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Dan Wheelman and Molly Andrews • Photo by Terry Shapiro



Fire on the Mountain

MAR 31 - APR 30 • STAGE THEATRE

*“If you ever get this old coal dust
in your blood, you’re just gonna be
plain old coal miner as long
as you live. It’s a habit—
sort of like chewin’ tobacco.”*

—Alan Lomax
Folk Songs of North America

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*“A hardworking miner/ the dangers are great
And many while working/ have met their sad fate.”*

—“Hard Working Miner,” *Fire on the Mountain*

S Y N O P S I S

From a picture of a young boy covered with coal dust to the defiant shouts of union mine workers, *Fire on the Mountain* is a portrait of the lives of coal workers in Appalachia from 1920 to about 1940. Through song and stories, we learn about company stores, miners’ mules, mine disasters, black lung disease and the fight to unionize for better wages and working conditions. Though the miner’s life was grim, a sense of love and humor flows through the bleakest of scenes.

Coal Mining Vocabulary

AFTER DAMP The gasses resulting from underground combustion, normally carbon monoxide, but a loose term implying any fatal gas in a mine after an explosion of fire.

BANK AND BANKHEAD The building at the entrance to a mine into which the coal boxes are drawn and dumped into the mine screens, and from there to railway; the term is loosely described as all the surface buildings.

BOOTLEG COAL The mining and/or selling of coal from an area not owned by the miner or without the owner's permission.

BUTTY A miner's working partner (also buddy).

CREEP A crush in which pillars are forced down into the floor, or up into the roof of a mine.

DATAL Day wage work, minimum wage.

DEADWORK Work for which the miner is not paid.

CRIBBING A method of denying miners their proper pay. Workers were paid based on the number of tons mined, such as 2,000 pounds. However, a car could be altered to hold more coal than the specified amount such as 2,500 pounds, but the miner was only paid for 2,000.

LOADER A miner's assistant who loads coal into boxes, and generally assists the miner at the face.

OPERATOR The person, company, corporation working a mine or the individual at the controls of a machine.

OVERMAN An underground official ranking below underground manager, in charge of a mine section or, in some circumstances, in charge of a whole mine, during the overmen's shift.

PIECE CAN The underground workman's lunch container, usually made from sheet metal, with a tea can made from the same material.

REDNECK A reference to miners who wore red bandanas around their necks during a strike.

TIPPLE A place where coal cars were unloaded by tipping them.

TRACKMAN A workman who keeps mine tracks in repair.

TRAPPER BOY A boy stationed at an underground door to open and close it when boxes pass, and thus control the air current.

Coal Mining 101

*“Down in a coal mine underneath the ground,
There a gleam of sunshine is never to be found.
Digging dusky diamonds all the season round,
Down in the coal mine, underneath the ground.”*

—“Down in the Coal Mine.” 1.

Underground (or deep) mining supplied the United States with 65% of its coal in the early 20th century. There are several types of underground mines, but the three most common are (1) shaft mines, (2) draft mines and (3) slope mines.

Shaft mines reach coal beds that lie far below the earth’s surface. A hole is dug straight down to the coal; the miners then dig horizontal entries through the seams of coal. Miners, equipment and coal are carried between the seams and the surface by an elevator system. Separate shafts are dug to provide ventilation for the working rooms that can average 260 feet below ground.

Draft mines are used to reach coal beds in hillsides. The entrance is located where the coal is exposed on the hillside and the tunnel is dug through the coal bed.

Slope mines are also used to reach the coal in hilly areas. A sloping tunnel through the ground is opened by miners to the coal bed level; then the miners and machines are moved in and out of the mine by locomotives on steel tracks. In earlier days these cars were manually pushed or pulled; later, the cars were operated electrically.

Within the mine, men worked in teams of two, three or four. They entered one of the tunnels or “gangways” that extended from the shaft carrying all the equipment they needed for a day’s work: pick, shovel, bar, drill, powder, fuses, ax and lumber. When the miners reached the room to which they were assigned, they began their labor with the only light coming from the lamps attached to their caps. After testing the mine roof for loose or hanging rocks, the miners put up props to further secure it. Next began

the drilling of holes for explosives. The fuse and blasting caps usually “consisted of a central core of fine-grained gunpowder around which threads of jute, hemp or cotton were wrapped and made up in spools....” 2. At no time in the history of mining was the “firing” of the explosives a safe or easy job.

After the charge was fired, the laborers broke up the blasted coal, separating it from the rock and refuse. The chunks were then loaded into a “buggy” or car which was pulled by mule or man through the gangway to the shaft where it was lifted to the surface.

*“Come gentlemen all and I’ll soon let you know
What hardships the miners they do undergo.
There’s none but the sailor on earth to be found
Suffers hardships like miners that work
underground.”*

—“The Miner’s Life.” 3.

Lloyd, A. L., ed. *Come All Ye Bold Miners*. London: Lawrence and Wishart Ltd., 1952.

Miller, Donald L. and Sharpless, Richard E. *The Kingdom of Coal*. Philadelphia: University of Pennsylvania Press, 1985.

World Book Encyclopedia. Vol. 4. Chicago: Field Enterprise Educational Corporation, 1972.

1. Lloyd, p. 26.
2. Miller and Sharpless, p. 94.
3. Lloyd, p. 22.

Child Labor in the Mines

Nothing could restrain us from the mines. To tend door, pick slate and to perch on the hurricane deck of a sad-eyed mule and crack a whip, was to us the pinnacle of human ambition.

—S. M. Sexton, 1.

One of the problems in the early coal fields was child labor. Even though they were very young, many boys grew up helping their fathers in the mines. Child labor laws decreed a child must be at least 14 years old to work, but coal companies usually ignored such laws. In West Virginia all that was needed by an underage boy was an affidavit signed by his parents; no proof of age was needed. But the blame for child labor violations did not rest with just the coal companies. Sometimes fathers believed their sons did not need an education because the mine would teach them all they needed to know. Thus, by the turn of the century, approximately one-sixth of the mining force was under legal age.

In the coal fields little boys, ages four, five and six, did comparatively light work such as rolling broken coal into a pile, cleaning the floor of waste material and running errands. As part of his apprenticeship, a boy learned to make his way in the darkness of the mine, to handle his light cautiously, to cope with rats and to use miners' tools. "By the time a lad reached 16, he had mastered the mining craft, had become inured to its hardships, and

was entitled to a full turn with the rest of the miners." 2.

Several tasks were performed by young boys. Tending the door or "trapping" was one of them. The small boys sat all day in the dark passages, ready to open and shut the trap doors regulating the ventilation of the mine or to allow coal cars and miners to pass through. Another job was "spragging." In the early days, coal cars had no brakes and the only way to stop a run of cars flying down a grade was by thrusting a sprag (a short round piece of hard wood tapered at each end) between the spokes of the mine car wheels. "Spraggers" frequently suffered loss of fingers or a hand and sometimes were run over by swiftly moving cars. Boys also pushed loaded cars by hand, threw switches and drove mules. The "mule skimmers" were the *crème de la crème* among young mine workers. Though still under 18, they were more experienced and hardened and became "the king of the world" wherever boys gathered. They drank, smoked and chewed tobacco with the older men and acquired a picturesque vocabulary of swear words which were only understood by their mules. They cracked their long whips ostentatiously to impress the younger boys with their importance. And they were important, "for theirs was the responsibility of transporting the raw coal from the miners' rooms to the tipples." 3.

Mine workers of the 15 to 24 year age group had twice the death rate of workers of the same age in other

occupations in the United States. In addition, long hours of strenuous physical labor in a virtual dungeon stunted the growth of bodies still in their formative years. Their health was further impaired in an atmosphere of limited oxygen tainted with smoke, gases and the breathing of men and mules. The foundation was laid for "miners' asthma" (later known as black lung disease). And the psychological effect of young boys being thrown into an adult world before their minds or bodies had fully developed has never been measured.

*"It's early in the morning
we rise at five o'clock
And the little slaves come to the
door to knock, knock, knock.
Come, my little washer lad,
come let's away,
It's very hard to work
for fourpence a day."*

—"Fourpence a Day". 4.

Korson, George. *Coal Dust on the Fiddle*. Philadelphia: University of Pennsylvania Press, 1943.

Lloyd, A. L., ed. *Come All Ye Bold Miners*. London: Lawrence and Wishart Ltd., 1952.

Sigety, Blaine. *Living in the Coal Camps in the 1920's*. file://C:/My Documents/

1. Korson, p. 144.

2. Korson, p. 146.

3. Korson, p. 148.

4. Lloyd, p. 66.

Black Lung Disease

“Coal dust everywhere, every stop sends it up to the eyes and nostrils in choking clouds. Every wind threshes it across the prospect....”

—*Bitter Wages* by Joseph A. Page and Mary-Win O’Brien

Black lung is a legal term describing man-made occupational lung diseases that are contacted by prolonged breathing of coal-mine dust. Call it miner’s asthma, silicosis, coal workers’ pneumoconiosis—they are all dust-related diseases with the same symptoms. Spitting, coughing and breathlessness are characteristics of the disease which was first discovered in 1822 and dubbed “miner’s asthma.” Later, silicosis became known as the disease producing breathlessness in miners who had worked where silica was found in the coal-mine dust.

While black “spittle” and black pigmentation of lungs were observed in European coal miners during the 17th and 18th centuries, it was not until 1831 that the term “black lung” was used for the first time to describe the lungs of a Scottish coal miner. From then until the end of the 19th century, coal-mine dust was generally acknowledged in Europe to be the cause of black lungs and shortness of breath which occurred among coal miners.

In 1942 British investigators used the term coal workers’ pneumoconiosis to identify a type of dust disease observed in coal miners. The following year this disease became entitled to compensation in the United Kingdom because, like all occupational maladies, black lung is man-made and can be prevented.

Unlike American researchers, British investigators continued their concern for diseases associated with coal-mine dust. The British Medical Research Council, an agency similar to the United States Public Health Service, initiated a comprehensive study of chronic pulmonary disease in Welsh coal miners in 1937. The first report in 1942 identified a “new” dust disease that investigators called coal workers’ pneumoconiosis; the following year this disease became compensable. Countless reports on this disease appeared in British medical journals, but relatively few appeared in the United States before 1967. Despite five major medical conferences beginning in 1952 and held in West Virginia, the disease was not widely recognized in this country.

Efforts were made by the UMWA to secure corrective legislation and compensation for sick mine workers, but the states’ legislatures and Congress did little. In the absence of compensation coverage for medical expenses, the UMWA Welfare and Retirement Fund provided payment for the diagnosis, treatment and rehabilitation of miners afflicted with this preventable disease. Millions of dollars were spent on disabled miners who had severe, long-lasting respiratory infections; some were so ill they required hospitalization for two or three weeks several times every year.

On November 22, 1968, the nation witnessed a devastating coal-mine explosion at Farmington, West Virginia. This was the first time a major coal-mine disaster was seen on television and the public reaction to the death of 78 miners was immediate outrage. Not only was there a clamor for federal health and safety laws, but also the need to eliminate the

coal dust diseases that were equally destructive.

Finally, in 1969, the United States Congress ordered black lung to be eradicated from the coal industry. “Today, over three decades later, it is estimated that 1500 former coal miners die of black lung each year, the equivalent of the Titanic going down in the nation’s coal fields.”² However, unlike the sensational news coverage allotted the great ship, black lung victims die an agonizing death in isolated rural communities away from the spotlight.

In addition to ordering the eradication of this man-made disease in 1969, Congress also established the black lung benefits program to compensate its victims. In 1977, the law was amended to make the coal companies directly responsible for compensations and medical costs, including periodic chest X-ray examinations of working miners.

*“Coal dust has almost killed me,
It’s turned me out in the rain.
Dust has settled on my lungs
And causes me constant pain.”*

—“Drill Man’s Blues,”
Fire on the Mountain

Page, Joseph A. and O’Brien, Mary-Win.
Bitter Wages. New York: Grossman
Publishers, 1973.

www.UMWA.org. “Black Lung.”

1. Page and O’Brien, p. 15.
2. www.UMWA.org.

A Brief History of The United Mine Workers Association

“Before the union you got one day older and deeper in debt. If it wasn’t for the union, it would still be like 1931 here. It would just be slave labor. Yessir, the union made this here country.”

—*Coaltown Revisited* by Bill Peterson

The United Mine Workers’ Association or UMWA was founded in Columbus, Ohio in 1890 by the merger of Knights of Labor Trade Assembly No. 135 and the National Progressive Union of Miners and Mine Laborers. The constitution adopted by the delegates to the first UMWA convention barred discrimination based on race, religion or national origin. The founding fathers of the UMWA clearly recognized the destructive power of discrimination at a time when racism and ethnic discrimination were accepted facts in some parts of American society. The delegates also called for miners to obtain a fair share of the wealth they created “fully compatible with the dangers of our calling.”² In addition, the delegates pledged to use honorable means to maintain peace between miners and employers using arbitration and conciliation unless strikes became necessary.

Throughout its history the UMWA has provided leadership to the American labor movement. Among its leaders were John L. Lewis, Phil Murray, Bill Green, William B. Wilson, John Mitchell and Mary Harres “Mother” Jones. These leaders recruited organizers who fanned out across the country in 1933 to unionize all coal miners after passage of the National Industrial Recovery Act.

The law granted workers the right to form unions and bargain collectively with their employers. After organizing the nation’s coal fields, the miners turned their attention to the mass production industries, such as steel and automobiles. The UMWA’s influence helped found the American Federation of Labor (AFL) and was the driving force behind the creation of the Congress of Industrial Organizations (CIO).

The history of the UMWA is full of legendary and often tragic names. The Molly Maguires; the Lattimer Massacre and the Ludlow Massacre; Matewan and the Battle of Blair Mountain; Paint Creek, Cabin Creek and Buffalo Creek are some

of the legendary stories that have been handed down in the oral history of mining families.

It took courage to join the UMWA because the coal companies were dead set against unionization. Yet hundreds joined because the miners had little choice. The coal companies held an almost feudal stronghold on their lives and a union was their only hope.

Despite the threat of physical harm and economic ruin, miners have constantly struggled against great odds to achieve their goals: the eight hour day in 1898, collective bargaining rights in 1933, health and retirement benefits in 1946, and health and safety protections in 1969. A 1977 Presidential Commission found that the UMWA Fund had allowed miners to succeed in obtaining a quality of health care comparable to many sectors of the industrial population. Today, the UMWA continues its primary role of speaking out on behalf of American coal miners. But it also has taken on an international role by working to end apartheid in South Africa and by helping workers in the former Soviet Union and developing nations form democratic labor unions.

*“Union miners stand together/
Heed no operators’ tale;
Keep your hand upon the dollar/
And your eyes upon the scales.”*

—“Miner’s Lifeguard.”³

Korson, George. *Coal Dust on the Fiddle*. Philadelphia: University of Pennsylvania Press, 1943.

Peterson, Bill. *Coaltown Revisited*. Chicago: Henry Regnery Co., 1972.

www.UMWA.org

1. Peterson, p. 36.
2. UMWA website.
3. Korson, p. 414.

The Company Store

*“The lot of the miners at best is quite hard,
We work for good money, get paid with a card;
We scarcely can live, and not a cent more,
Since we’re paid off in checks on
the company store.”*

—“The Company Store.”¹

A coal company provided not only a job but a unique way of life for Appalachian miners and their families. Since most of the mines were located too far from established towns, the coal companies built their own towns with inexpensive homes, a company store, a church and some recreational facilities. Because of the need for daily supplies from the company store, the operators devised a simplified method of book-keeping using coal scrip. The earliest scrip was tokens dating back to about 1883, but it took other forms “such as pasteboard, coupon books, paper bills called shinplasters, brass checks and metal discs with holes in them.”² The use of coal company scrip eliminated the need for a company to keep a large amount of currency on hand. Each mine had its own scrip symbols on the tokens or bills which could only be used at that particular company store.

Miners resented the company store for three reasons: prices were much higher than those charged by independent retail stores; their grocery and supply bills were subtracted from their earnings even before they received their pay, and trading was compulsory. The miner’s pride was injured because he knew he was being robbed in the “pluck me.” his term for the company store. Responsibility for the family budget was shifted from the housewife, where it customarily was in most households, to the company store manager. Moreover, the debts that a miner accrued in the store bound him securely to his employers as workers were bound to feudal barons in medieval times.

Deductions made from wages, or “check-offs,” kept the mine workers in perpetual indebtedness. There were two kinds of deductions: those for occupational supplies and services such as charges for blacksmithing, powder, dynamite, electric exploders, fuses, caps, carbide lamps and machine oil. The second deduction was for household goods, including household coal, house rent, water, electricity, the company

doctor and hospitalization, the bathhouse and school taxes. These cuts were a perennial source of friction between the mine workers and company operators, the men frequently charging their employers with profiteering at their expense. For this reason (and many others), many mine workers’ wives planted vegetable gardens and kept a pig so some food could be put on the table when times were lean.

If a miner reached the debt limit, he was termed to be “scrip-bound”; he could not draw any more scrip and his credit was stopped. The only way to stave off starvation was to get a special advance order from the mine superintendent. But only those whom the company regarded as “right”—those who had not joined the union—had a claim on the super’s money. Sometimes a miner needed cash to obtain goods not supplied in the company store. He would have to resort to cashing his scrip at an independent store in town at a discount of from ten to 30 cents on the dollar.

The company store vanished from the coal fields of the North and Middle West, but hung on the longest in the Appalachian region, an area that holds fast to tradition.

*“You load 16 tons and what do you get?
Another day older and deeper in debt.
St. Peter, don’t you call me ‘cause I can’t go,
I owe my soul to the company sto’.”*

—“Sixteen Tons”, Merle Travis, 1947.³

http://www.dep.state.pa.us/dep/deputate/minres/dms/website/papers/wv_historyhtm.

Korson, George. *Coal Dust on the Fiddle*. Philadelphia: University of Pennsylvania Press, 1943.

Lomax, Alan. *The Folk Songs of North America*. Garden City, NY: Doubleday and Co., 1975.

1. Korson, p. 78.
2. Korson, p. 72.
3. Lomax, p. 294.

Strip Mining

“The hills of Appalachia are a-bleedin’. Them strip miners are killin’ these ol’ hills. They done cut the tops o’ the mountains clean off.”

—*Fire on the Mountain*

Strip mining is a process for reaching coal from the surface instead of from underground. It can be done where coal seams are close to the surface by removing the overlying earth and rock and then exploding the coal seam into smaller pieces. The coarser waste rock was piled up next to the mined area and the finer coal wastes were discharged into a holding pond behind the heaps of waste rock.

Mountaintop mining is a variant of strip mining and is common in West Virginia, where the valleys and the streams adjacent to mining operations serve as repositories for the waste materials dumped there. In 1957, the Buffalo Mining Company in Logan County, West Virginia, began using the Buffalo Creek as a repository for waste material. Over the succeeding years, the company made use of additional sites farther upstream, turning the creek into “a series of dams behind each of which was a pool of black waste slurry.”¹ Though West Virginia mine officials had been warned by the United States Department of the Interior about the instability of the Buffalo Creek dams, nothing was done to make them safer.

During the rainy winter of 1972, the waste pools behind the dams began to rise. On February 26, one big dam on the upper reaches of Buffalo Creek gave way, taking all the others with it. One hundred thirty million gallons of water and 35 million cubic feet of waste materials roared down the valley at 30 miles an hour. A 25-foot high tidal wave of water, rock and soil descended on the communities in the valley. There was no time to warn either residents or local authorities; the result was 1,000 homes lost, leaving 6,000 people homeless and 125 dead. It took several years to rebuild the communities along

Buffalo Creek at a cost to the state of 100 million dollars.

Environmentalists have long opposed strip mining because it destroys large tracts of land. After this tragedy, government and local organizations took steps to ensure that waste material produced by mining operations must be properly disposed of. In addition, the Surface Mining Control and Reclamation Act of 1977 was passed. The purpose of the act is to ensure that all mined surfaces and operations are reclaimed “to a condition that is at least as productive as it was before the mining activities.”²

Gunn, Angus M. *Unnatural Disasters*. Westport, CT: Greenwood Press, 2003.

www.epa.gov/region03/mtntop/pdf/mining_reclaim.pdf

1. Gunn, p. 8.
2. EPA, p. 2.

Mining Disasters

*“Farewell, our dear wives and our children
Farewell, our old comrades as well.
Don’t send your sons
down the dark dreary pit;
They’ll be damned like the sinners in Hell.”*

—“*The Gresford Disaster.*” 1.

The term “mine disaster” historically has been applied to mine accidents claiming five or more lives. In this sense, mine disasters were once terribly common. For instance, the single year of 1907 saw 18 coal-mine disasters; between 1901-1925 there were 305.

The three worst coal mine disasters in US history occurred between 1907 and 1913. The worst calamity was Monogah mines number 6 and 8 in Monogah, West Virginia; the explosion killed 362 men. Dawson, New Mexico was the site of the explosion at Stag Canon No. 2 mine in 1913; it killed 263. In 1909, the Cherry Mine in Cherry, Illinois experienced a fire that consumed 259 miners. All these misfortunes impelled Congress to create the Bureau of Mines which insists upon vigilance by management, labor and government.

George Korson, in his book *Coal Dust on the Fiddle*, classifies the causes of mine disasters as Air, Earth, Fire and Water. By Air, he means the gasses that are dangerous in mines. The most common is what miners term “firedamp”—light carbureted hydrogen. Lighter than air, this gas escapes through the fissures and pores of coal seams near the roof. The active agent of firedamp is methane and mixed with air in the right proportions, becomes explosive; “when ignited it explodes with the violence and destructiveness of TNT.” 2.

“Blackdamp”—carbon dioxide gas—was another enemy of the miner. It could come from coal seams, but also could be generated by the miners’ burning lamps, the exhalation of men and mules, decaying timber props and decomposing debris. The first warning

of danger came from the dimming of the miners’s light, which meant that oxygen was being exhausted.

Carbon monoxide gas—“whitedamp”—was dangerous because it struck the miners without warning. Colorless, tasteless and odorless, whitedamp was formed with other gasses in mines after a fire or explosion and lingered in the air long enough to kill trapped miners and members of rescue parties. In mine rescue work, canaries were usually carried to test the air because they are acutely sensitive to gas.

The first thing a miner did at the beginning of each shift was to test the roof by knocking it, removing loose rocks and setting up props and safety posts. Of all the accidents threatening his life, the miner feared cave-ins the most. A constant menace were faults or “slips” in the rocky material of the mine roof. Differences in temperature and humidity affected the roof, either expanding or contracting it; meanwhile moisture could cause some of the layers of rock to swell and disintegrate. The floor of the mine was just as dangerous as the roof. Formed of fireclay (the subsoil of the vegetation forming coal), the floor could soften: then the wooden props and pillars would sink under pressure of the roof. As dangerous as cave-ins were, they often gave warning of their approach by the sound of cracking in the roof and the falling of small pieces of coal.

Fire in the mines was once traceable to the use of black blasting powder. “The powder burned with a hot, relatively long flame, which often ignited coal dust with violent repercussions.” 3. Probably the most frequent cause of recent mine disasters has been the spark coming from the engineers’ “electric arc.” Arcs are produced in the course of operating switches, commutators, trolley wheels or by short circuits. Mining machines are becoming progressively more complicated and necessary precautions are not always taken.

Many mines are located under lakes, rivers and creeks in the United States.

Thus, some mines are frequently flooded by streams overflowing their banks in spring. Water can seep through the rock layers especially during a rainy spell and collect in “swamps” which forces miners to wear boots and suffer much discomfort.

Miners hold to a theory of “luck of the mine.” That has “bred a psychology which constituted an important factor in causing mine accidents.” 4. Some miners believed their destiny to be governed by supernatural powers. After a mine accident in 1940, a spokesman for the company explained the death of 72 miners by saying, “The law of averages just caught up with them.” 5. Safety engineers who have delved deep into the causes of accidents have made some interesting observations. Some men are unfit for mine work by temperament or training; some were superstitious about working in the dark; some races are more sensitive to pain than others, and some raised in poverty or domestic turbulence may jeopardize his own life or the lives of others. The luck-of-the-mine psychology may come from the knowledge that the miner “faced the four elements of the ancients—air, earth, fire and water—every moment of his stay in the mines.” 6.

Korson, George. *Coal Dust on the Fiddle*. Philadelphia: University of Pennsylvania Press, 1943.

Lloyd, A. L., ed. *Come All Ye Bold Miners*. London: Lawrence and Wishart Ltd., 1952.

www. msha.gov US Department of Labor: Mine Safety and Health Administration.

1. Lloyd, p. 81.
2. Korson, p. 220.
3. Korson, p. 225.
4. Korson, p. 215.
5. Korson, p. 215.
6. Korson, p. 216.

Coal Miners’ Music

*“Most wretched men
Are cradled into poetry by wrong;
They learn in suffering what they teach in song.”*

—Percy Bysshe Shelley, *Julian and Madalo*, 1819

From the earliest days of the industry, music has been a major interest and activity among miners. It was not discouraged by the owners and operators; indeed, some even subsidized local bands and/or quartets and sextets. In Appalachia, coal miners and their families would engage in all day “singins” with their neighbors on Sundays in the summer. “Singins” also played an important role in the social and religious life of African American miners for everyone joined in singing spirituals.

The Welsh miners had a huge influence on mining music. In Wales, their musical life centered around two institutions, the *GymanfaGanu* and the *Eisteddfod*. The *GymanfaGanu* means “congregational singing” and has a religious background. But the *Eisteddfod* was the pivot of Welsh communal life; local choruses participated in competitions for prizes and recognition of their vocal abilities. In addition, the Scots and Slavs and other nationalities transplanted their songs. Thus, they adapted the bardic and minstrel arts that were part of their heritage. “Musical parochialism was natural in an industry where immigrant workers formed national colonies within camps.”¹

But the miners created a culture of their own derived from everyday experiences. They composed ditties, jingles and ballads accompanied by fiddle and guitar and they danced whenever the opportunity presented itself. This folklore passed unobserved for a long time because it functioned beneath the surface of American life. Illiteracy was common, so most of this folklore was preserved and passed around orally.

The *métier* of the miners was the ballad and the dominant theme was discontent. Ballads “preserve the miners’ changing moods, their thoughts and feelings, their fears, heartaches, hopes... their laughter, wit and humor.”² But, in oral transmission, many ballads lost the individuality of their creator and became what musicologists call “collective composition”.³ The

ballad was characteristically nomadic and wherever it traveled, it was altered or improvised upon by the workers of that region to fit their particular situation.

Many mining camps had their own local bard whose responsibility was to compose a song honoring a visiting celebrity; to chronicle local mine disasters, and to provide stirring songs during times of strikes. There were also minstrels who traveled from camp to camp. Some were disabled miners who sang of their sad fates that brought forth pennies and nickels in a tin cup. Other minstrels were actual entertainers who were the darlings of the mining communities. They had no technical knowledge of music, so they sang and played the guitar and fiddle by rote. They, too, accepted coins tossed into their hats.

The advent of the newspaper, automobile, movies, radio and television has standardized life in the mining communities and brought it into the mainstream of American information and entertainment. But, by removing the need for self-amusement, these creations have stifled the imagination and stymied the growth of folklore.

*“These are rough songs, mostly made by rough men.
Hardly have any claim to poetry.”*

Coaltown Revisited by A.L. Lloyd

Korson, George. *Coal Dust on the Fiddle*. Philadelphia: University of Pennsylvania Press, 1943.

Korson, George. *Minstrels of the Mine Patch*. Philadelphia: University of Pennsylvania Press, 1938.

Lloyd, A. L., ed. *Coaltown Revisited*. London: Lawrence and Wishart Ltd., 1952.

1. Korson, p. 19.
2. Korson, p. 7. (*Minstrels*).
3. Korson, p. 9. (*Minstrels*)
4. Lloyd, p. 11.

From Appalachian Hillbilly to Bluegrass

One source of the new popular music was the hillbilly style of southern upland whites... or, as it would be called when the folk music became known more widely as “country and western” and its variant “bluegrass music.”

—H. Wiley Hitchcock,
*Music in the United States:
an Historical Introduction*, p. 257.

Appalachian mountain music developed its own unique flavor as a result of the settlers’ Scottish-English heritage and the harsh living conditions that existed in these mountains. These immigrants, who arrived in the early 17th century, sought to ease the transition of relocating to a new land by creating a musical community similar to the one they had left in the old world. The songs they carried with them were suited to the mountains and to their emotional needs.

The transported songs were usually ballads, narratives with many stanzas, which underwent modifications in America. Each ballad existed in numerous versions, for all had traveled in distance and time. All were embellished with distinctive detail and almost always ended with a final verse that included a moral drawn from the facts of the tale. In Appalachia the common man, of little importance in British ballads, made an emergence in the wilderness.

Although a majority of Appalachian songs originated in the British Isles, mountain music also was shaped by African Americans. Many blacks found their way into the mountains to work on farms, in mines and on railroad crews. They brought with them their native African banjo along with their own distinctive musical style. Their music, inbred with a joyous and sensual style, was a vivid contrast to the straight-laced English immigrant singing.

In the late 19th and early 20th centuries, the music of Appalachia and similar regions—Kentucky, Virginia, Carolina, Tennessee and Oklahoma—became known as “hillbilly” music. The term is often used disparagingly to mean a

rustic or uneducated person, but the music is identifiable by certain easily recognized characteristics. First of all, there is the voice: an extremely nasal tone in a constricted and high-pitched accent. The final syllables are often stretched out and exaggerated to produce an effect that is partly comical and partly insistent. The addition to the lyric of various cries in the form of yodels common to both hillbillies and certain mountain peoples of Europe, may be designed to exploit the echo effects produced by the mountains.

The basic instruments of hillbilly music are the violin, banjo, mandolin, harmonica, the three-string dulcimer (an elongated oval sound box of wood on which is mounted a narrow fretted fingerboard) and the auto harp, the latter two both plucked. Occasionally, the accordion is used and the guitar, which was something of a latecomer.

Until the early 1900s hillbilly music was performed largely at home, in church, or at such local functions as pie suppers and country fairs. Rural entertainers, however, were not adverse to commercialism; they performed in medicine shows, fiddler contests, itinerant tent shows and vaudeville. But with the invention of the phonograph and the onset of radio in the 20th century, the old-time music came out of the rural Southern mountains to people all over the United States. Good singing then became an important element of the musicianship. Singing stars such as Jimmie Rodgers, family bands such as the Carter family from Virginia, and duet teams such as the Monroe Brothers from Kentucky, contributed greatly to the advancement of hillbilly/country music.

The Monroe Brothers were one of the most popular duet teams of the 1920s and 1930s. Charlie played the guitar; Bill played the mandolin while they sang duets in harmony. When the brothers split up as a team in 1938, both went on to form their own bands. Since Bill was a native of Kentucky, the Bluegrass state, he decided to call his band “Bill Monroe and the Blue Grass Boys” and this sound gave birth to a new form of country music.

“Bill Monroe and the Blue Grass Boys” first appeared on the Grand Ole Opry in 1939 and soon

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became one of the most popular touring bands out of Nashville. Its popularity was derived, partially, from the new sound that differed from traditional country music. That sound was hard-driving and powerful, utilizing traditional acoustic instruments and featuring highly distinctive vocal harmonies. It incorporated songs and rhythms from string bands, gospel, work songs, 'shout' songs of black laborers, hillbilly and blues music repertoires. Vocal selections included duets, trio and quartet harmony singing in addition to Bill's powerful "high lonesome" solo lead singing. After experimenting with various instrumental combinations, Bill settled on mandolin, banjo, fiddle, guitar and bass as the format for his band. Over the years many country artists joined Bill Monroe's band; these included Earl Scruggs, Lester Flatt, Chubby Wise and Howard Watts. Despite their successes, Bill Monroe is the acknowledged "Father of Bluegrass Music."

The increased availability of traditional music recordings, nationwide indoor and outdoor bluegrass festivals and movie, television and commercial soundtracks featuring bluegrass music, have aided in bringing this music out of obscurity. "Lester Flatt and Earl Scruggs and the Foggy Mountain Boys" achieved national prominence with a tour and for playing the soundtrack for the movie *Bonnie and Clyde* and music for the televi-

sion show *The Beverly Hillbillies*. The *Deliverance* movie soundtrack also featured bluegrass music, in particular the "Dueling Banjos" duet performed by Eric Weissberg on banjo and Steve Mandel on guitar. In 2001, the multi-million selling soundtrack for the Coen Brothers movie, *O Brother, Where Art Thou?* attracted even wider audiences for bluegrass and traditional hillbilly music.

Murphy, Michael. *The Appalachian Dulcimer Book*. St. Clairsville, Ohio: Folksay Press, 1976.

Vassal, Jacques. *Electric Children*. NY: Taplingers Publishing Co., 1976.

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A Brief History of Coal Mining in Colorado

The existence of coal in and around the Rocky Mountains long has been recognized. Native Americans, fur trappers, explorers and government surveyors all encountered it. The surveys of Howard Stansbury in 1849 located coal across the western half of the area; the Gunnison-Beckwith surveying team found coal along the Front Range. In the 1850s these discoveries had little value, but when railroad companies moved west after the Civil War, they became very significant.

The earliest coal mines were called “wagon mines” because they had no railroad connections. These mines were located in South Boulder Creek and in the Denver Basin, roughly 20 miles northeast of Denver; they generally produced a poor grade of ore, unfit for industrial purposes. This, plus the fact that in 1869 the Union Pacific Railroad bypassed Denver and built its line to Cheyenne, Wyoming, adding to the substantial coal mining production already going on in that state. When the Union Pacific arrived in Cheyenne, it connected all the coalfields to work as one.

However, industrial coal mining did come to Colorado with railroad development. The Denver Pacific Railroad and Telegraph Company built a rail line from Denver to Cheyenne in 1869. Two months later the Kansas Pacific Railroad reached Denver. Shortly after, the Boulder Valley Railroad was built west from the Denver Pacific main line to the town of Erie and the Northern Colorado Coal Field. Coal production in the state increased from 16,000 tons in 1871 to more than 68,500 tons in 1872. Most of the product came from the Boulder Valley Mine near Erie, a town settled by English immigrants.

Industrial coal mining moved to central and southern Colorado with the vision of William Jackson Palmer. He saw the potential of rail traffic

coming from the Rio Grande Valley, New Mexico, and the mountain mining communities in Colorado. In 1870 Palmer organized his own company to capture these markets—the Denver and Rio Grande Railway Company. Construction began on this railroad in 1871 reaching the promoters’ first land development project—Colorado Springs. He hoped to build south to Pueblo and finally up the Arkansas Valley for 36 miles to the company town of Labran. Located just a few miles below the Canon City coalfields, the site offered the proper mix of coal, iron ore and water. With this information the town of Coal Creek began to develop around the mine.

Coal mining came of age between 1878 and 1903. By the late 1870s, the Denver Basin mines experienced a rash of prosperity. The successes inspired Denver capitalists to build the Golden, Boulder and Caribou Railroad into the Denver Basin. It brought new coal camps such as the Welch mine, the Marshall coal fields and the development of the town of Louisville. By 1879, mining in northern Colorado settled around three centers: Erie, Louisville and Marshall.

In southern Colorado, William Jackson Palmer and associates reorganized their land and coal companies in 1879 into the Colorado Coal and Iron Company. This organization included the Trinidad, Walsen and Canon City coalfields, the El Moro mine, and the silver smelting business at Leadville. Palmer planned to fulfill his dream of an iron and steelworks by building a plant in Pueblo. From 1879 to 1883, the Colorado Coal and Iron Company’s production went from 120,000 tons to nearly 600,000 tons. But Palmer’s rapid expansion did not yield the markets or success he had anticipated; he had pushed his finances to the limits by 1883; from then on his fortunes started to sour. “This failing reflected the always boom-and-bust nature of the western

economy coinciding with a regional downturn.”¹

With the managerial upheaval of the Colorado Coal and Iron Co., the Atchison, Topeka and Santa Fe Railroad arrived in Trinidad. It acquired coal fields in Starkville, a town near Trinidad and at Rockvale near Canon City. In addition to the Atchison, Topeka and Santa Fe, the Union Pacific, under the leadership of Jay Gould, wanted to control rail transport in the mountain West. With a much larger railroad, he needed to open new mines to meet the demand. He acquired three in the Denver Basin, two in the mountains near Leadville and formed a new company—the Union Coal Company to manage them. Though Gould did very well in these transactions, the Union Pacific did not and Gould was forced to resign.

A formidable force entered the Colorado coal scene in 1882—John C. Osgood. Beginning in 1886, Osgood formed a number of companies to explore, mine and reach the coalfields. He also acquired the Denver Fuel Company, its property at Sopris and the Rouse mine near Walsenburg. By a series of creating and absorbing companies, he established the Colorado Fuel Company. After he acquired the Western Slope Company of Grand River Coal and Coke, Osgood became the strongest force in the coal industry in Colorado. In 1892, he reached an agreement with President Meek of Colorado Coal and Iron to consolidate the two companies into the Colorado Fuel and Iron Company at Pueblo, which brought 19 mines under its control. William Jackson Palmer’s dream had been fulfilled, but it took Osgood to realize it.

As with all mines, there were economic upturns and downturns. The owners prospered, but the coal miners did not share in that prosperity. To achieve a fair wage, better working

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conditions and an eight-hour day, miners had to organize and unionize. When mine owners refused to negotiate, miners were forced to strike, and so the cycle of repression-strike-violence began. The conflict grew more intense when eastern industrialists invested in western mines; their antipathy toward unions was monumental. The hostility reached its most notorious clash at Ludlow Station, 18 miles from Trinidad, on April 20, 1914. At this strikers' colony of tents (erected because strikers could not live in company housing) were living 900 men, women and children.

They picketed mining property and railway stations. After some assaults and shootings occurred, Governor Ammons sent the National Guard to the area. Tensions mounted between the strikers and the militia and rumors

piqued frustrations. On April 20, the guard moved its position up a hill above Ludlow from where it could see the tent colony; the strikers responded by moving for cover away from the colony. In the confusion shooting began and an all-day battle ensued. At the end of the day the tent colony began to burn and in the excitement, the militiamen rushed onto the scene. Some say they were trying to save women and children; others that they were spreading the flames. When the smoke cleared, 11 children and two women had suffocated in a cellar beneath a tent. The tragic event sent rage throughout Colorado and around the nation. The governor asked President Woodrow Wilson to send in federal troops; the President did so and urged an end to the violence.

Congressional investigations followed and apparent sympathy for workers changed the labor dynamics

of Colorado and the rest of the country. As for coal production, it declined after World War II, although there are vast reserves in the state. Energy from coal was replaced by natural gas and oil.

1. Wolff, p. 63.

Hafen, LeRoy R. and Ann. *Colorado: a History of Progress*. Denver: Old West Publishing Co., 1966.

Wolff, David A. *Industrializing the Rockies*. Boulder: University Press of Colorado, 2003.

Modern Coal Mining & Safety

Coal mining in America today takes place under conditions that are quite different from those that existed in the early part of the century. The Mine Safety and Health Administration (MSHA) reports that "safety and health in America's mining industry made significant strides during the 20th century and over the last 25 years in particular." In 2004, U. S. coal production reached the highest levels in history at more than 1 billion tons, while coal mining fatalities fell to the lowest levels in history at less than 30. Despite the fact that coal use has more than tripled since the late 1970's, company safety and MSHA accident reduction efforts helped to keep the annual fatality totals nearly 50% lower in recent years. Workplace injuries have also fallen substantially. In Colorado, there has not been a coal mine fatality in nearly five years, although production has increased by nearly 40% since 1995 and more than 25% since 2000.

Companies take their safety obligations and responsibilities seriously because the people who work in the mines are the industry's most important resource. Miners are required to undergo extensive safety training before they are approved for work and the nation's mines are subject to strict inspection and enforcement by MSHA. State and federal agencies also hold safety

awards competitions to encourage companies to maintain exemplary safety records and to develop innovative technologies and practices to promote worker safety. Each year, MSHA awards one company the coveted Sentinels of Safety Award. Colorado is proud to report that two of its mines, the Trapper Mine and the Colowyo Mine in Northwest Colorado, have been past winners of the nation's highest award for workplace health and safety.

Today, mining is recognized as one of the safest major U. S. industries, with a lower rate of injuries per 100 employees than agriculture, construction and other major trades. For example, in 2000, work place injuries per 100 employees in the manufacturing industry were at 9.0; mining, by contrast, had an injury level of 4.7.

Historically, coal mine injuries have declined by more than 91 per cent since the 1930s, as a result of technological advances, improved engineering methods, advanced training, and conscientious safety awareness by mine operators and equipment manufacturers.

Economic Significance of Coal Mining in the United States and Colorado

Today the coal industry employs more than 104,000 workers and also accounts for significant employment in related industries such as the rail and utility industries.

Overall coal accounts for more than 50% of the electricity produced in the United States annually (nearly 80% in Colorado).

Contrary to past images, today's coal miners are required

to operate complex, high-tech machinery in challenging environments. Many possess college degrees and rank among the highest paid industrial workers.

In Colorado, for example, the state's 2000 coal miners earn averages wages and benefits in excess of \$80,000 annually, tops among industrial sectors.

Coal Mining and the Environment

In 1977, the Congress passed the Surface Mining Control and Reclamation Act of 1977 (SMCRA), which imposed comprehensive nationwide environmental performance, permitting and reclamation standards governing the operation of all coal mines. Many states, including Colorado, have chosen to implement and enforce the requirements of this law through their own programs, which must first be submitted to federal regulators for approval.

In addition, coal mines are subject to dozens of laws and regulations designed to minimize the environmental impacts of coal mining, including, but not limited to, the Clean Air Act, the Clean Water Act, the Endangered Species Act, the Mine Safety & Health Act, historic preservation laws, and many others.

The life of a coal mine may approach 40 years. For this reason, it is important that the operators of the mine and its workers become a part of the community in which they do business, what some have called the "social license to operate." Sound environ-

mental stewardship is an important part of the promise companies make to local communities. In Colorado, most of the state's coal mines have received awards either from the federal Office of Surface Mining (OSM) or the state Division of Minerals and Geology for outstanding reclamation and environmental practices.

In 2002, the Trapper Mine was honored by OSM as one of the three best examples of reclamation in the 25 year history of the Surface Mining Control and Reclamation Act of 1977. Other Colorado coal operators have received both local, state and national awards for their commitment to local communities and protection of the environment.

The coal industry has reclaimed in excess of 1.9 million acres of land over the past 25 years (equivalent to an area larger than the state of Delaware). Although coal use for domestic electricity has more than tripled over the past 30 years, government statistics show that overall emissions from power plants have declined by 48%.

Coal mining helps local economies and public schools

Coal mining also contributes to state and local economies. Coal mine royalties help fund state public schools, while severance taxes support local and state governmental programs.

Overall, Colorado ranks third among all states in mineral royalty receipts for public schools (more than \$80 million in 2003). The coal industry in this state accounts for more than \$1 billion in direct sales, accounts for payroll and taxes in excess of \$250 million, and overall, according to a Penn State University study, contributes about \$14 billion in direct and indirect economic value to the state's economy.

To Learn More about Mining

The industry invites members of the public to learn more about mining by visiting the following web sites:

Colorado Mining Association • www.coloradomining.org
National Mining Association • www.nma.org
Center for Energy & Economic Development • www.ceednet.org

In addition, the Colorado Mining Association Education Foundation (CMAEF) sponsors an annual summer course for teachers "A Total Concept of the Mining Industry." For further information about the course, contact Dan Witkowsky, Course Coordinator, at 303.972.1814 or the CMA office below:

Colorado Mining Association
216 16th Street, Suite 1250
Denver, CO 80202
303.575.9199

Additional Sources: Mine Safety & Health Administration
web site www.msha.gov

Mine Safety & Health at a Glance, U. S. Department of Labor (2004)

Mining Industry Safety & Environmental Trends,
National Mining Association (2002)

Colorado Mining Association Annual Survey of Coal
Production and Employment

Department of the Interior Office of Surface Mining • www.osmre.gov

Colorado Division of Minerals and Geology • www.mining.state.co.us

Activities

1. Compare "black lung disease" to some other diseases supposedly caused by environmental factors and/or industrial chemicals. These might include emphysema, lung cancer, radiation sickness, Gulf war syndrome, post-traumatic stress disorder, as well as conditions caused by "agent orange." How can we manage control over the health of our lives if we work and live in polluted places and stressful times?
2. Research the Molly Maguires, a group of coal miners that tried to correct poor conditions in coal mines. Discuss their methods and what happened to them. Other topics to research include the Lattimer Massacre, the Ludow Massacre, Matewan and the Battle of Blair Mountain.
3. Find details about certain mining disasters. Examples include the Monogah mine, Dawson mine, or the Cherry Mine.
4. Investigate any legislation since 1977 concerning mine safety or black lung.

Administration 303.893.4000
Box Office 303.893.4100
www.denvercenter.org

Katharine Tyson • *Director of Communications*
Tracy Witherspoon • *Editor*
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