Anything is better than what I had at home." A year into the war, a mountain teacher reported, "The young manhood of our town has moved out almost en masse. . . . Never again can this section be the same."<sup>6</sup>

Those who remained in the region suddenly found employment opportunities where none had existed a short time before. The revived coal mines, sawmills, and chemical plants quickly experienced a labor shortage and were forced to depend on older workers when the young men of the area were drafted or volunteered for service. Men in their forties and fifties who had entered the mines during the heyday of the first boom found themselves heading once again belowground or into some other kind of public work.

War mobilization helped to redistribute population within the region and to launch an out-migration from Appalachia that would stream millions of mountaineers into the nation's urban centers over the next three decades. The movement of young people into the military and war industries and the return of families to the coal camps drained population from rural communities, renewing the process of decline that had begun at the turn of the century. Some rural agricultural areas experienced major difficulty in securing enough labor to sustain farm production, and many farmsteads were abandoned or only marginally maintained during the war.<sup>7</sup> As families migrated to jobs in neighboring industrial counties or to nearby urban communities such as Lexington, Kentucky, and Knoxville, Tennessee, the population of rural farm communities declined proportionately.

A study of wartime migration in eastern Kentucky estimated that more than eighty-five thousand persons, almost 19 percent of the population, left the area between 1940 and 1942 alone. The decrease in population exceeded the gain for the entire previous decade and took 40 percent of the men between the ages of fifteen and thirty-four. Most of the decline was accounted for by the loss of farm people, with about half of the loss attributed to entering the armed services and the remainder to leaving for industrial work in the Ohio Valley and Great Lakes. The study determined that the out-migration had been largely

one of young families and of individuals, especially young men. "Many heads of families," it concluded, "have left their wives and children to carry on the farm operations."<sup>8</sup>

While rural farm areas lost population, wartime recovery spurred unexpected growth in mountain county seats. These middle-class communities had stagnated during the Depression, but now local merchants, bankers, lawyers, and agents for outside companies flourished with the revival of activity in the outlying coal districts. Newly paved highways made possible by state and federal expenditures during the 1930s linked the county seats with each other and with the rapidly growing urban communities on the fringes of the mountains, and improved gravel roads constructed by the WPA stretched up the narrow valleys to the coal camps.<sup>9</sup> Automobiles, whose numbers had expanded even during the Depression, now shuttled goods and people back and forth from these commercial centers, reducing the isolation of the once rail-dependent coal towns.

The improved highways also gave rise to a new form of mining enterprise, the truck mine, which would become ubiquitous in the southern Appalachian coalfields after the war. Rising wartime markets for coal enticed many local residents to open small mines on family-owned land or to lease seams of coal on the secondary spurs that jutted from the main ridges. The larger mining companies deemed the coal in these secondary spurs, being thinner and more remote from the tipples and railroads, to be unrecoverable, but with better roads and a booming market, these seams provided an opportunity for indigenous entrepreneurs. With as little as a one-thousand-dollar investment, a man could open a seam of coal at the outcrop, construct a wooden bin down the hillside with which to load the coal into trucks, and transport it to regional markets or rail-side tipples. These small operations, which generally employed only five or six men, could produce eighty to a hundred tons of coal a day and realize profits of close to a dollar on the ton for their owners.<sup>10</sup>

The federal Office of War Mobilization encouraged the production of more coal as a patriotic duty, and thousands of small operators took advantage of the artificial demand to open new mines. During the war the growth of such mines was phenomenal throughout the coalfields, but nowhere was it as prevalent as in eastern Kentucky, where

more than 4,200 truck mines opened in the 1940s, accounting for almost 38 percent of the state's production.<sup>11</sup> Most of these mines were nonunion and nonmechanized, utilizing human labor to cut and load the coal and ponies to haul it to the loading bins. Most paid wages significantly below the union scale, but even seven or eight dollars a day was welcomed by aging coal miners who had not worked steadily in years.

The war brought to the mountains a rush of activity that had not been seen since the early years of the century. Opportunities for jobs, business expansions, and the movement of young people into the war effort created a temporary respite from the hard times of the Depression, but this growth masked fundamental flaws in the region's development. Most of Appalachia's mineral and timber resources continued to be owned by outside corporations and controlled by nonresident interests. The value added from their extraction remained largely untaxed for local benefit. Moreover, a single-industry economy frustrated the diversification of local enterprises and tied most mountain communities to the vagaries of national and, increasingly, international markets. Local political leaders, many of whom benefited from their relationships to outside interests, continued to defend the status quo. The gap between traditional agricultural communities and rapidly modernizing urban centers beyond the region grew.

Although rising coal markets and expanding employment generated new sources of income, rationing and other austerity measures during the war prevented many consumer goods from reaching mountain residents. In the coal camps, company houses were simply patched and painted for the returning miners, and hospitals, schools, and other public facilities in the villages were left in disrepair. Even the spate of new truck mines placed additional burdens on public coffers to maintain the coal haul roads and contributed to the overexpansion of the industry itself. Overexpansion had plagued Appalachian coal mines in the 1920s, and following World War II it again led to instability and intense competition between the small mines and the larger producers. Since most of the truck mines were nonunion, miners in these smaller operations received lower wages and no benefits for their labor and were highly vulnerable to fluctuations in the coal market. Indeed, wartime demand and competition between the larger corporate mines and

the new truck mines would increase the mechanization of the coal mining process, setting the stage for the eventual displacement of thousands of miners and their families.

The mechanization of the American coal industry was an evolutionary process, beginning as early as the 1890s, but new technology was slow to come to southern mines. Throughout the first half of the twentieth century, Appalachian coal mines depended primarily on the labor of men and boys to undercut and load their product for market. This was in part because of the lack of unionization and the availability of cheap labor, but it was also in part because of the expense and slow development of coal-loading technology. The introduction, for example, of mechanized undercutting equipment in larger mines early in the century actually increased the demand for workers to load coal and operate mechanical haulage systems. Undercutting machinery could produce many times more coal in an hour than the individual pick miner could blast "from the solid" in a day, but the technology required additional laborers to manage the equipment, to load the additional coal into gondolas, and to transport it to the surface. It was not until the introduction of mobile mechanical loaders on the eve of World War II that mechanization began to have a major impact on employment in the region, and only then as a by-product of union decisions and competition for postwar markets.

The end of the hand-loading era in Appalachia began during World War II, when a few larger mines introduced conveyor belts and new automatic loading machines into their pits to meet wartime contracts, but it was not until after the war that significant numbers of Appalachian mines began to utilize the new technology. Many of the region's mining operations had been unionized under the New Deal, and although owners were able to resist pressures from John L. Lewis and the United Mine Workers of America (UMWA) to drive up wages and benefits during the war, most operators anticipated rising labor costs with the return of peace. When the UMWA established its Health and Retirement Funds in 1946 and launched a series of annual strikes that increased levies on coal production to finance the funds, larger union mines turned increasingly to mechanization to reduce labor costs and to compete with the burgeoning nonunion truck mines. By 1950, 69

percent of the nation's coal was loaded by mechanical means, in comparison with 13 percent fifteen years earlier.<sup>12</sup>

The new mechanical loading equipment reduced the need for hand loading of coal just when large numbers of young men and women were returning home from the war with high expectations. This generation of mountain youth had grown up during the Depression and had been scattered across the globe by the war. They had experienced better housing, improved health care, and steady wages, and they had observed the comparative wealth of other parts of the country. Now they hoped for a brighter future for themselves and their children. Some expected to return to the mines. Others hoped for jobs as secretaries, welders, mechanics, and barbers, and still others planned to apply their GI benefits to acquire an education. Many returning veterans found the changes that had come to their communities overwhelming. "When I left here in 1941," observed one veteran, "everybody was stone broke and had just about run out of ambition to do anything except draw relief rations, piddle around on the WPA and loaf. But when I got back home the mines were goin' full blast and a lot of men who didn't even have a job in 1941 was runnin' two or three truck mines and had seventy five or a hundred thousand dollars in cash."<sup>13</sup>

At first it appeared that the veterans' hopes for a brighter future at home might be fulfilled, at least in some mountain communities. Although rural, agricultural areas continued to suffer economic decline, expectations remained high in the coal camps and other industrial centers. For a time, at least, the transition to peacetime production and the expansion of postwar markets sustained the coal boom. When Congress disbanded the wartime Office of Price Administration in 1946, coal prices soared, and a new flurry of mine openings swept the coalfields, fueling speculation that the good times would continue and temporarily disguising the inevitable consequences of mine mechanization.

By 1948, however, the postwar boom had run its course, and the demand for coal began to level off. The construction of new pipelines and refineries during the war increased the availability of oil and natural gas, and many of coal's traditional consumers began to convert to these alternative energy sources. Not only were these fuels cleaner, cheaper, and more efficient, but industrialists concerned with consis-

tent production had found them to be more reliable as well. A series of UMWA strikes following the war demonstrated Lewis's ability to shut down national coal supplies and further confirmed coal's reputation as a risky fuel because of the uncertainty of supplies. As homes, industries, railroads, and other consumers switched to oil, coal's dominance over American energy markets weakened.<sup>14</sup>

The first mines to feel the return of hard times were the truck mines, which generally sold their product on the "spot" market and were not protected by long-term contracts. As the price of coal plummeted at the railhead, hundreds of "dog hole" mines that had sprung up overnight closed almost as quickly as they had appeared. Thousands of miners were laid off, and the gilded prosperity of the coal camps and commercial towns faded again. Some small-time operators who had amassed minor fortunes during the boom years lost everything. Others took what remained of their wealth and moved away. All those whose incomes were tied to the volatile truck mine sector—truck drivers, mechanics, merchants—saw their livelihoods dwindle. Everywhere a decided gloom settled over the coalfields.

Then, in 1950, the UMWA and the nation's larger coal producers signed a labor contract that had monumental consequences in Appalachia. On the surface, the National Bituminous Coal Wage Agreement of March 5, 1950, appeared to be a major victory for union miners. The contract raised wages and benefits across the industry and restored royalties to the UMWA Health and Retirement Funds while assuring stable production for companies by eliminating the "willing and able" (right to strike) clause of earlier agreements. Unionized coal companies had stopped paying into the Health and Retirement Funds in 1949 in response to declining coal prices and rising competition from nonunion, primarily southern Appalachian, mines. In retaliation, Lewis called a brief strike and later ordered a production slowdown until a new contract could be negotiated. The slowdown precipitated a national crisis in coal reserves, and the UMWA leader, fearing a federal takeover of the mines, agreed to a settlement proposed by George H. Love, head of the Northern Coal Operators' Association. Despite opposition from the Southern Bituminous Coal Operators' Association, which represented most of the smaller produc-

ers in Kentucky, West Virginia, Tennessee, and Virginia, the contract was ratified and subsequently imposed across the industry.<sup>15</sup>

The 1950 wage agreement was the culmination of two decades of struggle by Lewis to increase wages and benefits for the nation's coal miners, and it reflected a vision for the industry that he had advocated since the 1920s. Believing that coal's persistent problems resulted from overexpansion within the industry, Lewis had long favored mechanization as a way to reduce the number of coal mines, stabilize production, and improve the health and welfare of working miners. He believed that a high wage scale would force operators to lower labor costs by introducing modern, labor-saving machinery, which would in turn increase production efficiency and lower coal prices to consumers. Smaller, inefficient (and nonunion) mines, which he saw as the source of overproduction, would be forced out of business, thus eliminating the problem of too many mines and too many miners. In Lewis's judgment, a high uniform wage rate and mechanization of the workplace would secure the health of the industry, and the two concepts would complement each other.<sup>16</sup>

Lewis recognized that the agreement would result in the displacement of thousands of coal miners, but he believed that high wages for actively employed miners and good benefits for retired workers were the long-term priorities for the union. By tying the growth of the union Health and Retirement Funds to increases in production and by agreeing to a no-strike clause to sustain those increases, Lewis provided incentives for larger mining companies to mechanize and for union miners to acquiesce in the practice. Unfortunately, the Lewis strategy worked to the disadvantage of southern producers, whose smaller operations and distance from markets made them more susceptible to rising labor costs. Soon after signing the 1950 agreement, the northern coal operators and the owners of larger captive mines formed the Bituminous Coal Operators' Association, which, along with the UMWA, set the standards for wages and benefits in the industry for the next three decades. Between 1950 and 1972, the nation experienced only three nationwide strikes by union miners, but this labor quiescence resulted in thousands of small and medium-size mines in Appalachia being sold or closed and an entire generation of miners being replaced by machines.

The impact of the 1950 wage agreement was especially dramatic in Appalachia. Between 1950 and 1970, the region's deep mines mechanized rapidly to increase productivity and reduce labor costs. The introduction of mobile Joy loaders and continuous miners permanently reduced the need for hand shoveling in the larger mines and increased pressure on smaller operations to mechanize. Introduced in 1948, the continuous miner revolutionized coal production. By integrating the work of undercutting, drilling, blasting, and loading into one process, the continuous miner made it possible for ten men to produce three times the tonnage mined by eighty-six miners loading coal by hand.<sup>17</sup> As the percentage of coal produced by machines increased, the number of actively employed miners declined proportionately. By 1960 fewer than half of the 475,000 miners in the region at the end of World War II still found work in the deep mines, and by 1970 that number had declined to 107,000.<sup>18</sup>

As hard times settled again over the coalfields, thousands of miners joined their rural neighbors in a massive exodus from the hills. Over the next two decades, the stream of young people that had poured from the mountains during World War II became a flood of displaced families. In one of the nation's largest internal migrations, over 3 million people left Appalachia between 1940 and 1970, seeking economic refuge in the cities of the Midwest.<sup>19</sup> Laboring beside other displaced populations—African Americans from the Deep South, Hispanics from Puerto Rico, Latinos from the Southwest, and second-generation immigrant families from southern and eastern Europe—Appalachians built the automobiles, washing machines, radios, and televisions that shaped the postwar consumer society of the United States. Mountain migrants brought their music and culture with them to the new world of the city, creating little Appalachian communities in the midst of urban centers and helping to bring national attention to the plight of communities back home.

Migration was not new to Appalachia. Mountain people had migrated for decades to find work, both within the region and outside it. After the Civil War, Appalachian families had moved to the West, especially to Texas and Missouri, in search of cheap land, and at the turn of the twentieth century, many more had filled the cotton textile

mills of the southern Piedmont. Mountain farmers were accustomed to leaving home for seasonal jobs, transporting livestock to market, rafting logs to low-country sawmills, or finding occasional work in the coal mines. Indeed, during the heyday of the coal boom, mining families commonly moved from one mining camp to another in search of better wages, better schools, and better housing. Never before, however, had Appalachians migrated out of the region in such large numbers. When conditions at home forced them to seek opportunities in the North, they relied on old patterns of relocation and traditional support systems to ease their adjustment to urban life and to remain emotionally rooted in the hills.

Family and community were at the center of the migration experience. Family linkages provided the means for communication about jobs in cities as well as the support networks for relocation. "When mountain people migrate from the region," observed sociologists James Brown and Harry Schwarzweller, "they do not go because they have learned of attractive job opportunities through the efforts of the United States Employment Services or some private recruiting agency; they go because some relative 'out there' has written and told them, or has come back on a visit and told them that jobs are available."<sup>20</sup> Migration routes and urban destinations had been established during the war, and earlier migrants invited relatives to live with them until they could get jobs. Typically, breadwinners moved to the city for a short time to look for work before returning home to the mountains for their spouses and children. Other relatives followed later.

Often people from one community or hollow migrated to the same town in the North, providing an extended network of family and friends to ease the adjustment to urban life and to preserve cultural traditions. Northern employers utilized the kinship networks to recruit additional workers, establishing a steady pipeline of labor between particular mountain communities and specific northern cities. The Champion Paper Company in Hamilton, Ohio, for example, recruited heavily from eastern Kentucky and western North Carolina along U.S. 23, and the Cincinnati-Dayton area became a favorite destination for mountain migrants from these areas. By the end of the 1960s, one in three industrial workers in Ohio was from Appalachia.<sup>21</sup> Employees from one section of eastern Kentucky so dominated the la-



bor force in one Ohio factory that a sign on the doorway between departments reportedly read "Leave Morgan County (KY) and enter Wolfe County."<sup>22</sup>

Migrants from Kentucky, Tennessee, and North Carolina tended to settle in Cincinnati, Dayton, Detroit, and Chicago, while migrants from West Virginia and Virginia moved to Akron, Canton, Columbus, Cleveland, and Baltimore. So many migrants poured into Akron, Ohio, that the Rubber City became known as the "capital of West Virginia," and for years the migrants held an annual West Virginia Day celebration that attracted more than thirty thousand former Mountain State residents.<sup>23</sup> Southern Appalachian migrants to Chicago tended to settle in the Uptown district; those in Cincinnati clustered in Little Price Hill. In Detroit, mountain migrants concentrated in an area known as Little Appalachia, where they established their own restaurants, stores, churches, and bars. Migrants to Baltimore settled primarily in Remington and Sparrows Point, near the booming Bethlehem Steel Mill.

As a result of these patterns of relocation, linkages between the mountains and urban migrants remained strong, and frequent weekend visits provided a web of support for both migrants and their families. It was not uncommon on Friday nights in the 1950s to find the highways flowing south from Akron, Dayton, Cincinnati, Detroit, and Chicago filled with Appalachian migrants heading to West Virginia, Kentucky, and Tennessee. Migrants quipped that the only things taught in mountain schools after World War II were the three Rs—reading, writing, and Route 23, or whatever the local highway to the North was. Steady work and higher wages in the cities soon enabled many young families to acquire new furniture, clothing, and better cars, which they proudly displayed for relatives during their weekend trips home. This in turn encouraged others to get on the "hillbilly highway" to the cities.

A variety of factors motivated individuals to leave Appalachia. Most of the migrants were young, between the ages of eighteen and thirty-five, and while the emigration of single individuals continued, the pressure of rising unemployment after 1950 increased the number of families and children in the migration pool. Young couples were especially drawn to the opportunities for better education, better housing, and better health care for their children, but they also hoped to

find financial security for themselves. Although the majority of migrants lacked high school diplomas, they were often among the more educated and ambitious youth in their communities. Despite having strong emotional ties to family and place, they saw little opportunity for themselves or their children in the depressed mountain economy. Like their parents before them, who had left the farm for the mines and mills of the first industrial boom, many post-World War II migrants expected to return to the mountains after a short period of work in the cities. Even after a decade or more of successful life in the North, southern Appalachian migrants still referred to Appalachia as home.

Often men were the first family members to leave for the city and the first to want to return home. Mountain men had always enjoyed relative freedom in the workplace, whether in the mines, in the woods, or on the farm, so the more disciplined and regimented environment of the factories and the strange, congested, and fast-paced lifestyle of the cities sometimes caused stress, frustration, and other difficulties with adjustment. Some men compensated for their situation by continuing to participate in traditional mountain male activities such as hunting, fishing, drinking, and gathering to tell stories and jokes, whereas others simply abandoned the city and returned home.

Women, on the other hand, often derived greater rewards from migration and were more reluctant to return to the hard life of the mountains. Unlike Gertie Nevels, the heroine of *The Dollmaker* who longed to return to nature and the land, many mountain women found their lives much easier as a result of the modern household appliances available in the city and the relative proximity of stores, schools, and neighbors. Not only did their children have greater opportunities for education and health care, they themselves had chances for employment unavailable in the mountains. For the first time in their lives, some mountain women found a degree of economic independence and security that was unknown in Appalachia.

Adjustment to life in the city, however, was not easy for many migrants. Living conditions varied from the cramped and decaying apartment buildings of the ghettos to the rows of working-class bungalows in industrial districts. New arrivals often crowded together with relatives until they could secure jobs and save enough money to set up housekeeping. Some inner-city landlords refused to rent to "hillbil-

lies," and those who did charged high rents for poor accommodations. In the Uptown slums of Chicago's north side, for example, as many as seventy thousand Appalachians crowded together in deteriorating brick and gray stone apartment buildings that lined streets cluttered with abandoned cars and littered with trash and broken bottles.<sup>24</sup>

One West Virginia reporter described the "hostile world" that awaited mountain families in the Windy City. "Many migrants arrive in Chicago with only a worn out car," he wrote. Needing cash to pay the rent and buy food, they were forced to take jobs as day laborers for agencies that "keep 40 percent of their pay as a fee," and they had little choice but to seek housing in the most dilapidated buildings. A typical unit was home to a family that had recently moved to Chicago to find work: "Their halls, dirty and smelling of urine, are like dimly lit caves. Rotting wooden steps lead to the fourth floor, one bedroom apartment without window screens where a former Kanawha County woman, her husband and five children live." Such apartments, he added, rented for thirty dollars a week and were surrounded by "buildings with their windows boarded up (what miners called Eisenhower curtains)." Drawn to Chicago by the hope for employment, these families found only "an unfriendly world of disappointment."<sup>25</sup>

Those who were fortunate enough to find steady jobs often relocated to working-class neighborhoods near the factories where homes could be bought on a land contract with little money down. These communities were cleaner and less violent and offered a better environment to raise children. In these working-class neighborhoods, mountain migrants could listen to familiar music in hillbilly bars and attend revivals in evangelical churches that had followed their flocks to the North. Some of the middle-class and more educated migrants established formal social clubs that sponsored dinners, dances, and other activities. Usually named for the state from which the migrants had come, as in the cases of the West Virginia Society and the Eastern Kentucky Social Club, these clubs helped to ease assimilation into urban culture while preserving the memory of home.

Appalachian migrants everywhere met with resistance and prejudice from the local population. Pejorative stereotypes of Appalachia as a backward and degenerate place had become part of the national pop-

ular conception of the region since the turn of the century, and these negative images followed mountain migrants to the cities.<sup>26</sup> Urban dwellers were quick to identify the newcomers as "hillbillies," a term that they applied to anyone from the rural South, and they were threatened both by the ever growing numbers of migrants and by their apparent cultural differences. Convinced that Appalachians were ignorant, lazy, unclean, and sometimes immoral, community leaders bemoaned their arrival as "a sore to the city and a plague to themselves" and blamed them for rising crime, congestion, and a host of other urban maladies. "In my opinion they are worse than the colored," complained a Chicago police captain. "They are vicious and knife happy. . . . I can't say this publicly, but you'll never improve the neighborhood until you get rid of them."<sup>27</sup>

Using imagery similar to that applied to other migrant populations, especially African Americans from the Deep South, northerners developed a repertoire of ethnic hillbilly jokes that reflected deep-seated fears and a misunderstanding of mountain culture. Many of the jokes poked fun at the lack of education, sophistication, and resources of mountain migrants; others cruelly implied immorality and ignorance. One popular midwestern story, for example, involved a fundamentalist preacher who had moved to Cincinnati: "Did you know that the old country preacher was arrested? Yes, he was arrested for polluting the Ohio River. . . . He was baptizing hillbillies in the river."<sup>28</sup> Southern Appalachian migrants became known across the Midwest by a number of derogatory labels, including SAMs, hillbillies, snakes, briar hoppers, and ridge runners.

Though black migrants from the South experienced discrimination in part because of race and class, the predominantly white Appalachian migrants suffered discrimination primarily because of cultural differences—or at least what were perceived to be differences—that were rooted in class.<sup>29</sup> Speech patterns, clothing, diet, religious practices, and even the closeness of the Appalachian family seemed to set the migrants apart from other urbanites. Frequent trips back home slowed their assimilation into urban communities and reinforced the image that they were only temporary residents. Indeed, some migrants returned to the mountains as soon as they had earned enough money

in the city to keep them going in the rural area for a few months, only to return again when that money was depleted.<sup>30</sup> Such patterns of movement frustrated landlords and employers alike and contributed to an image of the mountain migrants as irresponsible.

The values and cultural assumptions of many migrants conflicted with the modern definitions of success commonly found among the urban middle class. Describing migrants in Cincinnati in 1956, Roscoe Giffin observed, "There is reason to believe that the way of life of southern mountain people is marked by a strong tendency simply to accept one's environment as it is rather than to strive for mastery over it." This, he added, led to "a lack of strong identification with urban goals and standards of achievement."<sup>31</sup> According to commentators such as Giffin, Appalachian migrants tended to keep to themselves, to distrust public officials and government organizations, and to neglect education. They valued family and kinship ties over work and appeared to be less competitive, less anxious for advancement, and less aggressive than their northern neighbors.<sup>32</sup> "They don't consider work to be the fundamental purpose of their lives," observed one reporter. "They are as indifferent to politics as they are to making money."<sup>33</sup>

Nowhere were these cultural conflicts more apparent than in the schools. Opportunities for formal education were limited in the mountains, and there were few incentives for the children of coal miners to complete school. Consequently, some migrant families placed little value on school attendance and performance. In the mountains, children were given greater freedom to roam and play with friends, but in city streets and schools, such activities led to trouble and delinquency. Appalachian children often lagged behind fellow students in academic achievement and were shy and reticent in the classroom. Many urban teachers had difficulty understanding Appalachian dialects and knew little of mountain culture and heritage, except for popular stereotypes. Students were quick to recognize condescension toward themselves, their families, and their culture. Parents had little experience with bureaucracies and were reluctant to become involved in the schools and in community improvement organizations. It is not surprising that dropout rates were higher among Appalachian students than among other urban groups.<sup>34</sup>

Nevertheless, despite economic and cultural barriers, a majority of migrants eventually made successful transitions to urban life. Those same factors that made them different in the new setting—cultural traditions and strong family ties—also provided strength and support to overcome adversity. Migrants who brought higher levels of education or some technical skills to the city were among the first to achieve stable employment and upward mobility. In time, thousands of fellow migrants followed them into the middle-class suburbs, becoming part of a growing, invisible minority of urban Appalachians. A study of West Virginia migrants in Cleveland in the mid-1960s found more former mountain residents living in the suburbs than in the Appalachian ghetto.<sup>35</sup> Certainly the folks back home in the mountains were conscious of this success, since they continued to leave for the cities in growing numbers.

It was the inner-city ghettos, however, that attracted the attention of journalists and drew the concern of local officials and social welfare professionals to the plight of the Appalachian migrants. As early as the 1950s, some urban governments began to organize special study commissions and to hold workshops to address the problems created by the great migration. In 1954, for example, the Mayor's Friendly Relations Committee and the Social Service Association of Greater Cincinnati sponsored a special workshop that focused on migrants in that city. The workshop was attended by over two hundred social workers, teachers, personnel managers, city officials, and church and civic leaders and featured a lecture on the southern Appalachian people by a sociology professor from Berea College.<sup>36</sup>

Near the end of the decade, the Council of the Southern Mountains (CSM), a Berea-based association of educators and social workers, began to hold workshops in cities across the Midwest to help northern professionals "gain a better understanding of the mountain people and their background." With funding from the Ford Foundation, the council established a network of civic leaders from Chicago, Detroit, Cleveland, Akron, Columbus, Dayton, and Cincinnati who traveled to Berea for a three-week training course and a tour of the region. These efforts not only helped to organize programs to improve the "urban adjustment of southern Appalachian migrants" but increas-

ingly drew national attention to the worsening economic crisis in the mountains.<sup>37</sup>

As larger numbers of families joined the exodus from Appalachia, community leaders, educators, and politicians in the region began to struggle with the loss of population and deteriorating economic conditions. The emigration of young adults that began during the war reached its peak in the 1950s, when more than a million people left the region. Rural communities throughout the mountains experienced population decline, but the losses in central Appalachia were especially severe. Eastern Kentucky suffered a loss of a quarter of a million residents in the 1940s, and West Virginia exceeded this number over the next decade with a net loss of more than 400,000 residents. Together the two states lost 1.2 million people between 1940 and 1960. The losses during the 1950s in Appalachian Kentucky accounted for almost 35 percent of the population in eastern Kentucky. The loss rate in West Virginia was more than 25 percent.<sup>38</sup>

The rates of population decline were even more alarming given the traditionally high birth rates in Appalachia and the expanding population in the rest of the country. Birth rates in the mountains had long exceeded the national average. Throughout most of the first half of the twentieth century, natural population increases had helped to balance emigration, but in 1957 birth rates in southern Appalachia began to decline. By 1960 migration out of the region exceeded the natural increase by more than 12 percent, and in Kentucky the figure was almost 50 percent. Nor was the population decline of the 1950s limited to rural areas, as it had been in the 1940s. Appalachian small towns and growth centers such as Huntington, Charleston, Knoxville, and Asheville also lost population during a decade when other metropolitan areas in the United States were growing and the national population increased by almost 20 percent.<sup>39</sup>

The movement of people out of Appalachia was a symptom of the deeper economic and social problems that had settled over the region in the years since the Depression. The mechanization of coal mining displaced thousands of families in the coalfields, but unemployment, poverty, and welfare dependence became a way of life in communities throughout the region. The decline of farming, for example, pushed

families off the land across most of Appalachia. Mountain agriculture had languished since the turn of the century, when industrialization altered traditional land use practices and local market patterns. After the war, this decline continued at an even more rapid pace. Between 1950 and 1960, half of the farmers and farm laborers in Appalachia left the land. By the end of the decade, only about 6 percent of the mountain population was employed full time in agriculture.<sup>40</sup>

The loss of the farm population in the 1950s completed the region's transformation to public work that had begun at the turn of the century. The number of full-time farmers was drastically reduced as some people fled the region and others searched for part-time work off the farm. With the coming of consumer society and the emergence of national marketing networks, many of the familiar elements of the old family farm were replaced by symbols of the new age. Orchards and beehives, mules and milk cows gave way to store-bought goods, tractors, trucks, and automobiles. The once prominent livestock industry all but disappeared with the elimination of woodlands for pasturage as a result of mining, logging, and absentee land ownership. Now more dependent on row cropping, most mountain farms were unable to compete with larger, flatland farms for national markets.

In 1954 only one in three Appalachian farms had running water and indoor plumbing, but over half had access to an automobile, and 92 percent had electricity. Because the mountain terrain was less conducive to the operation of tractors and other modern farm machinery, only about a third of the farms had tractors. The primary cash crop in many mountain counties was tobacco, which was labor intensive and could be raised on an acre or two of bottomland, but even this crop was dependent on government quotas to maintain market prices. The average southern Appalachian farm at midcentury contained less than eighty-one acres, with only fifteen acres of productive cropland. In the more rugged areas, from southern West Virginia through western North Carolina, the average was less than fifty-five acres.<sup>41</sup>

In some counties the movement off the land in the 1950s was so profound that it almost eliminated farming altogether. Forty counties in eastern Kentucky and West Virginia lost more than 70 percent of their farm population. Leslie County, Kentucky, lost 98 percent of its farmers and was left with only 20 full-time farms at the end of the

decade. Harlan County, Kentucky, with a population of 51,000, had only 112 farmers, a loss of 82 percent. Mingo County, West Virginia, was left with only 32 full-time farmers; McDowell County, West Virginia, with 40; and Logan County, West Virginia, with 66. Even heavily agricultural counties in the Blue Ridge suffered major losses of the farm population. Ashe and Madison counties in North Carolina lost more than 2,000 farms each, and the number of farmers in Swain County was reduced by 80 percent. Carter and Campbell counties in Tennessee each lost about 40 percent of their full-time farms.<sup>42</sup>

Many traditional forms of off-farm employment in Appalachia declined as well during the 1950s, including logging, furniture manufacturing, railroads, and textile production.<sup>43</sup> Although the number of manufacturing establishments increased in northern Alabama and in some metropolitan areas of Georgia and North Carolina, rural Appalachian counties as a whole did not benefit from the expanding national business climate of the Eisenhower years and fell even further behind the nation and the non-Appalachian portions of their states. Eastern Kentucky, for example, failed by a considerable margin to keep pace with manufacturing growth both in Kentucky and in the nation as a whole. Between 1950 and 1955, manufacturing employment increased by almost 20 percent in Kentucky but by only 2 percent in eastern Kentucky. Of the thirty-five counties in the eastern portion of Kentucky, only six employed five hundred persons or more in manufacturing, and more than half of all the manufacturing jobs in the region were located in the industrialized Ashland area.<sup>44</sup> The number of manufacturing establishments in West Virginia increased by only 8 percent in the 1950s, and in southwest Virginia (including the valley counties) by only 15 percent.<sup>45</sup>

As a result of the limited growth of manufacturing in the region and declining employment opportunities in the mines and mills, unemployment increased dramatically throughout Appalachia. Official unemployment rates for the region hovered at almost twice the national average, and in the coalfields rates of three and four times that of the rest of the nation were common. Eastern Kentucky averaged close to 20 percent unemployment throughout the decade, and this did not include the thousands of individuals who had used up their unemployment ben-

efits and simply dropped out of the labor force. Many more worked part time or in jobs not covered by unemployment compensation.

Those who could find jobs often earned low wages and poor benefits. Annual per capita income in Appalachia averaged only \$1,400 in 1960, more than a third lower than the national average, and many rural counties averaged less than \$1,000. In Appalachian Kentucky the average annual per capita income was only \$841. One in three families in Appalachia lived below the national poverty level of \$3,000, in comparison with one in five families nationally. Almost 60 percent of families in Appalachian Kentucky, 42 percent of those in Appalachian Virginia, 40 percent of those in Appalachian North Carolina, and 39 percent of those in Appalachian Tennessee fell below the poverty level.<sup>46</sup>

Low per capita income reflected a labor force that was largely uneducated. Despite decades of industrial development, schools in Appalachia were among the poorest in the nation. Only one in three Appalachians in 1960 over the age of twenty-five had finished high school, and almost 47 percent had less than an eighth-grade education. Only 17 percent in Kentucky had completed high school, 23 percent in Virginia, and 29 percent in North Carolina.<sup>47</sup> Thousands of mountain children, especially in rural districts, were educated in graying, one- or two-room schoolhouses. Many lacked running water, central heat, and indoor toilets. School districts were often the largest employers in rural counties, and the schools became the political fiefdoms of local power brokers. Jobs as teachers, secretaries, and maintenance workers were doled out according to patronage rather than individual qualifications. Teachers were often uncertified, facilities allowed to deteriorate, and books and instructional materials scarce. Per pupil expenditures for education in Appalachia were about half those in the rest of the country.<sup>48</sup> Levies on local property provided the bulk of financial support for the schools, but per capita assessments on property in the mountains averaged 38 percent less than comparable national assessments.<sup>49</sup>

Joblessness, low income, and poor education were reflected in depressed living standards throughout the region. At a time when suburban middle-class families were enjoying new homes with washing

machines, televisions, showers, telephones, and other modern conveniences, many Appalachian families survived in aging houses with few amenities in rural areas or deteriorating company towns. At least 26 percent of Appalachian homes surveyed in the 1960 census needed "major repairs," and 7.5 percent were "in such a dilapidated condition that they endangered the health and safety of the families," more than one and a half times the national average. The best housing conditions were to be found in the metropolitan areas of the region, and the worst in the rural areas and neglected coal camps. Here almost one out of four homes had basic deficiencies in construction and plumbing, and one out of ten was found to be dilapidated. Almost 60 percent of the housing units in eastern Kentucky lacked indoor plumbing, 57 percent in Appalachian Virginia, and nearly 50 percent in western North Carolina. The median value of such housing was 27.7 percent below the national average.<sup>50</sup>

At the turn of the century, mountain families had traded the simple but relatively independent life of the family farm for dependence on a wage income in mines, mill villages, and other forms of public work. When those jobs disappeared, that dependence shifted to the state and federal governments as public welfare programs stepped in to prevent starvation and destitution. Federal relief programs of one kind or another supported almost half of the mountain population in the 1930s, but the deepening economic crisis of the 1950s further expanded welfare rolls and altered the fundamental character of dependence. During the Depression, public relief was viewed as a temporary measure that provided support until jobs opened again in the private sector. Except for Social Security, which extended benefits to the aged and disabled, the majority of New Deal relief strategies were work-related programs designed to provide assistance in return for labor on public projects. Most of these programs disappeared during the war, as war mobilization and an expanding national economy created new jobs.

By the 1950s, however, after three decades of declining job opportunities, many Appalachian families lost hope of ever finding work in their own communities, and an increasing number reluctantly turned to public assistance for survival. State governments attempted to respond to rising joblessness in their mountain counties by broadening

qualifications for state-administered programs for the poor. Thousands of desperate families applied for disability benefits and Aid to Families with Dependent Children. In the coalfields retired union miners and their widows welcomed small pensions from the UMWA Health and Retirement Funds, while nonunion and middle-aged miners, unable to find employment anywhere, submitted disability claims for old injuries or new illnesses. On the first of each month, county seats and rural commodity distribution centers bustled with long lines of haggard men waiting to receive surplus food. A family of two adults and one or more children with a monthly income of \$130 or less could receive twenty pounds of flour, ten pounds of cornmeal, nine pounds of rice, four pounds of butter, and ten pounds of cheese on which to sustain themselves.<sup>51</sup>

The new welfare system became a way of life for some mountain residents, who felt powerless to change their situation. A few justified their dependence by arguing that they had earned the benefits during earlier working years and were now entitled to the grants. Others were ashamed to be on the dole but believed that they had no other choice. Although government programs and handouts never reached most of the region's poor, the rush to claim public assistance gave rise to the image of the "welfare malingerer" who searched for ways to falsify symptoms of illness to qualify for assistance. But most welfare recipients were desperate, and they saw the government grants as just another way to survive. "Nothing in the history of the mountain people," wrote eastern Kentucky lawyer and historian Harry Caudill, "had conditioned them to receive such grants with gratitude or to use them with restraint. In a land in which huge corporations and their friends on judicial bench and in legislative hall had reduced the ordinary citizen to a status little better than that of a mere tenant-by-sufferance in his own home, the mountaineer had nurtured a cynicism toward government at all levels. The handouts were speedily recognized as a lode from which dollars could be mined more easily than from any coal seam."<sup>52</sup>

It was perhaps inevitable that such a system would feed the already corrupt and feudal political structure in the mountains. Poor people easily fell victim to local politicians who controlled the distribution of commodities and monthly welfare checks. Mountain politics had al-

ways been paternalistic and family oriented, and when the big coal and timber corporations injected greater economic self-interest into the system, the old ways simply blended with the new political order. Years of life in company towns left many mountain residents dependent on the companies for their income and housing and thus subservient to company interests at the polls. As the outside corporations abandoned direct involvement in local politics and lost interest in the company towns, power in these feudal counties reverted to local families and to the political machines that sustained them. New Deal work programs were a boon to the local elite, who used federal relief programs to ensure their control over county politics. Depression-era politicians throughout the region held out the promise of a public job in return for the votes of the applicant and his or her kin.

The expansion of welfare programs in the 1950s revived this powerful patronage system and helped to broaden the power of the political machines. Artful use of public funds could control not only who received food and income for their families but which truck mine operator received a new road up the hollow to his mine and who was employed as a schoolteacher, bus driver, cook, or janitor in the local school. With such economic power, the politicians increased their influence over local merchants, automobile dealers, contractors, and other small-business owners, creating a network of political and economic interests where a few individuals controlled the meager resources available to the entire community. In rural counties where a single family gained control of the county school board and the county government, domination was virtually complete.

The mountain political structure fed on the poverty and dependent relationships that had emerged in the region and choked efforts at long-range planning and community development. Civic participation was low and usually limited to the voting process itself. Especially in the coalfields, mountain residents had little experience in public decision making or in managing public affairs. When the large corporations withdrew from direct involvement in local matters—except to maintain low taxes on their land and mineral resources—local leaders had little incentive to change existing economic and political relationships. As long as their decisions did not threaten the interests of the external landlords, and in the absence of any opposition, the local

machines were able to use public funds and programs to perpetuate their power.

Everywhere in the region, the intertwining of economic self-interest and political influence worked to maintain the status quo. This relationship was perhaps best revealed in the connections among mountain professionals, especially physicians, bankers, land developers, and lawyers. Mountain physicians, for example, had long held influential positions in local politics and often were among the principal investors in local land development efforts. As pressures mounted to certify more and more unemployed men for disability benefits, some physicians were not averse to manipulating public assistance for their own political ends. The combination of a good word from the county judge executive and a certification of disability from the local doctor was almost certain to convince the Department of Social Welfare to approve a monthly check and to obligate the claimant to the local political machine as well. In a similar way, bankers benefited from their control over local credit and sometimes used their influence over home mortgages, automobile loans, and small-business loans to influence local politics. Not only did bankers manage the assets that passed through the county from the development of area resources, but they were a primary source of capital for new business development, including new mining and logging enterprises.

Often at the center of this feudal political system were the land developers, the real estate brokers, and the local lawyers who served as agents for absentee developers and who managed litigation, land and mineral titles, and other legal matters. Indigenous land developers had served as midwives to the industrialization of the region at the turn of the century by promoting and selling local timber and mineral resources to outside developers, and after World War II they reasserted their influence over the local economy. Purchasing tax-delinquent properties and buying blocks of coal camp housing from coal companies for resale to individual buyers, these mountain elite were intimately involved with county-wide political decisions, especially those affecting roads, public utilities, and taxation. Many of the most powerful land brokers were also engaged in banking and politics, and in the coalfields, they were often the force behind the expansion of new truck mines and small surface mining operations after 1950. Native

coal operators controlled the political process in most coalfield counties. In Harlan County, Kentucky, for example, the secretary of the coal operators' association was the chair of the county Republican committee, while the president of the association was the head of the county Democratic committee.<sup>53</sup> These local entrepreneurs accumulated small fortunes in counties where the majority of their neighbors lived below the poverty level, and they were not opposed to using the political system to maintain their good fortune.<sup>54</sup>

This political and economic system formed the backdrop for the emergence of a new form of mining enterprise in the 1950s that would leave a deep and permanent mark on the politics and landscape of the region. Surface mining, or "strip" mining, as it was pejoratively called, was not feasible on a large scale in Appalachia before the war, but the development of diesel-powered earth-moving equipment, giant screw-like augers, and more powerful explosives made it possible to extract great quantities of coal from outside the mountain rather than penetrating the seam using traditional, deep mining methods. A local entrepreneur, backed by a loan from a supportive banker, could open a seam of coal with minimal investment and only a fraction of the labor costs of a deep mine. After paying the cost of trucking the coal to a nearby tippie, the strip operator could sell his product more cheaply than that produced by underground mining and, within a year or two, could pocket millions of dollars in profit.

During the 1950s, hundreds of small coal operators and a few larger companies cut into the outcroppings of mountainside coal seams utilizing the new technology. In flat country, surface mining simply involved making a series of parallel cuts into the earth to uncover the coal and dumping the surface dirt and rock back into the previous cut as the process moved along. In the mountains, however, surface miners were forced to follow the contour of the coal seam as it wound around the mountainside. Contour mining removed the soil and rock from above the seam, gauging a shelf around the hillside to get at the coal below. This process not only left a forty- to ninety-foot "highwall" exposed on the inside of the cut but pushed most of the dirt, rock, and tree stumps from above the coal over the hillsides along the outer edges of the seam. This "overburden" created a loose, unstable mass that oozed down the hillside and sometimes broke loose, roaring through

the hollow with the first heavy rains and destroying everything in its path. The coal left in the seam underneath the highwall could be further exploited by using giant augers to drill horizontally into the hillside at regular intervals, leaving the mountain ringed by a series of ledges and holes. A seam that was located near the top of the ridge could be reached by removing the crest of the mountain, decapitating it and creating a huge mesa of barren, flat land.

Surface mining not only added to the competition in an already overexpanded industry, further stimulating mechanization and unemployment in the deep mines, but it left the mountains disfigured and the environment altered in ways previously unimagined in the region. The practice of contour mining cut into the hillsides ugly scars that ran for miles along the ridges. Mountaintop removal leveled thousands of acres, filling in the hollows between the hills and creating vast, inaccessible stretches of barren land. In a region once known for the purity of its water, surface mining altered water tables, polluted nearby creeks and streams, and contaminated local wells. When it rained, sulfur in the exposed coal produced sulfuric acid that filtered into the creeks, killing the fish and most plant life. "Gob piles" of mine waste clung to the hillsides, and huge rocks and tree stumps loosed by the mining process were sometimes sent flying down the hillside, destroying fields and gardens below and occasionally crashing through residences and barns.

Mining companies were required by law to replace the soil and to replant the ravaged hillsides, but small operators seldom took the time and expense to reclaim the land. Even where meager efforts at reclamation were undertaken, the absence of topsoil and the composition of the fill itself meant that little vegetation grew on the disturbed site. Given the need for jobs and the political power of the coal industry, state governments were slow to enforce existing regulations. As a result, the heavy mountain rains washed acres of rocks and topsoil into the streams each year, choking and silting over rivers and flooding the farms and communities below. One study by the U.S. Geological Survey found that in strip-mined areas, the rains washed away 27,000 tons of earth per square mile each year, in contrast to 1,900 tons in areas where strip mining had not occurred.<sup>55</sup>

The social cost of the new industry was as appalling as the cost to the land itself. In much of Appalachia, mineral rights had been severed



from surface rights by the actions of mineral buyers at the turn of the century. For as little as twenty-five cents per acre, hundreds of thousands of acres of coal were sold to absentee land companies, whose intricate deeds granted them use of the timber on the surface for mining purposes and access to the coal at some future date. The ownership and use of the surface land remained with the mountain farm family. These "broad form" deeds, as they were known in eastern Kentucky, effectively transferred to the land company all of the mineral wealth and the right to remove it by whatever means necessary, leaving the original owners and their descendants the semblance of landownership and the responsibility for paying the taxes.<sup>56</sup>

With the advent of surface mining in the 1950s, however, these old deeds took on new meaning as the mining companies sought access to their mineral property without regard to the rights of the surface owners. Roads were cut across pastures, forests devastated, fields ruined, and water supplies polluted to get at the coal, and the state courts upheld the right of the miners to remove the coal "by any means convenient or necessary."<sup>57</sup> Increasingly, farm families found that they had little control over their own land and that their meager hopes for subsistence on it were destroyed. Many believed that they had no recourse but to abandon the farmstead to the mining company and to join the growing numbers of landless migrants and unemployed workers that roamed the region or left the mountains entirely.

Ironically, the human and environmental destruction levied on Appalachia by surface mining was fed by a public agency created during the Depression to conserve the land and to promote economic recovery. The energy development policies of the TVA in the 1950s spurred demand for cheaper coal at a time when surface-mined coal was just beginning to enter the market. The TVA was established in 1933 to coordinate flood control, reforestation, and economic development along the Tennessee River and its tributaries, but by World War II the agency had moved away from many of its initial efforts at human development, conservation, and regional planning in favor of a policy that concentrated on the generation of cheap electric power for domestic use and industrial expansion. Anticipating future power demands in growing urban centers along the river and pressed by the cold war concerns of the Atomic Energy Commission for more power

to fuel the uranium enrichment plants at Oak Ridge and Paducah, the TVA constructed seven of the world's largest coal-fired power plants between 1949 and 1953 and created a huge market for cheap, locally produced coal.

The generation of electricity from coal rather than from hydroelectric facilities on TVA dams reflected the public utility's commitment to cheap power as the centerpiece of its survival strategy in the conservative political environment of the 1950s. Armed with the development of new technologies that allowed for the efficient burning of low-grade coal, the TVA turned to lower-quality, surface-mined coal to fire its new generators. Although dirtier and often higher in sulfur content, surface-mined coal from Appalachia and western Kentucky could be delivered to the TVA furnaces at a fraction of the cost of deep-mined coal, and agency buyers quickly signed long-term contracts with the small, nonunion, and independent coal firms that had begun to strip the hills. The TVA's cheap-power policy inspired other power companies to modernize their furnaces and to shift to the burning of low-cost coal rather than other fuels. This trend not only increased the amount of sulfur dioxide in the atmosphere, adding to future environmental problems from acid rain, but effectively revolutionized the steam coal market and further spurred the production of surface-mined coal throughout central Appalachia. By the end of the decade, the TVA itself had purchased the mining rights to almost 100,000 acres of coal in eastern Kentucky and east Tennessee, and power plants and other consumers across the Midwest had turned to burning cheap, surface-mined fuel.<sup>58</sup> Thus the agency that had been created to conserve the soil and improve quality of life through cooperative regional planning contributed both directly and indirectly to the further desolation of the mountains.

Evidence of the tragic consequences of the TVA's cheap-power policy came in 1957, when disastrous floods swept the central Appalachian coalfields. Following a week of almost steady rain, streams in southern West Virginia, eastern Kentucky, and southwest Virginia roared out of their banks on January 29–30, 1957, inundating houses, stores, churches, and schools and killing fourteen people. As much as three inches of rain fell on the area in a twenty-four-hour period. Damage was estimated in the millions of dollars, and President Eisenhower

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declared the region a federal disaster area. The town of Pound, Virginia, was overwhelmed by twenty feet of water, and in the cities of Pikeville and Hazard, Kentucky, water reached the ceilings of Main Street stores. Rescue boats sailed over the tops of city streetlights. Rural roads were washed away, and deposits of sediment and piles of rocks and splintered trees ruined bottomland fields.<sup>59</sup>

The mountains had witnessed winter and spring "tides" before, but never with the destruction and loss of life of the 1957 floods. Strip mining and logging had ravaged much of the countryside in the most severely devastated counties, and now there was little vegetation on the hillsides to absorb the water from heavy rains. Surface mining, for example, had shredded tens of thousands of acres of land in Buchanan County, Virginia. "A bird's-eye view of it," wrote Harry Caudill, "reveals marooned and isolated farmhouses perched disconsolately on high pillars of dirt and stone. Towering high walls make access to them impossible. Much of the county's total land surface has been stripped of vegetation and reduced to jumbles of stone and gullying spoil-banks."<sup>60</sup> Similar conditions existed in neighboring Wise County, Virginia, and Harlan, Letcher, Perry, and Pike counties in Kentucky. A subsequent assessment of the floods by the U.S. Forest Service blamed "poor logging practices" and the "effect of strip-mining" for the increased erosion and sedimentation that had caused the streams to clog and to "have less capacity to carry runoff." The effects of strip mining "were clearly evident during and after the storm," and in the future, the report warned, "the conditions of the area will continue to get worse."<sup>61</sup>

The winter floods of 1957 brought a growing clamor for solutions to the human and environmental tragedies in Appalachia. Journalists, educators, and state and local politicians had called for action to alleviate the economic plight of the region for years, but there was little consensus on the causes of Appalachia's poverty or on the resolution of its complex problems. For some, the region's "backwardness" was a result of geographic isolation and insufficient development of modern patterns of transportation and industry. For others, the problem lay in the culture of the mountain people themselves, a culture, they argued, that preserved anachronistic values and prevented people from lifting