D-27
File: AIHP
3

A LEGACY OF COAL:

THE COAL COMPANY TOWNS OF SOUTHWESTERN PENNSYLVANIA

Margaret M. Mulrooney

Historic American Buildings Survey/Historic American Engineering Record

America's Industrial Heritage Project

National Park Service
U. S. Department of the Interior
Washington, D. C.
1989

PLEASE RETURN TO:
TECHNICAL INFORMATION CENTER
DENVER SERVICE CENTER
NATIONAL PARK SERVICE

B&W Scans
2-1-2005

ON MICROFILM

Library of Congress Cataloging-in-Publication Data

Mulrooney, Margaret M., 1986-
A legacy of coal : the coal company towns of southwestern Pennsylvania / Margaret M. Mulrooney.
p. cm.
Bibliography: p.
1. Company town architecture--Pennsylvania. 2. Company towns--Pennsylvania--History. I. Historic American Buildings Survey/Historic American Engineering Record. II. Title.
NA9053.C57M8 1989
307.76'7'097487--dc20 89-11118
CIP

PREFACE

The Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER), Robert J. Kapsch, chief, undertook this project in January 1988 at the request of America's Industrial Heritage Project (AIHP), Randy Cooley, director. AIHP encompasses a nine-county region--Bedford, Blair, Cambria, Fayette, Fulton, Huntingdon, Indiana, Somerset and Westmoreland counties in southwestern Pennsylvania. Developed by the National Park Service in 1986, the project focuses on the development, enhancement and interpretation of coal, iron and steelmaking, transportation, and related industrial themes and how these themes can be incorporated into regional tourism promotion and economic revitalization efforts while involving regional scenic, recreational, cultural, and natural resources.

Incorporating a number of these industrial themes, this study was originally designed to identify the salient physical characteristics of coal company towns in southwestern Pennsylvania, but in the course of investigation, it became apparent that these communities have much more in common than just architecture and planning. As a result, this report addresses a wide range of subjects pertaining to coal towns, such as labor relations, ethnicity, and lifestyle. Margaret M. Mulrooney, HABS historian, was the sole researcher and author of this volume. A great number of people aided in the preparation of this report, but the author would particularly like to thank the residents of Colver, Windber and Star Junction, Pennsylvania, for their kindness, cooperation and tremendous generosity.

TABLE OF CONTENTS

PREFACE page iii

TABLE OF CONTENTS page v

LIST OF ILLUSTRATIONS page vii

Chapter

1. INTRODUCTION page 1

Purpose and Methodology

PART I. OVERVIEW

2. THE COAL COMPANY TOWN page 9

The Roots of American Industrial Housing
The Geography of Coal
Coal Towns
Progressivism in Workers' Housing
Segregation
Housing and Labor Relations
House vs. Home

PART II. THREE SOUTHWESTERN PENNSYLVANIA COAL COMPANY TOWNS

3. STAR JUNCTION page 35

The Company
Planning and Development
Housing
Workers'
Management
Commercial Buildings
Institutional Buildings
Ethnicity
Recreation
Labor Relations
Past to Present

4. WINDBER page 51

The Company
Planning and Development

Housing
Workers'
Management
Commercial Buildings
Institutional Buildings
Ethnicity
Recreation
Transportation
Other Industries
Labor Relations
Past to Present

5. COLVER page 91

The Company
Planning and Development
Housing
Workers'
Management
Commercial Buildings
Institutional Buildings
Ethnicity
Recreation
Transportation
Labor Relations
Past to Present

6. STATUS, MOBILITY AND HOUSING page 115

PART III. THE PENNSYLVANIA COAL TOWN IN A REGIONAL CONTEXT

7. A STATE-BY-STATE SURVEY page 125

Regional Differences
Maryland
West Virginia
Virginia
Tennessee
Kentucky
Alabama
Indiana and Ohio
Oklahoma, Arkansas and Kansas

GLOSSARY page 145

SOURCES OF INFORMATION page 153

LIST OF ILLUSTRATIONS

Figure		Page
1-1	Nine county America's Industrial Heritage Project region, showing the location of Colver, Windber and Star Junction. Adapted by author from America's Industrial Heritage Project Action Plan, 1987.	3
2-1	Map showing the major coal deposits of the United States and the production of each coal-producing state in 1925. Taken from the U.S. Coal Commission's 1925 report.	13
2-2	Map of Heilwood, PA, a typical coal company town dating from the late 1890s. From Coal Age, November 1911.	15
2-3	Comparison of construction drawings of miners' houses. A) Berwind-White Coal Mining Co., 1897. B) Coal Age, Nov. 1911. C) U. S. Bureau of Mines, Housing of Mining Towns, 1914.	17
2-4	Examples of suitable houses for colliery employees. Suggested by Coal Age, October 1911.	18
2-5	Map of the model coal town of Kincaid, IL, laid out in 1915. Reproduced from John Reps, The Making of Urban America, A History of Urban Planning in the United States. (Princeton: Princeton University Press, 1965).	20
2-6	Map of Slickville, PA, a model coal town built by the Cambria Iron Co. beginning in 1916. From an article in Coal Age, 1922.	22
2-7	Comparison between a typical group of bituminous miners' houses and a "better class company house in New England." From "Employers' Housing in the United States," by Leifur Magnusson in Monthly Labor Review, No. 5, November 1917.	24
3-1	View of Washington Mine No. 2, tipple, power house and coke ovens, ca. 1900. Courtesy of Betty Palonder, Perryopolis, PA.	36
3-2	Topographic map of Star Junction and vicinity. From USGS, Fayette City Quadrangle, 1979.	37

3-3	Town center, Star Junction, ca. 1920. Adapted by author from a map entitled "Surface Tracts of the U. S. Steel Corporation at Washington Works," dated 1930. Courtesy of Tony Grazziano, U. S. Steel Mining Office, Washington, PA.	38
3-4	Map of Star Junction, ca. 1920. Adapted by author from a map entitled "Surface Tracts of the U. S. Steel Corporation at Washington Works," dated 1930. Courtesy of Tony Grazziano, U. S. Steel Mining Office, Washington, PA.	39
3-5	First floor plan, Mike Torvish House, built 1918. Drawing by author, 1988.	40
3-6	View of Sweetcake tenements and coke ovens, ca. 1900. Courtesy of Betty Palonder, Perryopolis, PA.	41
3-7	View of Harry Howarth and family, ca, 1900. Courtesy of Lavinnie and Walter Woodward, Smock, PA.	43
3-8	Star Junction company store, ca. 1900. Courtesy of Betty Palonder, Perryopolis, PA.	44
3-9	Junction House Hotel, ca. 1915. Courtesy of Betty Palonder, Perryopolis, PA.	45
3-10	Star Junction baseball player, ca. 1910. Courtesy of Walter and Lavinnie Woodward, Smock, PA.	47
4-1	Street map of Windber, Paint and Scalp Level. Reproduced from Map of Johnstown and Vicinity, Deasy GeoGraphics Laboratory, Penn State University, 1985.	54
4-2	View of Arcadia Theater (built 1920), commercial buildings and Palace Hotel, Graham Avenue. Taken by Jet Lowe, HAER photographer, 1988.	55
4-3	View of post office building, built 1913, 15th Street and Graham Avenue. Taken by Jet Lowe, HAER photographer, 1988.	55
4-4	View of Leister House Hotel and Clement Building, 15th Street, both built ca. 1902. Taken by Jet Lowe, HAER photographer, 1988.	55
4-5	Former Berwind-White main office building, built ca. 1902, 15th Street and Somerset Avenue. Taken by Jet Lowe, HAER photographer, 1988.	55

4-6	Main Eureka Department Store, built beginning in 1898, 15th Street and Somerset Avenue. Taken by Jet Lowe, HAER photographer, 1988.	56
4-7	Windber Electric Building, built 1925, 15th Street. Taken by Jet Lowe, HAER photographer, 1988.	56
4-8	Map of Windber and its satellite mining communities. From U. S. Immigration Commission Report, 1911.	57
4-9	Topographic map of Windber and vicinity. From USGS, Geistown and Windber Quadrangles, 1981.	58
4-10	Map of Windber showing phases of development, 1897-1925. Compiled and drawn by author from Sanborn fire insurance maps.	61
4-11	First and second floor plans for a detached, gable-front miner's house. By Berwind-White Coal Mining Co., 1900.	62
4-12	First and second floor plans for a detached, gable-end miner's house. By Berwind-White Coal Mining Co., 1900.	63
4-13	View of detached, gable-front and gable-end miners' houses, built ca. 1900. Taken by Jet Lowe, HAER photographer, 1988.	64
4-14	View of detached house, 20th Street, built ca. 1900. Taken by Jet Lowe, HAER photographer, 1988.	65
4-15	Front elevation and section of a semi-detached miner's house. By Berwind-White Coal Mining Co., 1897.	66
4-16	First floor plan, semi-detached miner's house. By Berwind-White Coal Mining Co., 1897.	67
4-17	Second floor plan, semi-detached miner's house. By Berwind-White Coal Mining Co., 1897.	68
4-18	View of semi-detached, vertical plank houses at Eureka No. 35, built 1900. Taken by Jet Lowe, HAER photographer, 1988.	69
4-19	Section, vertical plank house. By Berwind-White Coal Mining Co., 1900.	70

4-20	Front elevation, vertical plank house. By Berwind-White Coal Mining Co., 1900.	71
4-21	First floor plan, vertical plank house. By Berwind-White Coal Mining Co., 1900.	72
4-22	Second floor plan, vertical plank house. By Berwind-White Coal Mining Co., 1900.	73
4-23	View of Eureka No. 40 housing, built 1905. Taken by Jet Lowe, HAER photographer, 1988.	75
4-24	Drawings and map of Eureka No. 40 houses, from U. S. Immigration Commission report, 1911.	76
4-25	First floor plan, semi-detached miner's house at Eureka No. 42, built 1916. Drawing by author, 1988.	77
4-26	Front elevation, semi-detached foreman's house at Eureka No. 35. By Berwind-White Coal Mining Co., 1905.	79
4-27	First floor plan, semi-detached foreman's house at Eureka No. 35. By Berwind-White Coal Mining Co., 1905.	80
4-28	Second floor plan, semi-detached foreman's house at Eureka No. 35. By Berwind-White Coal Mining Co., 1905.	81
4-29	Company store, 10th Street, built ca. 1906. Taken by Jet Lowe, HAER photographer, 1988.	82
5-1	Topographic map of Colver and vicinity, from USGS, Colver Quadrangle, 1977.	92
5-2	View of company houses, built 1911-1912. Taken by Jet Lowe, HAER photographer, 1988.	93
5-3	County plat map of Colver, 1947.	94
5-4	Town center of Colver. Adapted by author from 1947 county plat map, 1988.	96
5-5	Map of Colver showing phases of development, 1911-1923. Compiled by author, 1988.	97
5-6	View of Twenty Row houses, built 1911 and 1925. Taken by Jet Lowe, HAER photographer.	98

5-7	View of company houses, built 1911-1912. Taken by Jet Lowe, HAER photographer, 1988.	99
5-8	First floor plan, Max Vassanelli house, built 1911-1912. Drawing by author, 1988.	99
5-9	View of six-room company houses, built 1911-1912. Taken by Deck Lane, ca. 1915. Courtesy of Max Vassanelli.	100
5-10	View of three-room company houses, built ca. 1900 and moved to Colver in 1911-1912. Taken by Jet Lowe, HAER photographer, 1988.	101
5-11	View of six-room company houses, built 1911-1912. Taken in 1930s. Courtesy of Max Vassanelli.	102
5-12	View of six-room company houses, built 1911-1912. Taken by Jet Lowe, HAER photographer, 1988.	103
5-13	View of Cambria and Indiana railroad workers' housing, built 1920-1923. Taken by Jet Lowe, HAER photographer, 1988.	104
5-14	View of company store, built 1911-1912. Taken by Deck Lane, ca. 1915. Courtesy of Max Vassanelli.	104
5-15	View of Colver Hotel, built 1911-1912. Taken by Deck Lane, ca. 1915. Courtesy of Max Vassanelli.	106
5-16	View of Colver Amusement Building, built 1912-1913. Taken by Deck Lane, ca. 1915. Courtesy of Max Vassanelli.	107
5-17	View of office building and post office, built 1912. Taken by Jet Lowe, HAER photographer, 1988.	108
5-18	View of Colver baseball team, ca. 1935. Courtesy of Max Vassanelli.	110
5-19	View of Cambria and Indiana Railroad shops and yard, dating from 1910. Taken by Jet Lowe, HAER photographer, 1988.	111
6-1	Charts showing the breakdown of employees for Washington Coal and Coke Company (1899), Berwind-White Coal Mining Company (1900), and Ebensburg Coal Company (1913) for comparison. Compiled from Pennsylvania's bituminous mining reports of 1899, 1900, and 1913.	116

6-2	Chart showing occupation of Berwind-White Coal Mining Company employees by ethnic group. Taken from U.S. Immigration Commission, Report on Immigrants in Industries (In Twenty-five Parts), Part I: Bituminous Coal Mining, Vol. I, (Washington, D.C.: Government Printing Office, 1911).	118
6-3	Chart showing the relationship of factors which influence the segregation and appearance of housing in a coal town. By author.	119
6-4	View of modified, four-room company houses in Colver. Taken by Jet Lowe, HAER Photographer, 1988.	120
7-1	Views of ca. 1850 anthracite miners' houses in Eckley, Pennsylvania. Taken from National Register files.	126
7-2	Views of ca. 1840 bituminous miners' housing in Lonaconing, Maryland. From National Register files.	127
7-3	View of a typical West Virginia coal town. Taken from the U. S. Bureau of Labor Statistics's report on bituminous coal miners' housing in 1920.	129
7-4	Historic view of miners' houses in Stonega, Virginia, ca. 1915. Shown in Dean Herrin, "From Cabin to Camp," (M.A. Thesis, University of Delaware, 1986). National Archives photograph.	131
7-5	Table showing percentages of different miners' dwellings in Kentucky. Taken from Claude Eugene Picard, "The Western Kentucky Coalfield," (Ph. D. dissertation, University of Nebraska, 1969).	133
7-6	Floorplan and elevation of typical miners' housing in Alabama. From "Company Housing in the Bituminous Coalfields," by Leifur Magnusson in Monthly Labor Review 10 (April 1920).	134
7-7	Floorplan and elevation of a typical "double-two" miners' house in Birmingham. From Village Creek by Marjorie White and Carter Hudgins. Birmingham: Birmingham Historical Society, 1987.	135
7-8	Floorplans and elevations of "shotgun double" houses for miners in Alabama. Taken from Village Creek.	136
7-9	Views of typical miners' houses in the central and western United States. Taken from "Company Housing in the Bituminous Coalfields," by Leifur Magnusson in Monthly Labor Review.	138

There is no truth more evident
than that without coal there could not have been
such marvelous social and industrial progress
as makes present-day civilization.

- - Preamble to the Constitution of
the International Union,
United Mine Workers of America
organized January 25, 1890.

CHAPTER 1

INTRODUCTION

During the summer of 1987, the Historic American Engineering Record conducted a detailed survey of industrial sites in Cambria and Blair counties. At the same, representatives of the Pennsylvania Historical and Museum Commission conducted a broad, preliminary reconaissance survey of particularly significant sites in the entire nine-county region. Information gleaned from these two surveys indicated that Southwestern Pennsylvania's coal company towns possessed five major characteristics:

1) Each town was financed, built, owned and operated by only one company. Unlike other single-enterprise towns, the primary employer was also the primary landholder. In this dual capacity, the company determined not only the economic character of the community, but the social, political and cultural character as well.

2) Houses in these towns tended to be two-story, wood-frame structures, whether detached or semi-detached, with four or six rooms per dwelling unit. (For the purposes of this study, this house-form will be referred to as the Pennsylvania miners' dwelling.)

3) There was a clear hierarchy of architecture in each town that separated management from labor and reinforced ideas of ethnic and occupational segregation.

4) Houses within a given community were remarkably similar in style and materials since construction was carried out as cheaply as possible.

5) Coal towns shared a similarity of spatial arrangement. In almost all cases, the location of the mine site and its associated buildings received primary considerations while housing took a secondary role. Nevertheless, housing was always located near the work site to maximize efficiency.

The primary goal of this project was to formally establish these characteristics through a literature search, interviews with local residents and windshield surveys of actual towns. While some of these characteristics may be found in other forms of settlement, the occurrence of all five together is typical of Southwestern Pennsylvania coal company towns.

Through the course of this investigation several other physical traits were recognized. These include: a grid or linear plan; a company store; open sewer systems; narrow, deep housing lots; individual gardens; unpaved streets; and electric light. In addition to these striking physical similarities, this study found that these towns have strong social, political, economic, ethnic and cultural parallels, suggesting that company towns have a uniformity that transcends mere planning and architecture.

Recognizing that a true portrait of these communities would best be revealed by example, detailed monographs on three individual coal towns were also incorporated into this volume. The three towns--Star Junction, Windber and Colver--were chosen to represent the Southwestern Pennsylvania coal company town because each possessed the five major traits (See figure 1-1). However, each town also had certain unique features of its own. For this reason, they should be seen as representatives of a broad trend, and not as the "best" or "most exemplary" of the region's coal towns.

Star Junction is the oldest of the three towns. Located in Fayette County, Star Junction's economic livelihood depended upon the production of coke, a metallurgical fuel derived from raw coal. The town and its coke works were built in 1893 by the Washington Coal and Coke Company and reflected housing problems that were peculiar to the coke industry. Windber was founded in 1897 by the Berwind-White Coal Mining Company along the northern border of Somerset County. Intended to serve as a regional head-quarters for the company's western mining operations, Windber consists of an independent urban center surrounded by eleven dependent mining settlements. As the largest and most complex of the three company towns, Windber reveals the special considerations required by a corporate center. Colver, on the other hand, is a small, self-contained community. Built by the Ebensburg Coal Company in 1911, Colver developed almost two decades after Star Junction and Windber and, therefore, incorporates more of the industrial housing reforms promoted during the Progressive Era than its older counterparts.

In addition to establishing the characteristics of Pennsylvania's bituminous coal towns, this report also addresses how the built environment in these coal towns reflected the historic relationship between management and labor in the bituminous coal industry. Evidence shows that the actual size, form, and placement of miners' housing manifested employers' attitudes toward certain ethnic groups and occupational levels. This theme recurs throughout the volume, but is the particular focus of chapters 6 and 7. For this reason, the last two chapters are more analytic than descriptive.

In conducting the preliminary literature search for this project, it became evident that although a wide body of primary and secondary documents relating specifically to industrial housing exists, there has never been a comprehensive study of American company towns. Similarly, there is a great deal of information relating specifically to housing in American mining towns, but it is mostly descriptive in nature and lacks any kind of comparative analysis. As early as 1954, before the coal industry sank into its final decline, geographer Raymond Murphy made a plea for the increased study of mining settlements:

> The investigation of mining regions reveals the interplay of the mining process with other elements of the local setting, including the people who work in the mines, the houses they live in, the transportation pattern, the other industries that are present, and the other items that go to make up the unique character of the region.[1]

Unlike manufacturing industries, extractive industries are limited by geology. Thus, the geology of the coalfields determined the location of coal-related settlements. Despite this close correlation between geology and settlement, little attention had been given to the impact of the industry upon the landscape. Unfortunately, by the time geographers like Murphy turned their attention to the coalfields, many valuable resources were already gone. Somewhat prophetically, in 1962, one scholar of Pennsylvania coal towns stated,

> Perhaps the propitious time for a study such as this was a decade or so ago when some of the presently unobtainable information was still in existence and some of the settlements that have since disappeared were still standing. It appears likely that in a decade or two hence, the task of assembling unpublished data might be so great as to deter investigation.[2]

Now that it is a "decade or two hence," this prediction has been proven correct in many cases.

In the past, most of the attention paid to company towns has been focused on the so-called "model company towns." Lowell (MA), Pullman (IL), Hopedale (MA), Manchester (NH) and Harrisville (NH) are some of the better known company towns in the United States, but in actuality, the very features that have made them the subject of so much study are also the reasons why they stand out as anomalies.[3]

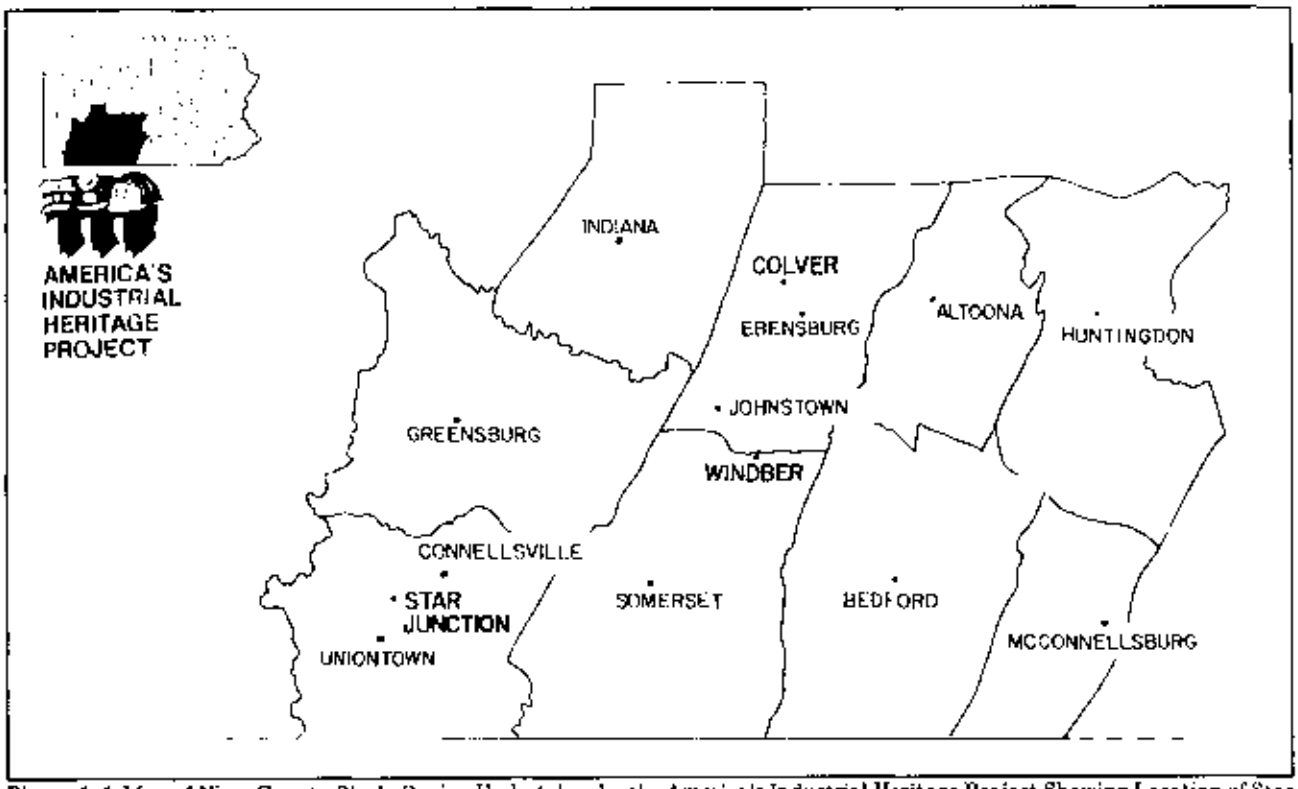


Figure 1-1 Map of Nine-County Study Region Undertaken by the America's Industrial Heritage Project Showing Location of Star Junction, Windber and Colver. Adapted by author from 1987 AIHP Action Plan.

Research conducted for this study indicates that living conditions in coal towns more closely resemble life in the typical company town of the early twentieth century than any of the above because most coal towns were never intended to be "model" communities. Towns like Windber may appear to refute this statement, but close analysis indicates that such communities were "model" in name only.

Although there has been no comprehensive study of American coal towns to date, there are several noteworthy books on the subject of coal housing in a specific geographic area: Peter Roberts' classic Anthracite Coal Communities (1904); Anthony F. C. Wallace's St. Clair (1987); and Donald Miller and Richard Sharpless' The Kingdom of Coal (1985) are examples, but they focus only on the anthracite towns of eastern Pennsylvania. Similarly, Katherine Harvey's The Best Dressed Miners (1969) discusses only the Maryland coalfields, and Ronald D. Eller's Miners, Millhands and Mountaineers (1982) focuses mostly on Appalachian mining towns. The Bureau of Labor Statistics' 1917 report on bituminous coal company housing probably comes closest to establishing a nationwide context; the Bureau conducted a survey of 713 firms throughout the United States that provided company housing, but the report was only meant to be representative of major trends. While Chapter 7 of this report does address regional differences between coal towns, far more research and field work is necessary to fill this gap.

In the past, most research projects undertaken by the Historic American Buildings Survey have focused on individual buildings or inventories of individual buildings within a city, town or neighborhood. In both cases, the acquisition of detailed information regarding the age, style, materials, occupation and use of the structures formed the base of inquiry. Unlike most settlements, coal towns are primarily comprised of dozens of identical dwellings built by the same person or persons for a more or less homogeneous popula-

tion. For this reason, a house-to-house survey of the type usually executed by HABS was deemed inappropriate. Instead, it was decided to investigate each town as a whole, and to place the towns into an historical context. As a result, the methodology of this project differed sharply from previous HABS projects.

A glance at the bibliography for each town reveals that little primary written material on Colver, Windber and Star Junction survives. Most of the material available takes the form of centennial celebration books or local newspaper articles. While useful in establishing dates, the centennial books presented several problems: The Windber centennials were published by a company-owned newspaper and appear slanted in their portrayal of the benefits provided by the Berwind-White Company; the Perryopolis centennials obviously had only limited information on Star Junction. Most of the newspaper articles used were found in a vertical file at the Cambria County Historical Society. There are probably many more articles about Colver, Windber and Star Junction, but while microfilmed, historic papers are seldom indexed. Due to time constraints, it was impossible to search through back issues of the Windber Era, Johnstown Daily Tribune, and The Connellsville Courier, although these and other newspapers are available to the public. A photocopy of a chronicle written by the chief engineer of the Cambria and Indiana Railroad provided a surprising amount of detailed information on housing in both Colver and Windber.

Because of this lack of written sources, visual materials like photographs took on even greater importance, although locating them was often a trying experience. In Windber, Theresa Ledney of the Windber Museum was extremely accommodating by opening the museum's historic photograph collection during off-season hours. Betty and Bob Palonder of Perryopolis were likewise gracious enough to permit their private collection of Star Junction photographs to be copied, as were Walter and Lavinnie Woodward of Smock. The extensive and much-talked-about collection of John Pollock, however, was inaccessible. At Colver, various members of the community have donated their pictures and scrapbooks to a community collection in the care of Max Vassanelli, who immediately volunteered to share it upon hearing of this project. Many other private collections no doubt exist but have yet to be discovered.

When they could be found, historic maps proved very useful. There are five complete sets of Sanborn-Perris fire insurance maps for the city of Windber for the years between 1899 and 1924. The same company also mapped Colver in 1923, but Star Junction was not mapped at all. Therefore, in the case of Colver and Star Junction, historic topographic and county plat maps were used to fill in the gaps. The U. S. Steel Mining office in Washington, Pennsylvania, was able to provide one good map of Star Junction, but it was not dated and had been much altered. Nevertheless, when used in conjunction with oral, written and other visual sources, such maps greatly facilitated the search for information.

In researching a company town, company records are among the most informative documents one may find. Sadly, most of the records of the Ebensburg Coal Company, Washington Coal and Coke Company, and Berwind-White Coal Mining Company have been lost or destroyed. Sources like rent books, construction drawings, maps, and ledgers are rare, but a few have survived. When the Berwind-White Coal Mining Company evacuated its office building in Windber, great piles of old pay records, account books, correspondence and the like were burned or thrown away. A few items were salvaged as momentos and, surprisingly, an indexed cache of original drawings survives in an old vault in the Windber Municipal Building. These were an exciting find and served as an invaluable source of information about miners' housing.

Of all the sources utilized for this study, the most valuable, by far, were the residents and houses themselves. Several of those interviewed were met by chance in the course of fieldwork, while others were introduced by a local contact. Rita Balentine, of the Laurel Highlands Tourism Office and a resident of Star Junction, was particularly generous with her time, locating

knowledgeable individuals and arranging meetings. Cyril Griglack, of Perryopolis, was also helpful. At Colver, a casual stop into Ralph Costello's barbershop found several retired miners who were more than happy to discuss life and work under the Ebensburg Coal Company.[4] The interviews did not follow a formal plan, but rather consisted of a series of similar questions. Answers to these questions were noted in longhand, as were pertinent parts of the conversations which followed. Often, the interviewees would volunteer additional information that would prompt other questions. The information in each interview therefore differs according to when, in the course of the research, the person was questioned. Everyone interviewed was cooperative and patient; quite a few were surprised that anyone was interested in their town at all. Some of the persons interviewed opened their homes for inspection, and a few allowed measurements to be taken for floor plans.

Windshield surveys of the towns were an integral part of the study. Houses that were undergoing alterations were especially susceptible to close observation, as was the Pato house in White Row, Star Junction, and 805 8th St. in Colver. Similarly, questions about a "For Sale" sign on an abandoned company house at Eureka No. 42 led to a complete tour of that structure. As it turned out, that house was practically unaltered and its floor plan was an excellent candidate for measuring.

The information gathered for this report is presented in three parts. Part I includes a brief explanation of the history of industrial housing in the United States and an introduction to American coal towns. Part II contains five chapters of which three provide detailed information on Star Junction, Windber and Colver, respectively. These include histories of the companies and a discussion of each town's planning and development, architecture, ethnicity, and labor relations. Again, Star Junction, Windber and Colver are not necessarily the most intact or most significant coal towns in the region, but instead are offered as three good examples of the southwestern Pennsylvania coal company town. Part II also contains a brief summary of the three towns and a discussion of occupational status, mobility and housing. Part III examines regional differences in miners' housing in order to establish a geographical context for the Pennsylvania miners' dwelling.

Notes

[1]John Aubrey Enman, "The Relationship of Coal Mining and Coke Making to the Distribution of Population Agglomerations in the Connellsville (PA) Beehive Coke Region" (Ph.D. diss., University of Pittsburgh, 1962), 7; for the complete article see Raymond E. Murphy, "The Geography of Mineral Production," American Geography: Inventory and Prospect, edited by Preston James and Clarence Jones (Syracuse: Syracuse University Press, 1954), 286.

[2]Ibid., 8.

[3]See John Borden Armstrong, Factory Under the Elms: A History of Harrisville, New Hampshire, 1774-1969 (Cambridge: MIT Press, 1969); John Coolidge, Mill and Mansion: A Study of Architecture and Society in Lowell, Massachusetts, 1820-1865 (New York: Columbia University Press, 1942); John Garner, The Model Company Town: Urban Design Through Private Enterprise in Nineteenth Century New England (Amherst: University of Massachusetts Press, 1984); R. S. Fitton and Alfred P. Wadsworth, The Strutts and the Arkwrights, 1758-1830: A Study of the Early Factory System (Manchester, England: 1958); Tamara K. Hareven and Randolph Langenbach, Amoskeag: Life and Work in an American Factory City (New York: Pantheon Books, 1978). Rev. Henry H. Milnes, Lowell, As It Was, and As It Is (Boston: S. N. Dickinson and Co., 1846); William H. Pierson, Jr., American Buildings and their Architects - Technology and the Picturesque, the Corporate and the Early Gothic Styles (New York: Doubleday and Co., Inc., 1978).

[4]Traditionally, a miner was the sole person responsible for extracting coal, and performed all necessary work by himself or with a BUDDY; after mechanization ocurred in the late nineteenth century, miners were subdivided according to the specific work they did. MINER has since been used as a collective term which applies to any mine worker. Refer to the glossary for an explanation of other mining terms and occupations.

PART I: OVERVIEW

CHAPTER 2

THE COAL COMPANY TOWN

As a distinct building typology, company housing in the United States dates to the beginning of the factory system in the early nineteeth century. By 1916, when the Bureau of Labor Statistics conducted a survey of industrial housing, it was estimated that well over 1,000 companies provided accommodations for their employees. Unlike other firms, which constructed only houses, bituminous coal companies were noted for the complete towns they created and the particular approach to labor management they followed. By the close of the nineteenth century, it was clear that coal company towns had certain unique problems that did not apply to other forms of settlement. Chief among these was the denial of civil liberties; residents of company houses could not speak out against unfair labor practices and poor living conditions because they faced eviction and blacklisting. For the most part, these problems occurred because the company retained ownership of all property in the community. In response, numerous state, federal and private organizations sponsored investigations of coal company towns and published articles and reports of their findings. Many made recommendations designed to improve the life of the bituminous coal miner, but as ownership and control of most company towns ultimately rested in private hands, substantial changes did not occur until after World War II.

The purpose of this chapter, then, is to establish an historical context for Star Junction, Windber and Colver by discussing the following: why companies built housing for employees; what precedents for coal company housing existed; what were the characteristics of coal towns; what were the problems of coal towns; and how were these problems resolved, if at all.

Company Housing

For the most part, employers provided accommodations for employees because there was a dearth of suitable dwellings for workers near the work site. Early housing consisted of single-family homes or small inns. Both were considered inadequate to the needs of a growing industrial population, however, with the result that, by the early nineteenth century, company housing had developed into a full-fledged town complete with company-built stores, schools and churches.

Although it is unclear when employers began housing their employees, it can be safely stated that all company housing was intended to accomplish several related goals: first, to attract labor; and second, to reduce turnover. By providing inexpensive dwellings, employers hoped to reduce transiency and promote stability and loyalty to the company. While employers realized the necessity of providing housing, they did not do so for altruistic reasons. Practically speaking, employers intended that company housing produce a reasonable profit in itself. The most important benefit gained by establishing company-owned housing, however, was greater control of the labor supply. As the U. S. Department of Labor concluded in 1917, "A housed labor supply is a controlled labor supply."[1] Indeed, company towns are as renowned for their particular brand of labor relations as they are for uniform houses and grid plans.

As each new mine was opened, mine engineers would lay out and build housing. Built in close proximity to the mine site, mine workers' housing thus became irrevocably associated with industry rather than architecture. Analysis of existing towns and documents indicates that the size, shape, material and arrangement of the houses within the town plan reflected companies' attitudes regarding the ethnicity and occupational status of their work force. In addition, the rules and regulations governing occupation of workers' houses were so numerous that the companies' influence extended into the home as well as the

workplace. Thus, in many respects, the town became the embodiment of the company, particularly later in the century when absentee corporations controlled many communities at one time. This was typically the case in the coal industry where firms like Carnegie Steel, U.S. Steel, Berwind-White Coal Mining Co., H.C. Frick Coke Co. and others owned extensive lands throughout Pennsylvania, West Virginia and Illinois. By 1900, coal towns already possessed the physical and conceptual characteristics that would distinguish them from other company towns. Over time, these traits formed the core of a distinct coal company town ideology.

The Roots of American Industrial Housing

Industrial housing policies of the early twentieth century were based on those of eighteenth- and nineteenth-century iron and textile manufacturers. In addition to creating a model for workers' housing, these early industrialists established an ideological precedent for dealing with labor. Their philosophy is often referred to as paternalism.

Dating from the late eighteenth and early nineteenth centuries, the oldest surviving workers' houses reflect a distinct departure from contemporary domestic forms. Rural textile mill operatives' houses, for example, were built close together in neat, equally spaced rows or clusters instead of being surrounded by large tracts of land. They differed, too, in size and placement. Within the community, workers' houses were located in walking distance of the mill or factory.[2] Moreover, the houses rejected individuality and were as identical as the owner or employer could make them.

This suggests that "workers' housing" required something totally different from any other kind of housing industrialists knew. But in fact, a more accurate conclusion might be that the inhabitants were different; early industrialists felt that a new class of workers had developed and that this class necessitated a new, appropriate form of housing. Actually, it appears that industrialists just assumed these workers had different needs and built accordingly. This assumption was later expanded to the belief that different occupations and ethnic groups also required different housing. The result was segregation of employees by occupational status, marital status, race, sex and religion within industrial communities.

Textile mill villages and iron plantations were among the first industrial communities to arise in the colonies. Small, distinct settlements, they were generally found in rural locations, isolated from other communities yet close to raw materials and transportation networks. Like their coal-mining counterparts, most iron and textile mill employees lived in tenant houses near the worksite, although some had their own homes nearby.[3] The iron master or mill owner lived on site, too. Typically, his house was larger, more elaborate and easily distinguished from those of his operatives, creating a distinct hierarchy. Unlike miners' housing, ironworkers and millhands generally lived in simple, one-and-a-half-story structures with one or two rooms. Interestingly, there is evidence that eighteenth-century American mill owners may have based their operatives' housing on the "neat and comfortable cottages" built by contemporary iron masters and coal owners.[4] There is also a strong possibility that early American iron masters and coal operators may have adapted Welsh and English miners' housing to suit their needs. Later, some of the early-nineteenth-century coal and iron companies of western Maryland built houses "in the English fashion."[5] Considering that many iron manufacturers, miners and coal operators in the eighteenth and nineteenth centuries were immigrants from England, Wales, Scotland and Ireland, the influence of their native industrial housing practices must have been great.

It also seems likely that, in addition to housing, early American industrialists adapted European methods of labor management. Although historically associated with the feudal system, paternalism was considered well-suited to industry, too. As the name implies, paternalism endeavored to treat employees as a father would his

children. Drawn from the historic tradition of noblesse oblige, paternalism operated on the elitist assumption that employers were somehow vested with absolute authority over their employees by virtue of their higher moral and economic standing in the social strata. In Rockdale, Anthony Wallace points out that Republican America maintained a visible order "based on the exercise of power by men of capital, of political position, of judicial authority and of religious eminence. With that power came the responsibility to use that position as God's steward on Earth: to punish those who made mistakes or behaved wrongly, as parents punished children . . ." Set apart by their position, the nineteenth-century managerial class viewed the lower (laboring) classes as not only inferior in education, power and wealth, but also in moral strength and emotional sensibility. Poverty and failure were therefore seen as the results of personal shortcomings and vices. The poor, transient, and idle were considered particularly susceptible to immorality and in need of protection. By the same token, hard work, discipline and stability were associated with virtue.[6]

In general, well-educated, early-nineteenth-century employers were no doubt familiar with the principles of John Locke and Benjamin Rush, which held that individuals were malleable and, therefore, changeable. By applying strong moral restraints, social ills could be corrected. Owners who advocated temperance, stability, thrift, diligence and obedience thus turned their operations into the embodiment of virtue. Before long, industrialization was promoted by many as a means of accomplishing the social reforms thought necessary to stem the rising tide of vice, ignorance and immorality. In response, employers soon developed a strong sense of moral, social and economic responsibility for their operatives, and established rules and regulations designed to improve the workers' moral welfare. Employers were also well aware that attributes like obedience and diligence were highly conducive to increased efficiency, productivity and profit.[7]

Although the system maintained an interest in the workers' moral and social well-being, corporate benevolence was often curtailed by a desire for profit. Because of such implicit limitations, paternalism, as interpreted and practiced by most employers, strayed far from its original intentions. At a time when the ideas and principles behind the Declaration of Independence and the Constitution were still fresh, American workers were quick to realize that certain aspects of paternalistic control were far more autocratic than democratic.[8]

While industrialization progressed throughout the nineteenth century, the employer-employee relationship was drastically altered. The replacement of the household-based economy with the factory system "brought a new anonymity and impersonality to the labor contract" that was reflected in industrial housing.[9] By the early twentieth century, companies employed far more men and women than their nineteenth-century counterparts. In Lowell, for example, 6,000 workers were employed by the eight companies located there in 1836. The Colorado Fuel and Iron Company, by contrast, employed more than 75,000 persons in thirty-eight camps in 1901.[10] Faced with such huge numbers of employees, companies began to see labor as an abstraction; workers were seen as a "labor pool," not as individual laborers.[11]

The changes in management-labor relations were also affected by a reversal in the make-up of the working class. By 1900, the working class was dominated by European immigrants, not Americans. As one observer noted, "not every foreigner is a workingman, but in the cities, at least, it may almost be said that every workingman is a foreigner."[12] As a consequence, managements' previous methods of dealing with labor had to be altered. Gradually, a new system of thought arose, which applied the theory of evolution to society and economic competition, and placed social, moral and economic responsibility on the individual. Therefore, an employer's only concerns were the technical and commercial aspects of his operation. Known as Social Darwinism, its tenets were completely antithetical to those of paternalism.[13]

The Geography of Coal

Extractive industries--and therefore, the communities they found--are limited by geography and geology. An analysis of coal company towns might thus be aided by a brief explanation of the economic geography of the coal industry in the United States and Pennsylvania.

The coal deposits of the United States are divided into six distinct regions and classified, or ranked, according to the amount of fixed carbon and volatile matter they contain. The six provinces are: Eastern; Interior; Gulf; Northern Great Plains; Rocky Mountains; and Pacific Coast. In descending scale, American coal is ranked as follows: anthracite; semi-anthracite; semi-bituminous; bituminous; sub-bituminous (black lignite); and lignite (brown or woody lignite). The six ranks do not correspond to the six provinces, although the rank of coal in these provinces decreases in a east-west direction. This classification occurs because only the most easterly beds felt the full force of the great continental pressures which formed the deposits. As a result, the most important province--in terms of quality and quantity of coal produced--is the Eastern Province, which still contained 90 percent of the highest-ranked coal in the country in 1925. This region includes the anthracite fields of Pennsylvania and Rhode Island; the bituminous fields of the Atlantic coast region of Virginia and North Carolina; and the bituminous fields of the great Appalachian region (See figure 2-1).[14]

The Appalachian region extends from the northwestern corner of Pennsylvania through eastern Ohio, West Virginia, eastern Kentucky, and central Tennessee to central Alabama. At the height of the industry, this region was called "the greatest store-house of highrank coal in the United States, if not the world. This nearby and almost inexhaustible supply of high-grade fuel has been the foundation of the development of the blast furnaces, the great iron and steel mills, and the countless manufacturing enterprises of the eastern States." With the exception of the Illinois-Indiana-western Kentucky region, which is one part of the Interior Province, none of the other coal regions ever came close to the Appalachian in production. For this reason, studies of the American coal industry have traditionally focused on only those coal fields which lie east of the Mississippi. As figure 2-1 shows, those twelve states produced 92 percent of the total amount of coal produced in the United States in 1925. Pennsylvania, alone, contributed about one-third, or 34.5 percent.[15]

At the same time, the U.S. Coal Commission found that 70 percent of the approximately 600,000 American mine workers lived and worked in the Appalachian region.[16] Historic studies have shown that the coal industry provided more accommodations for employees than any other industry, with the exception of southern textile manufacture. The commission also noted that the need for housing increases with distance from "self-controlled centers of population." Thus, in Pennsylvania where the coalfields were fairly well settled, just a little over one-half of the mine workers lived in company-owned housing. In Ohio, the number housed was one-fourth; in southern Appalachia (WV, KY, TN, VA, MD, AL) the amount varied from two-thirds to four-fifths; while in the West, almost all of the Mexicans and Indians who made up the labor force built their own dwellings.[17] Thus, while Pennsylvania did not house the highest proportion of miners in the United States, its position as the leading producer of both bituminous and anthracite coal between 1880 and 1930 meant that it employed the most mine workers. As such, Pennsylvania has traditionally taken precedence in any general discussion of the coal industry, including miners' housing.

Coal Towns

Anthracite coal towns developed in the 1840s, followed by bituminous in the 1870s. Thus, not only did anthracite miners' housing predate that of the bituminous fields by several decades, but its similarities to bituminous miners' housing suggest that it also helped determine what form most coal towns would eventually take.

When the Bureau of Labor Statistics investigated anthracite miners' houses as part of its comprehensive company-housing study of 1917, it

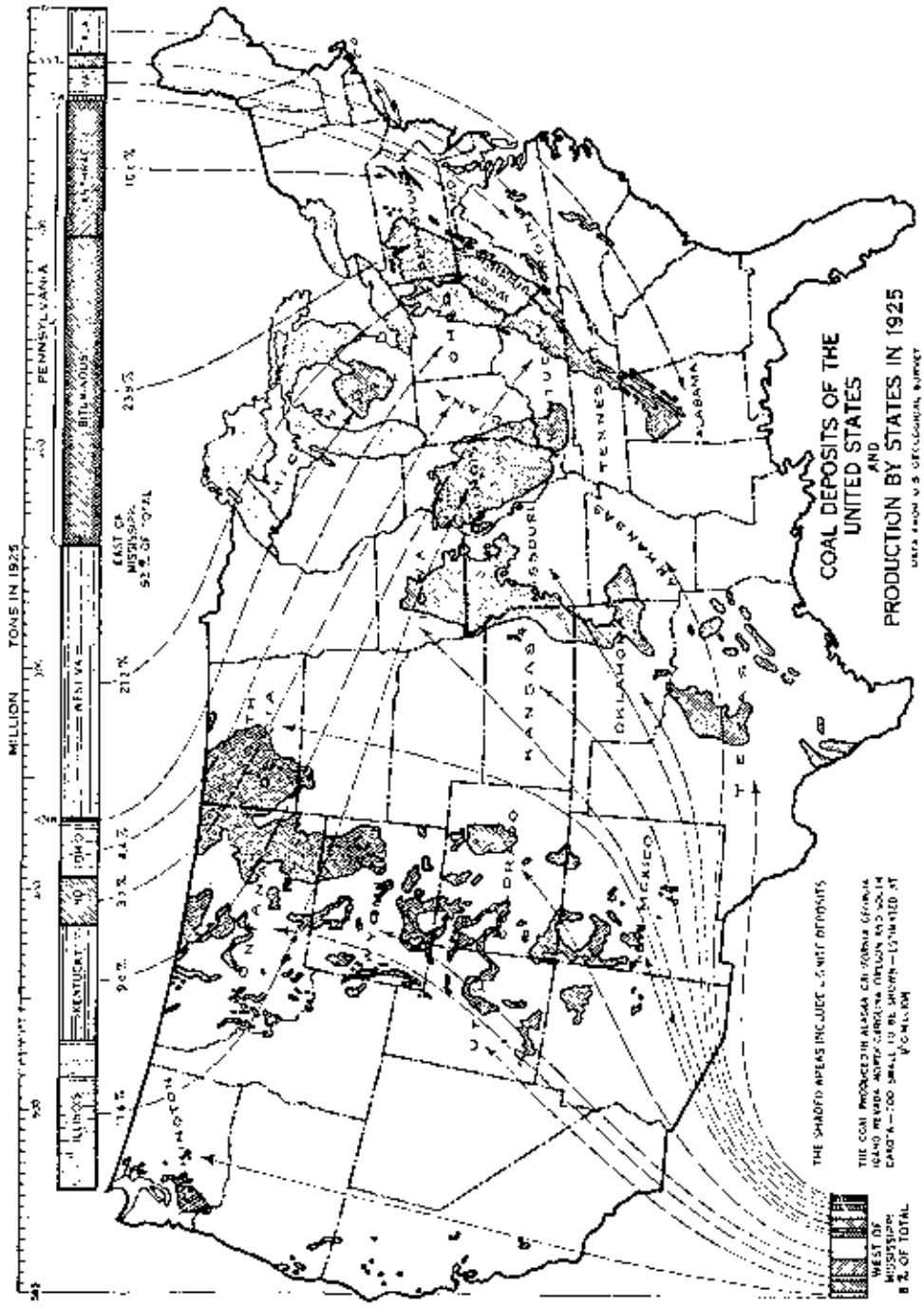


Figure 2-1 Map showing the major coal deposits of the United States and the production of each coal-producing state in 1925. Taken from What the Coal Commission Found, edited by Edward Everett Hunt, F. G. Tryon, and Joseph H. Willitts. Baltimore: Williams and Watkins Company, 1925.

found that most were semi-detached, wood-frame, two-and-a-half-story dwellings. Streets were wide and unpaved, had deep setbacks, and were arranged in grid or rectilinear plans. Despite these similarities, several important differences existed that set anthracite miners' housing apart from bituminous. First, the anthracite miners' houses had an average of five and one half rooms. Compared to the majority of houses reported by bituminous mining and other industries, which had only four rooms, company houses in the anthracite region were somewhat larger.[18] Second, although anthracite towns were often physically isolated, they had a far greater level of interaction with other communities than bituminous coal towns. According to the report, anthracite towns were almost always situated near larger, established communities. By 1917, most mining communities, also called "patches," had rail or electric service to nearby cities so that miners and their families were able to find supplemental work in other industries during lean years. Because of the proximity to other towns, many anthracite patches consisted only of houses and deliberately lacked stores, churches and recreational facilities.[19] And last, of the 90,608 men employed in the region's mines, only 22.8 percent lived in company housing. At the same time, 61 percent of the bituminous miners in the United States and more than 50 percent of the soft-coal miners in Pennsylvania lived in company housing.[20] Although living and working conditions were often substandard in the hard-coal fields, these factors helped prevent anthracite companies from establishing the exclusive control that bituminous operators had over their employees.

Coinciding with the dramatic expansion of the coal industry in the late-nineteenth century, the bituminous coal town saw its greatest period of growth in the decades between 1880 and 1930. Designed and constructed, for the most part, by mine engineers rather than architects, these coal towns share a number of distinguishing characteristics. First, and most important, each town was financed, built, owned, maintained and operated in its entirety by a single company. Companies provided houses, schools, medical facilities, churches, and a store where miners bought food, clothing and supplies. In small towns, the store also housed the post office, once it had been established, and meeting rooms for various social functions. Larger communities had their own social halls and often boasted a hotel or movie theater, as well. Streets were wide with deep setbacks; most were unpaved, although cinders and waste from the nearby slag heaps, called "red dog," were used to keep the dust down (See figure 2-2).

Second, the basic dwelling was a detached or semi-detached house. Families preferred semi-detached or detached houses over rowhouses or tenements. In addition, men with families were believed to be far less transient than their single counterparts. Coal company housing took this form because coal operators consciously hired married men in an attempt to reduce labor turnover. At the time of the U. S. Coal Commission's investigation in 1922, over 95 percent of the miners maintaining homes were married.[21] Companies did hire bachelors, but they were usually required to live in boarding houses. When the boarding houses were full, families supplemented their meager incomes by taking these single men in as boarders.

Third, these houses were constructed as economically as possible. Several factors influenced the amount of a coal operator's housing investment, including the number of houses to be built, the projected life of the community, and the amount of available capital. For many years, mine engineers were not able to predict conclusively the lifespan of the mine. Consequently, coal towns were considered temporary settlements to be abandoned when the mine was worked out. Coal operators limited the amount of their initial investment to minimize their losses when the mine was closed. Thus, housing utilized inexpensive materials and had few amenities, and the towns lacked sewer systems and paved streets.

Importantly, the salability of the houses was not a factor. Coal companies built houses simply because no other provisions existed. It did not matter that the houses were often substandard and lacked amenities that would increase their sale value because most coal companies never

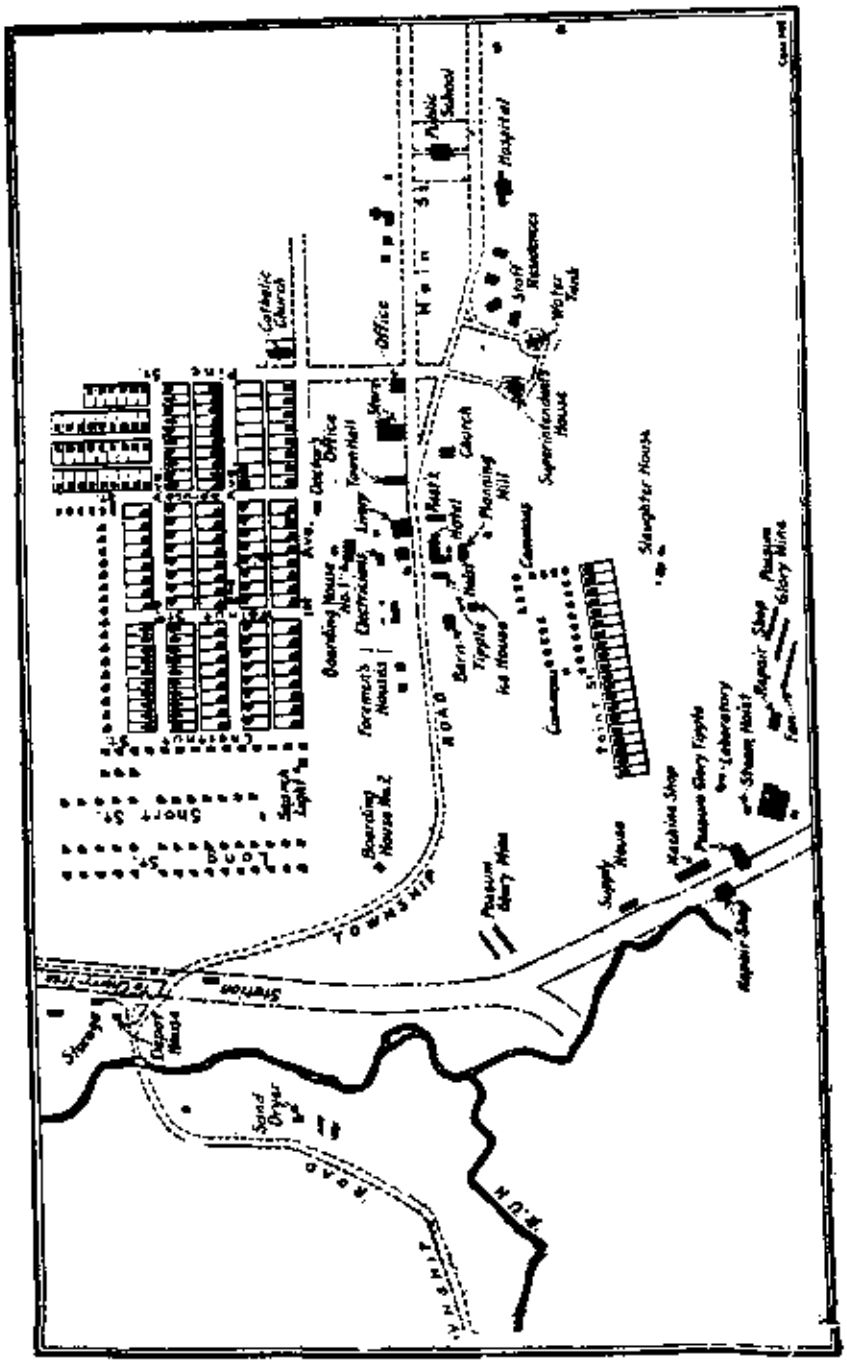


Figure 2-2 Map of Heilwood, Pennsylvania. This typical coal company town dates from the late 1890s and shows the use of grid and linear plans, segregation of management and labor, proximity of housing to the work site, and the existence of a clearly defined town center. From Coal Age (November 1911).

intended to sell the houses. In fact, the temporary nature of the mine and its isolation from other communities resulted in property values that were so low as to compel the companies to retain ownership.[22] Coal companies were not involved in real estate and construction for investment purposes; rather, housing was provided primarily to attract labor.[23] For this reason, housing always received secondary consideration to the main business at hand: coal production.

A clear hierarchy of housing types is a fourth coal town trait. For the most part, houses were identical within each class built. Miners' dwellings were arranged in tight, straight rows along the streets, presenting an image of uniformity and monotony. The standard miners' house was a plain, two-story, balloon-frame dwelling with an average of four to six rooms. Clapboards, weatherboards or board-and-batten siding were typical and provided the only barrier to wind and cold (See figure 2-3); interior walls were lathed and plastered. Few houses had running water or indoor toilets. As many as four or five families shared the few outdoor pumps scattered throughout the settlement. Privies were shared, too, with the most common structure being a combined outhouse/coal bin designed for two families. Most company-owned houses had free electricity since each mine had its own generators. Heat was provided by a coal stove in the kitchen. A system of flues and grates sometimes circulated warm air to other rooms, but since thwey were uninsulated, company houses were almost always cold and drafty. Rooms were approximately 12' x 14' feet and rents averaged as little as $5 a month by World War I. Within most communities, there were marked differences between the residences of management and labor (See figure 2-4).

Managers' houses were generally bigger, yet still arranged in neat, identical groups. Often, they were situated near the mine so an official would always be on hand in the event of a mining accident.[24] In some cases, their location was determined by proximity to the company store and any public buildings there might have been. Sometimes conditions in town were such that no location was necessarily better than any other. This was particularly true in coke towns, where the noxious fumes and sooty air emanating from the coke ovens polluted all sites equally. In these towns, management housing could still be discerned from the rest by the amount of land around them. Standing apart from the rest, the mine superintendent's residence occupied the most conspicuous location within the community. It was generally the largest and most ornamented single dwelling, as befitting the status of its occupant. Mine foremen's and superintendent's housing sometimes had larger kitchens and parlors, more bedrooms and a full, indoor bath. Additional amenities might have included finished interiors, steam heat, exterior ornament, closets and cellars. Like most industries, the hierarchy of housing in a coal town was rigidly defined and obvious to all who saw it. Built by and for the company, workers' housing reflected a wide variety of attitudes and principles relating to management-labor relations.

Last, the physical arrangement of these towns is remarkably similar. Settlements were built in close proximity to the mine site to maximize the ease, speed and economy of the operation and minimize the amount of land to be developed. One source recommended that the town be no more than fifteen minutes walking distance, or thirty minutes by "dependable transportation."[25] Laid out in a grid or linear plan, the streets had an average width of 45 feet. Fifteen-feet-wide alleys and large backyards served as firebreaks between them. Lot sizes were generous in rural coal towns, but varied according to the house size, availability of land, and the social conscience of the operator. Average lots ranged from 50 to 60 feet wide. The most prominent position in town was occupied by the store; other public buildings tended to cluster nearby creating the visual, if not physical, center of town.[26]

Almost invariably these conditions apply to coal towns in the northern and southern bituminous coalfields, yet despite these similarities, coal company housing did vary somewhat from place to place. In the Birmingham district of Alabama, for example, the typical miners' house was a detached, square, one-story, frame cottage with a hipped roof, center chimney and front and back

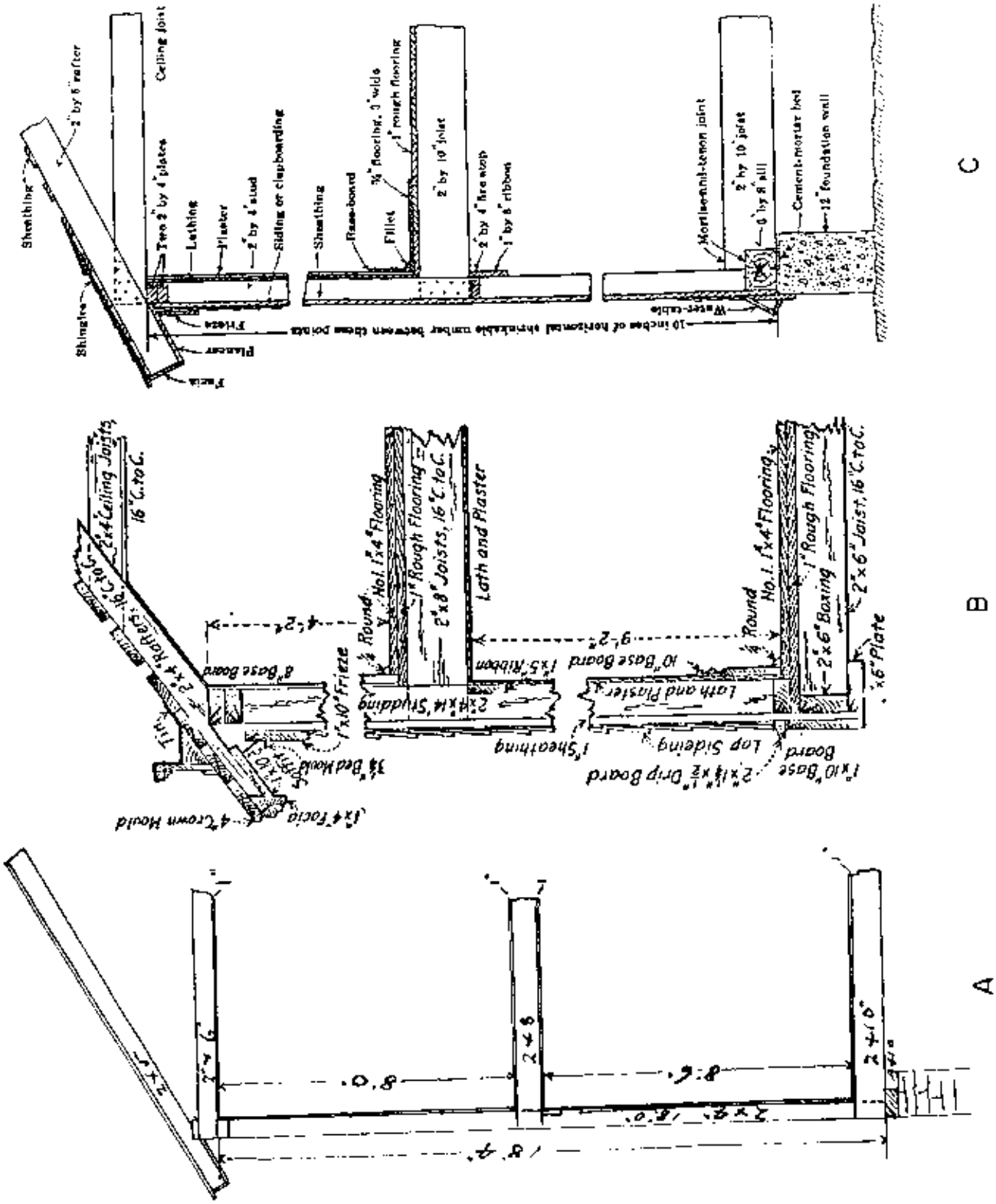
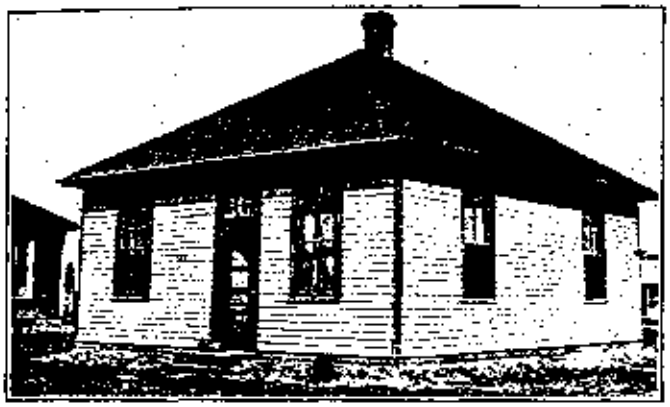
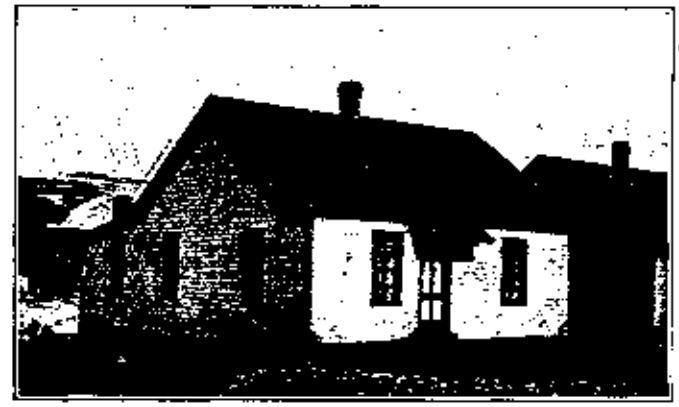


Figure 2-3 Comparison of construction drawings of miners' houses.
A) Berwind-White Coal Mining Co., original drawing, 1897. B) Coal Age (November 1911). C) U. S. Bureau of Mines, Housing of Mining Towns (1914).

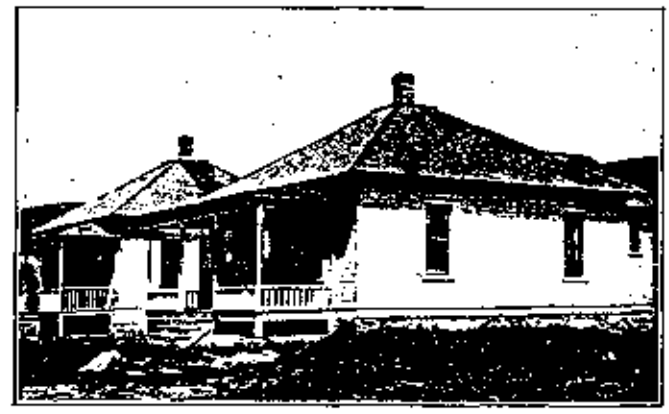


FOUR-ROOM HOUSE WITH HIP ROOF



FIVE-ROOM HOUSE WITH GABLE ROOF

FOREMAN'S HOUSE WITH GABLE ROOF



FOREMAN'S HOUSE WITH HIP ROOF

A SUPERINTENDENT'S OR FOREMAN'S HOUSE

SUPERINTENDENT'S HOUSE WITH HIP AND DECK

Figure 2-4 Examples of suitable houses for colliery employees. Suggested by Coal Age (October 1911).

porches. These houses rested on brick piers, about four or five feet above the ground. Because of the warm southern climate, the area under the house was left open for ventilation; in the northern coalfields, the area beneath the house was enclosed to keep out cold winds and snow. A one-story, box-like, frame cottage on posts was also a characteristic of West Virginia coal towns.[27] In Tennessee and Kentucky, small, one-story, gable-roof cottages were the norm. Another house type, the "shotgun," dominated southern company towns. A long, narrow, one-story structure, the typical shotgun house was one room wide and three rooms deep.[28]

The bituminous coalfields also differed in the ethnic composition of its laborers. In Pennsylvania, for example, over 55 percent of the mineworkers were white but foreign-born (European), while in Alabama, the majority was black American (53 percent). In West Virginia, Ohio, Indiana, and Illinois the majority were native-born whites.[29] Most companies believed that the nativity and racial characteristics of the work force governed the type of house built, suggesting another reason why housing differs from region to region.[30]

Progressivism in Workers' Housing

Between 1880 and 1910, American cities experienced what has been called an "urban explosion." Cities swelled with masses of unskilled or semiskilled laborers. New lands were annexed to the already heavily settled areas, and were laid out in tight gridiron plans to maximize space. Small, dark and poorly ventilated tenements sprang up by the hundreds, creating a cramped and unhealthy environment that fostered disease and a rising mortality rate. Alarmed by the dangerous changes being wrought upon their cities, American social workers, civic leaders and concerned citizens organized a new push for social and cultural reforms that were eventually absorbed into the ideals of the Progressive Era.[31]

The primary goal of this aspect of the reform movement was the replacement of dilapidated and unsanitary living quarters with model dwellings. In response, architects, landscape architects and similar professionals published a series of articles and books promoting their solutions to the housing problem. Each set forth minimum housing requirements and included plans, photographs, elevations and building specifications for houses designed to meet their exacting standards. Books like E. R. L. Gould's The Housing of the Working People of 1895 served as a standard guide to these new requirements. However, while urban slums were the main focus of the movement, they were by no means the only areas that needed reform; coal towns were particularly noted for poor living conditions and were immediately targeted by reform groups.

The continued demand for industrial housing offered unparalleled opportunities for implementing the reforms expounded by planners and architects, particularly when the proposed site was on rural, undeveloped land.[32] Many new "model" towns were laid out and built during this period, including Vandergrift, Pennsylvania (1895); Kaulton, Alabama (1912); Kohler, Wisconsin (1913); Morgan Park, Minnesota (1917); and Kistler, Pennsylvania (1918). Some model company towns were even built in the bituminous coalfields, like Kincaid, Illinois (1915), and Slickville, Pennsylvania (1916) (See figures 2-5 & 2-6). Although they varied in size, location and industry, all of the aforementioned towns utilized a curvilinear plan. Showing an increasing attention to community design, reform architects and planners advocated a complete rejection of the traditional grid or linear plan; by utilizing sweeping curved streets instead, designers found they could soften the image of monotonous rows of identical houses, a factor long held as one of the major drawbacks to company-town planning. At the same time, architects protested the repetitive use of one plan and elevation for houses. They also encouraged variety in workers' housing, which could still be achieved cheaply by simply varying roof shapes, exterior paint colors, alignment to the street, porch location or building materials.[33]

With the reforms came an increased attention to landscape. The business of constructing the mine site, railroads and houses usually laid

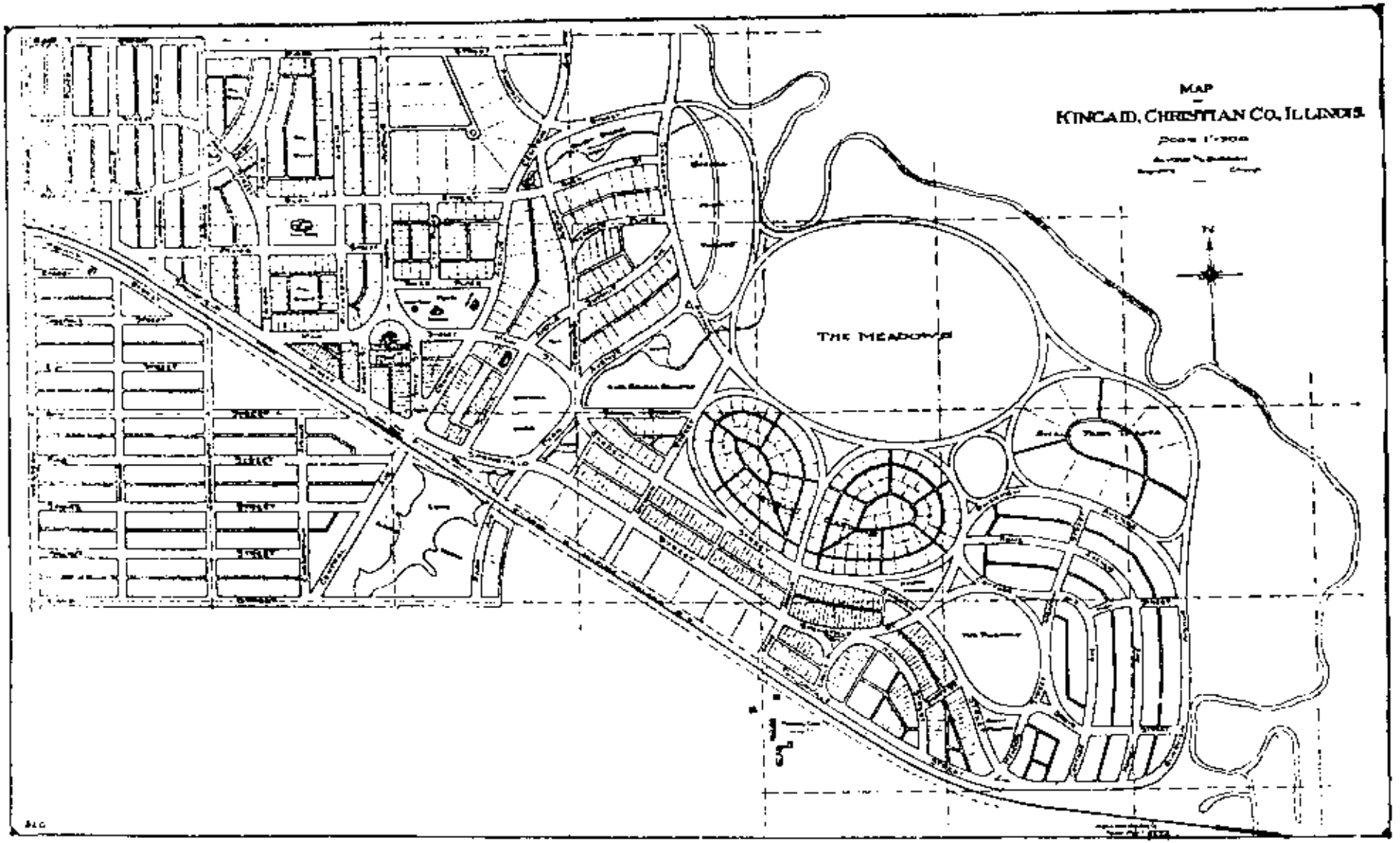


Figure 2-5 Map of the model coal town of Kincaid, IL, laid out in 1915. Reproduced from John Reps, The Making of Urban America, A History of Urban Planning in the United States. Princeton: Princeton University Press, 1965.

much of the countryside surrounding a coal town to waste. Clouds of smoke, piles of waste material and fine particles of coal dust discouraged any new growth. The only green spots in most coal towns consisted of the small vegetable plots maintained by each miner's family. Planned parks were almost painfully absent from the bleak communities, but gradually, coal companies began to encourage the planting of shrubs and trees. One industrial housing manual, written by a landscape architect, recommended reserving 58.4 percent of the available land for housing lots, 25.7 percent for streets and 15.8 percent for parks and other areas.[34] However, industrial communities in urban areas followed these guidelines more closely than isolated, self-contained towns. Unlike the so-called "model" towns with their large park systems, most mining towns stressed small-scale landscaping like gardens. Incentive to miners was provided in the form of prizes; by 1917, almost one-third of all coal companies that provided housing had adopted a system of awarding prizes to individual gardens. The prizes consisted of money (as much as $10 or $15 for first place), framed certificates, and gardening handbooks. Coal companies paid for the plants and built uniform, whitewashed fences around the miners' yards. Officials believed that with such minimal efforts, the appearance of the town, and subsequently, the morale of its inhabitants, would improve dramatically.

Closely linked with gardens was the idea of cleanliness. Natural vegetation was seen by some as an inexpensive means of keeping down the dust and dirt that were "prolific carriers of disease."[35] By promoting gardening, employers also hoped to develop an enthusiastic attitude toward the whole town. Generally, overall maintenance was provided by the company and included garbage and ash removal. The upkeep and maintenance of individual gardens was left to the miner and his family, although at least several firms plowed their employees' gardens and fertilized them with manure from its stables.[36] The Department of Labor concurred with one large coal company president who felt that if the company took an interest in making the town presentable, the employees would also contribute to maintenance. Although some miners did take an active part in the upkeep of their houses and yards it was tempered by the relatively unstable nature of their housing situation. As renters, miners were less apt to make improvements than if they were homeowners. This was compounded by unwritten leases and the threat of eviction with little more than ten days notice.[37]

By 1915, interiors began to reflect reforms, too. Room sizes increased by several feet and in some cases, the average number of rooms per dwelling grew, as well. Noting that inadequate provisions for light and air contributed to unhealthy conditions, builders enlarged and added windows and put in screens. Running water became a more standardized feature and the number of houses with indoor toilets increased. Some houses even had hot water. Interestingly, designers also paid considerable attention to storage space by adding closets and cellars. Separate rooms for living and dining made their appearance at the same time. One book recommended that these rooms be not less than 120 feet square. The author arrived at this figure by calculating what furniture would be contained in each room and how much space should be reserved for each piece.[38]

As the center of activity in any house, the kitchen required the most careful planning of all the rooms. It needed a separate entrance, usually from a back porch; there would also be a door leading to the dining room or parlor, one to the cellar, and several windows. Space was also required for a storage cupboard or hutch if no separate pantry were provided. A standard sink and drainboard required a minimum 5' allowance, while the stove generally occupied 6' of a corner. Certain architects also allowed room for an icebox although a fruit cellar was often the only cold storage available. Space was also reserved for a table and four to six chairs. All of this necessitated a room that occupied at least 17 percent of the house's available first-floor space.[39] According to various floor plans, the average kitchen ranged from 10' x 10' to 12' x 12', an adequate size for day-to-day food preparation and consumption activities. While the aforementioned considerations applied equally to kitchens in all types of workers' housing,

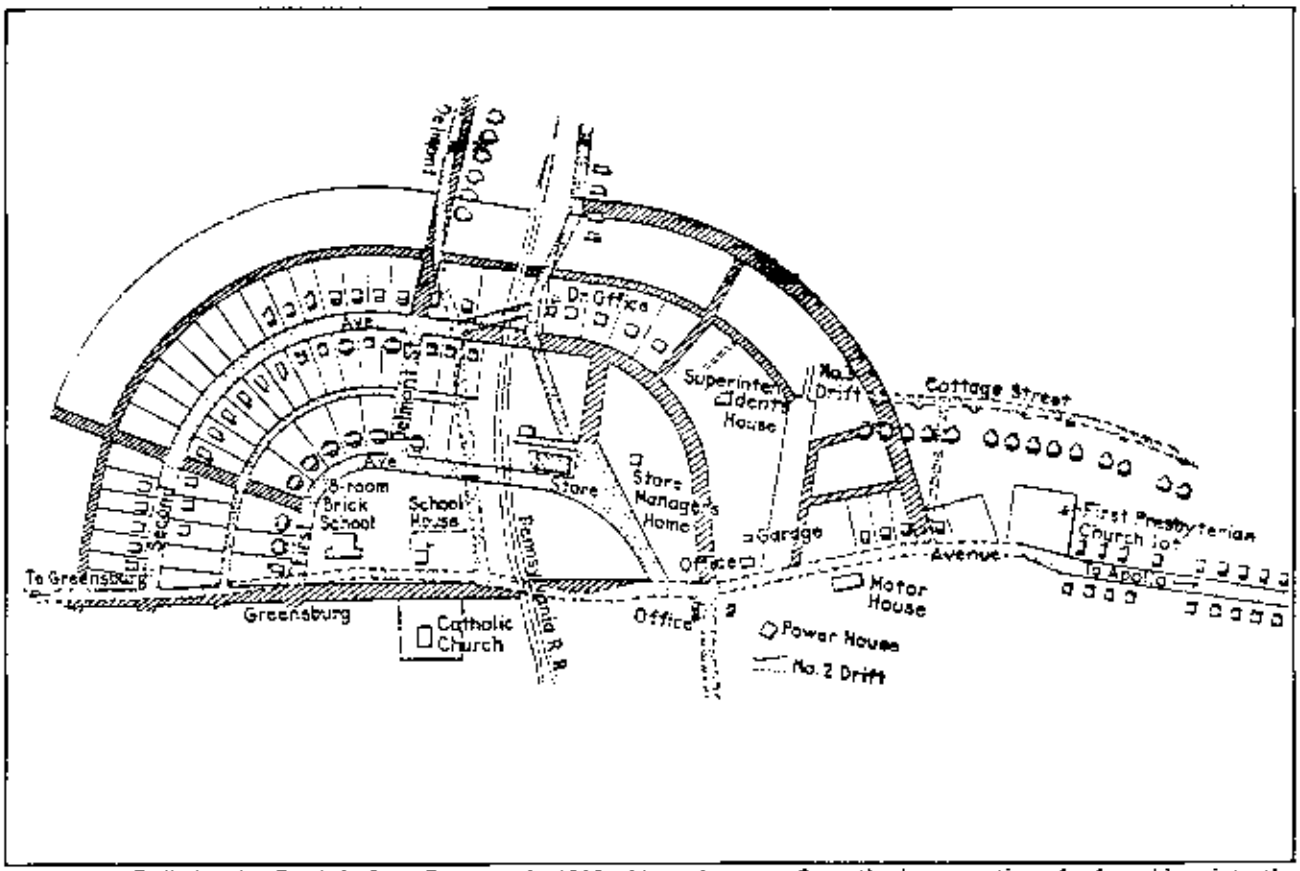


Figure 2-6 Built by the Cambria Iron Company in 1916, this coal town reflects the incorporation of reform ideas into the traditional coal-town format. Taken from Coal Age, 1922.

designers of miners' houses had one other activity to consider: bathing.[40]

The work of coal mining necessarily generated large quantities of dirt and grime. Minute particles of coal dust, called "bug dust," were suspended in the dampness of the mine environment and covered the miners' faces and clothing to such an extent that they were literally black by the end of a shift. Miners and their families recall with amusement being able to see only the whites of their eyes. Bug dust was also the primary cause of anthrosilicosis, better known as Black Lung disease.

Coal companies realized the practical necessity of bathing and laundering, and many built special bath houses at the mine site even before state laws made them mandatory. Almost identical in architectural treatment to the other mine buildings, the bath house contained communal showers and locker rooms. Inside the locker room, ingenious hook-and-basket devices hung suspended from the high ceiling on long chains. Each miner was assigned his own, with a lock and key. Hoisted aloft on these hooks at the end of a shift, the miners' damp clothing could then dry until needed again.

But few companies were large enough or interested enough to provide such niceties as bath houses. In these cases, the miners bathed at home. A huge tub, often reserved for the miner's sole use, was pulled out and filled. In good weather, this activity took place on the back porch or in the yard, but in colder months bathing was forced into the kitchen. One designer, noting the awkwardness of this arrangement, suggested building a separate bath and dressing room in the cellar, but his idea

never really took hold. In spite of the apparent need, the Bureau of Labor Statistics' report of bituminous miners' dwellings indicated that of 18,878 houses, only 255 had bathtubs. Forty others had combination bath and laundry tubs in the kitchen, but that still left more than 18,500 without bathing provisions.

Even as late as the 1940s, bathtubs were still considered a luxury item in many coal towns. This omission stems from a pervasive belief that the minimum housing requirements for unskilled workers were different from those of skilled employees (See figure 2-7).

Segregation

As architect Leslie Allen indicated in Industrial Housing Problems in 1917, there were two distinct classes of workers:

> First, the unskilled workmen, mostly foreigners or negroes, uneducated, unused to American houses and American standards of living, earning a low wage and second, the skilled men, mechanics, machinists etc., earning a higher wage, mostly Americans, living according to American standards, demanding more and willing to pay more for the comforts that the foreigner does not consider essential.[41]

Allen listed the minimum requirements for industrial workers' housing as follows: watertight construction; a bedroom for parents; separate bedrooms for male and female children; a living room for cooking, eating and general day use; a private toilet room with a sanitary water closet and sewer connection; suitable heating arrangements; running water supply fit for drinking; uninterrupted daylight and ventilation through windows in every room; and a sink in the kitchen with running water and waste. He then added a list of features considered essential by "the American family," which included bathtubs, closets, cellars and screens. Allen considered these items unnecessary for immigrants or minorities.[42] Other industrial-housing authorities, like Lawrence Veiller of the National Housing Association, and William Groben of Ballinger and Perrot in Philadelphia concurred with Allen. The Department of Labor Standards, by contrast, required an individual tub and toilet for each dwelling, regardless of the occupant's status or ethnic background. Yet few companies complied with government standards and, in fact, even the U.S. Bureau of Mines admitted that "it may not be practicable to install stationary bathtubs in all individual houses."[43] When the U.S. Coal Commission made its report in 1922, less than 3 percent of miner's houses had tubs or showers.

Although living conditions were often substandard, in retrospect, the appearance of coal towns was primarily the result of economics and only partly of prejudice. Above all, the coal town was to be run as a business and not on a charitable or paternal basis.[44] Even in model towns, houses often excluded basic comforts so they could be built as inexpensively as possible. Such policies were ostensibly designed to benefit labor as well as management. Allen and his colleagues justified their spare designs by explaining that even if extras like cellars, closets and bathtubs were provided, unskilled workers like miners would not be able to afford them. Allen insisted:

> Many of the workingmen whose homes we wish to build have come from countries where four walls and a roof are considered sufficient shelter from the elements to make a home . . . We do want to house the lowest-paid man in a sanitary and hygienic home, but it is not necessary that this home be furnished with all the conveniences and appurtenances that are considered necessary in the American home.[45]

Although industrial-housing reformers strongly recommended improving conditions in workers' housing, the steps they advocated were often financially unrealistic. For this reason, the integration and homogenization of miners' dwellings did not occur until the houses were sold to individuals after World War II.

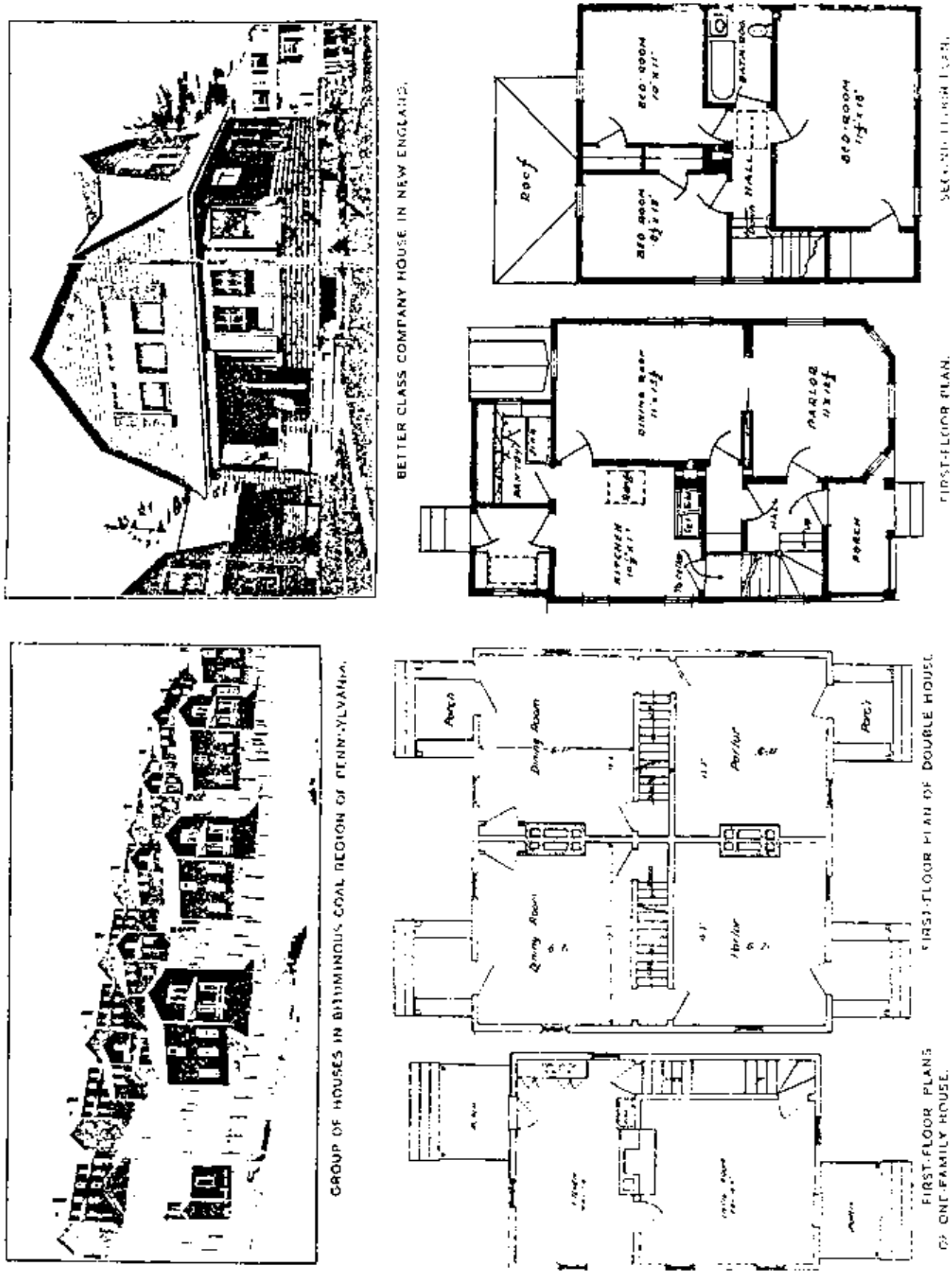


Figure 2-7 Comparison between a typical group of bituminous miners' houses and a "better class company house in New England." From "Employers' Housing in the United States," by Leifur Magnusson in Monthly Labor Review, no. 5 (November 1917).

Housing and Labor Relations

The segregation of employees by ethnic background and occupational status is indicative of the power wielded by the employer in his position as landlord. Yet, as Leifur Magnusson--who conducted the Bureau of Labor's industrial-housing study--concluded in 1917, factors like theisolation, impermanence, transient labor force and absence of self-government that characterized company towns forced employers to retain ownership of the entire town. However, he was careful to note that by providing housing, employers also assumed a vast responsibility for the social welfare of their employees. Simply put, "a housed labor supply is a controlled labor supply," for by holding the leases on an employee's house, the employer secured a total control not possible in a normal management-labor relationship.[46]

In general, the landlord-tenant relationship could be terminated in as few as ten days, despite the thirty-day notice guaranteed tenants by the Pennsylvania legislature. As early as 1865, coal operators in Tioga County, Pennsylvania, pressured their representatives into pushing through legislation that legalized the ten day eviction clause. Under this law, a company could justifiably evict an employee from company housing if he failed to uphold his part of the labor contract; that is, if he did not work. Some companies required no notice of eviction at all, but merely stipulated that occupation of company-owned housing must terminate upon cessation of employment with the firm. Furthermore, the limitation of company housing only to persons actively working for the company involved was upheld by a Federal court in Hackett vs. Marmet Co. in the 1910s. Few companies even qualified the cause of unemployment, a strategy that would later affect striking miners, as well as those who were fired or laid off. Some tenants also had to sign housing agreements in which they waived their right to trial if evicted. Outside observers concluded that such practices prevented development of the sense of independence and self-reliance that were so closely associated with the American dream. The coal company town was described as "a great anomaly in the midst of a free country."[47]

Employers used their influential landlord status to great advantage in enforcing company policies. From the long waiting list, company officials were able to pick only the most skilled and most loyal employees for housing privileges. Similarly, on the basis of reserving the best houses for the best qualified, employers practiced extreme racism and favoritism. Furthermore, blacklisting enabled most companies to deliberately exclude all known union sympathizers and organizers from their towns. In fact, some companies went so far as to insert exclusion clauses in leases that banned all persons the company considered objectionable from trespassing on company property. Company property included not only the mine, tipple and breaker, but the roads, store and houses, too.[48]

As one housing reformer pointed out in 1917, labor unrest was not entirely due to lack of adequate pay. It was also the result of poor living conditions and the effect of these conditions on the workers' families.[49] Ironically, while certain practices contributed to the dissatisfaction of employees, others were intentionally used by employers as a means of suppressing unrest. During periods of intense unionizing activity, some firms actively suppressed gatherings of any kind. The employers' most effective weapon at these times was the special police.

The coal police were authorized by a Pennsylvania state law in 1866 as protection from violent strikers like the so-called "Mollie Maguires" in the anthracite fields of northeast Pennsylvania.[50] Their salaries paid by coal companies, these special police forces were extensively used to maintain order throughout the anthracite and bituminous fields at the end of the nineteenth and well into the twentieth centuries. For the most part, maintaining order consisted of protecting company property, breaking strikes, suppressing meetings, evicting miners and intimidating protesters with physical violence. A striking miner employed at the Berwind-White Company's Maryland No. 1 Shaft reported:

> They made us move out. They threw our furniture out on the streets if you tried to organize. They had what you would call pussyfoots (company police) riding horses, and if

you would get four or five men in a group and try to organize, they would come and break it up.[51]

Their mobility severely limited by a lack of ready cash, evicted miners and their families sometimes set up housekeeping in tent communities located just off company property. The years between 1898 and 1915 witnessed a rash of renewed strikes and evictions. During that period, the United Mine Workers of America collected and spent $21,774,791. Of that, $16,451,832 went for the relief of striking miners cut off by their employers.[52] Despite the hardship they imposed on strikers and their families, company officials easily explained the use of eviction tactics by claiming, perhaps justifiably, that they needed the houses for men who would would work: strikebreakers. The Cambria Iron Company reflected this view during the strikes of the early 1920s when "it finally became necessary to terminate the leases of some of the miners who refused to go to work" at its Slickville, Pennsylvania, mine.[53]

One of the largest coal strikes in the United States began in April 1922, when miners throughout the country banded together to protest wage cuts. This nationwide strike resulted in the closing of all coalfields in Pennsylvania, bituminous and anthracite. Soon after the strike was announced, several thousand miners were systematically evicted from company-owned housing and were forced to spend the harsh winter of 1922-23 in tents.

In direct response to the 1922 coal strike, the federal government established the U.S. Coal Commission, the first official body ever formed to study the American coal industry.[54] Like the Bureau of Labor Statistics' surveys of 1917 and 1920, the commission studied approximately 71,000 houses in 713 company towns in the bituminous coalfields of western Pennsylvania, and rated the communities on eight points:

1. Housing.
2. Water supply and distribution.
3. Sewage and water disposal.
4. Community layout.
5. Food and merchandise supply.
6. Medical and health provisions.
7. Recreation.
8. Religion and education.[55]

The commission's findings revealed little new information; living conditions in coal towns were still among the worst in the United States. But what really incensed committee members were the violations of miners' civil liberties. An article by Zechariah Chaffee, chairman of the Committee of Inquiry on Coal and Civil Liberties in 1922, appeared in The Independent in 1923, and stated: "Yet when all is said and done it is paternalism. It is done for the miners, not by them, given in abnegation of the ordinary privileges of workmen."[56] Chaffee's article raises some interesting philosophical points regarding the denial of civil liberties. One of the most provocative concerns was what was seen as the inherent contradiction of the American way of life in company towns.

From the beginning, the Coal Commission indicated that civil rights were the "special heritage and prized possessions of the Anglo-Saxon peoples."[57] But what about non-Anglo-Saxon peoples? Were they entitled to the same rights? Judging from remarks made by both critics and advocates of company towns, the answer was no.

It is certainly true that many immigrants had left autocratic and paternalistic societies in eastern and southern Europe. It is also true that they were probably unaccustomed to being treated with the democratic equality Americans expected. From this, American employers mistakenly assumed that immigrants did not want or deserve the equal treatment guaranteed under the Constitution. The problem was compounded by the immigrants' status as resident aliens, not U.S. citizens. One source, referring to workers' reactions to mandatory house inspections, cautioned employers that Anglo-Saxons had "cherished traditions of independence" that must be respected. But the author then went on to remark that "Negroes or Slavs, races more or less accustomed to paternalism," would not require such courtesy.[58] Furthermore, even though Chaffee felt coal companies' lease policies violated the "Anglo-Saxon tradition that a man's house is his

castle, whether or not the Poles and Italians may rightfully be denied the benefit of that tradition, in West Virginia and Alabama the miners who have to sign the leases are American mountaineers." Recent scholarship has suggested, however, that the aspirations of immigrant miners were, in fact, higher than those of native-born Americans.[59]

House vs. Home

Many coal operators did implement housing reforms, but most still viewed housing as just another aspect of business. But how did the mine workers view the company houses? Specifically, did miners consider their houses "home?" One thought-provoking article raises a similar question in regard to the Lowell mill girls. Author Richard Horowitz attempted to interpret the meaning of the Lowell boarding house from the point of view of its inhabitants and concluded that "home," to the mill girls, implied several characteristics: permanence of residency; comfort; freedom from overcrowding; ventilation; cleanliness; and order.[60] Another source states:

> The home is the place of peace; of shelter, not only from injury, but from all terror, doubt and division. In so far as it is not this, it is not a home; so far as the anxieties of the outer life penetrate into it, and the inconsistently minded, unloved, or hostile society of the outerworld is allowed by either husband or wife to cross the threshold, it ceases to be a home.[61]

The home was thus intended to be a haven for the family, a place of retreat from the world at large. But the coal-company house fell far short of these idealized descriptions. Physically, it tended to be uncomfortable, crowded, stuffy and poorly lit. Coal dust covered everything, and heaps of coal waste disfigured the landscape. More important, town and workplace were so interconnected that the "anxieties of the outerlife" actually became an inherent part of life in a company house.

After World War II, overproduction of coal and the rise of alternative fuels from petroleum by-products combined to cause a general decline in the coal industry. The next few decades were marked by the bankruptcy or consolidation of hundreds of independent coal companies. This reorganization of the companies' holdings often included the sale of company housing. Some coal towns experienced mass outmigrations. In others, miners maintained their loyalty to the landscape and bought their homes, despite the town's location or condition. Research into the continuity of anthracite communities after the industry's decline offers a paradoxical explanation for this phenomenon: the intangible associations of a particular landscape are more instrumental in encouraging an individual to reside there than the physical support it can provide.[62] Therefore, miners were more likely to buy the houses they had lived in for many years and remain in a nonproductive environment than they were to move to a strange place with better economic opportunities.

To immigrants who chose to remain in the United States, home ownership symbolized achievement and a sense of being finally settled. Even now, home ownership can be seen as an indicator of economic well-being, social mobility and status.[63] Indeed, the number of miners who bought their houses from coal companies when the opportunity presented itself indicates that home ownership and the independence it promised rated extremely high as a goal for immigrant families. But more important was the sense of place and of belonging to a community that home ownership offered. Drawn together by their common experience, many mining families developed a strong sense of communal identity, and an attachment to the landscape that belied the deficiencies in their environment. Local scholars of the Pennsylvania bituminous coal region attribute this sense of community to the presence of a distinct "coal culture," which flourished between 1880 and 1930, and when interviewed, at least one resident likened the coal town community to "one, big family."[64] Although many factors no doubt contributed to their constancy, it is this sense of fellowship that emerges as the primary reason why, despite severe economic recession and and high unemployment, many ex-miners remain firmly in place.

Notes

[1]U. S. Department of Labor, "Employers' Housing in the United States," by Leifur Magnusson, Monthly Labor Review, No. 5 (Washington, D.C.: Government Printing Office, November 1917), 879.

[2]As has been noted by many historians, the factory replaced the church or meeting house as the community focus during the early industrialization period. William H. Peirson, Jr., American Buildings and their Architects - Technology and the Picturesque, the Corporate and the Early Gothic Styles (New York: Doubleday and Co., Inc., 1978), 57.

[3]Charles E. Boyer, Early Forges and Furnaces in New Jersey (Philadelphia: University of Pennsylvania Press, 1931), 6.

[4]Jonathan Prude, The Coming of Industrial Order (New York: Cambridge University Press, 1983), 37.

[5]Katherine Harvey, The Best Dressed Miners: Life and Labor in the Maryland Coal Region 1836-1900 (Ithaca: Cornell University Press, 1969), 76.

[6]Anthony F. C. Wallace, Rockdale (New York: Alfred A. Knopf, 1978), 21-51.

[7]Prude, 111-113; Gwendolyn Wright, Building the Dream: A Social History of Housing in America (Cambridge: MIT Press, 1981), 65-68.

[8]Prude, 119.

[9]Stephan Thernstrom, Progress and Poverty: Social Mobility in a Nineteenth Century City (Boston: Harvard University Press, 1964; reprinted, New York: Athenaeum, 1975), 43.

[10]Wright, 182.

[11]Thernstrom, 43.

[12]Herbert Gutman, Work, Culture and Society (New York: Vintage Books, 1977), 40.

[13]Samuel Hays, The Response to Industrialism, 1885-1914 (Chicago: University of Chicago Press, 1957), 39; Ronald D. Eller, Miners, Millhands and Mountaineers: Industry of the Appalachian South, 1880-1930 (Knoxville: University of Tennessee Press, 1982), 205; for an in-depth treatment of the subject see Richard Hofstadter, Social Darwinism in American Thought, 1860-1915 (Boston: Beacon Press, 1955).

[14]What the Coal Commission Found: An Authoritative Summary by the Staff, edited by Edward Eyre Hunt, F. G. Tryon, and Joseph H. Willits (Baltimore: The Williams and Wilkins Co., 1925), 51-52.

[15]Ibid., 53.

[16]U.S. Coal Commission, Report of the U.S. Coal Commission (Washington, D.C.: Government Printing Office, 1923), 1411.

[17]What the Coal Commission Found, 139-140; Magnusson, "Employers' Housing in the U.S.," 878; A. B. Cooley, "Machine Shop, Bath House, Houses, and Other Accessory Buildings at New Gallup America Mine," Coal Age 24, no. 12 (20 September 1923): 427.

[18]U.S. Department of Labor Statistics, "Company Housing in the Anthracite Region of Pennsylvania," by Leifur Magnusson, Monthly Labor Review 10 (Washington, D.C.: Government Printing Office, May 1920), 1261-1266; Magnusson, "Employers' Housing in the U.S.," 885.

[19]Magnusson, "Housing in the Anthracite Region," 1260.

[20]What the Coal Commission Found, 139.

[21]See Magnusson, "Employers' Housing in the U. S.," 878-879; What the Coal Commission Found, 137; and Wright, 184.

[22]U. S. Department of Labor Statistics, "Company Housing in the Bituminous Coalfields," by Leifur Magnusson, Monthly Labor Review, no. 10 (Washington, D.C.: Government Printing Office, April 1920), 1045.

[23]Magnusson, "Employers' Housing in the U.S.," 878-879; "The Company Community in the American Coalfields," The New Statesman 30 (15 October 1927): 6-7.

[24]Joseph Hill White, "Housing for Mining Towns," U.S. Bureau of Mines Bullitin #87 (Washington, D.C.: Government Printing Office, 1914), 7.

[25]Morris Knowles, Industrial Housing (New York: McGraw-Hill Book Co., Inc., 1920; reprint, New York: Arno Press, 1974), 40.

[26]John Aubrey Enman, "The Shape, Structure and Form of the Pennsylvania Company Town," Proceedings of the Pennsylvania Academy of Science 42 (1968); Magnusson, "Employers' Housing in the U. S.," 870-871.

[27]Eller, 184.

[28]Magnusson, "Housing in the Bituminous Coalfields," 217.

[29]What the Coal Commission Found, 136.

[30]Knowles, 32.

[31]Arthur M. Schlesinger, Jr., ed., The Almanac of American History (Connecticut: Bison Books Corp., 1983), 400.

[32]Author Gwendolyn Wright dedicates an entire chapter of her book, Building the Dream, to the effect of this reform movement on company towns. She calls the phenomenon "welfare capitalism." Wright, 180.

[33]Magnusson, "Employers' Housing in the U. S.," 881; The steps taken by the Allegheny Pittsburgh Coal Company to reduce the monotony of housing in its company

town at Logan's Ferry is discussed in "Logan's Ferry has Front Lawns, Open Fires, Lined Flues, Roomy Cellars and Other Conveniences," Coal Age 20, no. 25 (22 December 1921): 1012. This particular firm kept a rectilinear plan but alternated seven different house styles and twenty colors of paint.

[34]John Nolen, The Industrial Village (New York: National Housing Association Press, 1918), 18.

[35]Magnusson, "Employers' Housing in the U. S.," 871.

[36]George Atwell Richardson, "Cambria Steel Co. Finds That Good Housing Increases Output," Coal Age 23, no. 20 (1922): 812; Magnusson, "Housing in the Bituminous Coalfields," 220-221.

[37]Knowles, 297-298.

[38]Ibid., 298.

[39]White, 20.

[40]Leslie H. Allen, Industrial Housing Problems (Boston: Aberthaw Construction Co., 1917), 12.

[41]Ibid.

[42]Ibid.

[43]White, 54.

[44]Ibid., 6.

[45]Allen, 14.

[46]Magnusson, "Employers' Housing in the U. S.," 880-881.

[47]Zechariah Chaffee, Jr., "Company Towns in the Soft Coalfields," The Independent 111, no. 3852 (13 October 1923): 102-103; Gutman, 327-331.

[48]Chaffee, 102.

[49]Knowles, 14.

[50]Jeremiah Patrick Shalloo, Private Police, With Special Reference to Pennsylvania (Concord, NH: Rumford Press, 1933).

[51]Karl Berger, ed., Johnstown: The Story of a Unique Valley (Johnstown: Johnstown Flood Museum, 1985), 623.

[52]David Montgomery, The Fall of the House of Labor (New York: Press Syndicate of the University of Cambridge, 1987), 339.

[53]Richardson, 817.

[54]Winthrop D. Lane, The Denial of Civil Liberties in the Coalfields (New York: George H. Doran Co., 1924), introduction.

[55]What the Coal Commission Found, 145.

[56]Chaffee, 103.

[57]Lane, introduction.

[58]Knowles, 379.

[59]Chaffee, 102; Richard Harris and Chris Hammet, "The Myth of the Promised Land: The Social Diffusion of Home Ownership in Britain and North America," Annals of the Association of American Geographers 77, no. 2 (June 1987): 173-190.

[60]Richard P. Horowitz, "Architecture and Culture: The Meaning of the Lowell Boardinghouse," American Quarterly (1972): 74-77.

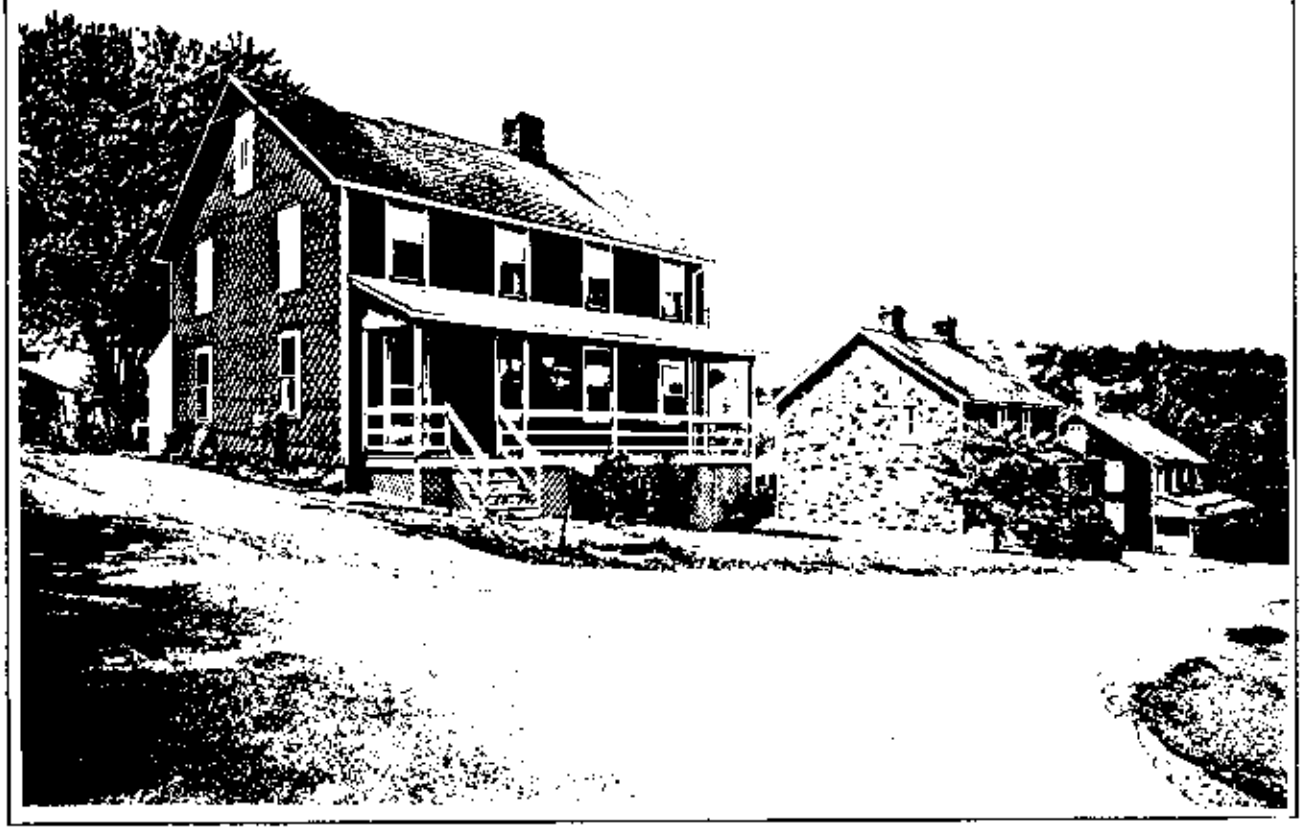
[61]John Ruskin, "Of Queen's Gardens," in Sesame and Lilies (London: Smith, Elder, 1865), quoted in Lizabeth Cohen, "Embellishing a Life of Labor: An Interpretation of the Material Culture of American Working Class Homes, 1885-1915" in Common Places, edited by Dell Upton and John Michael Vlach (Athens: University of Georgia Press, 1986), 263.

[62]Ben Marsh, "Continuity and Decline in the Anthracite Towns of Pennsylvania," Annals of the Association of American Geographers 77, no. 3 (1987): 337.

[63]Richard Harris and Chris Hammet, "The Myth of the Promised Land: The Social Diffusion of Home Ownership in Britain and North America," Annals of the Association of American Geographers 77, no. 2 (June 1987): 174; Thernstrom, 57-79.

[64]Walter Woodward. Interview by author, 13 April 1988.

PART II: THREE SOUTHWESTERN PENNSYLVANIA COMPANY TOWNS



The next three chapters provide detailed information regarding life and work in three individual southwestern Pennsylvania coal company towns: Star Junction, Windber and Colver. All three were identified as candidates for further study during historic resource surveys conducted by the National Park Service in the summer of 1987. As stated in the introduction, it was possible to pinpoint five major characteristics of the southwestern Pennsylvania coal town before this study even began: ownership by one company; two-story, semi-detached, wood-frame miners' dwellings; a clear hierarchy of architecture between management and labor; economy of construction; and efficiency of spatial arrangement. Star Junction, Windber and Colver were selected to represent the southwestern Pennsylvania coal town because, in addition to their individual features, each possessed these five traits.

As a comparison of the following three towns readily reveals, Pennsylvania's bituminous coal towns are remarkably alike in their physical appearance. In terms of planning, coal towns were usually located near the mine site in order to maximize efficient land use. Furthermore, each town had wide, unpaved streets with rows of identical houses on one or both sides and distinct areas reserved for managers' housing. There was also a town center with the company store, offices, bank, and other public buildings nearby. In addition, many coal towns utilized a combination of grid and linear plans, effectively demonstrating that the spatial arrangement of housing was dictated by the site's natural topography. Within either plan, house lots were large (generally 50' x 150') with deep backyards and slightly set back from the street. Residents of most coal towns were permitted to keep animals and raise gardens in their yard. Privies and coal sheds were located at the rear of each lot, separating the yard from the back alley. As in Colver, Windber and Star Junction, privies and coal sheds were shared by two or more families, especially if the house was semi-detached.

The majority of southwestern Pennsylvania miners' houses were balloon-frame with one layer of plaster on the interior. In Colver and Windber the detached house predominated, while in Windber's satellites and Star Junction, the average worker's dwelling was either part of a semi-detached house or a tenement, which contained four or more units. The typical dwelling unit had a kitchen, parlor and two or three bedrooms. A high number of five- and six-room houses also had a dining room, although it was seldom used for this purpose. An average room measured 12' x 14' or approximately 168 square feet. None of the miners' houses studied had indoor plumbing until after World War II, when they were first sold to private individuals. Most units had electric light by 1915 because companies generated their own power. Electric and water fees were usually included in the monthly rent. In addition, all of the workers' houses were heated by coal stoves on the first floor. Since studies of housing in other mining areas indicate similar characteristics, it appears that coal operators in different geographic areas had the same ideas regarding what constituted a proper miner's house.[1]

In 1968, cultural geographer John Enman published an article in Proceedings of the Pennsylvania Academy of Science entitled "The Shape, Structure and Form of a Pennsylvania Company Town." Based on his pioneering 1962 dissertation, this article presented a specific coal town, Continental No. 2, near Connellsville, Pennsylvania, as typical of the state's coal communities. Enman's field research was limited to just the Connellsville Coke Region but by 1968, his knowledge of the state's bituminous coal region was such that he could hypothesize in this article that coal towns were "a type of settlement that may be as representative of Pennsylvania as those better known and more frequently studied."[2] This appears to be the first instance where the Pennsylvania coal town was recognized as a definable, regional type.

Research for this study, which covered a greater geographical area than western Pennsylvania, indicates that Enman's hypothesis is correct, and furthermore, that the dominant feature of the Pennsylvania coal town is the two-story, semi-detached, wood-frame miners' dwelling. Because available sources indicate that this

house-form originated in Pennsylvania, it will hereafter be referred to as the Pennsylvania miners' dwelling; it is not, however, limited to just this state.

One scholar of Pennsylvania's bituminous miners' housing noted that "mining is not only a means of making a living, but is also a mode of living."[3] In the late-nineteenth and early-twentieth centuries, one could be fairly sure that if a man said he was a miner, he rented a small house in a company town, bought his tools, food and clothing at the company store, worshipped in a company-built church, and worked long hours for low wages in the company mine. Chances are he was an immigrant or the son of immigrants, did not belong to a union, and had little opportunity for job advancement. To get and keep his job, the man agreed to payroll deductions, yellow-dog contracts, exclusion clauses, and substandard and overcrowded housing. If he attempted to join a union or was suspected of being a labor sympathizer, he and his family faced eviction. And if he were injured or killed in a mining accident, the family received no compensation. Such was a miner's lot; the same or similar conditions existed in mining towns all across the United States until the 1930s and 1940s, when the labor-sympathetic policies of the Roosevelt admininstration helped unions gain recognition, and the decline of the industry forced coal companies to sell their workers' housing.

The dissatisfaction of American mine workers with their living and working conditions in the late-nineteenth and early-twentieth centuries primarily manifested itself through strikes and transiency. Finding it increasingly difficult to retain labor, coal companies began to heed to advice of outside reformers, who promoted improved housing as the best method for solving this problem. But while housing reforms represented an important step toward improving the coal company town system, they were useless by themselves. By their very nature, the housing policies of a coal company were intricately linked with labor relations. Housing reforms thus ultimately failed to placate mine employees because they only addressed the surface problems of the coal company town system.

Despite the important role company housing played in establishing coal mining as a unique way of life, little attention has been given it by scholars of the coal industry. On the one hand, this stems from the inherent impermanence of the coal towns themselves; as James Jones notes in his study of coal mining in Tennessee's Cumberland Plateau, coal-town structures were specifically designed to lose integrity. However, the neglect of these structures is also the result of an "elitist bias" traditionally held by many social and architectural historians.[4] As a result of these two factors, many coal towns have disappeared, while others have suffered radical alterations. Thus the relative rarity of encountering a fairly intact, barely altered coal town, makes communities like Star Junction, Colver and Windber assume even greater significance. Although such resource types are now few, it is hoped that studies like this one will stimulate a greater awareness of the importance of bituminous coal towns as the most tangible reminders of a vanished way of life.

Notes

[1]See, for example, Katherine Harvey, The Best-Dressed Miners (Ithaca: Cornell University Press, 1969); U.S. Department of Labor, Bureau of Labor Statistics, "Company Housing in the Bituminous Coalfields," by Leifur Magnusson, Monthly Labor Review, No. 10, April 1920, 1045-52; Herman Lant, The People of Coal Town (Carbondale: Southern Illinois University Press, 1958; reprint, Arcturus Books, October, 1971); and Ronald Eller, Miners, Millhands and Mountaineers (Knoxville: University of Tennessee Press, 1982).

[2]John A. Enman, "The Shape, Structure and Function of a Pennsylvania Company Town," Proceedings of the Pennsylvania Academy of Science 42 (1968).

[3]Stella Kaplan, "Recent Developments in Housing for the Bituminous Coal Miner" (M.A. Thesis, University of Pittsburgh, 1945).

[4]James B. Jones, Study Unit No. 6, "The Development of Coal Mining on Tennessee's Cumberland Plateau, 1880-1930," (Nashville: Tennessee Historical Commission, 1987), 28.

CHAPTER 3

STAR JUNCTION

Within the collective moniker "coal towns" is a smaller subset of communities called "coke towns," that is, settlements which not only mined coal, but processed it into coke--a metallurgical fuel. Star Junction is just such a community. But because it is also a coal town, Star Junction possesses many of the characteristics previously discussed. For example, the houses are two-story, semi-detached frame structures arranged in grid and linear plans. Yet, as a coke town, Star Junction possessed certain different features. Pollution of the site, for instance, was much higher than that of a coal town, due to hundreds of coke ovens spewing soot, smoke and sparks into the air. In addition, the ovens were always in blast, emitting noxious fumes and a hazy red glow that was visible for miles. Like most coal towns, houses were built near the work site even though proximity to the ovens meant an increased risk of fire. This also contributed to the shabbier appearance of the houses and their yards. Similarly, the nearby hills were painfully devoid of shrubs and trees; little vegetation could survive such a polluted atmosphere. Despite these problems, Star Junction residents were reasonably content. Star Junction experienced few instances of labor discord because, unlike most coal towns, its workers professed an unusually high degree of loyalty to the company. As the following chapter will illustrate, employees were satisfied with their living conditions because the company maintained a sincerely paternalistic interest in their well-being.

The Company

Coke is a refined form of coal achieved by burning off impurities in the raw mineral in an enclosed oven at intense temperatures. High in carbon content, coke was used chiefly as a fuel in the steel-making process. By the 1840s it was becoming clear that the vast Pittsburgh seam under Southwestern Pennsylvania produced the purest coke in the United States. Many new coke plants arose in Fayette County, congregating especially around the town of Connellsville, where the seam visibly outcropped across the mountainsides. Within a few years the quality and quantity of coke produced here combined to catapult the Connellsville coke region to the forefront of the industry where it would remain for almost a century.

The Star Junction coke plant, lying on the periphery of the Connellsville region, opened in 1893 at the height of the coke industry (See figure 3-1). The Washington Coal and Coke Company, which operated the plant, was founded by James Cochran of nearby Dawson, Pennsylvania. Cochran, called "Little Jim," was known as one of the greatest pioneers of the coke industry. In 1843, Cochran, his brother Sample, and his Uncle Mordecai became the first persons to sell Connellsville coke outside the region. As such, they are generally credited with starting the demand for Connellsville coke.[1]

Each of the Cochran men went on to establish his own coke plants and towns in Fayette County in the nineteenth century. The works at Star Junction, with its two mines, Washington No. 1 and No. 2, was the last and largest plant Little Jim opened. After his death in 1894, control passed to his son, Philip Galley Cochran. By 1897, the Washington mines were producing more coal--and thus, more coke--than any mines in the area. There were 320 ovens and 668 employees living in 400 company houses.[2] The mines operated almost every day, a rarity, and had a high safety record. By 1914, the Washington #1 and #2 mines ranked 12th and 8th in the state, respectively, for production.[3]

In 1899 Philip Cochran passed away and the administration of his holdings fell to a cousin,

Figure 3-1 Early-twentieth century view of the power house, tipple and conveyors, and coke ovens at Washington Number 2 Mine. Courtesy of Betty Palonder.

Mark Mordecai Cochran. Mark Mordecai had helped organize Washington Coal and Coke back in 1893 and assumed the company presidency until Philip's son, James, could come of age. Young James died of pneumonia in 1901, however, and although ownership of the mines and coke works reverted to Philip's widow, Sara Moore Cochran, Mark Mordecai retained actual control.

Expansion of the Star Junction works continued throughout the early twentieth century with the addition of 600 more ovens. By 1915, there were 999 ovens, just one less than the number taxable by law. For most of the 1910s and 1920s, Washington Coal and Coke ranked second only to the H. C. Frick Coke Company mines for production in their district. But by the 1920s, beehive coke ovens were being phased out and replaced with more efficient by-product ovens. Production at the Washington mines and ovens started to decline. Ironically, the Frick Coke Company, a subsidiary of the U. S. Steel Corporation since 1901 and Washington Coal and Coke's chief competitor, acquired the Star Junction works on July 15, 1930, as part of a large-scale takeover of many smaller plants.[4] It is doubtful that the Star Junction ovens were operated by Frick, although active mining continued until 1954, when U. S. Steel closed all operations. Most of the surface land was sold to investor Mark Sugarman when the mine closed. Sugarman, in turn, sold the houses to private individuals. U. S. Steel still retains the mineral rights.

Planning and Development

Since Star Junction lies on the western edge of the Connellsville coke region, large-scale development did not occur until the 1890s when the beehive coke industry was at its height. In the preceding decades, the area around present-day Star Junction was predominantly agrarian. The largest town, Perryopolis, was a small village of homes and shops grouped around an unusual Baroque plan. Built on what was once George Washington's largest property outside Virginia, Perryopolis' claim to fame was a large grist mill

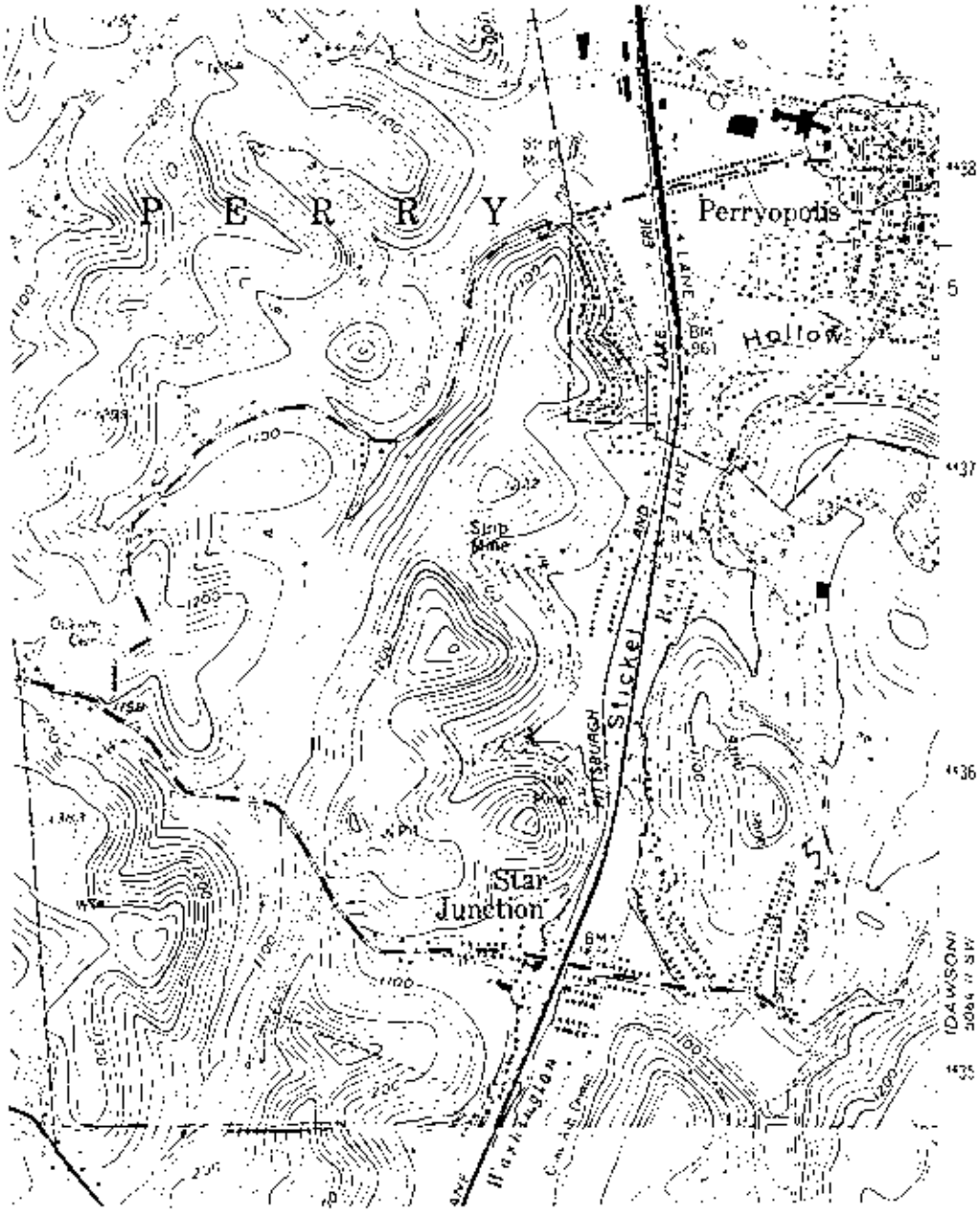


Figure 3-2 Topographic map of Star Junction and vicinity. From USGS, Fayette City Quadrangle, 1979.

believed to have been owned by Washington himself. Appropriately enough, the small creek that powered the mill was called Washington Run.

The run begins in the hills south of Perryopolis, but flows in a northern direction through a shallow valley called Stickel Hollow and into town. At Stickel Hollow, less than one mile from Perryopolis' town square, the run is joined by another creek. The site of this junction, located on a level valley floor with a good water supply and a large open space, was ideal for industrial development (See figure 3-2). The Washington Coal and Coke Company quickly bought up over 4,000 acres of land and commenced planning a new coke works.[5]

Although Star Junction appears to lack a cohesive town plan, in fact, the arrangement of houses, coke ovens, streets, railroad tracks and tipples was carefully thought out. The location of each had to conform to the natural terrain, yet be organized in the most efficient manner possible. As in most mining towns, the company engineers gave first priority to locating the mine entries, tipples and coke ovens in the middle of the valley bottom. Next, they located the railroad tracks along the valley floor, parallel to Washington Run and the long banks of ovens. Because it was a coke works, the engineers also had to make room for a coke ash dump (the equivalent of a bony pile in a mining town). It was located in the corner of the valley floor along the southeastern hillside. Then, the engineers laid out streets.

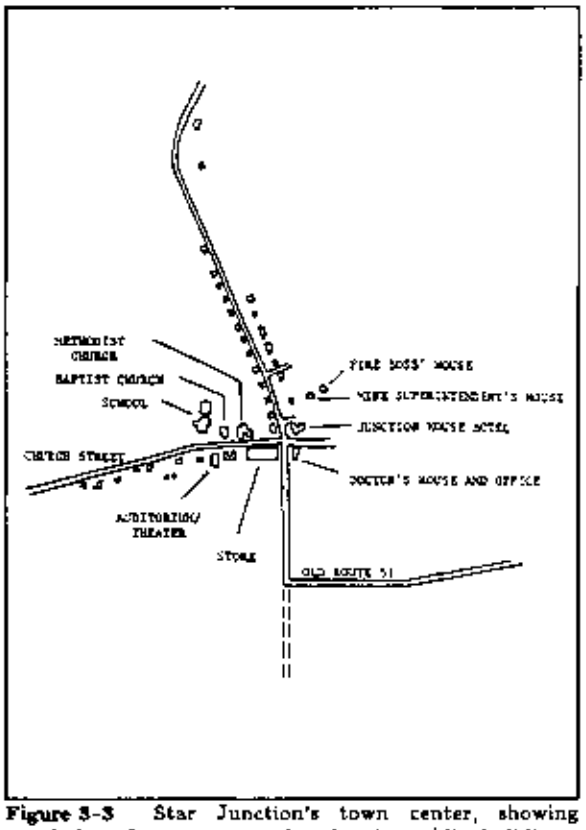


Figure 3-3 Star Junction's town center, showing proximity of management housing to public buildings. Adapted by author from a 1930 map entitled, "Surface Tracts of U. S. Steel Corp. at Washington Works," no. 79A.

Old Pennsylvania Route 51 was laid out as the main north-south thoroughfare. Historically, the road followed the east side of the valley floor between Washington Run and the hillside. At Star Junction, where Stickel Hollow widens for about three-fourths of a mile, the road turned west, crossed the railroad tracks and Washington Run, and turned south again at the base of the opposite hillside. The other major road ran east-west, extending from both sides of the jog in Old Route 51. With all this accomplished, the engineers could lay out building lots on the left-over land.

The intersection where Route 51 turned south was the center of town, evidenced by the public buildings and bosses' houses located there. The Junction House Hotel occupied the northwest corner; the doctor's office and residence the northeast. The company store was on the southeast corner, with the store manager's house across the road. Because the town's two churches were built next to the store manager's house, this section of Old Route 51 is called Church Street. It is the only named street in Star Junction. The public school was constructed beside the church lots at the base of the hill while the theater building was across the street (See figure 3-3).

Washington Coal and Coke built most of the houses in Star Junction during the 1890s. Because of the land configuration, the houses were built in multiple linear units rather than one large development. Since Star Junction did not have street names, the groups of houses were given names instead. For example, Star Junction

STAR JUNCTION circa 1920

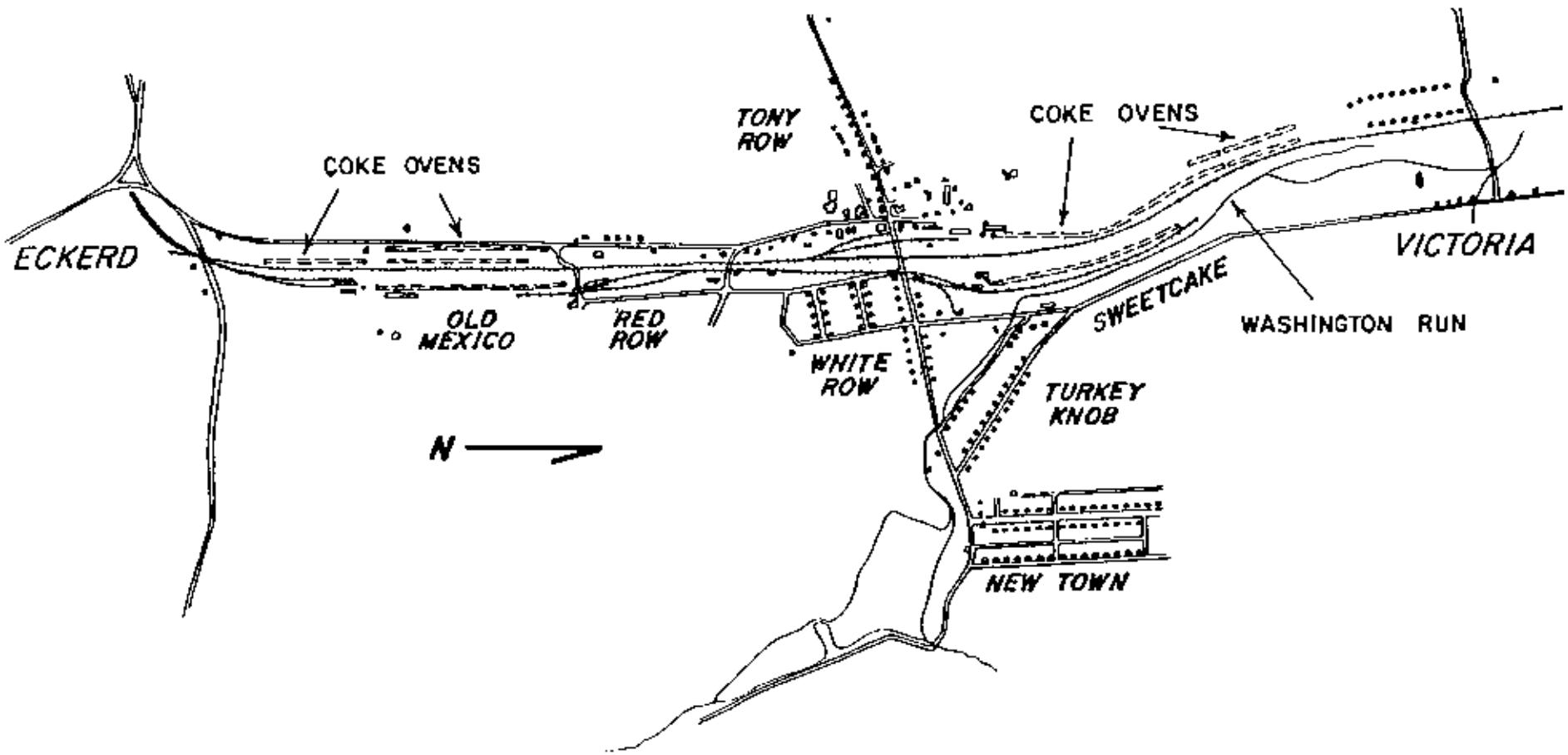


Figure 3-4 Map of Star Junction, ca. 1920. Adapted by author from a map entitled "Surface Tracts of the U. S. Steel Corporation at Washington Works," dated 1930. Courtesy of Tony Grazziano, U. S. Steel Mining Office,

residents called the group of bosses' houses Tony Row because "that's where the high-toned people lived."[6]

Tony Row was located along the road leading west, away from Church Street. The mine superintendent's house and its neighbor, the fireboss' house, were up on the hill behind the hotel and apart from the other bosses. Most of the coke workers' and coal miners' houses, however, were located on the other side of Washington Run. White Row referred to the white-painted houses along the east-west section of Route 51. Behind it to the south were two shorter, parallel rows also included in White Row. Further south were Red Row and Old Mexico, sandwiched between the coke ovens and the ash dump. Sweetcake, another group of houses, was built on the narrow strip of land along Route 51 heading toward Perryopolis (See figure 3-4).

The next building phase did not occur until the 1910s. Called Turkey Knob, it comprised two streets extending northwest from the reservoir beyond White Row to Route 51. New Town was the last section built, in 1918, in a linear pattern along two more streets running in a north-south direction near the reservoir. As with all of Star Junction, Turkey Knob and New Town took their shape from the landscape.

Workers' Housing

Approximately 155 houses are still standing in Star Junction, 136 for miners or coke workers. White Row, Turkey Knob and New Town houses were two-story, semi-detached structures with four rooms per side: parlor, kitchen and two bedrooms (See figure 3-5). One of the houses in White Row, currently being renovated, provided a great deal of insight into the actual construction of Star Junction's company houses. A typical balloon frame, the walls were composed of continuous 2" x 4" studs. Joists, measuring roughly 2" x 8", were notched at the ends to fit over joist bearers across the front and back of each dwelling. The joists were not continuous across both rooms, but were also notched to fit over the center partition wall; they are cross-braced. Partition walls were assembled whole from 2" x 4" studs and raised into position

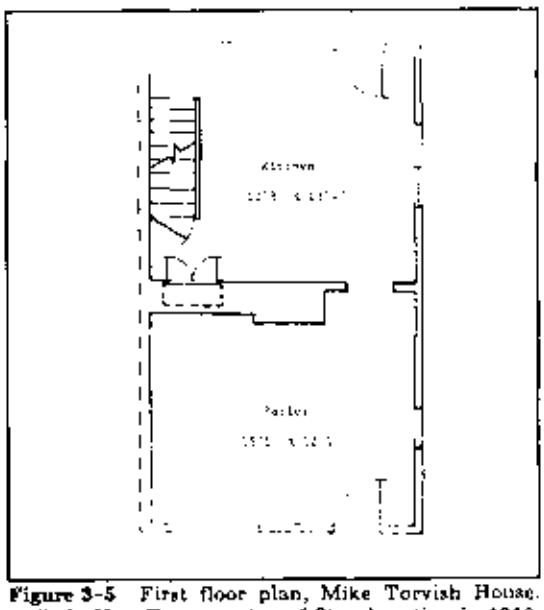


Figure 3-5 First floor plan, Mike Torvish House. Built in New Town section of Star Junction in 1918. Drawing by author, 1987.

after the floorboards were laid. Walls and ceilings were lathed and plastered. Exterior walls were clad with weatherboards and roofs shingled.

While it stood, Red Row consisted of approximately ten four-unit tenements (See figure 3-6). There was also a ten-unit tenement, called Ten Block, located along Route 51 at the end of Turkey Knob, and another four-unit structure beside the road leading to New Town. It is unusual that there were so many tenements in Star Junction because coal operators considered them an impractical form of housing. Because of the proximity of houses to coke ovens in a coke town, the possibility of a stray spark igniting the roof of a house was particularly high. If the structure were a tenement, the company stood to lose at least four units, if not more. Thus, coal operators generally favored semi-detached houses where the loss would be a maximum of two. Since miners and their families also favored semi-detached units over tenements, this form of housing satisfied employees as well.[7] Helen Davis, a retired Star Junction school teacher and nurse, said "foreigners" occupied the tenements because "they couldn't be too particular."

Old Mexico has been described as "one or two room shanties" by one resident, and as "one-story houses on posts" by another.[8] This group of

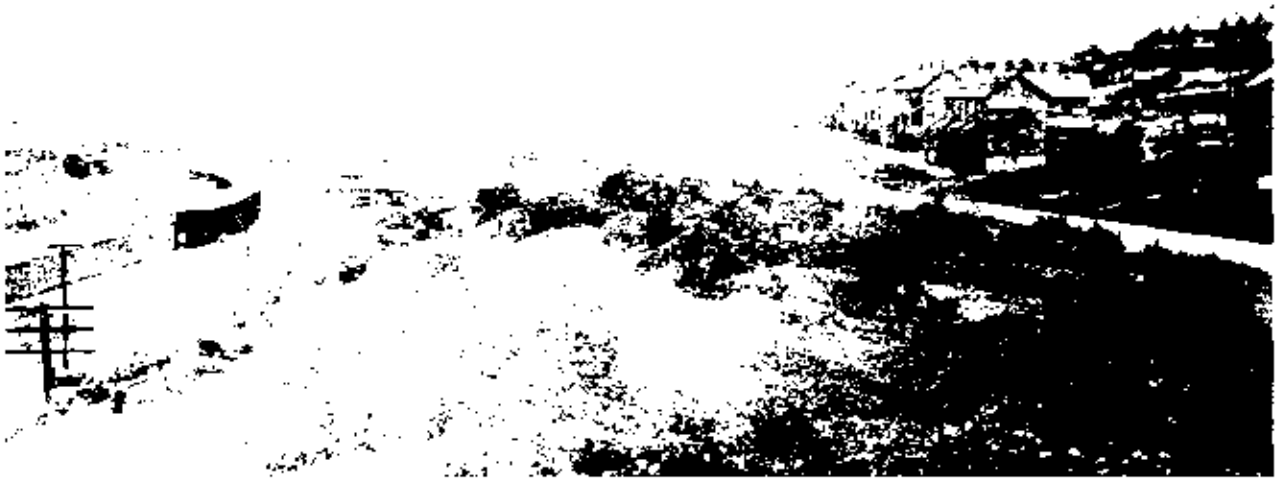


Figure 3-6 Circa 1900 view of Sweetcake tenements (extreme right), ash dump (center), and railroad and coke ovens (extreme left). Courtesy of Betty Palonder.

low-quality houses was inhabited by the company's immigrant bachelor employees. There was also a large boarding house between Old Mexico and the railroad tracks for single foreign men. Old Mexico and the boarding house were demolished in the 1930s.

Like most coal companies, Washington Coal and Coke maintained a full staff of carpenters, plumbers and electricians. These men saw to it that routine repairs and maintenance were performed speedily and regularly. The company painted the exteriors of the houses fairly frequently. Except for Red Row, which was red, all of the houses were white with brown or black trim. Furthermore, every year the company gave each household two sacks of lime for whitewashing the house foundations, tree bases and fences. Inside, most families used wallpaper to brighten what would otherwise be drab little rooms. Employees had to pay for and hang their own wallpaper.[9]

Star Junction houses were heated by coal stoves that the residents purchased themselves. Some families had Heaterolas in the front room, which they used in the winter and stored away in the summer. Each household received one free ton of coal a year but had to pay for any beyond that amount. A company wagon delivered the coal and dumped it into a bin at the back of the family privy. Oil and kerosene lamps were used for light until the houses were electrified by the company around 1910. Washington Coal and Coke generated its own DC current. Water was hauled from hydrants scattered throughout town. Only the houses in New Town, built in 1918, had an indoor pump at the kitchen sink.[10]

Overcrowding was characteristic of Star Junction workers' houses and reflects a dearth of dwellings. As an example, consider the Rimbars, Holinkas and Ceselkas, three Eastern European immigrant families living in Star Junction in 1910. The Rimbar household consisted of the parents, their two children, and seven boarders--all Magyar miners. Mike Holinka lived with his wife, three children, and fifteen Slovak boarders, including a married couple. All of these men worked in the coke yard. The Ceselkas had four

children and eleven boarders; again, all Slovak and all coke-yard workers. These three households are enumerated consecutively on the 1910 census form, indicating that two of the three families lived in the same eight-room, semi-detached house.

Mary Torussio's family can also been seen as typical. Both of her parents came to the United States from Hungary. Her father, Louis Zackal, worked as a miner, and came to the Star Junction works around the turn of the century. When Mary was born in 1910, the family lived in one side of a Turkey Knob house. They moved into a four-room unit in New Town in 1918. Neither of the Zackals spoke English; Torussio said "you didn't need to in order to work there. The kids spoke English for you." And when asked how many kids were in her family, she shrugged her shoulders and guessed: "About fifteen or so."

Similar conditions existed throughout the town because even small households took boarders. Most were single men or married men whose families remained in Europe. Because they were divided into three eight-hour shifts, the men ate and slept in shifts, as well. By boarding with a family, an immigrant could save enough money to send some home, or bring his family here, while the family earned extra money. Many of the immigrant households were so big that people built extra bake ovens in their backyards; neighbors shared the cost and upkeep of the oven. Torussio remembers helping with the baking as a young girl. Twice a week the women would fill the ovens with eight to ten loaves of bread. Larger families naturally baked more often than smaller ones. To further supplement their diet, employees in Star Junction were encouraged to keep gardens and livestock, even though Washington Coal and Coke sold its own produce, grains and meats in the company store. In fact, Washington Coal and Coke donated the manure from its stables to individuals for fertilizer.

Management Housing

All of Washington Coal and Coke's bosses lived on Tony Row. The "bosses" included the superintendent, the fire boss, the company store manager, the chief of police, the head carpenter, the head blacksmith, both mine foremen, the railroad station agent, and the company timekeeper. They occupied nineteen structures; six were detached and thirteen were semi-detached, for a total of thirty-one dwelling units.

Ada Jones was born and raised on Tony Row. As a child, Jones lived with her mother, two brothers, and an uncle in her maternal grandfathers' house. Her grandfather, Jacob Newmyer, was a cousin of Sarah Cochran. At present, she and her husband live in the old fireboss's house on the hill. This house is identical to her childhood home on Tony Row. Both structures were two-and-a-half-story, five-bay dwellings with cross-gable roofs and rear ells. Each had six rooms: parlor, dining room, and kitchen downstairs, and three bedrooms above. There was also a central stair hall on both floors. Like all of the bosses' houses, they originally had commodes in the cellar and a porcelain sink located in an enclosed pantry built into the kitchen's southern side porch. About 1913, water was piped into Jones's grandparents' house. The company men installed three taps: one for hot water, one for cold and one for reservoir water. Apparently, water from the reservoir was not potable. As to other amenities and services, Jones said that electricity and water were free, and the company paid for and installed the wallpaper she selected.

In addition to the Joneses' present house and Ada Jones's childhood home, there are two other houses with cross-gable roofs. There are also three with plain gable roofs; all seven were identical in plan. The only other detached house on Tony Row is a much later Four-Square. Of the thirteen semi-detached houses, two have cross-gables. Unlike the other eleven, these have eight bays instead of four. Then, too, they probably have six rooms per side, not four.

The company houses that Washington Coal and Coke provided its management personnel were more finished than workers' houses (See figure 3-7). The kitchens in the detached houses, for example, had built-in cupboards in one corner. The occupant decided how many shelves there would be and whether they should be

Figure 3-7 Fire Boss Harry Howarth and family, ca. 1910, showing the more elaborate interiors that typified management housing. Courtesy of Lavinnie Woodward.

enclosed. All doors and windows had bull's-eye moldings; woodwork in the bosses' houses was grained by the company carpenters instead of painted. This included the cupboards, stairs, banisters, doors and moldings. The Joneses' present residence retains its original graining.

Commercial Buildings

Washington Coal and Coke operated its Star Junction store under the name Star Supply Company (See figure 3-8). The wood-frame building sat on the corner of Old Route 51 and Church Street, the approximate center of town. The original store was a simple, two-story structure. The main facade, with its false front, display windows, and porch faced north. The building also housed the coal company's office, which had a separate entrance.

Residents remember that the store carried a wide variety of goods, including fresh meats, produce, clothing, tools and notions. It also provided services--such as laundry, millinery, and ordering out-of-stock items--and operated its own grist mill. Most local farmers gave the store a percentage of their grain in exchange for milling.[11]

The Star Junction store operated on a system whereby customers could purchase goods with either cash or company-issued money.[12] Washington Coal and Coke's "money" consisted of individual "checks," or slips of paper printed with pre-set amounts ranging from $1 to $5. When an employee requested and received a check, its dollar value was entered next to his name in a ledger. These checks were used in lieu of cash and were honored only by the Star Supply Company. Furthermore, each check was divided into many little squares stamped with smaller increments of 5, 10 or 25 cents. When a customer made a purchase, the check and bill of sale were placed into a wire basket hanging from a system of wires and pulleys, and sent to the office in the back of the store. There, a clerk would punch a hole in the square or squares whose figures equaled the amount of purchase. Any difference was returned to the customer as change.[12] On payday, a company clerk added the checks an employee had received and deducted the total from his wages. The company also provided each employee with a small ledger in which the individual could keep a personal record of the transactions.

Employees patronized other stores, as well. The Victoria Mines Company had a store along Old Route 51 along with a few smaller, private establishments. Perryopolis also had several stores, including one operated by the Star Supply Company.[13] However, since prices were lower and the location more convenient, most people shopped at the company store.

Star Junction also had its own hotel and theater. The hotel, called the Junction House, was a spacious wood-frame building with a large, ornate, wraparound porch (See figure 3-9). Built ca. 1895, the hotel was set back from the road across from Tony Row. Company guests and visiting salesmen occasionally stayed there, but for the most part, it operated as a boarding house. Rooms were let to some of the single male employees. In 1900, the hotel had eighteen occupants including the boardinghouse keeper, his wife and six children, a cook, a housekeeper, two bookkeepers, two electricians and three laborers.[14] All were native-born Americans,

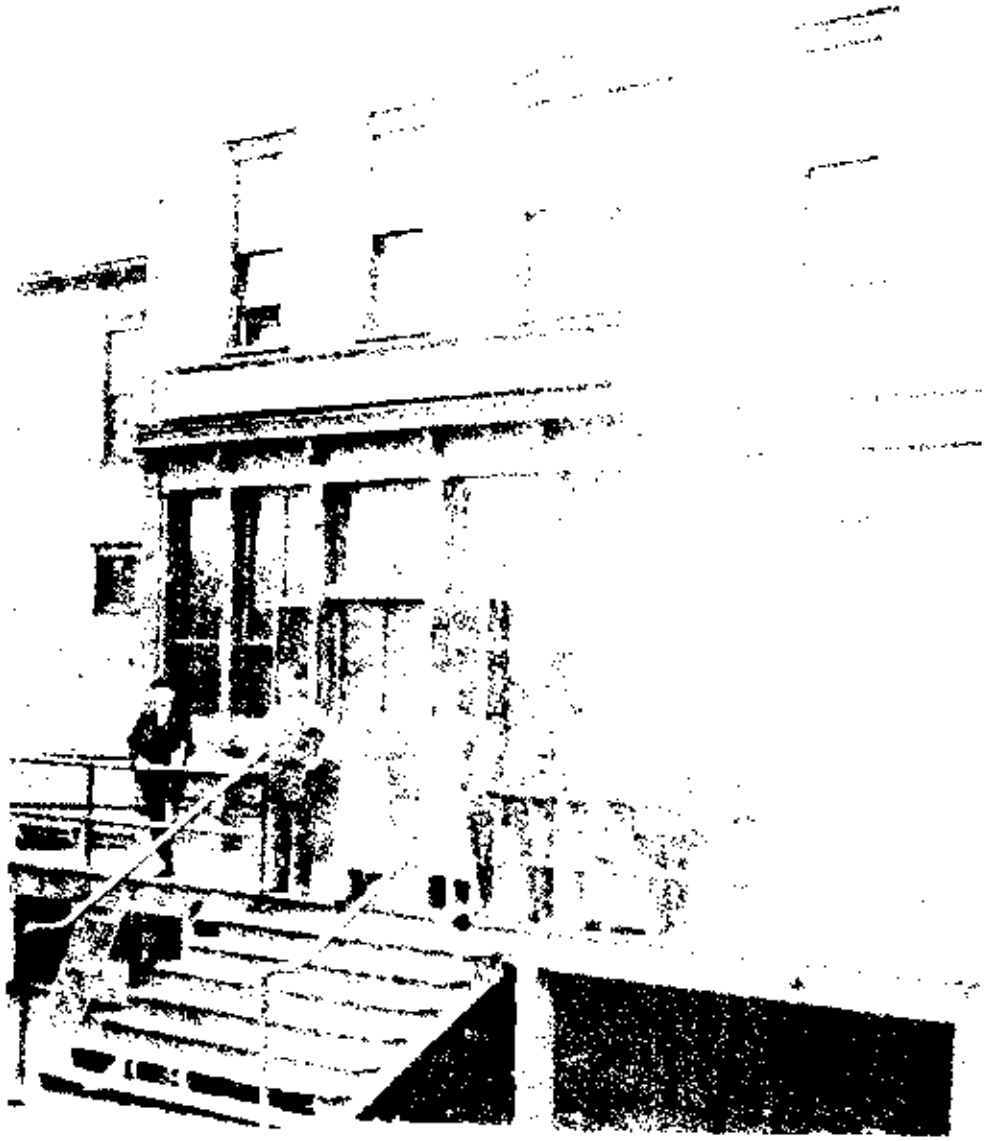


Figure 3-8 Star Junction company store, ca. 1900.
Courtesy of Betty Palonder, Perryopolis, PA.

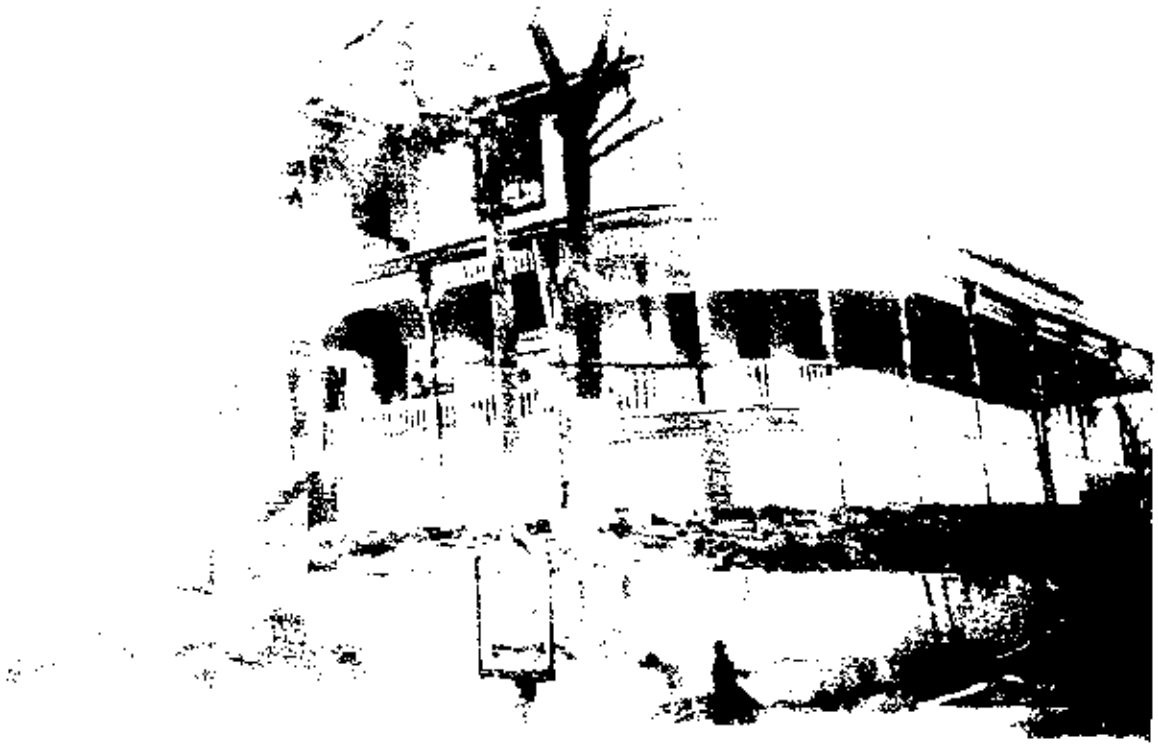


Figure 3-9 Junction House Hotel, ca. 1915. Courtesy of Betty Palonder.

indicating that the ethnicity of the Junction House boarders was in keeping with the rest of Tony Row. The hotel burned in the early 1930s amid rumors that the fire was a response to the labor dispute of 1932-33.[15]

Star Junction's theater was built ca. 1895 on the lot just south of the company store. It was a simple, two-story, yellow-brick structure with segmental window and door arches. The theater was downstairs; a poolhall, dance hall, and several small lodge rooms were on the upper floor. Washington Coal and Coke subsidized all the entertainment. In the summer, there were operas, plays, recitals and Chatauqua tent shows. Five-cent movies were shown every Wednesday and Saturday during the rest of the year. An advertisement from 1900 proudly stated "Always the Latest and Best Motion Pictures and Photo Plays. Everything New and Up-to-Date." People came from Perryopolis, Victoria, Eckerd and the surrounding countryside to see the shows. The theater building was demolished in 1982.[16]

Institutional Buildings

The Washington Coal and Coke Company recognized the importance of religion to its employees, but its support of Star Junction's various churches differed from denomination to denomination. Star Junction had four churches by 1900: Catholic, Baptist, Methodist and non-denominational; the first three still support active parishes. Many of the Catholics who founded St. John's were of Eastern and Southern European birth, while the Baptists and Methodists were native-born Americans. To the immigrants, religion was a powerful and comforting reminder of the Old Country. Although the company supported the efforts of its foreign employees to establish churches, it reserved financial aid for the Protestant sects.

The oldest congregation belongs to the Star Junction Methodist Church. Philip G. and Sara M. Cochran were staunch supporters of the Methodist faith and contributed generously to

local Methodist churches, including this one. The building in Star Junction was financed with their help and dedicated in January 1898. Various additions were made between 1898 and 1909 to house the Sunday school, an auditorium, classrooms and a parsonage.[17]

Star Junction Baptist Church was founded on September 8, 1897, in the front room of Dr. James L. Cochran's house and office. Services were held there until the new wood-frame church was finished. James was a cousin of Philip, and because of his membership, it seems likely that members of the Cochran family helped finance this church, as well. It was dedicated one week before the Methodist Church on January 9, 1898.[18]

Catholics in and around Perryopolis met in a house in Star Junction to hear Mass. They did not make plans to build their own church until 1904, when the small congregation purchased a lot in Victoria for $150 from the Victoria Mines Company. Designed by local architect A. F. Link, the wood-frame building was completed by the following year. The parish, known as St. John the Baptist, also built a rectory and acquired a five-acre cemetery. The wood-frame church was replaced by a new brick structure in the 1970s.

The nondenominational church was also known as the Hungarian Church and sat on the hill beyond White Row. Who built the church is unknown, but it was used primarily by members of the Eastern Orthodox Church. Little else is known about the congregation because it disbanded after 1923.[19]

The company showed its support of the immigrant churches in a subtle manner. For example, it permitted employees to abstain from work on certain holy days, and tolerated the practice of other religious observances. In another instance, Cyril Griglak, who grew up in Star Junction, noted that his family lived in a company house for free because his father played piano at St. John's on Sundays.

Sunday was the traditional day of rest at Star Junction. There was no work except for regular maintenance, which included feeding the mules, pumping water from the mine and keeping the steam generators going. On a typical Sunday, most families went to church. Afterward, the "foreign element" was known to gather at each other's houses for music and dancing; their afternoon was spent listening to native songs and drinking beer.[20] This day of merrymaking was customary throughout much of the bituminous coal region.

Ethnicity

According to the Federal censuses of 1900 and 1910, most of the Washington Coal and Coke Company's employees were Eastern European. Dominant groups included Magyars (Hungarians), Slovaks and Italians. There were also quite a few native-born Americans. Bosses were always of American or Anglo-Saxon stock. All of the persons interviewed agreed that the nationalities got along very well. There was no segregation of housing, except for Tony Row.

Betty Palonder's father, DeLos Graham, was the coal company's chief office clerk. In that capacity, he was in charge of assigning housing and keeping track of employment and pay records, rent books and store accounts. Periodically, he was sent to New York or Philadelphia to meet new immigrants and send them to Star Junction. Palonder said that her father was known to have altered the spelling of names he found too long or too difficult to pronounce. For the most part, though, the new arrivals did not mind. In fact, Palonder recalled that many were so eager to assimilate into American society that they altered their names themselves. One common practice was to change their surname to the closest American translation.

One seldom finds a black family living in a Southwestern Pennsylvania coal or coke town. There were no blacks in Star Junction, although a few did work there from time to time. The Cochrans decided at some point that no blacks would be permitted to live in Star Junction. Both Frick and Sugarman maintained this practice. To this day, there are no blacks in town. Most of the other area coke towns practiced this exclusion as well. Since many coal operators brought in black miners as scab labor during labor disputes, it is probable that local miners

viewed them with distrust and animosity. Local blacks, therefore, settled in Whitsett, a small town to the north of Perryopolis.

Recreation

Recreation in Star Junction did not differ markedly from any other coal or coke town. Washington Coal and Coke sponsored a baseball team, the Tigers, who played as part of Frick's River League (See figure 3-10). There was a

Figure 3-10 Unknown ballplayer for Star Junction Tigers, ca. 1910. Courtesy of Lavinnie Woodward.

company-built playground and baseball diamond below Turkey Knob where residents would gather for the big games. In addition, there was a poolhall in the theater building, and another in Sweetcake. For those inclined, there was also a brothel in Sweetcake, although this was kept quiet. Some of the men belonged to fraternal organizations like the Knights of Pythias, Oddfellows and the Redmen. The Slovak Gymnastic Union Sokol #127 was also active and participated in county and state competitions. In the summer, employees went to Crabapple Lake, which the company owned, for swimming and boating. In the winter, they ice skated at the reservoir. Weddings were another great source of entertain-ment, especially the ones that lasted for several days! One resident noted that the only time a policeman was needed in Star Junction was "when the foreigners had a wedding."[21]

There were dances, too, such as high school proms and parties held upstairs in a room over the theater. Molinero, the town shoemaker, led the Wombat Syncopaters, a favorite local band.[22] In the 1910s other dances were held in a hall in the basement of the Hungarian Church. Everyone in town participated regardless of nationality. Mary Torrussio explained that before the dance began, strands of fresh fruit were strung across the ceiling. During the festivities, a young man might ask the lady of his choice to pick a piece of fruit for him. But because the ceiling was high, the Romeo in question was required to lift the young woman in his arms. By permitting or refusing such close contact, the lady would reveal her interest or disinterest in the prospective suitor! This courtship ritual ended when the church was torn down in 1923.

Labor Relations

Labor disputes were a significant, but infrequent, aspect of Star Junction's history. When the Star Junction plant opened in 1893, the United States was in the midst of a nationwide depression. In response to the economic situation, many mines in the Connellsville region were closed or operating at a reduced scale. At the same time, coal operators slashed wages to minimize their losses. Area miners bargained for a sliding wage scale, but meeting no response from their employers, decided to strike.

When the Fayette County miners went on strike, both Washington mines were operating on a normal production schedule and all of the ovens were in blast. Working full-time and making good money, Star Junction men had little need for a sliding scale. Since the Washington works was large and employed many men, it was seen as a central weak spot in the striking miners' plan. Thus, closing the Star Junction mines became a prime directive. On May 23, 1893, over 400 striking miners descended upon Stickel Hollow to convince the Washington men to strike. It was intended to be an orderly gathering, but most of the Star Junction miners

refused to participate, insisting that their wages were secure. Undaunted, the strikers camped out around the town. The next morning the miners came out of their houses intending to enter the mines, but were warned away by strikers. Specially appointed company deputies arrived to escort the men into the mines but were met by armed resistance. The deputies responded by firing on the strikers and killing four men.[23] The strikers dispersed and the Washington miners went back to work.

The next strike did not occur until 1922, when the Washington men walked out on their own accord. However, evidence indicates that the Washington men did not unanimously support the strike. The nationwide strike of 1922 was the worst in the history of the bituminous industry--more than 1,807 separate strikes occurred in Pennsylvania alone.[24] Connellsville was one of the strongest union centers in the state. Located less than fifteen miles north, Star Junction was undoubtedly swayed by its influence.

Most of the persons interviewed pointed to the strike of 1932-33 as the only real labor dispute the town encountered. Under the Cochrans' leadership, Star Junction miners and coke workers were reasonably content. The company consistently maintained wages, rents were low, and a general feeling of true paternalism pervaded. Ada Jones was quick to note that during the Depression, the company "carried every man." Each family continued to make purchases at the store on credit and when the Depression seemed over and production back to normal, the accounts were waived. Loyalty to Washington Coal and Coke, and the Cochrans in particular, remained fairly high throughout their ownership of the town and works. But when H. C. Frick Coke Company acquired the works in 1930, labor problems started in earnest.

The Frick Coke Company allowed its employees to participate in a "brotherhood union." That is, employees had representation in a company-controlled union but could not join a national organization like the United Mine Workers of America (UMWA). When it took over the Star Junction works, Frick fully expected the men to join the brotherhood. Many did, but others refused, realizing that Frick's brotherhood union offered little protection from wage cuts. Frick officials prohibited the men from seeking representation in the national union with the result that Star Junction men went on strike in 1932. Strikers blocked the roads and threatened scabs with violence. Frick ordered its company police to escort strikebreakers into the mine and called in the state militia to keep order, but shooting broke out nonetheless. Helen Davis recalled, "We were afraid during all the shooting." The strike went on throughout 1933 and into 1934, ending only when Frick officials agreed to sign a contract with the miners and the UMWA.[25]

Past to Present

Many changes have occurred in Star Junction since the mines ceased operating in the 1950s. One of the most obvious is the dramatic alteration of the company houses. Under Washington Coal and Coke ownership all of the houses bore a striking resemblance to each other whether semi-detached, detached or tenement. Alterations began in the 1930s when H. C. Frick Coke Company applied asbestos shingles to the houses in various shades of "ugly red, green and brown."[27] Around the same time, Frick ordered the demolition of Red Row and Old Mexico. Sweetcake also disappeared. By the end of World War II, most of the surviving houses had been bought by private individuals. Not surprisingly, owners immediately began altering the company houses by adding bathrooms, changing windows and applying new siding. Many of the semi-detached houses were made into single-family residences during this period.

The character of the town has changed since the houses were sold in the 1950s, mostly because of shifts in residency as old-timers were replaced by newcomers. The company store was turned over to a cabinet manufacturer and the school and theater were demolished. A four-lane highway was built along the old railroad grade and now bisects the town. The intersection of this highway (Route 51) and Old Route 51 is marked by a stoplight, a gas station and a video store. Yet, despite these modern intrusions, vestiges of the vanished industry remain: the power house and a few ovens on the west side of

Route 51 just south of town. Studied in conjunction with the churches, the store, the plan and the many houses, Star Junction provided an exceptional opportunity to study everyday life in the coke region of Southwestern Pennsylvania between 1880 and 1930.

Notes

[1]George P. Donehoo, ed., Pennsylvania - A History (New York: Lewis Historical Publishing Company, Inc., 1926), 243.

[2]From the number of houses remaining and historic photographs and interviews, it appears that there were probably 400 housing units, not 400 separate buildings. S. B. Nelson, Nelson's Biographical Dictionary and Historical Reference Book of Fayette County, Pennsylvania (Uniontown: S. B. Nelson, 1900), 436.

[3]Department of Internal Affairs of Pennsylvania, Report of the Bureau of Mines (Harrisburg: State Printing Office, 1899), 358; Coal Age 5, no. 25 (20 July 1914).

[4]Company Literature, U. S. Steel Mining Office, Washington, Pennsylvania. Courtesy of Tony Grassiano, 17 March 1988.

[5]Nelson, 436.

[6]Cyril Griglack, interview by author, 14 July 1988, Perryopolis; Betty Palonder, interview by author, 14 July 1988, Perryopolis; Belen Davis, interview by author, 13 April 1988, Uniontown.

[7]John Aubrey Enman, "The Relationship of Coal Mining and Coke Making to the Distribution of Population Agglomerations in the Connellsville (PA) Beehive Coke Region" (Ph.D. dissertation, University of Pittsburgh, 1962), 200.

[8]Mike Torvish, interview by author, 28 April 1988, Star Junction; Walter Woodward, interview by author, 12 April 1988, Smock.

[9]Woodward; Torvish; Ada Jones, interview by author, 13 April 1988, Star Junction; Mary Torussio, interview by author, 29 April 1988, Star Junction; Mary Easter, interview by author, 28 April 1988, Star Junction.

[10]Rita Balentine, interview by author, 13 April 1988, Star Junction; Torussio; Jones; Woodward.

[11]Jones.

[12]Jones; Palonder.

[13]Souvenir, Perryopolis Centennial (Perryopolis, July 1914), advertisement.

[14]U. S. Department of Commerce, Bureau of the Census. Enumeration District 52, Fayette County, Pennsylvania, 1900. Microfilm, National Archives, Washington, D. C.

[15]Griglack.

[16]Souvenir, Perryopolis Sesquicentennial Celebration (Perryopolis, 1964), 49.

[17]Ibid., 48.

[18]Ibid., 46-47.

[19]Davis.

[20]For more information on the drinking habits of coal miners and laborers see: Dennis F. Brestensky, Evelyn A. Hovanec, and Albert N. Skomra, Patchwork/Voices (Pittsburgh: University Center for International Studies Publication Section, University of Pittsburgh, 1978); Thomas Coode, Bugdust and Blackdamp: Life and Work in the Old Coal Patch (Comart Press, 1986); and Herbert Gutman, Work, Culture and Society (New York: Vintage Books, 1977), 37.

[21]Griglack; Woodward.

[22]Palonder; Clyde Wells, interview by author, 12 April 1988, Star Junction.

[23]Muriel Early Sheppard, Cloud by Day (Chapel Hill: University of North Carolina Press, 1947), 44-55.

[24]Jeremiah Patrick Shalloo, Private Police, With Special Reference to Pennsylvania (Concord, N.H.: Rumford Press, 1933), 93.

[25]Pete Rebottini. Interview by author, 8 September 1988. As part of Franklin Roosevelt's New Deal programs, Congress passed the National Industrial Recovery Act in the spring of 1933 which recognized and guaranteed the right of American workers to form unions and engage in collective bargaining with their employers. Only two days after Congress passed the act, over 50,000 miners in Fayette County, alone, joined the UMWA. In September, the Appalachian Agreement was signed into effect and made provisions for a forty-hour week and a minimum wage. Importantly for miners, the agreement also abolished child labor, scrip wages and the enforced patronage of company stores. For more information see Coode, 102-123.

CHAPTER 4

WINDBER

Windber is distinct among southwestern Pennsylvania's coal company towns because it consisted of a large, independent town center surrounded by eleven dependent mining settlements. Built as its regional headquarters, the Berwind-White Coal Mining Company wanted Windber to present a positive corporate image, and so it set out to create a model mining community. For this reason, the town featured broad, tree-lined streets, a central park with a bandstand, detached houses for workers and a variety of privately owned specialty shops. Berwind-White actively encouraged outsiders to establish new businesses with the result that Windber had a far more varied economic base than most coal towns. The company also instigated a program through which employees could buy houses instead of rent. But these special considerations did not extend beyond the town's boundaries.

Scattered throughout the countryside around Windber, the satellite communities had their own stores, houses and mines but nevertheless depended upon Windber for their survival. Despite the company's claim to provide everything "that makes for the comfort and convenience" of its employees, living and working conditions in town, and especially in the satellites, were similar to coal towns elsewhere in the region. In addition, Berwind-White repeatedly slashed wages, practiced favoritism and black-listing, utilized company police, and evicted union sympathizers. As the following chapter will show, Windber, like Pullman, Illinois, proved that environment alone was not sufficient to overcome the inherent deficiencies of the company-town system.

The Company

The Berwind family's involvement in the coal trade began in 1861 when the eldest son, 15-year-old Charles, went to work for Robert H. Powell, a Philadelphia coal merchant. Berwind continued working for Powell after the Powellton Coal and Iron Company was formed in 1863 and became its vice president by age 21.[1] When the Powellton Company disbanded, Berwind formed a new partnership with John Bradley; but by 1874, Berwind and Bradley, too, had dissolved. Undaunted, Berwind became associated with a retired judge, Allison White, previously of the coal firm White and Lingle. The resulting partnership included Charles' younger brother, Edward, and was known as Berwind, White and Company.[2]

Operating primarily in central Pennsylvania, the Philadelphia-based firm opened its first mine, Eureka No. 1, in Houtzdale, Clearfield County, in 1874. Over the next decade it was followed rapidly by Eureka Nos. 2 and 3; the Goss Run mine; Atlantic Nos. 1 and 2; Eureka 4, 5 and 6; Cataract 1; and the Karthus mine, all in Clearfield County. Producing well over 3,000 tons a day, Berwind, White and Company was soon recognized as one of the largest coal firms in the state--and renowned for their "celebrated Eureka bituminous coals." In order to manage their expanding empire more efficiently, the partners incorporated as the Berwind-White Coal Mining Company in 1886 with Charles F. Berwind, president; Edward J. Berwind, vice president; Fred McOwen, secretary; and Allison White, treasurer. Within a few months, Allison White passed away and was succeeded by another brother, Harry A. Berwind.[3]

Continuing to operate as Berwind-White, the firm bought up extensive lands in Clearfield and Centre counties. They opened the Ocean, Pacific, and West Eureka mines, as well as Eureka Nos. 7 through 29.[4] As a result of Edward's superb salesmanship, most of the coal produced was sold to ocean-going steamships. Among those served by Berwind-White were the

Inman, North German Lloyd, Cunard, Hamburg and French lines, giving the company a virtual monopoly of the transatlantic steamship coal market. To supply all of their customers, the Berwinds maintained a fleet of sixty barges and more than 3,000 coal cars.[5] By 1890, the growing demand for Berwind coal necessitated immediate expansion. The company thus began to focus its attention on the nearby coalfields of Somerset county.

Despite the vast mineral resources available, Somerset County was still predominantly rural. It had a small population, little capital, and an underdeveloped transportation system.[6] Large-scale coal development required a company like Berwind-White, which had enough money to finance the construction of rail lines, open mines, and recruit labor. Thus, in 1893, when Berwind-White began acquiring property, it set in motion the forces that would eventually transform Somerset County into one of the most productive coal regions in Pennsylvania.

By 1897, Berwind-White owned all of the land around present-day Windber, including the mineral and surface rights of the Wilmore Coal Company, a small local firm. Berwind-White then reorganized Wilmore Coal into a land-holding subsidiary in charge of administering the company's 6,500 acres in northern Somerset County. In September, Eureka No. 30 was opened into the Lower Kittaning seam (also known as the Miller or B seam). Twelve other mines, Eureka Nos. 31 through 42, soon followed.[7] The Scalp Level Railroad was extended south from Berwind's Yellow Run shaft in Dunlo, Cambria County, to serve these mines. By the turn of the century, the Windber mines alone produced more than 3 million tons of coal per year.[8]

With the advent of World War I, Berwind-White continued to expand its operations by opening new mines in Westmoreland and Cambria counties, and in West Virginia and Kentucky. Subsidiaries such as the Ocean Coal Company, Herminie Land Company, New River Consolidated Coal Company, Ocean Supply Company and Eureka Supply Company were established to manage operations in each new area. Meanwhile, the firm maintained its corporate headquarters in Philadelphia; sales offices in New York, Baltimore and Boston; shipping piers all along the East Coast; and bunkering depots in the Caribbean. As its overseas shipping needs grew, the company acquired the Berwindmoor, the Berwindvale, the Berwindlea and the Berwindglen.[9] After the war ended, Berwind-White used these ships to advance its European export trade. By the 1920s, most of the American coal imported by France and Italy bore the Berwind stamp.

In the 1930s, Berwind-White began a period of transition that was to last for several decades. The Depression, the beginning decline of the coal industry, and the election of Charles Dunlap, Edward J. Berwind's nephew, to the company presidency, collectively forced the company to explore new directions. World War II generated a sudden resurgence of the coal industry, but the wartime boom years ended quickly. Faced with increasing competition from cheaper fuels, a substantial reorganization of the company's interests occurred in the 1950s that included shutting down most of the Pennsylvania and West Virginia mines. Capital that had previously been used to maintain these mines was then redirected into non-coal-related pursuits such as industrial products, real estate, health care, pharmaceuticals and natural resources. In 1962, the Berwind-White Coal Mining Company was again reorganized into the Berwind Corporation, with C. Graham Berwind, Harry A. Berwind's grandson, as its president. Any remaining mining activity ceased at this time, although Berwind retained its extensive mineral and surface rights. Today, the "celebrated Eureka bituminous coals" are leased and extracted by small operators but account for only a minor percentage of the present company's income.

Planning and Development

Windber

In the mid-nineteenth century, most of the surface land around present-day Windber comprised a farm belonging to David Shaffer. Rich in resources, Shaffer's property extended from Paint Creek across rolling hills to the Cambria County line. On the farm, Shaffer

operated a small sawmill, a coal mine and a forge.[10] The site was ideal for large-scale industrial development and in 1893, Berwind-White's superintendent, James S. Cunningham, approached Shaffer with an offer to buy the farm.

Over the next few years Cunningham acquired thousands of acres of land in northern Somerset County, including Shaffer's property. By 1897, the first local mine, Eureka No. 30 was open, and plans for Windber well underway. From the beginning, Windber was conceived as a model mining community. As Leifur Magnusson discovered, one of the reasons companies build towns is to "advertise the company and keep it favorable before the public."[11] The Berwind-White Company, which participated in Magnusson's survey, clearly agreed: Windber would not only serve as a base for all of the company's western mining operations, but it would become an industrial center worthy of outside attention. Although the Berwinds controlled other mining communities in the bituminous coalfields, Windber was to be a regional headquarters and as such, considerably larger and better planned.

Although James Cunningham is considered the "Father of Windber," it was his assistant, Heber Denman, who laid out the town. The year 1897 was fraught with activity as streets were surveyed, water and sewer lines laid, lots platted and company houses built.[12] By 1900, the company-owned newspaper boasted:

> No city of the west, boomed by mines of silver or gold, can compare in any respect with the vigorous town nestling among the hills of Somerset. Here the coal drift and cornfield are side by side and orchard and forest, grove and farmhouse bound the horizon of vision.[13]

At the same time, Somerset, the county seat, was still a quiet little community. The Berwinds easily envisioned Windber surpassing it in size and importance, but realized that such development required extra capital. Therefore, they actively encouraged outside investors to come to Windber and establish new ventures. Almost overnight, David Shaffer's farm was transformed into a noisy, busy boomtown. By the turn of the century, it certainly appeared as if Windber were well on the way to becoming the "metropolis of Somerset County."[14]

Initial development took place in the valley northeast of Paint Creek. Although situated at the bottom of a slight hill, the valley bottom was flat enough to utilize a grid plan. The engineers laid out six major streets named Cambria, Somerset, Graham, Washington, Jackson, Jefferson, and Lincoln avenues. These were crossed by numbered streets. Paint Creek flowed between 17th and 19th streets, dividing the grid plan into two uneven sections. Graham and Somerset avenues connect the two sections, but curve slightly after crossing Paint Creek because of a hill to the south (See figure 4-1). The company-owned railroad winds its way through town, too, running between Jackson and Jefferson, then splitting above Graham Avenue to reach Eureka Nos. 35 and 36 to the north and Eureka Nos. 33 and 34 to the south.

Graham Avenue is the main thoroughfare. Early construction took place primarily between 9th and 15th streets. By 1899, these few blocks comprised the central business district. Some of Windber's most architecturally prominent structures are situated within these few blocks, including the Arcadia Theater and Palace Hotel (See figure 4-2).

Gradually, other private businesses appeared on Graham Avenue, such as the Windber Brewing Company and the Windber Lumber Company. There were groceries, jewelers, hotels and tinsmiths. But as one headed out of town in either direction, the character of the street changed from commercial to residential. Even today, houses line Graham Avenue from Paint Borough to 8th Street, and then from 23rd Street to Rummel. There are also four churches and two schools along Graham.

Berwind set aside a prime lot on Graham Avenue for a central park. It was bounded by Graham, 15th Street and the railroad tracks and contained a bandstand for outdoor recitals. As development downtown proceeded, the park lands assumed greater commercial value. Thus, in 1913, Berwind financed the construction of a large, two-story edifice on the corner of Graham

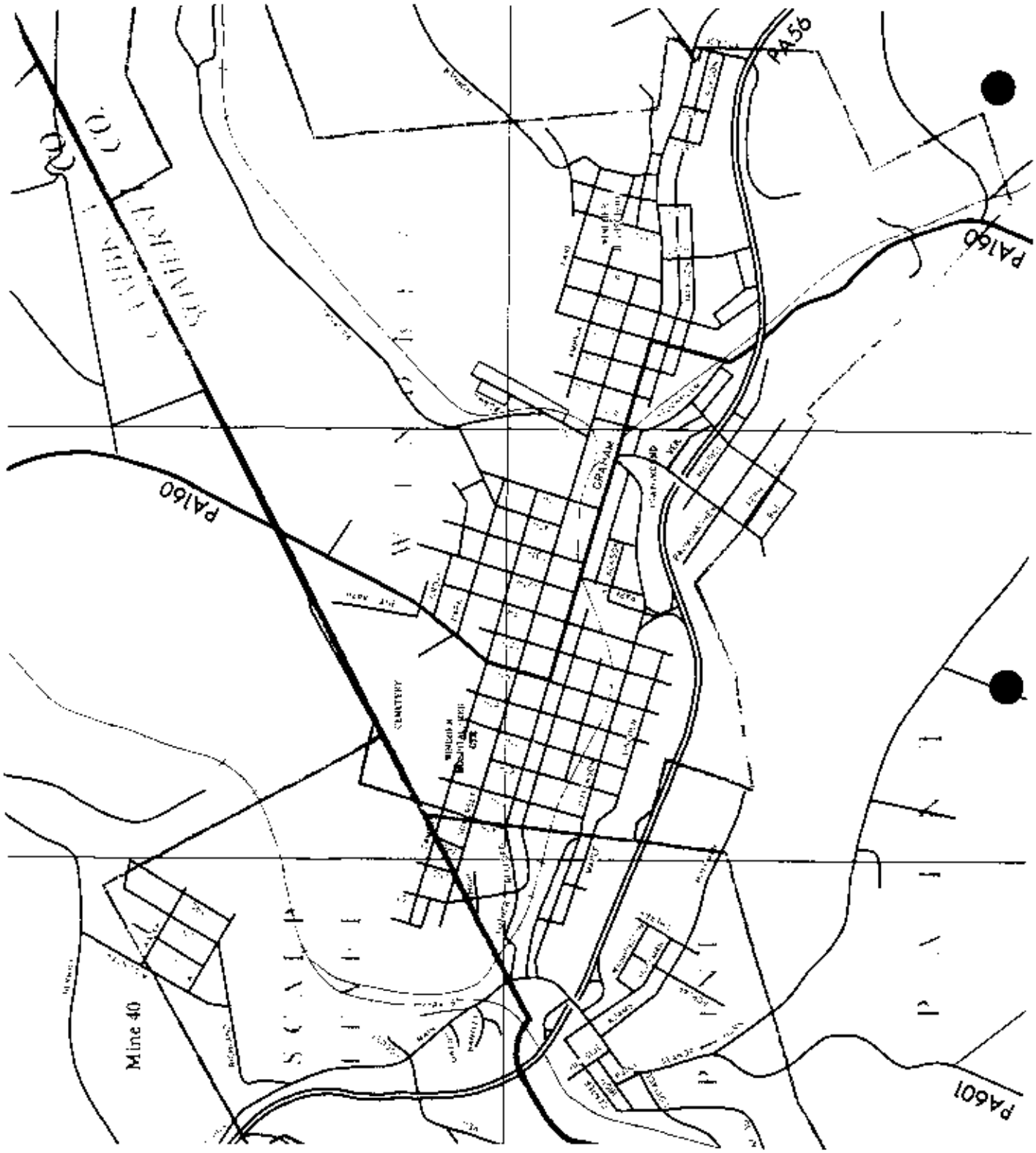


Figure 4-1 Street map of Windber, Paint and Scalp Level. Reproduced from "Map of Johnstown and Vicinity," Deasy GeoGraphics Laboratory, Penn State University, 1985.

Avenue and 15th Street. The upper floor was designed to house the offices of the Wilmore Coal Company, Berwind-White's subsidiary land-

Figure 4-2 View of the Arcadia Theater (1920), commercial buildings, and Palace Hotel on Graham AVenue. Taken by Jet Lowe, HAER photographer, 1988.

Figure 4-3 View of post office building (1913), on the corner of 15th Street and Graham Avenue. Taken by Jet Lowe, HAER photographer, 1988.

holding company. The first floor was reserved for the post office (See figure 4-3). Next to it, on the north, sat a small, wood-frame passenger station. Because of the increasing number of arrivals and departures in Windber, a new passenger station was built in 1916. This large, rectangular, brick building was erected in the middle of the park along the south side of the railroad tracks. A smaller trolley station was built along Graham at the corner of 15th Street at the same time. The Midway, a group of stores and hotels, was constructed across the tracks from the passenger station. By World War I, the park was one of the busiest places in town, crisscrossed by trains and pedestrian traffic. It was also about 50 percent smaller than originally designed.

In 1897, Berwind-White officials instructed the engineering staff to reserve all of the lots along 15th Street between Graham and Cambria avenues for its own use. By 1899, insurance maps reveal that the two clubhouses, Eureka store, post office, passenger station and Wilmore House Hotel--all financed by the coal company--occupied the lots surrounding the David Shaffer house at 15th Street and Somerset Avenue. By 1904, the fire station, Leister House Hotel, Clement Building and various brick stores lined the southern corner of 15th and Graham with the first Windber Electric Light Company and an ice plant behind them (See figure 4-4).

Figure 4-4 View of Clement Building (left), and Leister House Hotel (right), both built ca. 1902 on 15th Street. Taken by Jet Lowe, HAER photographer, 1988.

While these buildings were under construction by private individuals, Berwind-White moved the Shaffer house a few yards north and built its new office, a two-story, stone building, in its place.

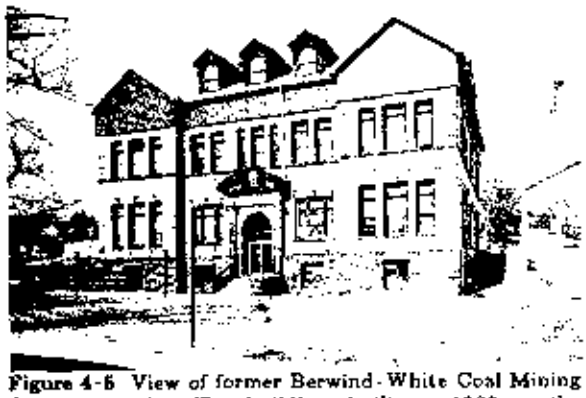


Figure 4-5 View of former Berwind-White Coal Mining Company main office building, built ca. 1902 on the corner of 15th Street and Somerset Avenue. Taken by Jet Lowe, HAER photographer, 1988.

Within twenty years, the company also replaced the frame post office on the opposite corner with a new, two-story, brick building. The new post office (1913) and trolley station (1917) were open by World War I, and the Eureka Department Store had doubled in size. The last office building built by the company was the Electric Building, constructed in 1925 on the site of the Wilmore House (See figures 4-5, 4-6, 4-7).

In conjunction with this group of commercial structures along Graham Avenue and the impressive collection of private residences

Figure 4-6 View of main Eureka Department Store, dating from 1899 and standing on the east corner of 15th Street and Somerset Avenue.

Figure 4-7 Windber Electric Building, built 1925 on the north side of 15th Street. Taken by Jet Lowe, HAER photographer, 1988.

on Somerset Avenue, the buildings along 15th Street form the heart of downtown Windber.

The Satellites

Berwind-White opened more mines in the hills around Windber throughout the 1910s. These new mines, Eureka Nos. 33 through 42, were all outside the official borough boundaries, while the earlier Eureka Nos. 30, 31 and 32 were on the periphery (See figure 4-8). Although not entirely isolated, the new mines were still far enough away from the town center to require their own houses and stores. These smaller mining communities can be compared to the satellite textile-mill villages that rose around Lowell and Manchester in the early-nineteenth century: they functioned independently from each other, and had their own housing, schools and stores, but remained dependent on the town center. Unlike the textile satellites, however, all of the Eureka mines were controlled by the same parent company.

Despite strong ties to Windber, each satellite mining community maintained a separate identity. In fact, Berwind-White employees living at the mine sites referred to their community by the mine number; residents of houses near Eureka No. 40, therefore, lived not in Windber or Scalp Level, but at "40." These communities have never been incorporated as individual towns. They are still known by their mine numbers although, ironically, many of the present inhabitants cannot locate the original mine sites. Eureka Nos. 30, 35, 36, 37, 40 and 42 are the only surviving satellite communities.[15]

Unlike Windber, the satellites reflect little conscious planning effort. Instead, they resemble more typical mine patches, where the mine site received primary consideration and housing, second. The placement of the houses, tipples, railroad tracks and mine buildings all reflected the natural terrain (See figure 4-9). Such was the case at Nos. 35 and 36.

The communities for Nos. 35 and 36 sit on the hill above 17th Street. To reach them, one drives out Railroad Street (an offshoot of 17th Street), up a fairly steep incline to where the road levels off. At the western end are the remains of the No. 35 mine site, including the ruins of Berwind-White's first central power plant. To the east, moving slightly uphill, are the old company store for No. 35 on the south side of the road, and the dispensary on the north. Next, are three semi-detached frame houses. Built for the No. 35 bosses, they were located

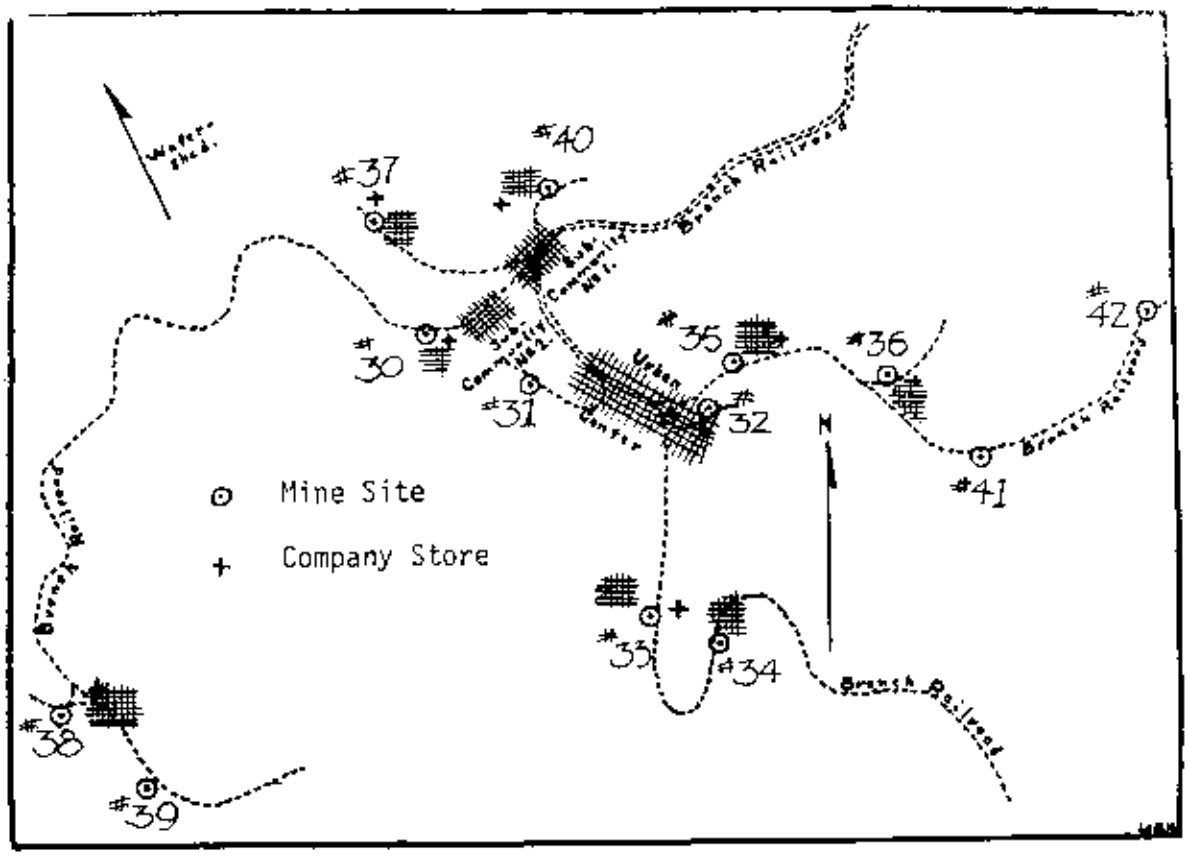


Figure 4-8 Map of Windber and its satellite mining communities. From U. S. Immigration Commission Report (1911).

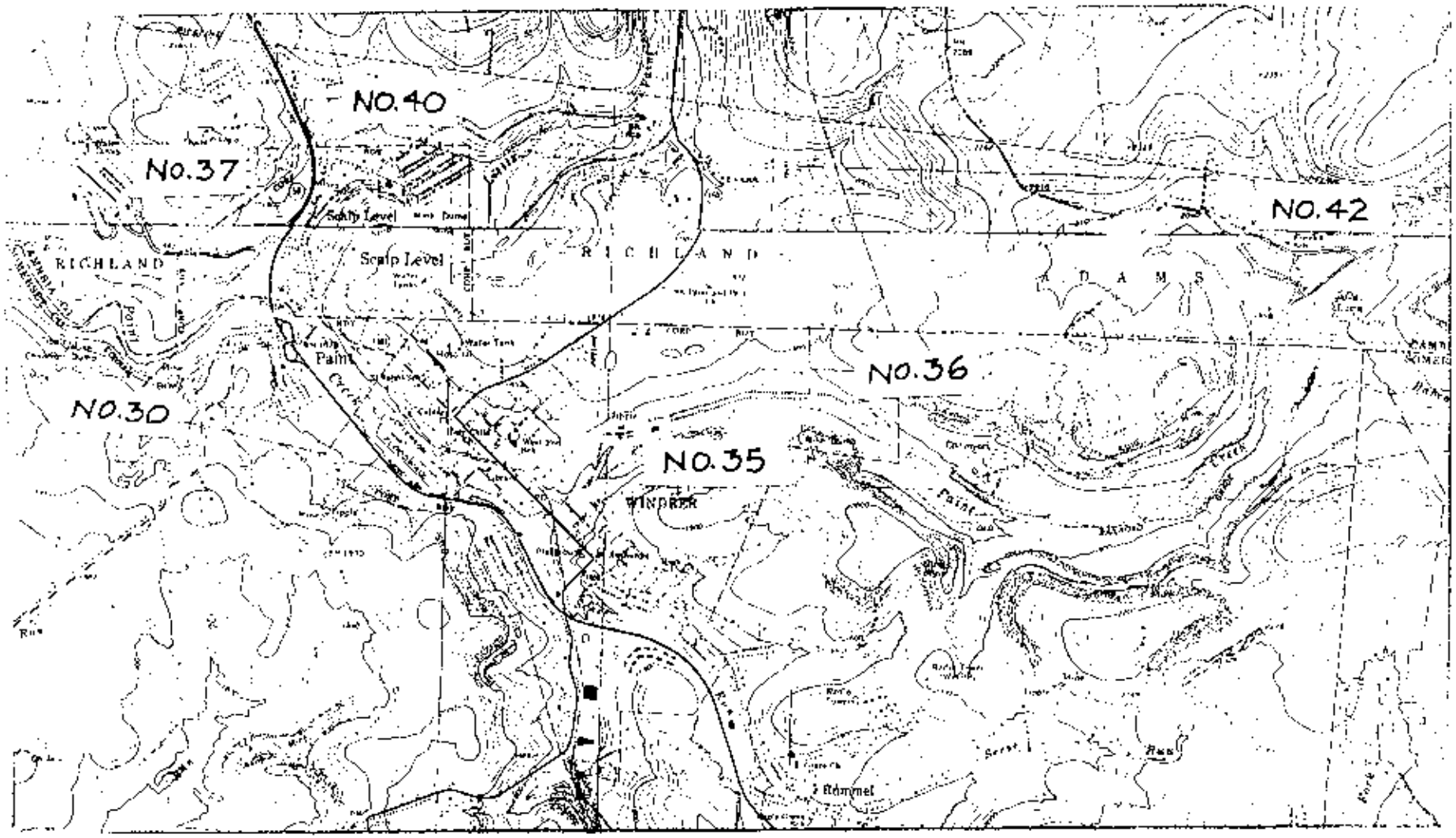


Figure 4-9 Topographic map of Windber and vicinity. From USGS, Geistown and Windber Quadrangles, 1981.

close to the mine in case of an emergency. Beyond these are the company houses. There were forty-seven semi-detached houses for No. 35 and thirty-nine for No. 36. Arranged in a linear pattern on both sides of the street, the communities could best be described as a wide place in the road. Because of the steep hills above and below the road, this was the only possible plan. The two groups of housing are separated by a brick public school. The No. 36 mine site was at the far east end.

Natural topography also determined the placement of the eighty-eight semi-detached houses at mine No. 37, located two-and-a-half miles northwest of town. All of the houses were arranged in linear patterns. One group of houses was built on both sides of Scalp Level Pike. Like Railroad Street, the Pike runs along a ledge cut into the hillside. Just below it, Berwind-White cut another road into the hillside; a second group of company houses was built along this road on the north side. There were two more groups of housing farther down the hill near the mine site. The mine foreman's house and the company store were strategically placed in the center of the entire community.

Of all the mine satellites, only No. 40 had a grid plan. Located just two miles north of Windber off Old Scalp Hill, it was one of the longest operating and most productive of the Berwind mines. As elsewhere, the mine site occupied the flattest area with its 110 semi-detached houses on the hill above. The grid consists of four numbered streets crossed by two named streets. By placing the grid at an angle to the hillside, the engineers minimized the street grade while ensuring proper drainage of the site.

Railroad Street is the most direct way to reach the No. 42 settlement. Situated three-and-a-half miles northeast of Windber in Cambria County, the fifty-one houses at No. 42 were built in a typical linear plan. There are three streets at No. 42 but they are neither parallel nor perpendicular; rather, they form a rough triangle around the abandoned mine site. The company store, stable and slaughterhouse were located inside the southern tip of the triangle where Railroad Street enters the community. The dispensary and mine office were located immediately north. Most of the houses at No. 42 were built along Clyde Street, which extends to the northwest away from the company store. Clyde Street was bent slightly to conform to a branch of Paint Creek. There are eleven other houses to the north of the mine site. The westernmost house belonged to the mine foreman and was set apart from its neighbors.[16]

Regardless of the company's planning efforts, Windber was still a coal town. As such, certain conditions persisted despite physical arrangement. By the advent of World War I, thirteen mines were operating in close proximity to town, each with its own "boney" pile of waste nearby. Composed of extremely flammable coal wastes, the piles ignited, emitting hydrogen sulfide and a smell likened to rotten eggs.[17] Trains loaded with lump coal rumbled through the communities, shrill whistles signalled the beginning and end of each shift, and smoke from the huge steam generators hung in the air. Since houses had to be near the mine, unpleasant surroundings were unavoidable. Importantly, these problems characterized all coal towns, even those that were "model communities" like Windber. Knowing this, it is probable that the Berwinds never intended to correct all of the inherent problems of coal company towns, but instead sought only to make conditions as agreeable as possible under the circumstances.

Workers' Housing

Housing in town was clearly segregated. Miners lived in small, crowded houses on the fringes of town, while management personnel and prominent businessmen lived in somewhat more pretentious homes on the Hill, an area northeast of Graham Avenue that Berwind reserved for such occupants. Unlike workers' houses, most of these were large dwellings with spacious yards and shady trees. Quite a few were even referred to as mansions.

The houses Berwind-White built for its mining employees varied somewhat in plan and elevation, but all were simple, two story, wood structures. In Windber, most of the miners'

homes were detached dwellings; in the satellites they were semi-detached. Most had horizontal weatherboard siding and shingle roofs although some had board-and-batten siding with composition paper roofs. Whether in town or in the satellite communities, the houses sat near the front of extremely deep lots. None had indoor plumbing, but by 1915, all had electric light. Furthermore, Berwind-White painted all of its company houses white with black trim. This strengthened the image of uniformity even when houses did vary slightly.

It is said that Berwind-White allowed some employees to participate in designing their own houses as part of their model company town plan. In this way, the company could proudly boast that instead of building "houses for workers," they were promoting "homes for participants in the Great Enterprise."[18] While this concept had great appeal on paper, it never actually became the guiding principle the company professed it to be. For one thing, it is apparent that Berwind-White limited alterations to the basic house plans. After all, the cost efficiency of company houses relied upon their relative homogeneity. Indeed, most of the houses in town are the same size (five rooms), and differ from each other only in their orientation to the street (Compare the floor plans in Figures 4-11 and 4-12). Some have gable fronts, some have gable ends; there is no logical alteration of the two plans, which seems to indicate that the orientation was left up to the occupant. So, while some employees were probably consulted regarding the design of their company houses, the overwhelming similarity of the houses indicates that their input was severely restricted. And although it was theoretically possible for individuals to buy company-built houses, few persons could actually afford to do so. Thus, although the company considered its employees "participants," their participation was very limited.

Windber

Construction in town proceeded rapidly after the first mines opened. A few houses were dismantled at the company's Houtzdale, Pennsylvania, mine and reassembled in Windber, including the first two houses on the north side of 17th Street above Somerset Avenue.[19] Just east of these are an early group of company-built houses along Cambria and Somerset streets, between Paint Creek and 20th Street (See figure 4-10). By 1899, there were forty-one dwellings at the site.[20] All were detached, two-story, balloon-frame houses with three bays, weather-board siding and shingle roofs. Each measured approximately 20' x 30'. The houses had small setbacks from the street but individual lots were large, about 45' x 155', forming a fairly spacious backyard with room for gardens and outbuildings. Narrow alleys ran between the yards, creating a firebreak and permitting access to the interior of the block. Tenants of these houses probably worked at Eureka No. 32.

Another large group of company houses was located between Jefferson Street and Big Paint Creek near Mine 31. Houses lined both sides of 9th and 10th streets, and the southwest side of 11th. In 1899, there were sixty-six dwellings in those six blocks. All were two-and-a-half-story, detached, two- or three-bay balloon-frame structures, depending on their orientation to the street (See figures 4-11, 4-12, 4-13). The original construction drawings for these houses show the same structure in two positions; gable-end or gable-front. Both had standard weatherboard siding and shingle roofs. Approximately eight had rear ells, but only five had porches of any kind. Lots were arranged as before, between 50'-wide streets and 20'-wide alleys. An iron bridge led across Paint Creek to Mine 31.

There were three wood-frame tenements called the "Hungarian Quarters" just across the bridge. Similar tenements were also built at Eureka Nos. 32, 33, 34, 36, 37 and 38.[21] Unlike the houses, they used vertical plank construction. Walls consisted of an inner layer of boards nailed to the face of the sill at the ground level, and to joist bearers at the second story and attic levels. The joist ends were then notched to fit over the joist bearer; nails hammered through the inner boards into the joist ends provided additional support. A layer of tar paper was applied over the inner layer, and 16' boards and battens were nailed over that to form the outer skin. Interior

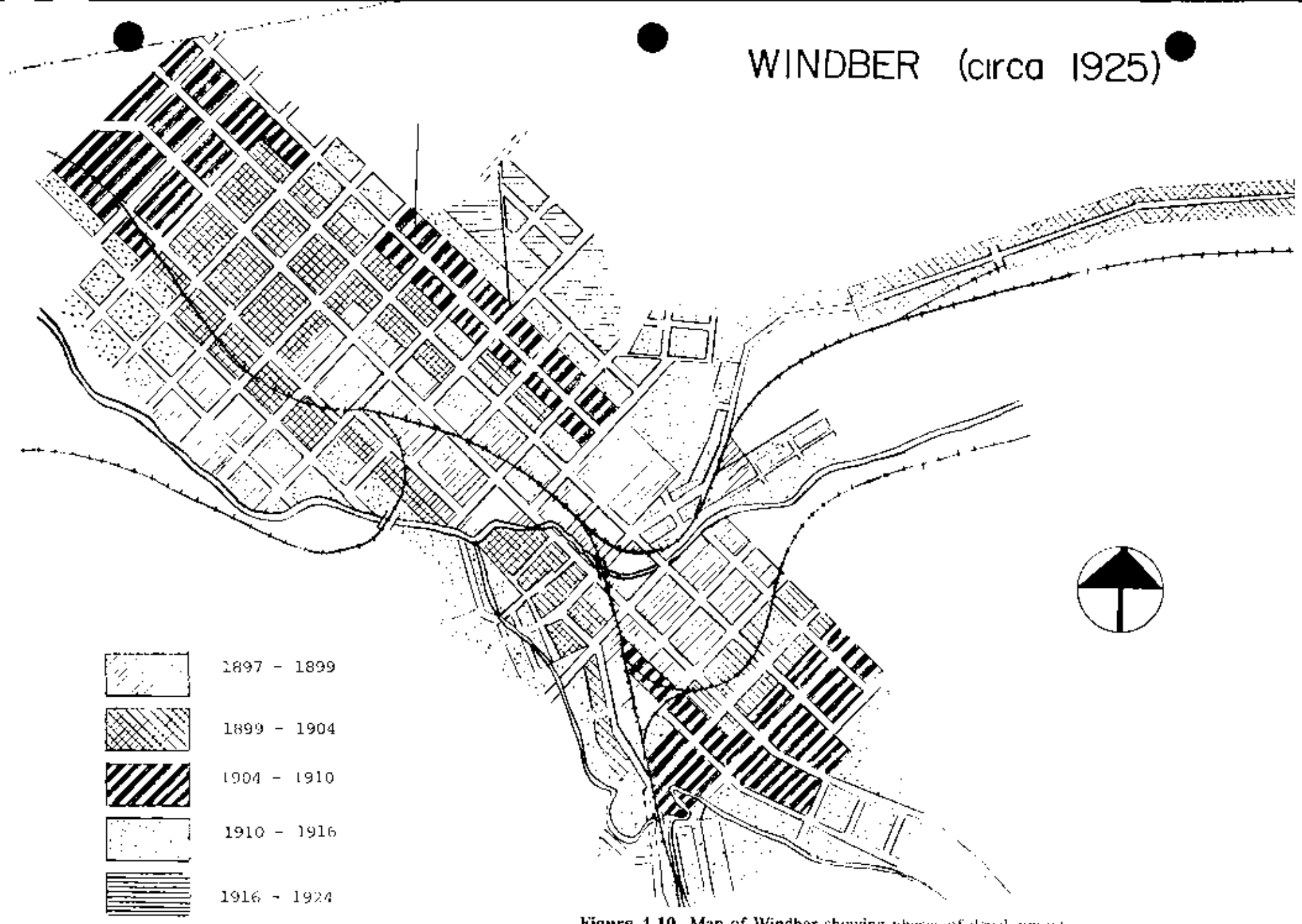


Figure 4-10 Map of Windber showing phases of development, 1897-1925. Compiled and drawn by author from Sanborn fire insurance maps.

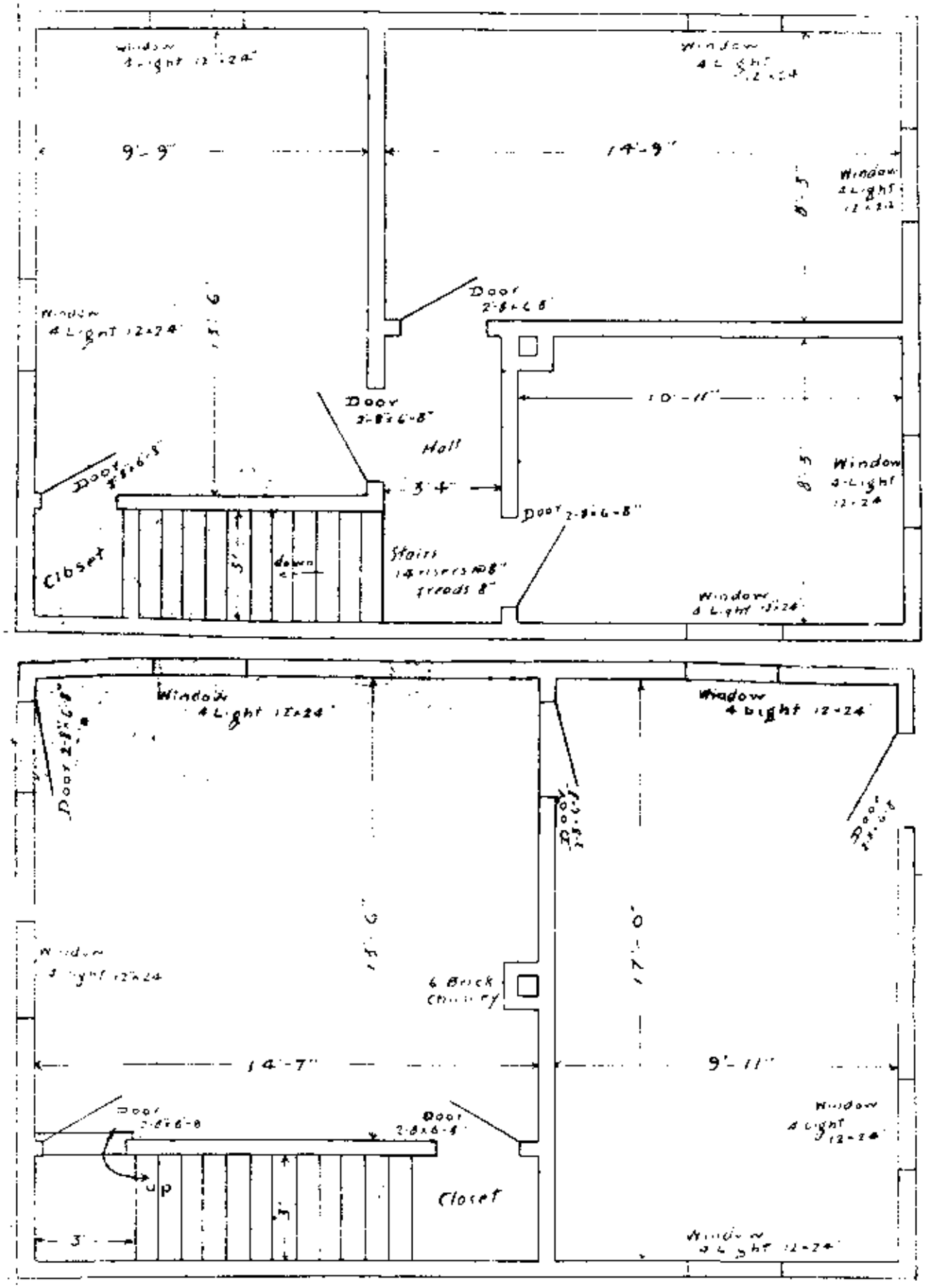


Figure 4-11 First and second floor plans for a detached, gable-front miner's house. By Berwind-White Coal Mining Company, 1900.

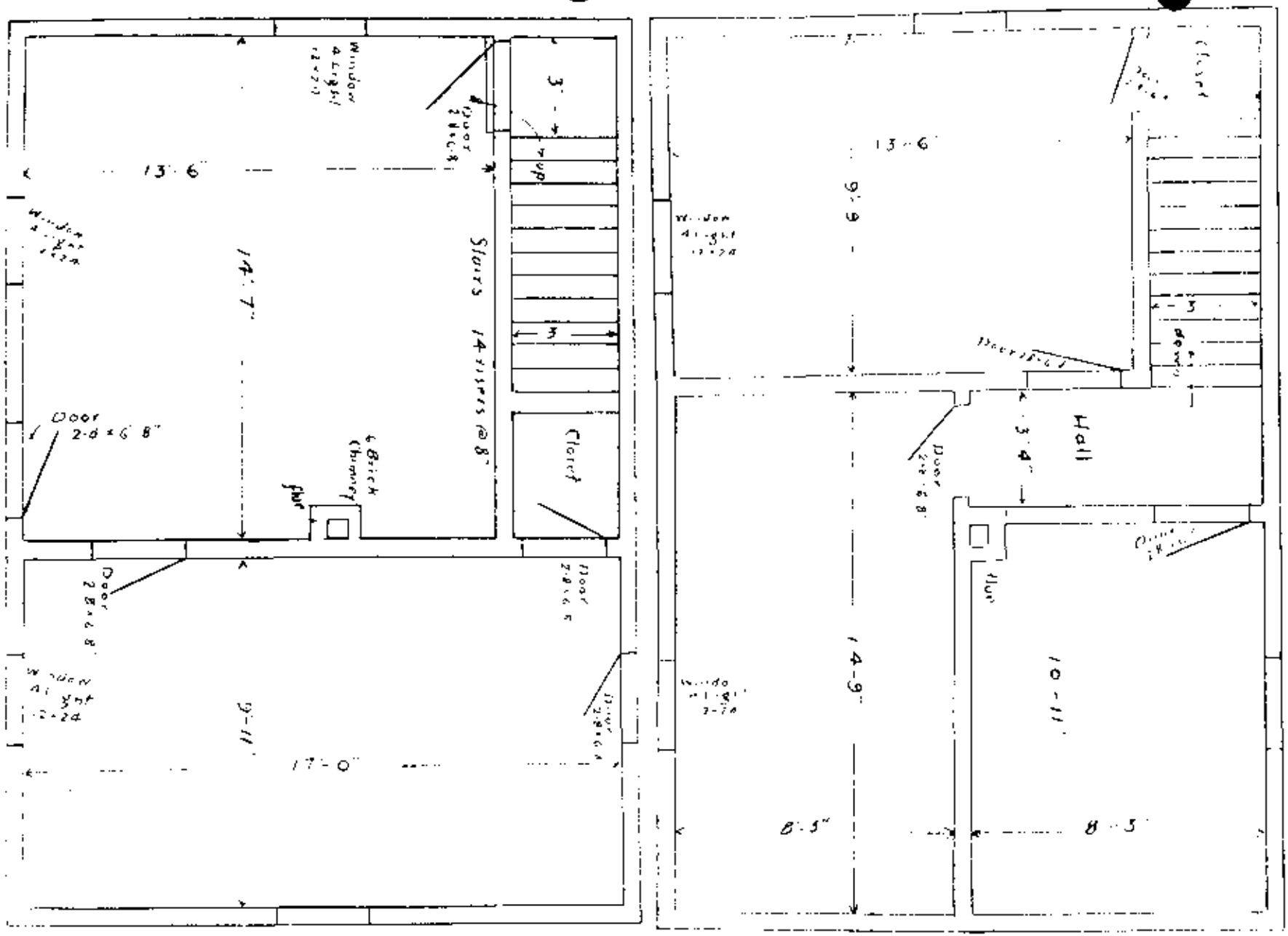


Figure 4-12 First and second floor plans for a detached, gable-end miner's house. By Berwind-White Coal Mining Company, 1900.

Figure 4-13 Company houses on 11th Street at the railroad tracks. Taken by Jet Lowe, HAER photographer, 1988.

partition walls used 2" x 4" studs nailed in place over two layers of floorboards, then all interior walls and ceilings were lathed and plastered. Each tenement measured 28' x 72' and had six four-room units. Three tenements still stand near No. 36.

The next major development of company houses in Windber occurred sometime between 1899 and 1904 (See figure 4-10). Houses were constructed on the southeast side of 6th Street, and both sides of 7th, 8th and 9th streets between Graham and Jefferson. Unlike the two previous developments, these houses were not uniform. Although all were two-story, balloon-frame structures, some were semi-detached, some had rear ells and some had porches. They also vary in their orientation to the street. Maps of Windber show all of the houses on 9th Street to be detached and considerably larger than the others.

At the same time, additional dwellings were built on the southeast side of 21st Street and both sides of 22nd Street between Cambria and Graham avenues. Most were detached, except for six duplexes on 22nd Street. Many of these new houses were identical to those on 9th Street, but had six to eight rooms instead of four. All were two-and-a-half story, frame, with the same siding and shingled roofs (See figure 4-14).

The Stockholm Avenue houses were also constructed by 1904. Facing the railroad tracks between 18th and 21st streets, Stockholm Avenue probably got its name from the Swedish immigrants who lived there. Locally it was known as "Swede Street." Houses followed the same pattern seen elsewhere in town: detached, three-bay, two-and-a-half story, wood-frame structures with four or five rooms.

The Satellites

The first company houses built in the Windber area were located near Mine No. 30. These twenty semi-detached houses were built near the western boundary of Paint Borough. They were simple, four-bay, balloon-frame

structures with stone foundations, end chimneys, and weatherboard siding. Each unit had six rooms: parlor, dining room and kitchen downstairs, and three bedrooms above. There was also a cellar and an attic. Both units together measured 32' x 24' with a 24' x 14' rear ell (See figures 4-15, 4-16, 4-17). Each structure cost $800 to build and rented for $9 a month, the maximum rent for a company house in 1911.[22]

One of the most intact areas of company housing around Windber is Railroad Street (See figure 4-18). Built in 1900 to house employees at Mine No. 35, this community had forty-seven semi-detached houses (or ninety-six units). The original construction drawing reveals that all were plank construction on stone foundations. The 18'-long vertical boards are nailed directly to the outer face of the sill. The first floor joists measure 2" x 10" and are notched to fit over the sills and girders. At the second floor level, 2" x 8" joists are notched to fit over a 2" x 6" joist bearer nailed to the boards. The ends of the attic floor joists are butted against the boards as well. A 1" x 6" false plate is nailed across the joist ends and the top edge of the board layer. The rafters, which measure 2" x 6", are notched to fit the false plate (See figure 4-19). Inside, machine-cut lath and a rough coat of plaster were applied to the walls and ceiling. Floorboards were laid, then partition wall studs nailed into place; these walls were likewise lathed and plastered. Eight-inch baseboards finished each room.

Like the houses built in 1897 at Mine No. 30, each unit had six rooms: a parlor, dining room and kitchen on the ground floor and three bedrooms above, plus cellar and attic. At the foundations, each double house measured 30' x 24' with a 14' x 24' rear ell housing both kitchens. When built, there were side porches only. The front door was reached via wooden steps; front porches have been added since. All had center chimney flues, four bays and four-light windows (See figures 4-20, 4-21, 4-22).

Figure 4-14 Better company house on 20th Street between Cambria and Somerset avenues. Taken by Jet Lowe, HAER photographer, 1988.

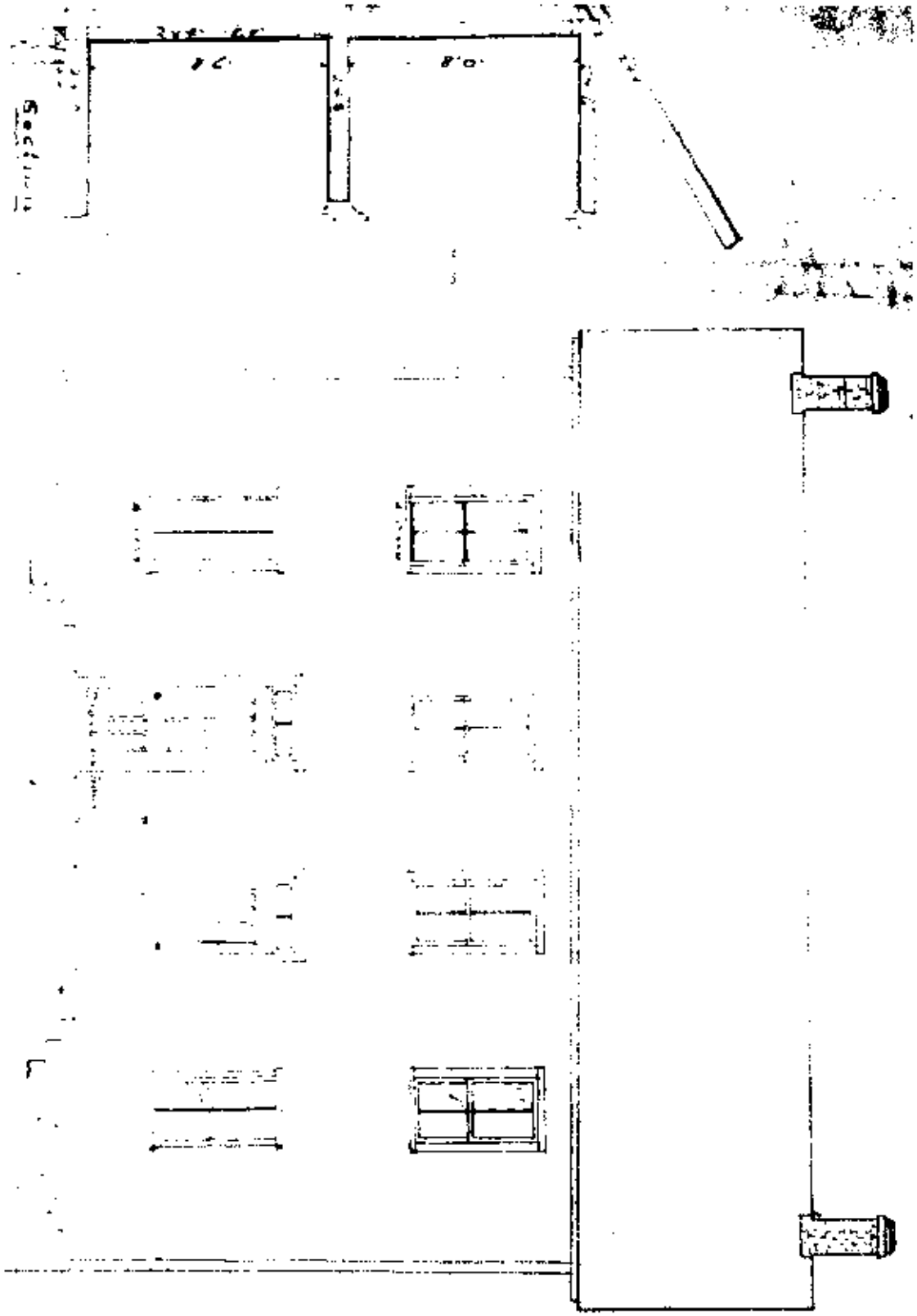


Figure 4-15 Front elevation and section of a semi-detached miner's house. By Berwind-White Coal Mining Company, 1897.

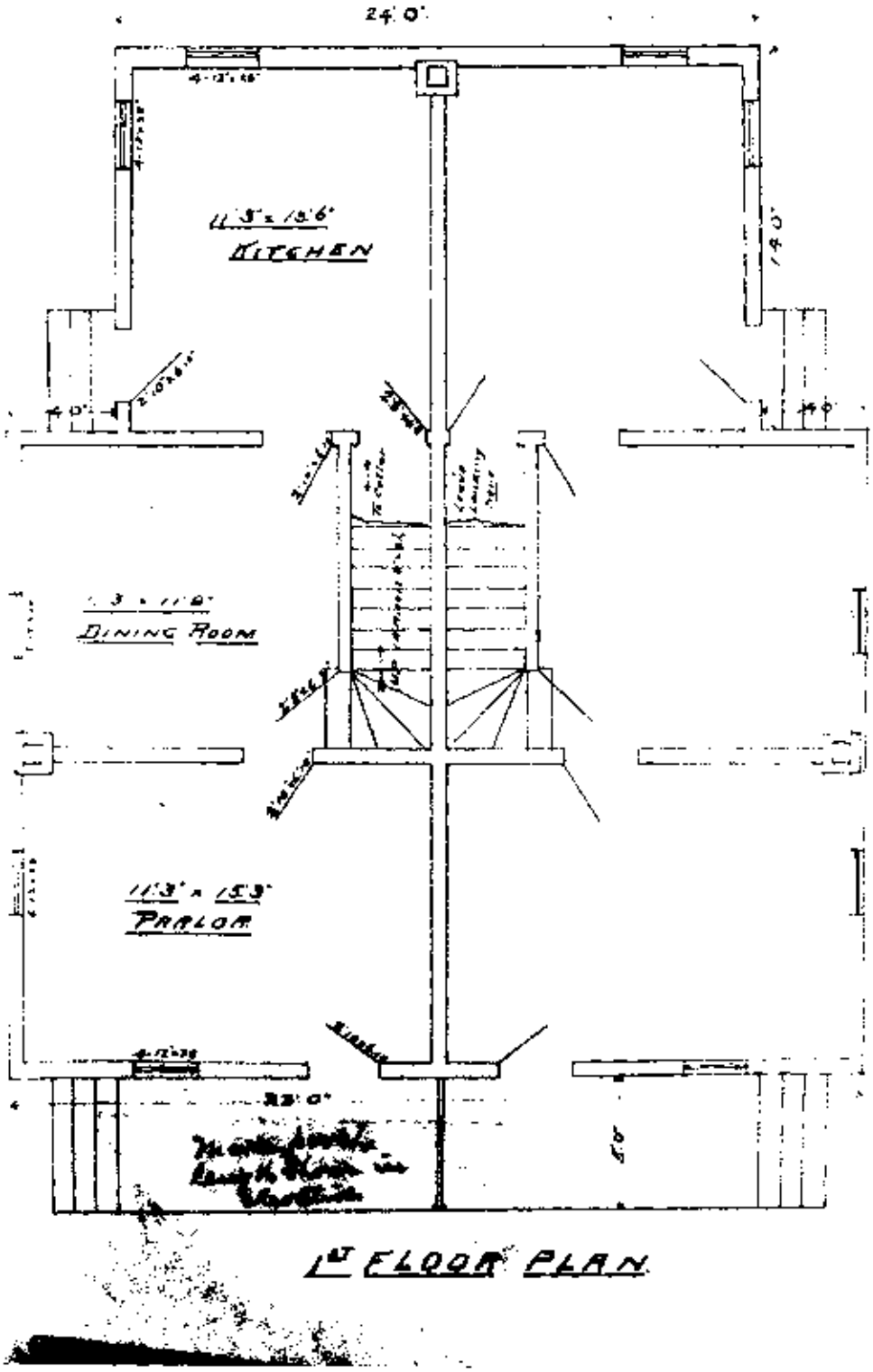


Figure 4-16 First floor plan, semi-detached miner's house. By Berwind-White Coal Mining Company, 1897.

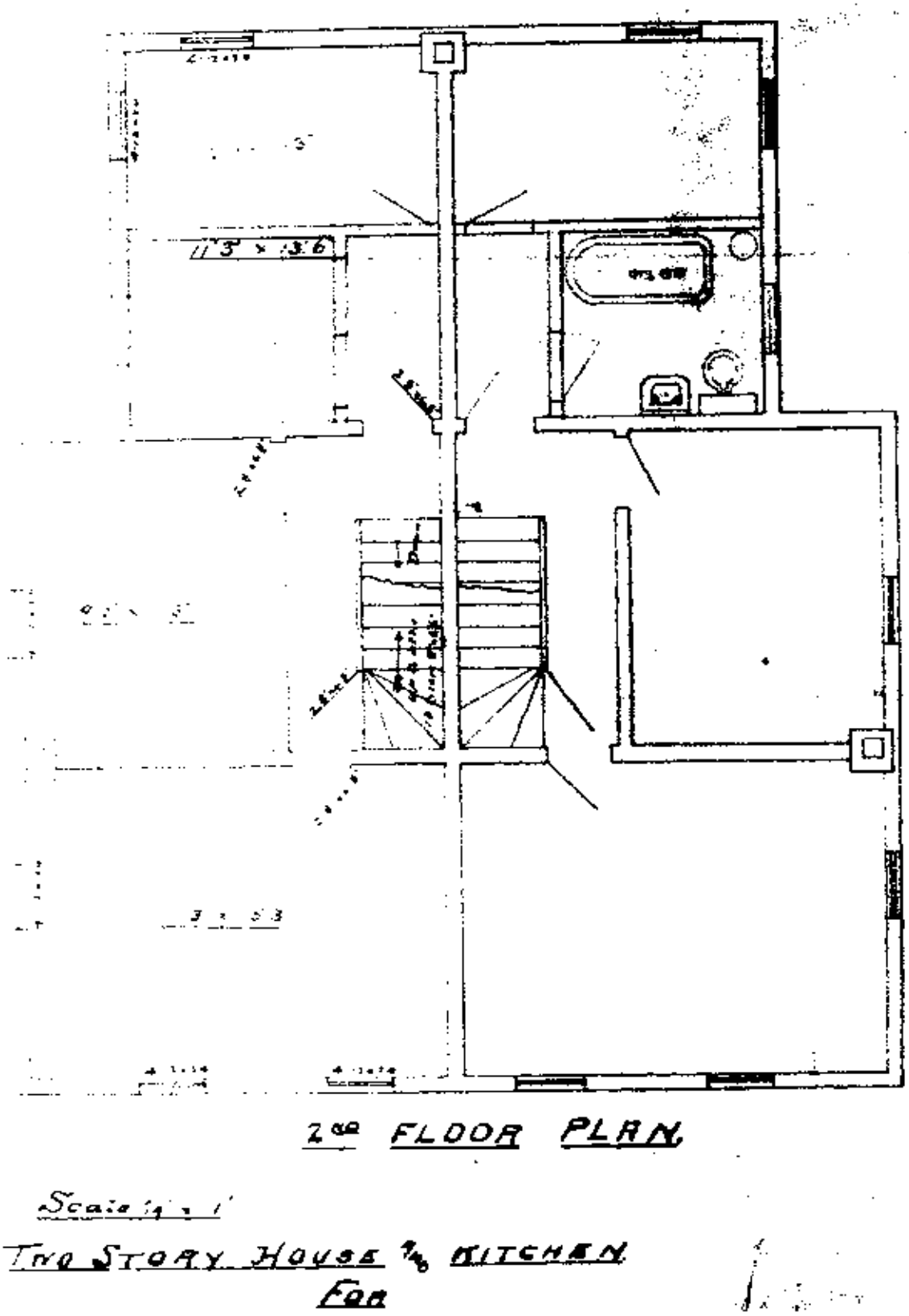


Figure 4-17 Second floor plan, semi-detached miner's house. By Berwind-White Coal Mining Company, 1897.

By using the 1911 U.S. Immigration Commission Report, the 1910 census schedule and photographs (dated 1913), it is possible to obtain a fairly accurate picture of life at Mine No.35 in the 1910s. These sources unanimously indicate overcrowding and poor sanitation as the overriding characteristics. Seventy-three households were enumerated in the census of which fifty-five had boarders in addition to the nuclear family. Boarders helped offset the $9 per month rent. The number of boarders ranged from one to eleven; four appeared to be average. Units No. 593 and No. 595 are considered representative: No. 593 listed a husband, wife, three children and three boarders, all Slovakian; No. 595 housed a husband, wife, two children and seven boarders, all Polish.

As to living conditions, the Immigration Commission Report found that coal and wood were burned as fuel and oil lamps used for light.[23] Coal stoves provided the only heat. Privies were built of vertical planks in groups of four at the back of each double house. Water was hauled from hydrants located between every two houses. A system of open gutters and pipes conveyed waste water, refuse and excrement. Each household also maintained a garden in the backyard, which was fenced with stakes and chicken wire. Those on the south side of Railroad Street backed up to a switch line for empty coal cars. Often, areas within individual yards were fenced to contain chickens, pigs or cows.[24] Because of such factors, there was little natural vegetation in the settlement.

A notation on the original construction drawing for the houses built at No. 35 indicates that the design was used liberally at other Berwind-White mine sites. Thirty were built at No. 37 in 1900, 100 at No. 38 in 1901, 100 at No. 40 in 1905-1906, and ten at No. 42 in 1909-1910.[25] Although all of the houses at No. 40 survive, their building specifications call for studded walls instead of planks. The forty-seven semi-detached houses at No. 35 are the only known vertical-plank houses left in Windber.

The houses at No. 36 are almost identical to those at No. 35, having been built from the same

Figure 4-18 Vertical-plank houses at Eureka No. 35, built in 1900. Taken by jet Lowe, HAER photographer, 1988.

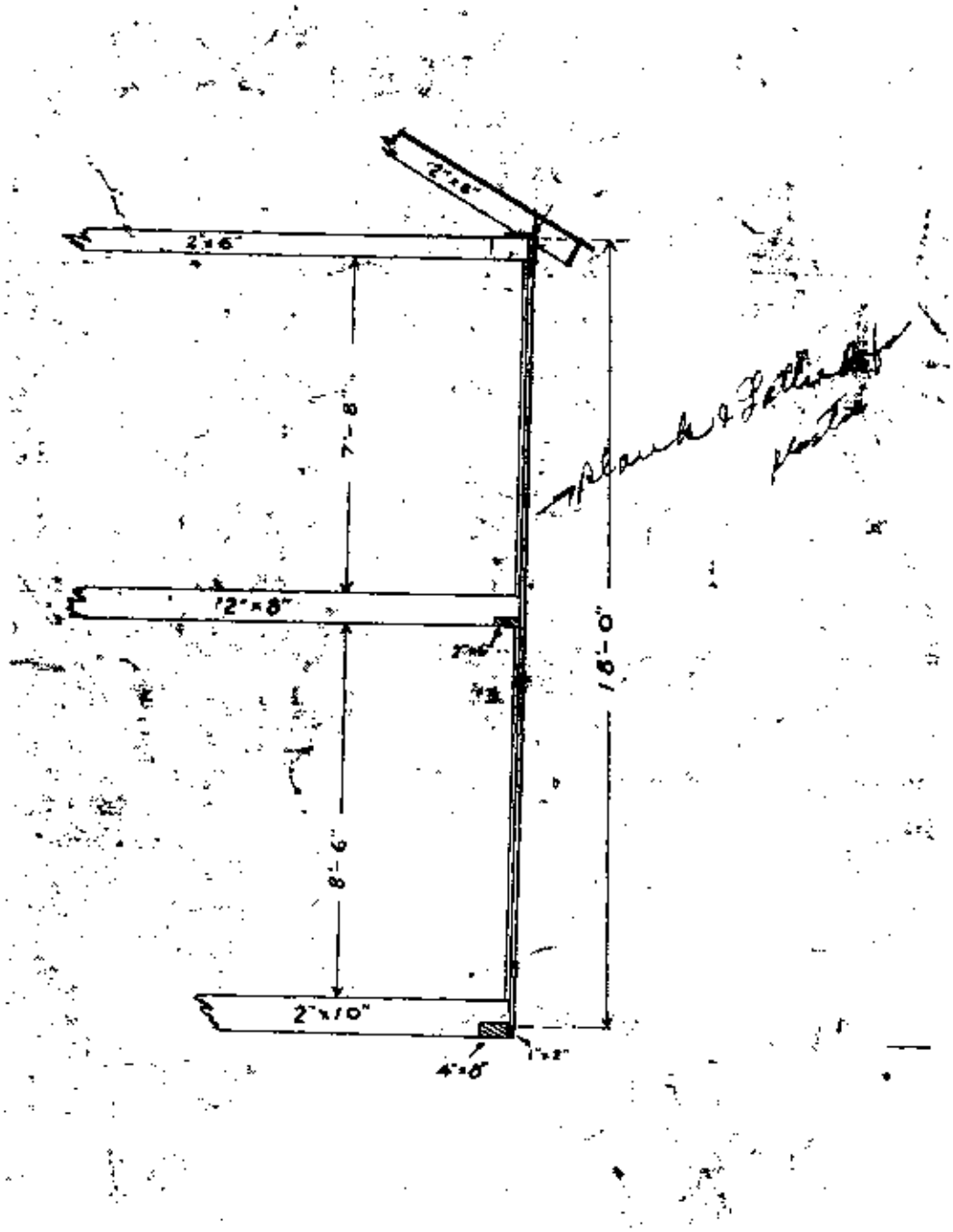


Figure 4-19 Section, vertical plank house. By Berwind-White Coal Mining Company, 1900.

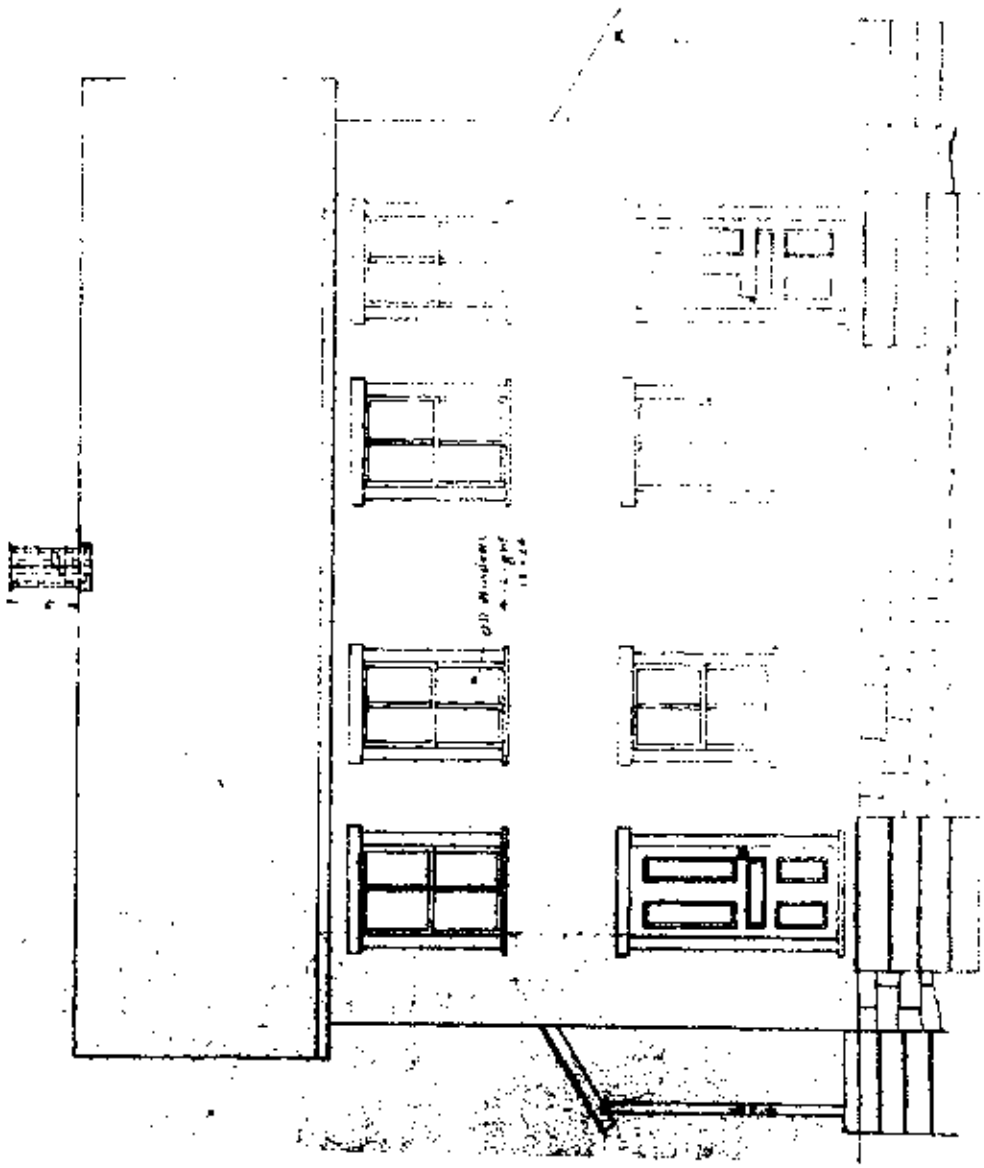


Figure 4-20 Front elevation, vertical plank house. By Berwind-White Coal Mining Company, 1900.

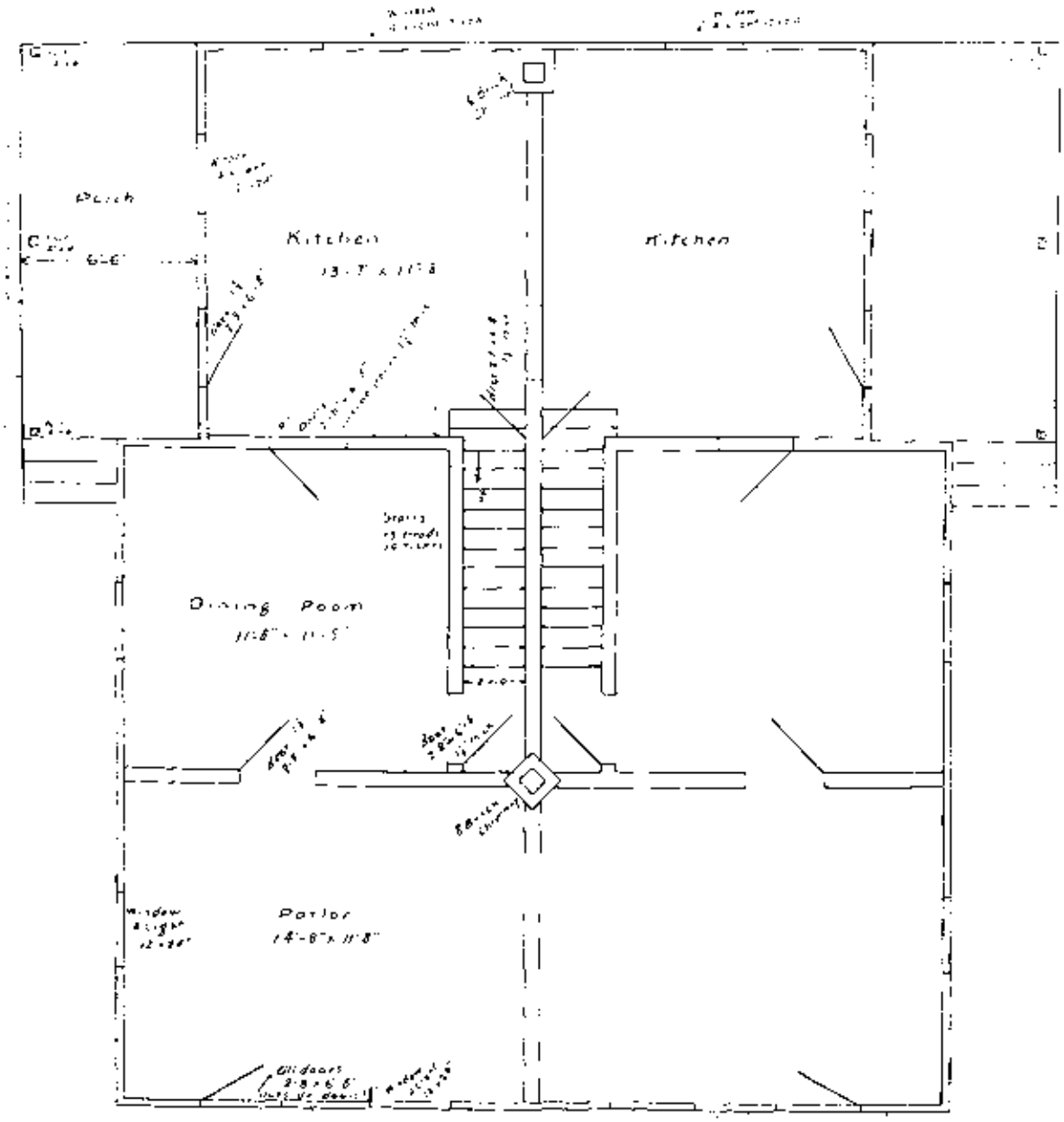


Figure 4-21 First floor plan, vertical plank house. By Berwind-White Coal Mining Company, 1900.

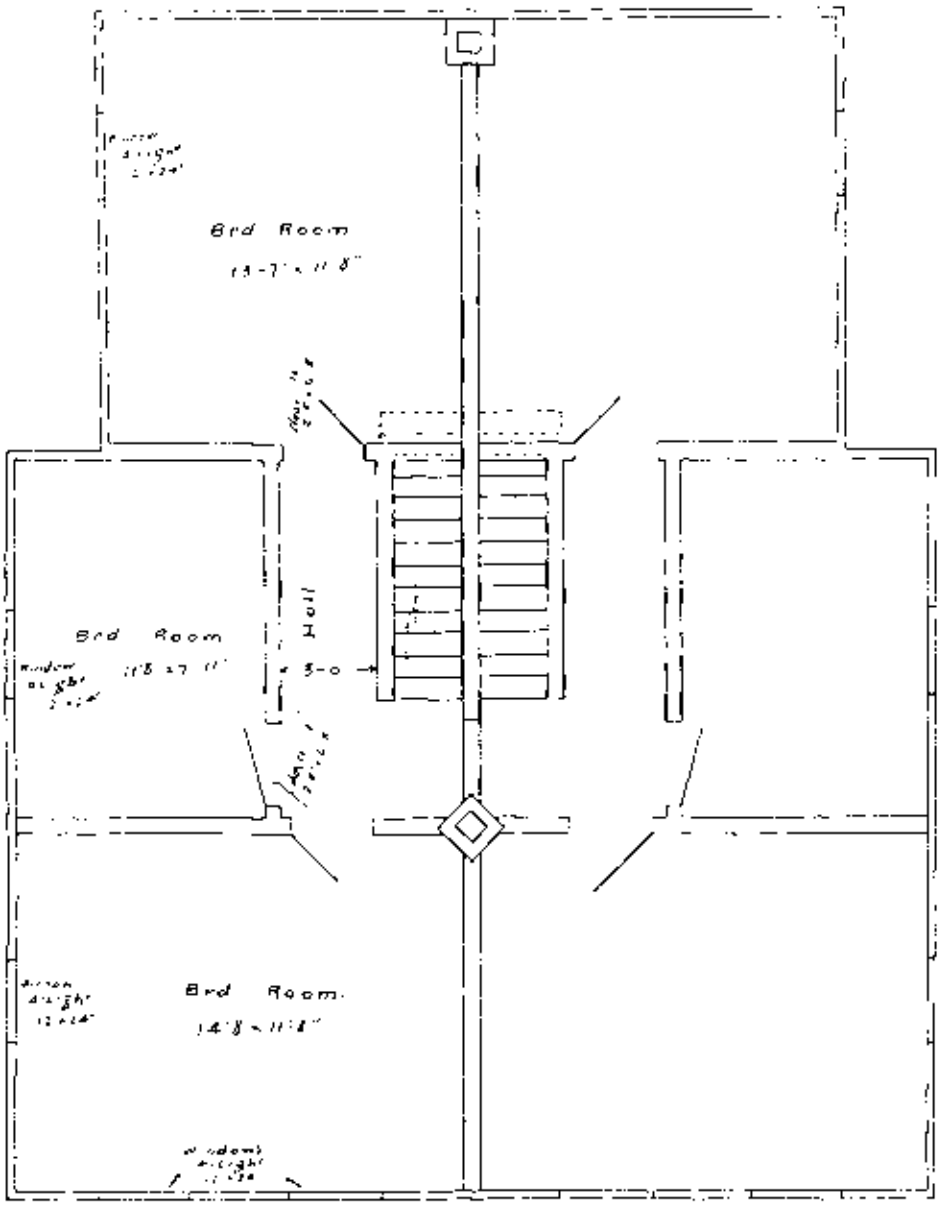


Figure 4-22 Second floor plan, vertical plank house. By Berwind-White Coal Mining Company, 1900.

plan, but have studded walls and weatherboard siding. To the far west end of Railroad Street are three six-unit, plank-frame tenements like the ones built at No. 31 in 1897. Sources indicate that they were occupied by itinerant bachelor miners, but at present they are occupied by families.[26]

Berwind-White opened No. 37 in 1899 and began building houses the following year. There were eighty-eight double houses, two six-unit tenements and one hotel to accommodate the employees and their families. These units rented for $7 per month in 1911. Of the thirty board-and-batten-sided houses built in 1900, only twenty-six remained in 1924. These have since been demolished. The surviving houses have four rooms per unit.[27]

The Mine No. 40 settlement was established in ca. 1905. Originally there were 110 double houses (See figures 4-23, 4-24). One hundred of these were built according to the design used at No. 35, but instead of vertical planks, walls were constructed of 2" x 4" studs with weatherboards outside and lath and plaster inside. Because No. 40 is closer to town than No. 37, units there rented for $9 per month compared to the average rent at Berwind-White mine sites of $6-$7 per month.[28]

Although Mine No. 42 opened in 1907, the community did not exist until after 1910.[29] According to one resident, the twenty-one six-room houses located near the store were built first. The nineteen four-room houses down the street were built around 1916 (See figure 4-25). All appear to have studded walls; interviews with residents indicate that the studs are not continuous from sill to plate, but resemble platform framing. Research was unable to substantiate this, but if so, they are the only known platform-frame company houses around Windber.[30]

Just up the hill is another section of housing and the No. 42 school. The foreman occupied the largest house, a detached, frame structure just east of the school. The next two houses are semi-detached and were intended to house the mine bosses. There are ten semi-detached houses on this upper street; they are probably the ten built in 1909-10 as noted on drawing E-1/114. All of the houses at No. 42 rented for $9 per month by the 1920s including free electricity. Outdoor pumps provided running water, but since it was sulphurous, residents obtained springwater, too.[31]

Employees were never compelled to rent company houses. In fact, Berwind-White encouraged people to buy their houses. Prices were reasonable and payable in low monthly installments. In 1911, for example, a five-room house cost $500, or $12 a month. A six-room house cost $700 or $15 a month. Payments were usually deducted from the bimonthly paychecks. Despite the relatively low costs, most Berwind employees did not purchase their houses. In the first place, houses were for sale only within town limits; all houses in the satellite communities were company-owned. Like other companies, Berwind-White probably retained ownership of property in the mine communities because of their more temporary nature. Also, many miners were transient; some went to other companies, and some returned to Europe. Furthermore, renting was cheaper since all utilities and maintenance were free.[32]

Management Housing

Windber

Berwind-White's upper-management personnel occupied a wide variety of dwellings. Most were located on the Hill, an exclusive, seven block residential area north of Graham Avenue, and intermingled with the houses of Windber's doctors, lawyers, businessmen and other professionals. The highest-ranking company officials, like the superintendent of mines and the general manager, lived in imposing houses along 15th Street above Somerset Avenue. Locally, they were referred to as "mansions." Such dwellings were occupied by only a few individuals, but were nevertheless built and owned by the company.

Berwind-White reserved large lots near the main office building for its senior officials. The Queen Anne-style mansion built for Assistant Superintendent John Lochrie is located just northeast of the office on the north side of 15th

Figure 4-23 View of Eureka No. 40 housing, built 1905. Taken by Jet Lowe, HAER photographer, 1988.

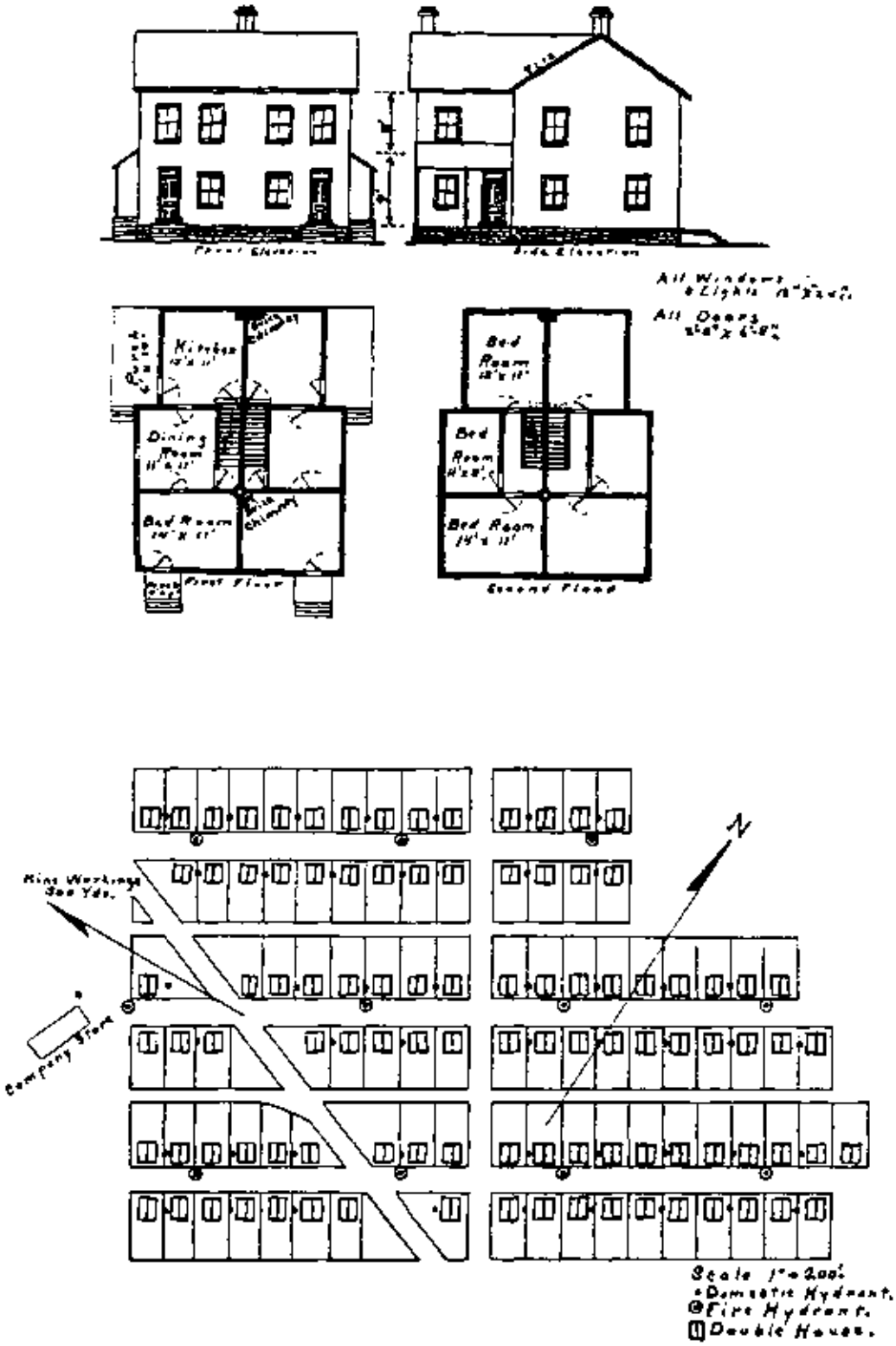


Figure 4-24 Drawings and map of Eureka No. 40 houses, from U. S. Immigration Commission report, 1911.

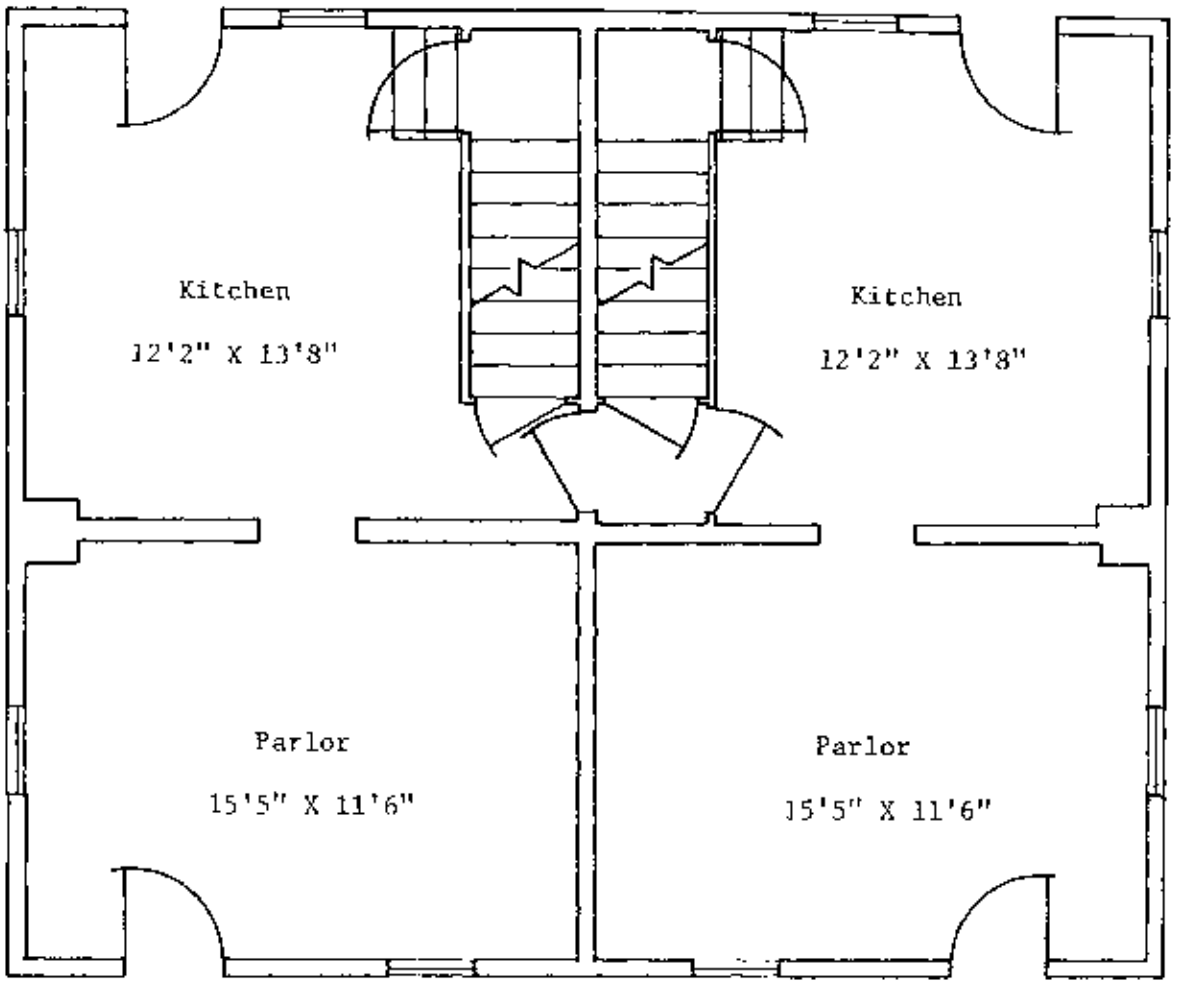


Figure 4-25 First floor plan, semi-detached miner's house at Eureka No. 42, built 1916. Drawing by author, 1988.

Street. Built ca. 1905, its notable features include a three-story, semi-hexagonal tower, multi-colored window panes, a large enclosed porch, and ornate cornice moldings. The Queen Anne-style house across the street was constructed ca. 1905 for the superintendent of the Scalp Level District, James Cunningham. Unlike its neighbors, which face 15th Street, this structure faces a driveway it shared with the Berwind Clubhouse to the southeast. The main facade has a hexagonal tower, bay windows and a three-sided wrap porch.

Lochrie and Cunningham reported to General Superintendent Thomas Fisher, considered second in rank only to the Berwind brothers themselves. Fisher spent most of his time in the Philadelphia office where he oversaw all of Berwind-White's mining operations in the United States. Because the Scalp Level District was so important, he maintained a house in Windber. Built ca. 1908, his Colonial Revival dwelling was surrounded by a six-and-a-half-acre tract located just north of Cunningham's property. Even farther north is the last residence built for a Berwind official in Windber, the Edward J. Newbaker House. Constructed for the vice president of the Berwind-Wilmore Division in 1921, it reflects the Dutch Colonial style that was popular in the 1920s.

As company-built houses, all managers' homes were designed by Berwind-White engineers and constructed by the Windber Lumber Company, a Berwind subsidiary. Although not trained as architects, the engineers did have access to books of plates and plans of houses by architects. These designs were then altered to suit the taste and needs of each official. Colonial Houses for Modern Homes: For People Who Wish their dwellings to be Distinctive, Tasteful and Characteristic, written by New York architect E. S. Child in 1913, is one source they consulted.[33] In this manner, the company provided stylish homes befitting the status of its senior employees.

The Satellites

At the western end of the Eureka No. 35 settlement are three more semi-detached houses. Although basically the same size as the miners' dwellings, they are of slightly better quality since they were intended for the mine bosses. These three have weatherboard siding and front porches with turned posts and decorative brackets. Window and door surrounds also received a greater amount of architectural treatment (See figures 4-26, 4-27, 4-28). Inside, the kitchen walls were wainscoted. Each was provided with an enamel sink and hot water. But the biggest luxury was upstairs: a full bathroom with sink, toilet, tub and hot and cold running water; its walls were also wainscoted. The house directly opposite the store was occupied by the No. 35 mine foreman.[34] The fact that these houses were semi-detached, yet reflect greater attention to detail and comfort than miners' houses, would support their occupancy by lower management. Identical houses were built for the foremen at No. 37 and No. 42. The foreman's house at No. 40 is a three-bay, two-story, wood-frame structure like the houses in Windber. It has a large front porch with ornate, machine-cut brackets and posts.

Commercial Buildings

One of the Berwind-White Coal Mining Company's most lucrative subsidiaries was the Eureka Supply Company, Ltd., which administered all company-owned stores. Upon commencement of employment with Berwind-White, each employee was required to sign an agreement permitting the company to make paycheck deductions. Dealing with the company stores was not mandatory, but since "a good customer of the stores is less likely to be discharged should occasion arise than one who deals at other places," miners were pressured to do so.[35] In the satellite mining communities, the company store was the only store available. Miners had to buy goods there or walk to the nearest town. Prices were substantially higher at the Eureka stores, but the quality of merchandise was generally superior to that of competitors.

Known for their motto, "Dealers in Everything," the stores offered a vast array of items including furniture, clothing, groceries, tools and dry goods. The first Eureka store opened its doors ca. 1894 at Herminie, Pennsylvania, the mine community named for Edward J. Berwind's wife. Locally, the first branch store opened in

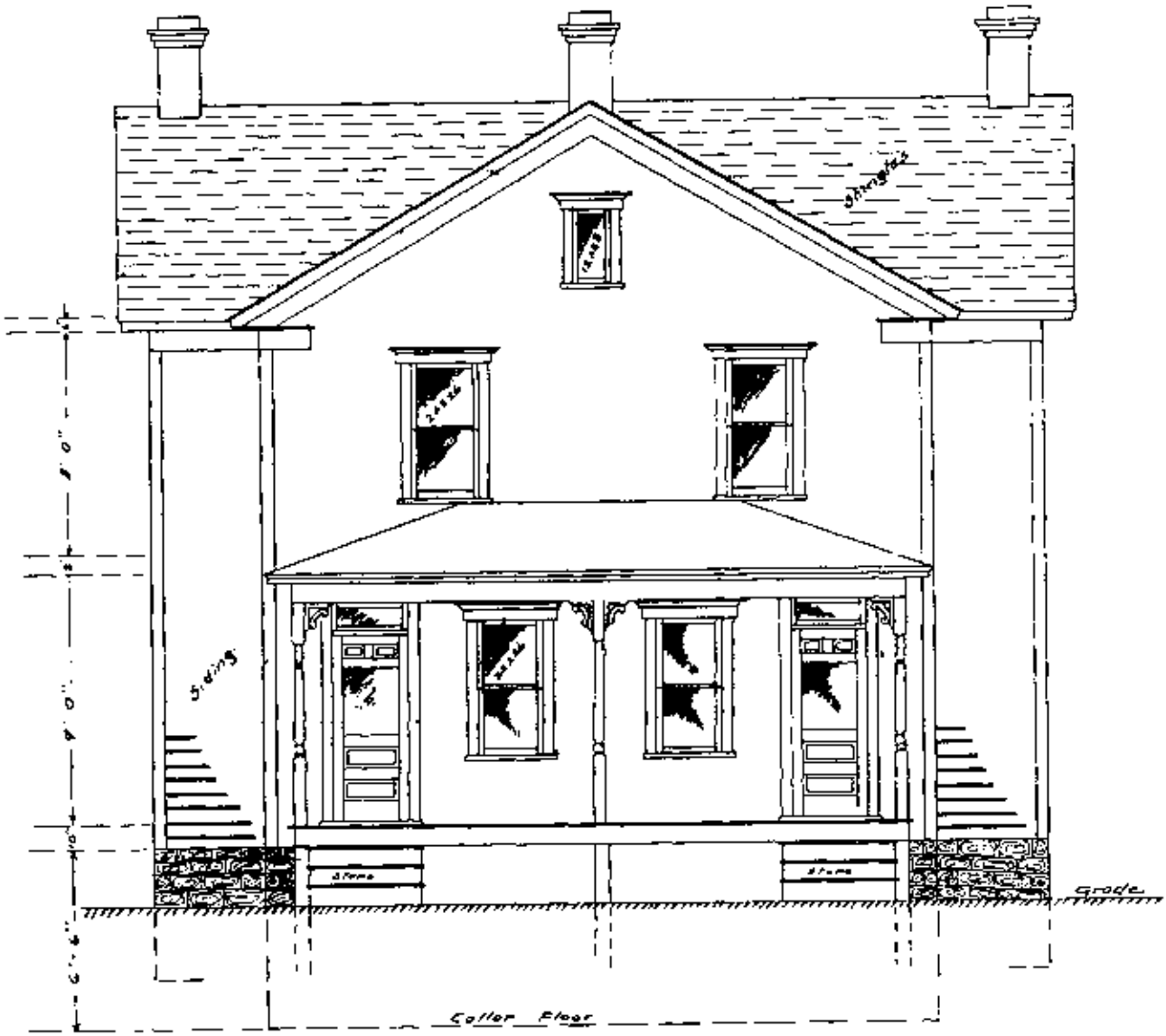


Figure 4-26 Front elevation, semi-detached foreman's house at Eureka No. 35. By Berwind-White Coal Mining Company, 1905.

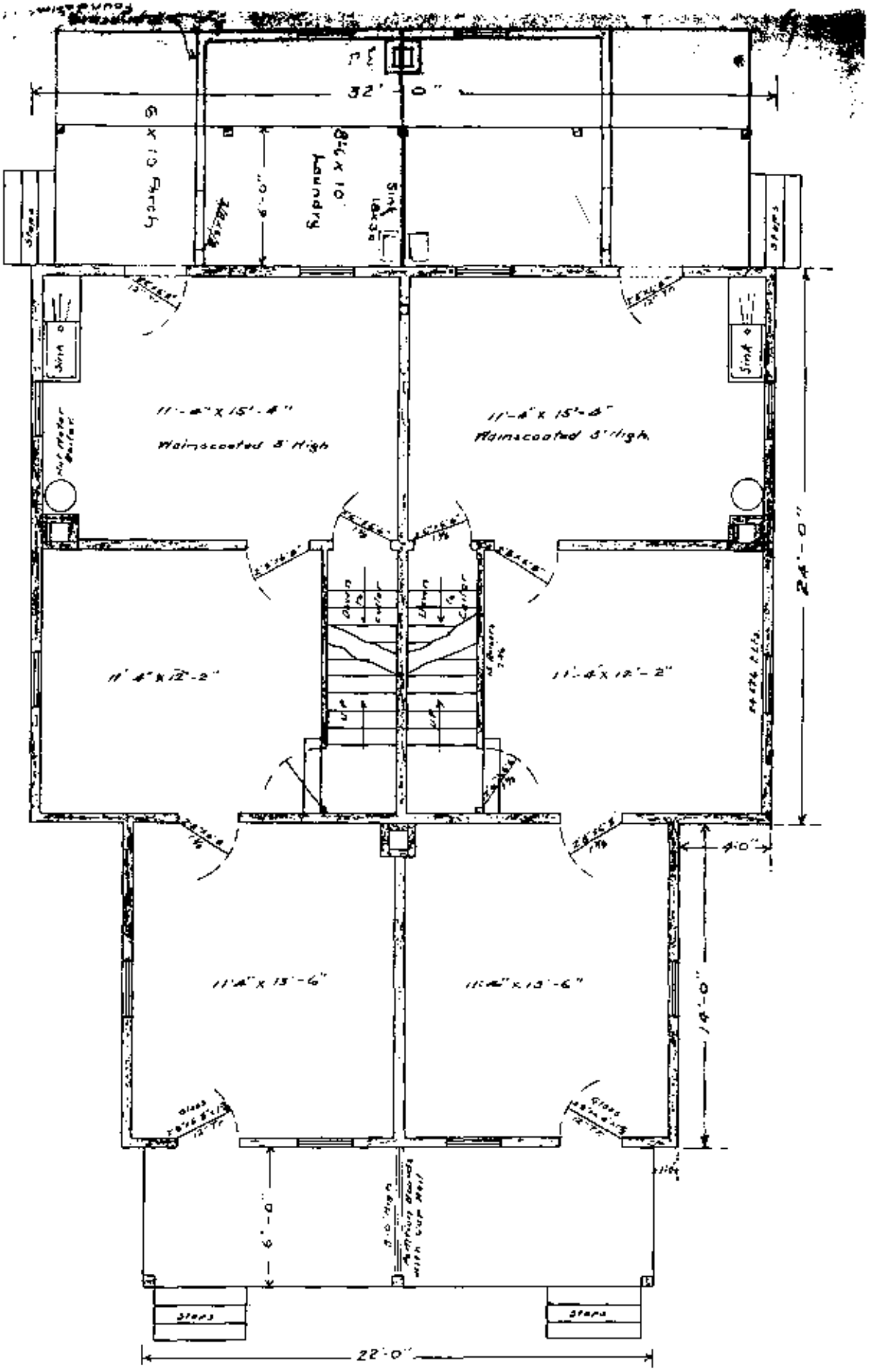


Figure 4-27 First floor plan, semi-detached foreman's house at Eureka No. 35. By Berwind-White Coal Mining Company, 1905.

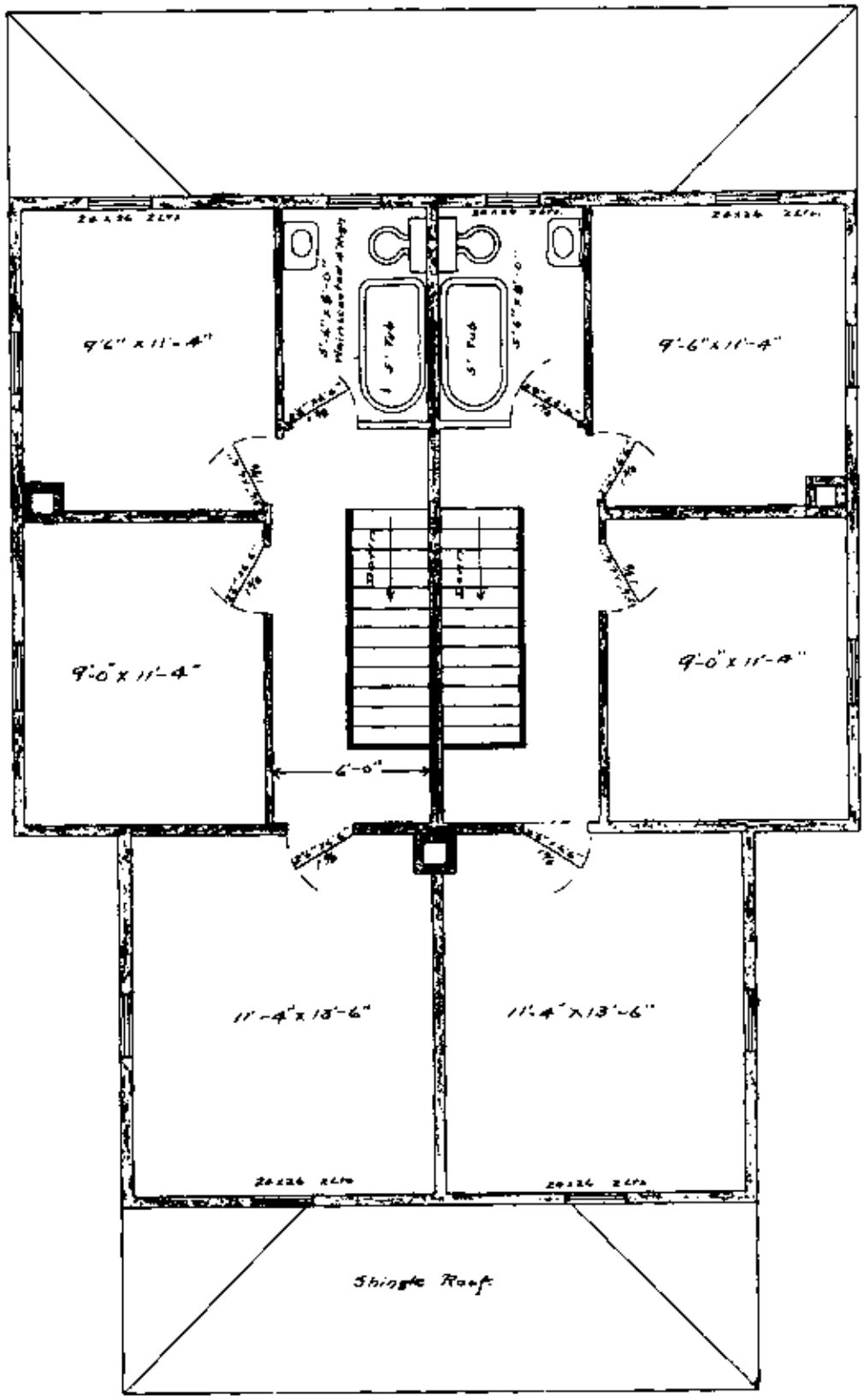


Figure 4-28 Second floor plan, semi-detached foreman's house at Eureka No. 35. By Berwind-White Coal Mining Company, 1905.

1897 to serve the mine community at No. 30. By 1916, a branch operated near every mine. In all, there were thirty-eight Eureka stores.[36] In Windber alone, there were six: one at 10th and Jefferson streets for No. 31; at 21st and Graham for No. 32; the main store on 15th Street between Graham and Somerset; and one branch each at Nos. 35, 37, 40 and 42.

Most of the small Eureka stores around Windber had a standard design: red brick, two-story pilastered walls, corbelled brickwork, and stone foundations. The main facade was divided by a pent roof extending across the entire front above the first-floor display windows and center door. Five double-hung windows above the pent roof admitted light to the second floor. At attic level there was a small, square window set in the gable or in the center of a low dormer (See figure 4-29).

Each store also had an associated slaughterhouse. Several of these stores are still standing: No. 35 on Railroad Street in Windber is a tire dealership; No. 42 is vacant but retains its slaughterhouse and stable; 10th Street is vacant; No. 30 is a residence; and No. 37 has been substantially altered by its present occupants. The 21st Street store also survives, but its architectural treatment is different from the others.

Built between 1910 and 1916, the 21st Street store served the mostly Italian population around mine No. 32. The building is two stories with pilastered walls like the others, but its buff-colored brick with red and green accents resemble the Palace Hotel facade. The facade is also distinctive, with a door to each side, windows in the middle and a balcony. Reached by stairs on both sides, the balcony has a railing made from curved pieces of iron. A small canopy shelters it from the elements. Presently, the building houses a pizza parlor on the first floor and apartments on the second.

The main Eureka store on 15th Street is also unique. Its original structure was built by 1899: red brick, three floors, a basement, a railroad platform, and a warehouse to the rear. A store manager's residence sat at the back of the property behind the warehouse. Its front had a large triangular pediment with a sunburst motif and bore the words "Eureka Department Store." Tall display windows covered the first and second floors, with somewhat smaller windows across the third.[37]

Immediately north of the store was a combination bank and post office, constructed by 1904. This structure was brick with a hipped roof and Palladian-style dormer windows. By 1916, the Eureka Department store had expanded into this building and a cross-gabled addition to the rear, becoming Windber's largest commercial structure. Soon after, all of the additions were refinished with an English-Tudor-style layer of stucco and wood. The interior featured a pressed-tin ceiling, a cashier's cage and Windber's first elevator. Cash boxes were conveyed from each department to the cashier's cage in the rear by an electrically operated system of wires and pulleys.[38] The main store remained open well after the smaller ones were closed. In 1969 it was sold to a group of investors. The business operated as the Eureka Store until 1982 when its last owners declared bankruptcy. Several smaller firms occupied the store until 1983, when most of the building was closed. A hardware store and drug store continue to occupy one corner of it today.

Figure 4-29 Company store on 10th Street, built ca. 1906. Note proximity to houses and railroad tracks.

Although all Berwind employees were expected to shop at the Eureka stores, the company welcomed other businesses to Windber. Some, like the Eureka stores, sold general merchandise; others provided goods or services that Eureka stores could not. Most congregated along Graham Avenue between 11th and 15th

streets. By 1899, these three blocks were already the established commercial center of town. According to insurance maps, there were four grocers, four general stores, a barber, two pool halls, a cobbler, blacksmith, jeweler, two hardware stores, a butcher, two clothiers, a large planing mill, a livery and a Chinese laundry, all operating in this small area. All were frame structures and varied from two to three stories in height. Upper floors were reserved for storage and apartments. Long boardwalks ran the length of each block, protecting pedestrians from having to walk in the wide streets.[39]

A few other stores operated beyond Graham. Many were run by immigrants and served their small ethnic enclaves by offering highly specialized goods in a comfortable atmosphere. But with the opening of each company-owned store, competition increased so that few stayed in business for long. For example, the 1904 insurance maps of Windber show that five houses on 10th Street below Graham were operating as groceries; by 1910, a Eureka store was open on 10th Street and the small stores were gone. Eureka stores remained the dominant commercial force in Windber from 1897 to the 1970s.

Institutional Buildings

Churches were among the first structures built in the new community of Windber. By 1917 there were thirteen, representing most denominations and ethnic groups. There were three Brethren churches, three Catholic, and one each Hungarian Reformed, Greek Catholic, Methodist Episcopal, Swedish Lutheran, United Evangelical, and United Presbyterian. Hebrew and Episcopal services were held in town, as well.

St. John Cantius is considered the oldest organized parish, dating from 1897. Drawn from the growing populace, St. John's original congregation was comprised mostly of Irish Catholics. Soon, the parish included Catholics of all nationalities. As the number of Catholic immigrants increased, each ethnic group formed its own church. St. John's eventually became associated with Windber's Polish community. The present church was begun in 1912 and dedicated in October 1914.[40] Designed in the Gothic style, its front facade has two square towers culminating in twin spires with golden crosses at the apexes. From a distance, these spires are still visible above the trees.

Under the name St. Stephen's, St. Mary's Byzantine Catholic Church was established by immigrants from the northeastern section of Austro-Hungary. By 1900, plans were made to build a church on three lots purchased from Berwind-White for $250. In 1901 a new frame church stood on the corner of 8th and Somerset streets with a brick dwelling for the pastor beside it. Designed by Johnstown architect George Wild, the church was built by the Windber Planing Mill Company on Graham Avenue. In 1914, the church was moved across the street and encased in brick. It is still standing. The congregation continued to grow and contracted another Johnstown architect, Walter Myton, to draw up plans for a larger structure. The present church was completed down the street in 1927 by the Windber Lumber Company. According to a state inventory, the new building is Romanesque Revival; locally, it is referred to as Byzantine.[41]

The First Presbyterian Church at 11th and Somerset streets had its first meeting in March 1899, but did not have a church until the next year. Their new church, a simple wood-frame building, was dedicated on May 21, 1900 and served the congregation until the present church was built in 1929. There are several other prominent parishes in Windber that date to the turn of the century. These include: SS. Cyril and Methodius Catholic (1905); St. Anthony of Padua Catholic (1905); St. Mary's Hungarian Greek Catholic (1912); and First Methodist (1901). Holy Child of Jesus (1921) and SS. Peter and Paul Orthodox Greek Catholic Church (1936) have large ethnic congregations as well.[42]

The local churches played an important role in the Windber community. Most of the congregations were made up of first- and second-generation immigrants. In orthodox churches like St. Mary's, SS. Cyril and Methodius, and SS. Peter and Paul, immigrants heard services in Greek, Hungarian or Russian from priests of the same ethnic background. By the same token, the Italians at St. Anthony's and the Irish at Holy

Name of Jesus heard Mass in the language of their church: Latin. In addition to language, the new parishes observed traditional Feast Days, Holy Days and marriage, christening, and funeral rites. The parishes built their own schools and formed mutual beneficial societies. Many of the ethnic social clubs were sponsored by churches, as well.[43] Forced to learn a new language and accustom themselves to new surroundings and customs, the immigrants' churches existed as a constant link to their native lands. Built by and for immigrants, these churches reflect a vital part of Windber's rich cultural heritage.

Windber Hospital

Speaking of Berwind-White in 1911, the Immigration Commission stated that "practically no welfare work is undertaken by the company." Instead, they maintained "an air of indifference." Like many of their contemporaries, the Berwind brothers leaned away from strict paternalism. Nevertheless, the company did finance a community hospital in 1905, and for which they deducted a mandatory health fee of 50 cents per month from each employee's paycheck. Of the more than $191,000 paid to employees in earnings in 1908, less than 1 percent was deducted by the company for hospital fees. Fifty cents was thus quite reasonable for the unlimited medical treatment received, but it reflects the popular attitude that social services were provided only as part of an overall business policy.[44]

The original 1904 hospital structure had a central, two-story concrete block with two wings housing the men's and women's wards. The architect is unknown, but the Windber Lumber Company, a Berwind-White subsidiary, carried out the actual construction. Noted Philadelphia architect Horace Trumbauer designed and built several major additions in 1930. Further additions, made in the 1970s, have almost completely obscured the original hospital building.[45]

Technically, the hospital was administered by the Windber Hospital Association, but since many of its board members were high-ranking Berwind officials, the company ultimately maintained control. From the beginning, the hospital was a success. By 1917, the U. S. Surgeon General called it second to none in Pennsylvania "barring the hospitals in Pittsburgh and Philadelphia."[46] The Berwinds continued to make donations to the hospital over the years.

One adjunct program funded by the Berwind family was the Windber Hospital School of Nursing, chartered on May 23, 1916.[47] The nurses lived on the third floor of the hospital until a separate building was built in 1923. Named Herminie Hall for Edward Berwind's wife, the Colonial Revival structure housed schoolrooms and a dormitory. The last class graduated in 1961 and the school was closed. The former nursing school now houses some of the hospital's administrative offices.

In 1970, the Berwind Corporation donated the Windber hospital to the Conemaugh Valley Memorial Hospital so that the two institutions could be run jointly. Windber residents preferred the personal attention they had received under Berwind control and formed the non-profit Windber Hospital and Wheeling Clinic in 1973. At the present time, the clinic remains a vital part of the community and still receives financial support from the Berwind Corporation.

Ethnicity

When the Berwind-White Company began mining in 1897, it actively recruited experienced labor from other mining communities. The largest number of new employees at that date--approximately 1,500 men--were brought from Great Britain. By 1899-1900, production needs demanded an even greater work force. Coinciding with the large-scale European migrations at the turn of the century, Berwind-White started to recruit eastern and southern European laborers as well. It sent some representatives directly to Europe to procure coal workers; others waited in large East Coast cities and put immigrants on trains destined for Berwind coalfields. Ads were placed in ethnic newspapers like New York City's Magyar Munsklap. In Hungarian, immigrants read the offers of high wages, good working conditions, inexpensive housing and steady employment. Stating that "a thousand Hungarians are waiting for you," Berwind-White enticed many new arrivals to Windber. By 1911,

when the Immigration Commission conducted an in-depth investigation of Windber, 75 percent of the total population (approximately 7,500 people) were "foreigners."[48]

Almost all immigrants entered the mines as unskilled laborers. The actual cutting and hauling of coal was mechanized, so that many simply became loaders and shoveled coal onto conveyors for a living. Down in the mine tunnels all nationalities worked side by side; Berwind-White feared that a preponderance of one race in a work gang would decrease output and foster "clannishness and discontent." This integration applied to housing, too, but apparently only in the mine satellites, as Windber had several clearly defined ethnic neighborhoods. Italians, for example, congregated around 21st and 22nd streets, Swedes on Stockholm Avenue, and the Irish near 10th Street. Magyars, Slovaks and Poles predominated, living throughout the intervening neighborhoods and satellite communities.[49]

Immigrants were consistently maligned throughout the United States, and attitudes in Southwestern Pennsylvania were no different. In 1908, the newspaper Progressive Pennsylvania reported that the state had been invaded by "hordes of Italians, Slavonians and other immigrants of distinctly lower types than the original European settlers of Pennsylvania." The paper claimed that immigrants had little sense of civic pride, "for what do they know about the past of Pennsylvania, or about its present achievements? Most do not even speak the English language. They are not Pennsylvanians in any sense."[50] If foreign-born miners were not considered Pennsylvanians, then certainly they were not Americans, either. As such, they existed in a socio-political vacuum.

Recreation

Many early Windberites belonged to social clubs and lodges. Some of the first organizations were formed in conjunction with local churches, but the majority were founded by immigrants as support groups. Such clubs seem to fall into one of two categories: beneficial unions or educational unions. Both were very much in need in the early twentieth century. Berwind-White, like most coal companies of the period, provided no education or training before employment, nor benefits after employment ended. Therefore, groups like the Slovak Educational Club were formed to help new arrivals assimilate into Windber society, while others, such as the Hungarian Reformed Beneficiary Club, saw to it that widows and injured miners received financial support. Some of Windber's earliest organizations include: Polish Falcons (1907); Loyal Order of Moose (1910); Italian Literary, Musical and Beneficial Society (1912); Abruzzi Lodge (1913); Sons of Italy (1919); Slovak Workingmen's Beneficial Society (1914); American Russian Educational Society (1925); and the American Polish Educational Association (by 1920).

Windber also supported several bands and orchestras. There was a Slovak Band (1904), an Italian Band (1903) and a Hungarian Band (1913) that held concerts and sponsored dances along with the Fire Company Band (1903) and the Windber High School Band (ca. 1910). Fred Waring's Orchestra (1915) played to Windber audiences, too. There were also an Opera House and three theaters on Graham Avenue. The Windber Theater Corporation, organized by Thomas Fisher, John Lochrie and M. McNeal in 1919, sponsored events as well. Berwind-White constructed Recreation Hall behind the fire house in 1910 for dances, meetings and indoor sports.

For outdoor sports, the company maintained Dewey Field on Stockholm Avenue at 17th Street. Berwind promoted athletics from a very early date and helped organize basketball and track teams in 1901, and a baseball team in 1902. In addition, each mine supported its own teams. Foot races, horse races and boxing matches were equally popular.

Transportation

In the early nineteenth century, before Windber was settled, sole access to the region was the Scalp Level and Johnstown Turnpike, a toll road with a gate near what is now mine No. 40. A heavily travelled thoroughfare, the turnpike was covered with a layer of cinders, rock, and later, coal wastes.[51] Today, it is known

as Old Scalp Hill. Additional roads extended south through Rummel and New Ashtola to Bedford, and north to Elton, Salix, Portage and Cresson. The real catalyst for development came with the extension of Berwind-White's shortline railroad from Cambria County to Windber in 1897.

First used to transport coal and timber, the Scalp Level, as it was called, added passenger service by 1898. An electric trolley for passenger service was established in 1902. Both were used to transport miners to distant mine sites like Nos. 36, 37 and 42. Leased from the Johnstown Traction Company in Moxham, trolley service began daily at 5:30 AM and ended at 11:30 PM. Trolleys and trains remained the primary source of transportation until the advent of the automobile in the 1920s and 1930s caused their use to decline. Passenger service to Windber by train was discontinued in 1933 while a tremendous flood in 1936 wiped out most of the trolley system. Thereafter, buses and cars were substituted.[52]

Depots and warehouses were built along the tracks between Graham and Somerset below 15th Street. Two of these structures are extant. A small wood-frame passenger depot originally stood along the tracks near 15th Street, but when the Wilmore Coal Company office was built in 1913, the depot had to be rebuilt. The present building was erected by 1916.[53] It is a much larger, brick structure, with a low, hipped roof and wide, projecting eaves supported by paired white brackets. For many years, this depot served as a point of entry into the "metropolis of Somerset County." Now it is occupied by the Windber Public Library.

Facing Graham Avenue, the trolley depot is almost identical to the train station in treatment, but is much smaller in size. Built during the same period, it too has brick walls and a low, hipped roof supported by paired wooden brackets. Two dormers pierce the tile roof on the street side. The original doors on Graham Avenue have been made into windows, but little else has been altered on the exterior. Historically, the building housed a barber shop in the north end, and a waiting room in the south end. Currently, it houses an insurance office.

Other Industries

Berwind-White was the largest employer in the Windber area, but several other local firms were important enough to deserve attention--the most notable being lumber companies. The coal industry demanded large amounts of timber for mine props, railroad tracks and tipples, plus a great number of houses, offices and other buildings. Fortunately, Windber was surrounded by acres of rich forestland. Lumber soon became a major industry in its own right.

Four important firms were based in town. McNeal Lumber, established in 1891, was the earliest. It owned several sawmills around northern Somerset County and a large lumberyard in town. In 1897, it was joined by the Windber Planing Mill Company. Situated on a lot at the corner of 12th and Graham, this firm supplied and built the houses at mine No. 30, the Wilmore Club House, and many offices, hotels, churches and stores around Windber.[54] W. T. Geddes also operated a large mill and yard. Previously, Geddes had been a top Berwind employee. When he organized the lumber company in 1900, Berwind-White became his biggest customer. The yards occupied a full acre on Graham Avenue and employed more than 300 men. In 1901, Geddes Lumber merged with the Windber Lumber Company, a Berwind subsidiary, and formed the Pennsylvania Lumber and Construction Company. Geddes continued to serve as its president.

Berwind-White was the dominant coal company in Somerset County but it was by no means the only coal concern. Windber itself had other independent coal producers like the Rummel and Reitz coal companies. Both were created by John Lochrie, a former Berwind employee. Lochrie leased his coal from Berwind so that, although technically independent firms, neither ever became much of a rival; Berwind-White eventually acquired ownership of both. Rietz Coal Co. still functions as a Berwind subsidiary and controls most of the local mineral rights still owned by the corporation. Other coal operators included: the B Quality Coal Company; Heckler Coal Company; Gahagen Coal Company; Heshbon Coal Company; and Marsh Coal Company.[55]

In addition to coal, the mines around Windber also contained thick veins of clay. The W. P. Kelley Brick Company was manufacturing bricks by 1900 to capitalize on the abundance of materials, labor and demand. By 1903, they produced more than 30,000 bricks daily. As the only local producers of high quality bricks, they remained open well into the twentieth century. The Windber community also supported the Windber Brewing Company, the Asbestine Manufacturing Company, the Vulcan Mine Car Company, and the Steam and Air Specialty Company, Ltd., reflecting a far more varied economic base than most coal-company towns.[56]

Labor Relations

Herbert Gutman has described the archetypical American industrial leader as an American by birth, of a New England father, Protestant, distinctly upper class in origin, and "born and bred in an atmosphere in which business and a relatively high social standing were intimately associated with his family life." Scholars have pointed out that the four Berwind brothers--Charles, Edward, John and Harry--characterized, in a sense, the classic American industrialist.[57]

All were well-educated, conservative and ambitious. Never really poor, they quickly became one of the wealthiest families in the United States. Edward, who became president of the coal company after Charles died in 1890, was known to associate socially with the likes of Henry Clay Frick, Andrew Carnegie, Henry Ford and J. Pierpont Morgan. Yet, unlike these men, the Berwinds remained extremely independent and highly individualistic in their business ventures. Although Berwind-White was one of the leading coal producers, the brothers never affiliated themselves with any other companies. Operating mostly from offices in New York and Philadelphia, they were absentee owners who visited the coalfields only rarely. They were strongly autocratic, and maintained their tight control over employees through a small but loyal group of managers. Resentful and suspicious of outside interference, the Berwinds were also fiercely anti-union and utilized company police and their considerable political influence to defeat all union agitators.[58] Despite such aggressive tactics, Berwind-White miners struck against company policies on several occasions, but the biggest confrontation, by far, came in 1922.

During World War I, coal companies throughout the United States overextended themselves to meet the increased demand for fuel. Faced with a rapidly diminishing market after 1918, American coal operators sought to maintain profits by reducing wages. Previously, for example, Berwind miners earned $1.18 per ton for coal and 60 cents per square yard for "dead work," the layers of clay and limestone between the coal seams. On February 15, 1922, Berwind-White abolished dead work payment altogether and reduced wages to $1.01 per ton.[59] Bituminous miners were outraged as coal companies across the country implemented similar reductions. Union members attempted to negotiate a new wage agreement, but owners remained adamant. In response, a convention of 2,200 UMWA delegates voted for a nationwide strike if an agreement were not reached by April 1, 1922.[60]

District 2 of the UMWA, which included Cambria County, received the news with apprehension; all of the miners in neighboring Somerset County, working at some of the most productive mines in Pennsylvania, were still non-union. Knowing that the success of the strike relied on mass participation, District 2 President John Brophy, of Nanty-Glo, printed 20,000 copies of the call to strike and had twelve men distribute them to Somerset miners.[61]

Locally, the strike began at the Maryland No. 1 Shaft in St. Michael, Cambria County, and spread quickly to other area mines. Secret meetings were held on farms around Windber. On April 4, a committee of six Windber miners met with union organizers at St. Michael and declared that Windber would strike if union representatives were sent immediately. When T. D. Stiles, editor of the Penn Central News, and George Cowan, a unionizer from Portage, arrived in town two days later, they found more than 2,500 Berwind miners waiting to sign up. Within a week, all of the Windber mines were idle.[62]

The Berwind-White Company retaliated at once, and on April 10 began issuing eviction notices and collecting on company store accounts. In all, 750 families were evicted, including the young, old, sick and infirm. Some moved in with families or friends, but most set up temporary housekeeping in tents donated by the UMWA. Armed guards patrolled the town and each satellite community. Any person caught trespassing on company property was immediately arrested. Strikers were detained for questioning, harassed and threatened. Groups of three or more were disbanded by the company police, but the men stayed on strike.[63]

Conditions worsened as the strike continued. John Brophy reflected that:

> One would find it hard to prove that Somerset County was under the jurisdiction of the United States Constitution during 1922. The Commonwealth of Pennsylvania was no more interested than the federal government in the rights and welfare of the coal diggers. State policemen and militia were as eager as county and private police to do the bidding of the operators.[64]

Money from the dues of thousands of new members, including Berwind miners in Pennsylvania and West Virginia, went to miners' relief funds. Nevertheless, many men were forced back to work for financial reasons. Finally, President Warren G. Harding called a conference of operators and union representatives to Cleveland on August 15, 1922. John L. Lewis, president of the UMWA, readied the new agreement, but it applied only to miners who were union members before the strike began. Thus, the Berwind miners, along with several thousand others who had joined the union after April 1, 1922, found themselves abandoned by the national union. Along with miners throughout the bituminous fields, Berwind employees remained on strike for another year.

As the months passed, the Berwind brothers became increasingly unable to fulfill their contracts. One of their largest customers was the Interborough Transit Company of New York City, of which Edward Berwind was a director.[65] Because of the coal shortage, the transit system temporarily shut down. Then, a contingent of Windber miners marched on Berwind-White's New York headquarters. In response to the situation, New York Mayor John F. Harlan sent a special committee to investigate living and working conditions in the Berwind-White Company's coalfields. Arriving in Johnstown in October 1922, the Committee found that more than 200 families had been evicted and some 70,000 District 2 miners remained on strike. Informed of the committee's arrival, Berwind officials removed all armed guards from the area, yet a few company men were retained to monitor the committee's movements. The committee members traveled to all of the mine sites, went into the mines, talked to strikers and held public meetings. From September to November the committee's findings appeared in articles in the New York Times and created a minor public scandal. The formal report to the mayor, published in October, compared the miners to serfs and told of barefoot women and children. But never at any time during the investigation did the Berwind brothers or any ranking members of their staff issue a statement to the press. Unable to reach an agreement with the unresponsive operators, a delegation of miners met in Johnstown and called off the strike on August 14, 1923, seventeen months after it had begun. Unionization of Somerset miners, and Berwind men in particular, was postponed until 1933 and the passage of the National Industrial Recovery Act.[65]

Past to Present

At the turn of the century, hopes were high that Windber would continue to grow and develop along with the coal industry. It was estimated that enough coal remained beneath the surface to last well into the 1970s, or at least until manufacturing could replace mining as a way of life. Unfortunately, by the end of World War II, it was clear that neither of these predictions would come true and the "Great Enterprise" was at an end.

Berwind-White began selling property in the Windber area in 1950 with the sale of seventy houses at mine No. 30. By 1962 all mining had

ceased and most of the developed property in Windber and its satellites had reverted to private ownership. Some smaller businesses remained open, but without Berwind-White, population and the local economy declined sharply. Unlike most coal towns, Windber was slowly able to make the transformation from coal company town to incorporated municipality in spite of these setbacks. In fact, the Windber Borough government now occupies the company's old main office while a division of the present Berwind Corporation maintains a small operation in the former Windber Electric building. Although the coal industry is gone, and Windber's economic and social future unclear, the area's rich mineral resources, proximity to an urban center, and potential for new growth makes it possible to conclude, as author Frank Alcamo did, that "there will always be a Windber ready to be part of tommorrow's history."

Notes

[1]Untitled manuscript history of the Berwind family and the Berwind-White Coal Mining Company, [ca. 1980], photocopy, collection of Robert Barrett, former vice-president, Berwind-Wilmore Division, Berwind Corporation, Davidsville, Pennsylvania.

[2]Fred C. Doyle, ed., Fiftieth Anniversary, Windber, Pennsylvania, 1897-1947 (Windber, 1947), 27.

[3]Frank Paul Alcamo, The Windber Story: A Twentieth Century Model Pennsylvania Coal Town (Windber: privately printed, 1983), 69.

[4]Ibid.

[5]Untitled manuscript.

[6]Bureau for Historic Preservation, Pennsylvania Historical and Museum Commission, Somerset County Historic Resource Survey, no. 111-WB-672. Prepared by Glessner, Lehman and Kendall, 1986.

[7]Doyle.

[8]Alcamo, 76.

[9]Alcamo, 72; manuscript.

[10]Doyle, 25.

[11]U.S. Department of Labor, Bureau of Labor Statistics, "Employers' Housing in the United States," by Leifur Magnusson, Monthly Labor Review, No. 5, November 1917, 45.

[12]Doyle, 25.

[13]Windber Era, Illustrated Edition. (Windber: Windber, Era, 1900).

[14]Doyle, 30.

[15]Eureka No. 30 is included with the satellites because, although it lies within Paint's boundaries, it is not part of Windber in the sense that the communities of Nos. 31 and 32 are.

[16]Basil Trovato, interview by author, 15 July 1988, Eureka 42.

[17]Alcamo, 101.

[18]Doyle, 30.

[19]Alcamo, 87.

[20]Sanborn Map Company, Windber, Pennsylvania, 1899 (New York: Sanborn Map Company, 1899).

[21]Ibid.

[22]U. S. Immigration Commission, Immigrants in Industries (In 25 Parts), Part I: Bituminous Coal Mining, Vol. 1 (Washington, D.C.: Government Printing Office, 1911), 493.

[23]Apparently the No. 35 houses were not electrified at this date. According to Sewell Oldham, a retired Berwind surveyor, only one group of houses was electrified each year, and only during the winter months. Sewell Oldham, interview by author, 14 April 1988, Windber; Immigration Commission, 493.

[24]Photographs, Windber Museum collection.

[25]Berwind-White Coal Mining Company, drawing E-1/114.

[26]Somerset County Historic Resource Survey, no. 111-WB-884.

[27]Immigration Commission, 493; Sanborn maps, 1924.

[28]Alcamo, 75; Drawing E-1/114; Immigration Commission, 494.

[29]In the Immigration Commission's 1911 report, mine No. 42 is mine M. No housing was indicated at mine M at that time, implying that when the information in the report was compiled, community M either did not exist or was under construction.

[30]Trovato.

[31]Ibid.

[32]Immigration Commission, 476, 492-493; Oldham.

[33]Oldham.

[34]Somerset County Historic Resource Inventory, no. 111-WB-884.

[35]Immigration Commission, 496, 498.

[36]Alcamo, 127.

[37]Sanborn maps, 1899.

[38]Somerset County Historic Resource Inventory, no. 111-WB-873.

[39]Sanborn maps, 1899.

[40]The county survey card for St. John's (111-WB-068) lists the date as 1913, based on the datestone; Alcamo, 222-223.

[41]Alcamo, 223; Somerset County Historic Resource Inventory, no. 111-WB-101.

[42]Alcamo, 229.

[43]Ibid., 252.

[44]Immigration Commission, 498, 499; See also Ronald D. Eller, Miners, Millhands and Mountaineers (Knoxville: University of Tennessee Press, 1982), 220.

[45]Somerset County Historic Resource Inventory, nos. 111-WB-1328 and 1329.

[46]Alcamo, 205.

[47]Ibid.

[48]The Windber Museum possesses a collection of original and photocopied advertisements placed by Berwind-White in immigrant newspapers. For additional information see the Immigration Commission, 473.

[49]Immigration Commission, 481-490

[50]Alcamo, 971.

[51]Ibid., 161.

[52]Ibid., 157-158; Doyle, 33.

[53]Alcamo, 159.

[54]Alcamo, 238.

[55]Doyle, 50, 243-245.

[56]Sanborn maps, 1910 and 1916.

[57]Eller, 204; Bruce T. Williams and Michael D. Yates, Upward Struggle: A Bicentennial Trubute to Labor in Cambria and Somerset Counties (University of Pittsburgh at Johnstown, 1976); Herbert Gutman, Work, Culture and Society (New York: Vintage Books, 1977), 214.

[58]Alcamo, 175.

[59]Statement of Facts and Summary of Committee Appointed by the Honorable John F. Harlan, Mayor of the City of New York, to Investigate the Labor Conditions at the Berwind-White Company's Coal Mines in Somerset and Other Counties, Pennsylvania, by David Hirschfield, Chairman (New York: M.B. Brown Printing and Binding, 1922), 18. Drastic wage cuts had severe repercussions because, unlike other professions, miners were only paid for what they produced. They did not receive wages for the time it took to travel from the drift mouth to the work face, often as much as an hour, nor were they paid for the time and work needed to prepare the site. This entailed clearing away all dead work, undercutting the coal seam, drilling holes in the face of the coal for blasting powder, setting and firing the charge, and loading the coal into cars marked with their personal number. The coal cars then had to travel from the work face to the tipple where it was weighed and the number of tons credited to the proper miner. The subject of the checkweighman was often a sore spot with miners. Before unionization, checkweighmen were "company men." As such, they were notorious for cheating miners by registering false weights. Miners' demands thus included the right to have their own man on the tipple. Miners were granted this right as part of their union contracts with coal operators in the 1930s. The contract called for a small deduction to be taken from each miners' pay for the checkweighmen's salaries. In this manner, the checkweighman's allegiance was transferred from the company to the miners.

[60]Williams and Yates.

[61]Heber Blankenhorn, The Strike for Union (New York: H. W. Wilson Company, 1924; reprinted, New York: Arno Press and the New York Times, 1969), 18.

[62]Ibid.; Alcamo, 177.

[63]Alcamo, 177; Williams and Yates; Blankenhorn, 51-53.

[64]Williams and Yates.

[65]Alcamo, 177; Williams and Yates; Refer to n. 26, Chapter III.

CHAPTER 5

COLVER

Of the three coal company towns investigated in this study, Colver is probably the most typical. The company provided for its employees in every way, from churches and houses, to the hospital, school and theater. Yet it also used its position as landlord and employer to maintain tight control over the miners and their families. Unlike other coal operators, however, Colver's founders indicated an awareness of the industrial-housing reform movement and a certain willingness (albeit limited) to incorporate these reforms into the town plan. This included building mostly detached houses instead of semi-detached houses, hiring a noted architect to design the more prominent buildings instead of an in-house engineer, and offering incentives for improving the landscape. When interviewed in 1916, company President J.H. Weaver explained: "If you would make your business a success, you must get good service from your workmen; and if you would get good service from your workmen, you must make it worth their while to serve you." Nevertheless, Colver residents lacked indoor running water, were segregated by ethnic group, and were prohibited from any kind of union activity. As several retired miners noted, it was "worth their while" because of plentiful work and good wages, not because of the company's professed interest in their welfare. This chapter will show how the housing and labor policies of the Ebensburg Coal Company at Colver embody all of the characteristics of the typical southwestern Pennsylvania coal company town.

The Company

In 1909 John Heisley Weaver, a successful coal operator and broker from Williamsport, Pennsylvania, became partners with B. Dawson Coleman of Lebanon, Pennsylvania. The two men immediately bought a mine owned by the Nanty Glo Coal Mining Company in Nanty Glo, Cambria County. Very quietly, so as not to draw the attention of other speculators, the men started to acquire mineral and surface rights just north of Ebensburg, the county seat.[1] By late 1910, a new mine was opening under the Ebensburg Coal Company, a subsidiary created by Coleman and Weaver to oversee their operations. The mine and its associated workings were called Colver, for Coleman and Weaver. At the same time, the partners bought and refurbished a small logging railroad, the Blacklick and Yellow Creek. Rechristened the Cambria and Indiana Railroad in October 1911, it hauled coal from a temporary tipple set up at the Colver mine to the Pennsylvania Railroad mainline. Soon, it was extended to other Coleman and Weaver mines at Manver and Rexis in Indiana County.[2] By 1912, the C & I served the mines at Nanty Glo, too.

During its first year, the Colver mine produced 22,300 tons of coal and ranked twenty-fifth in its district. Since the mine had only one opening and a 3'-6"-thick seam, its high volume of production was considered unusual. Because of the vast quantity and quality of the coal beneath Cambria County, the Colver mine was able to maintain a high level of production throughout its lifespan.[3]

Spurred on by this success, Coleman and Weaver opened a new mine near Bakerton in 1916 called Nanty Glo No. 2. They then organized the Heisley Coal Company to manage the Nanty Glo mines.[4] Excavation of another large mine began the following year. Located a few miles south of Colver, it was called Revloc (Colver spelled backwards), and administered by the Monroe Coal Company.

Coleman and Weaver dissolved their partnership in 1922. J. H. Weaver retained control of the Heisley and Monroe coal companies as well as a 60 percent interest in the C & I Railroad. In 1948, these holdings were bought by Bethlehem Steel Corporation. The Ebensburg Coal Company remained under the control of B. Dawson Coleman until his death in 1933. Coleman's heirs sold the mine to the Eastern Associated Coal Corporation ca. 1956. His 40 percent share of the C & I was sold to

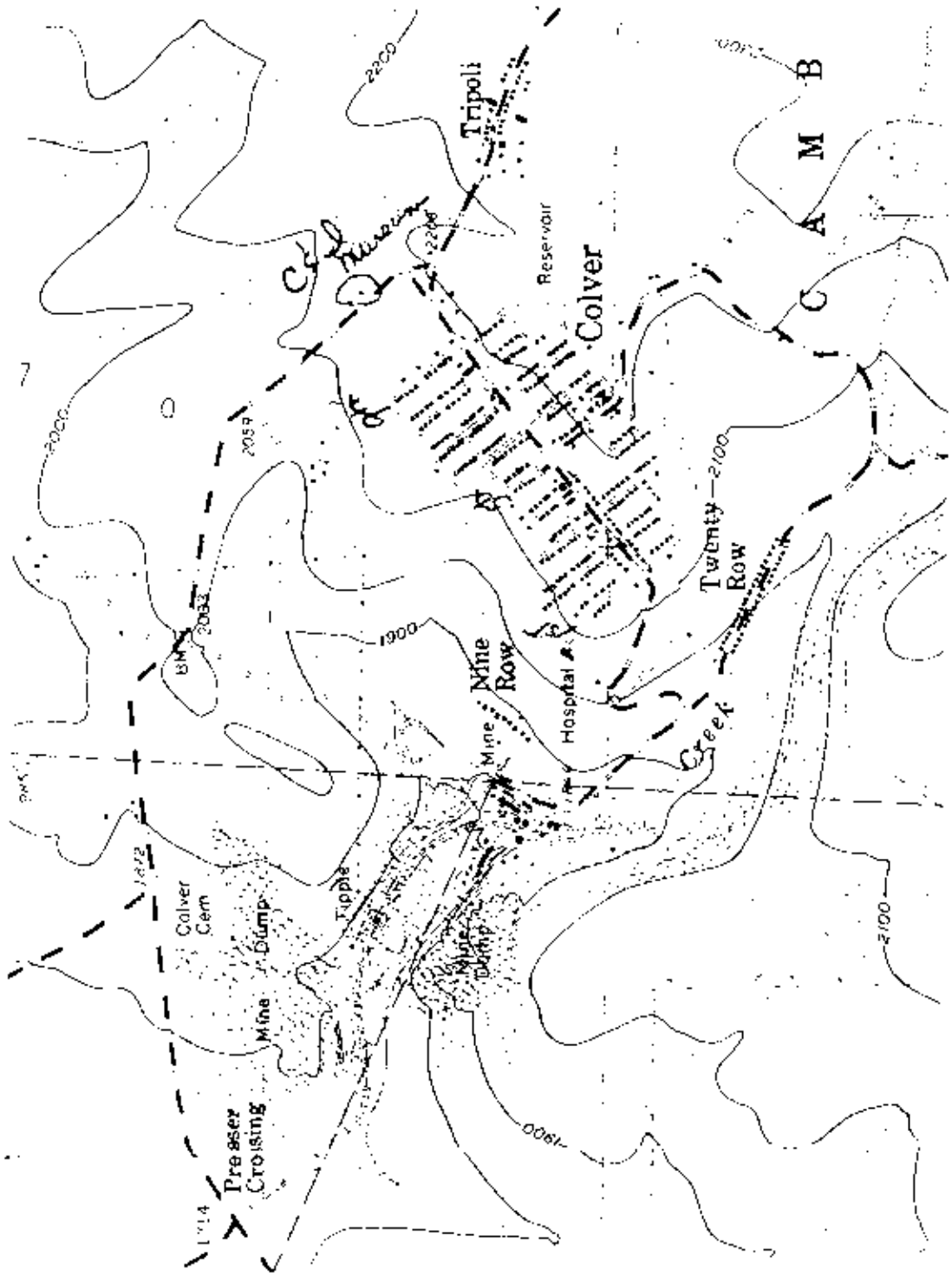


Figure 5-1 Topographic map of Colver and vicinity, from USGS, Colver Quadrangle, 1977.

the Clearfield Bituminous Coal Company, a subsidiary of the New York Central Railroad and another prominent Cambria County coal firm.[5] Eastern ceased its large-scale mining operations at Colver in the late-1970s but continued to lease mineral rights to a few small coal dealers for several years. Currently, all mining at Colver has ceased.

Planning and Development

Situated on a gently sloping hillside, Colver overlooks miles of scenic farmland (See figure 5-1). It is still relatively isolated from other settlements; there is only one road to Colver and it is poorly marked. Standing in the center of town, the overall effect is one of space. The houses are arranged closely in identical rows, but the wide backyards and streets offer expansive vistas in every direction (See figure 5-2). A central park is sparsely but carefully landscaped, and shade trees line the southwest end of Reese Avenue. Around the periphery of town are naturally occurring clusters of trees and low vegetation. Thus, from its present appearance, Colver seems to reflect many of the housing-reform ideals promoted in the early twentieth century.

When originally planned, the town associated with the Colver mine was called Colver Heights. Some early C & I timetables refer to it as Mount Colver. Its rectilinear grid plan was designed by the C & I engineering staff under the direction of Chief Engineer S. H. Jencks. Importantly, Jencks was a prominent figure in Windber, having been employed by the Berwind-White Company from 1897 to 1905 as an assistant engineer under Heber Denman.[6] It is therefore likely that Colver's plan reflects certain influences from Berwind-White's "Great Enterprise." Designed and approved during the summer of 1911, Colver's plan remains unaltered (See figure 5-3).

There are five named streets--Francis, Coleman, Reese, Weaver and Long avenues--crossed by ten numbered streets. Reese is the main thoroughfare, running east to the community of Tripolo and west, down the hill, to

Figure 5-2 Four-room company houses built by the Ebensburg Coal Company in 1912. Taken by Jet Lowe, HAER photographer, 1988.

PLAN OF
—COLVER—

Figure 5-3 County plat map of Colver, 1947.

Twenty Row, the C & I shops and the mine site. Reese Avenue is Colver's "Main Street." Between First and Fifth streets, it is lined with the town's most pretentious homes and its few commercial buildings, all company-built. These include the hotel, company store and a theater. There is also an old company office building, a fire house, an abandoned gas station, and a small, single-cell jail, now used for storage. At the far end of Reese, near Eighth Street, is the Presbyterian church and a brick garage. And on the corner of Third and Reese are the remains of a complex that once contained a hoist house, shaft house, bathhouse/laundry, and steam plant (See figure 5-4). This particular shaft was used only to transport men and supplies. Its location in town enabled company officials and miners to reach the mine quickly and easily in the event of an emergency. It also decreased the distance between home and work site, especially for those miners working at that end of the mine.

Company officials used Reese Avenue to segregate the native-born Americans and those of English, Scottish, Welsh and Irish extraction from the Southern and Eastern Europeans. Max Vassanelli, a retired miner of Italian descent, said the latter families--called "Hunkies"--were deliberately assigned to the smaller houses south of Reese Avenue.

The town plan also included a large park across from the company store on the corner of Fifth and Weaver. The park had swing sets and slides for children, and a wooden bandstand/dance stand for adults. The opposite corner was reserved for Colver's school. A small Catholic church was built on one end of the school lot. A Greek Catholic church stood on another corner across the street. The rest of town is residential (See figure 5-5).

Most residential lots measure approximately 45' x 145'. Lots for management housing are somewhat larger and vary according to the status of their occupants. The lots on each side of Reese Avenue are oriented perpendicularly to that street. A narrow, 30'-wide street runs behind the blocks fronting Reese Avenue and separates them from the rows of miners' housing. Lots for miners' houses run parallel to the named streets and face the numbered streets. Most of the blocks are divided into twelve lots and are bisected by 14'-wide alleys. These alleys permitted easy access to the interior of the blocks for trash and cinder removal. By dividing the blocks into halves, they also served as firebreaks.

Early photographs reveal muddy and dirty streets, no shrubbery and few trees. The C & I trains, heavily laden with coal, came up the hill from the southwest and passed just behind the houses at the southeast corner of town. Passenger trains followed the same route but went into a switchback, through town to a siding next to the company store. The mine and railroad shops, located less than a quarter-mile down the hill, produced large quantities of dust, soot and smoke. A massive waste pile, still visible from the C & I shops, grew steadily, stretching from the tipple near Preisser's Crossing to just behind Twenty Row. Clearly, Colver in its heyday was a dirty, noisy, busy place, far different from the town it is today. Only three decades ago Colver had a population of more than 3,000.[7] But like many coal towns, it changed drastically once the decline of the industry set in. By the 1960s, production slowed and people moved away in search of other jobs. Nonetheless, the rows of identical houses remain standing, residents still go to the post office to pick up their mail and shop at the store for groceries, and the C & I still hauls coal. Despite the changes it has undergone, Colver survives as a uniquely intact example of the early-twentieth century coal-company town.

Workers' Housing

The first houses built by the Ebensburg Coal Company comprised the communities known as Twenty Row and Shanty Town (See figure 5-1). Built by April 1911, the twenty houses at Twenty Row were detached, frame structures with four rooms each (See figure 5-6). Shanty Town consisted of another twenty one-story dwellings that were described by a local paper as "for the occupancy of the foreigners employed by the company." Historic photographs show small, three-room houses with post foundations, horizontal siding and composition-paper roofs lining both sides of a dirt road. Both groups of housing were situated at the bottom of a hill to

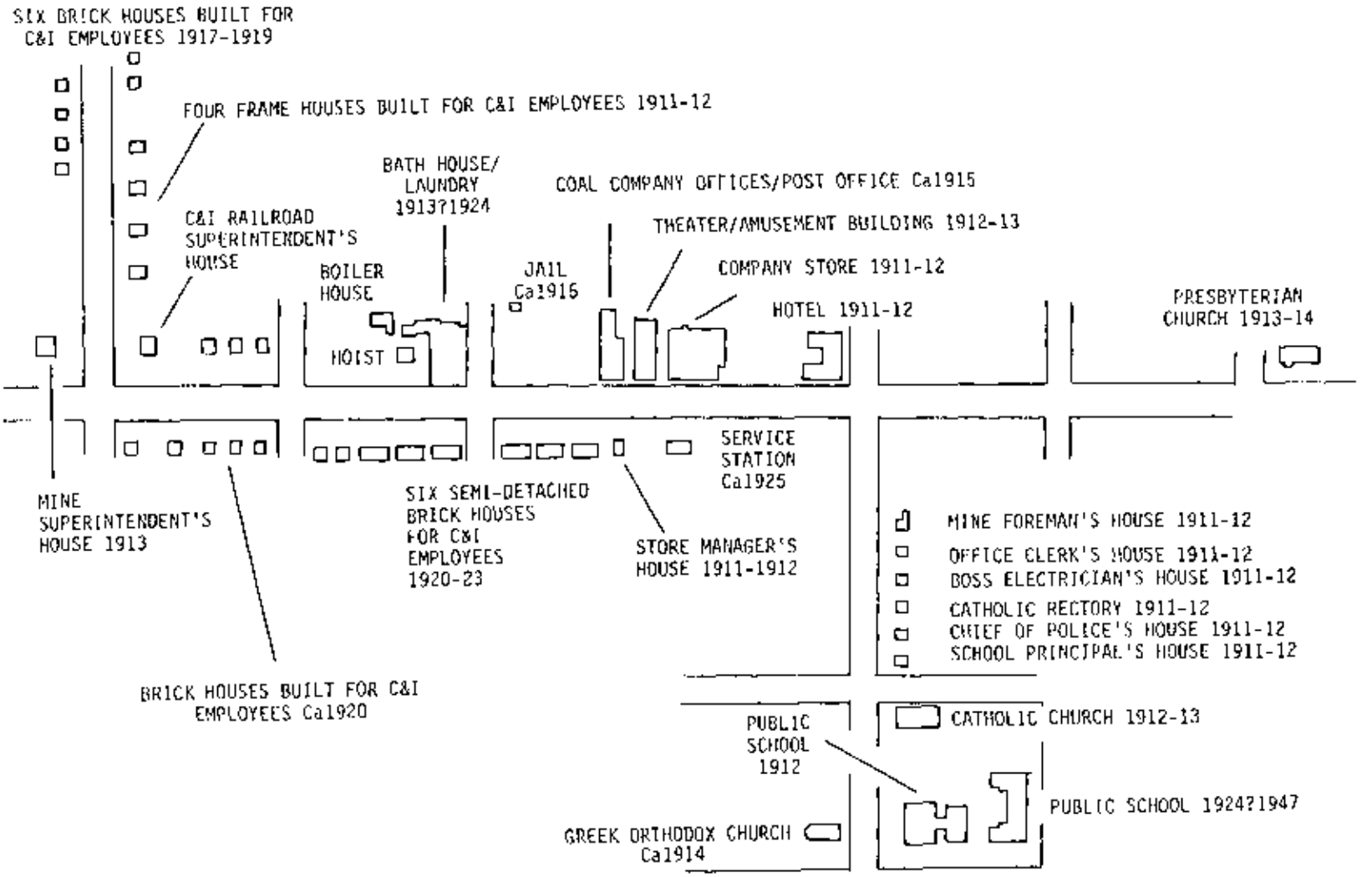
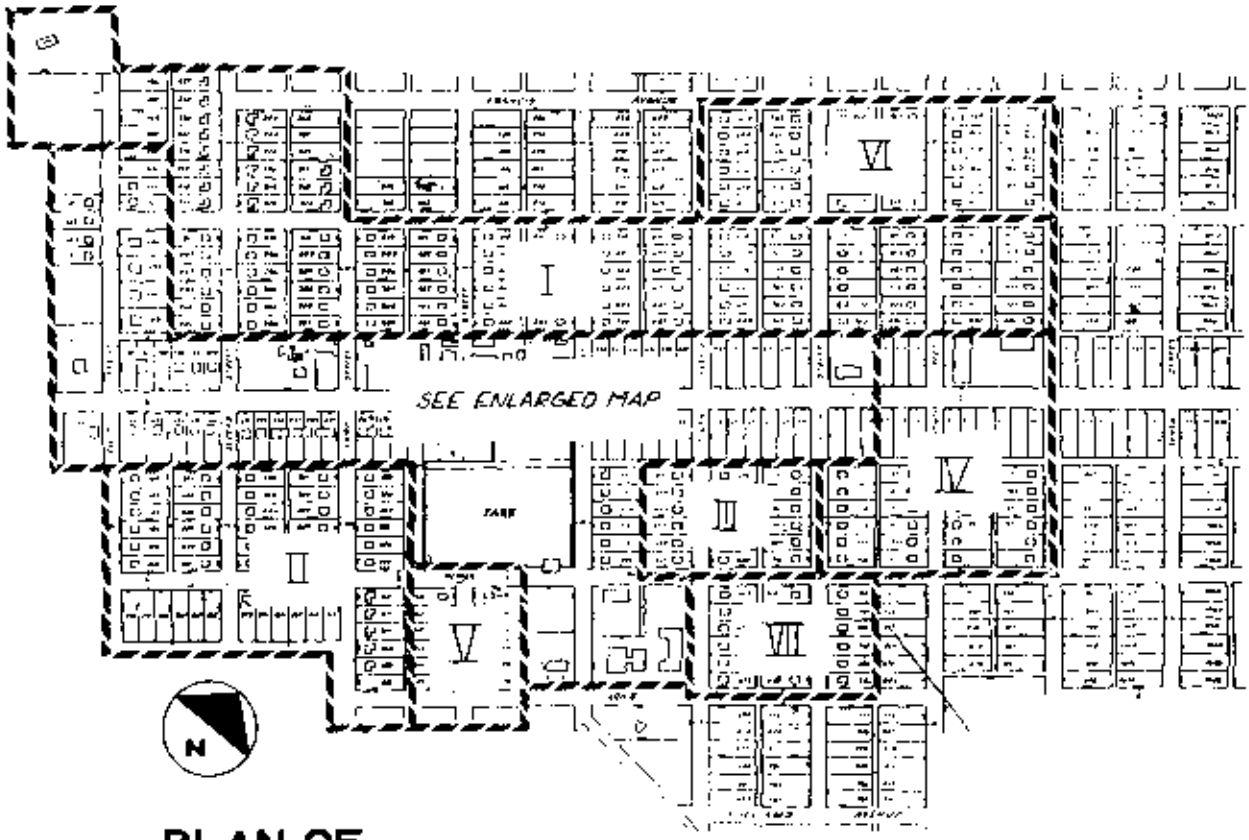


Figure 5-4 Town center of Colver. Adapted by author from 1947 county plat map, 1988.



PLAN OF
—COLVER —

I 72 four-room houses between the East side of 3rd St. and the West side of 9th St.; 18 six-room houses lining 2nd St. and the West side of 3rd St.; 17 three-room, ell-shaped houses on 2nd and 3rd Sts.; all built 1912.

II 30 six-room houses; 11 three-room houses; all built 1912.

III 18 six-room houses; built 1912.

IV 24 six-room houses; built 1915.

V 12 four-room houses; built 1921-23.

VI 36 four-room houses; built 1921-23.

VII 18 four-room houses; built 1921-23.

Figure 5-5 Map of Colver showing phases of development, 1911-1923. Compiled by author, 1988.

be near the mine site and railroad shops. The "better houses" were to be erected on top of the hill, reflecting the company's conscious decision to locate the town away from the dirt and noise of the mine.[8]

In 1912, an article titled "Colver Booming, Many New Houses, 200 More This Summer" appeared in the Mountaineer Herald reporting that the Pennsylvania Lumber and Construction Company of South Fork had just put the finishing touches on 166 houses, a stone hotel and a large store.[9] By 1913, the hotel, store and amusement building were operating and the new houses were occupied.

Except for twenty-five structures at Twenty Row, all of the houses in Colver are detached (See figure 5-7). Housing authorities noted that "the detached house meets with general approval from native American workmen, because it typifies the traditional tendencies of selective American housing, which have come down to us from the pioneer days."[10] But while generally considered "the ideal residence" by architects, the single house was too costly, too labor intensive and "beyond the means of the low-paid, unskilled workman." Therefore, although often used for management housing, employers traditionally rejected the wide-spread use of the detached house in a company town setting. By the twentieth century, however, companies began to bow under pressure from industrial-housing reformers who advocated the single house as a solution to poor living conditions. In addition to "the possibility of cross-ventilation and a greater amount of sunlight," the detached house offered a greater degree of privacy and was favored over the semi-detached or tenement house by the average laborer. By 1911, when Colver was built, three factors coincided to make the detached house a possibility: the industrial-housing reform movement was at its height; the coal industry had become increasingly competitive; and technological innovations in mechanization and mass-production had reduced the cost of construction. It therefore seems likely that the preponderance of detached houses built at Colver reflects Coleman and Weaver's awareness of what was needed to attract labor, and their willingness to

Figure 5-6 Twenty Row. The twenty original four-room detached houses, built in 1911, are to the left. The semi-detached houses to the right were built in 1925.

Figure 5-7 Four-room miner's houses built in 1911-12.

implement the necessary steps to do so.

Miners' housing took two basic forms: the four-room or six-room detached house. There were 158 four-room houses in the community, including the original twenty at Twenty Row (See figure 5-8). Each had a parlor and kitchen on the first floor and two bedrooms above. A staircase located in the kitchen led upstairs; under the stairs was a small pantry. Originally, the houses had only a crawlspace beneath them, but when families bought their homes in the 1940s, most added cellars and installed another stairway through the pantry floor. Some people put a commode in the cellar until a full bathroom could be added upstairs. Other families still used outhouses as late as the 1950s. The four-room houses rented for $6 per month or $3 per paycheck throughout the 1910s and 1920s. Later, during World War II, rent was increased to $9. It was deducted in the payroll office. Although rent increased, the actual value of the houses decreased. In 1913, each four-room house was valued at $800, but by 1931, they had decreased to $500; the four-room houses sold for $750 in 1948.[11]

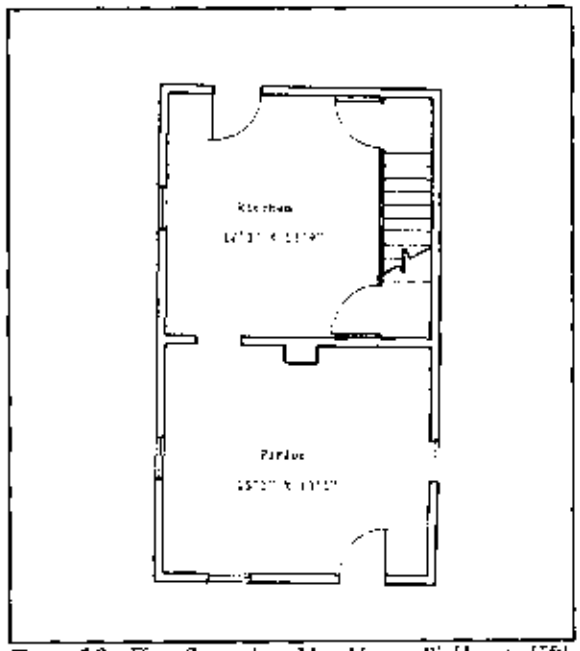


Figure 5-8 First floor plan, Max Vassanelli House, Fifth Street, built 1911-12. Drawn by author, 1988.

Figure 5-9 Six-room houses built in 1911-12. Taken by Deck Lane ca. 1915. Courtesy of Max Vassanelli.

Ninety-six six-room houses were also built (See figure 5-9). Each had a parlor, dining room, kitchen and three bedrooms. Arthur Price, who lived in a six-room house from ca. 1921 to 1955 while serving as principal of the Colver school, said they had full bathrooms on the second floor, as well. All rented for $9 per month in the 1910s and 1920s but increased to $11. Like the four-room houses, their value declined from $926 in 1913 to $600 in 1931. Such a marked decline in less than twenty years suggests that, after the initial expenditure, little money was reinvested in the Colver houses.

In addition, there were twenty one-story, three-room, L-plan houses that probably contained a kitchen, a parlor and a bedroom (See figure 5-10). These three-room houses were purportedly brought to Colver from the town of Starford, a Coleman and Weaver property in Indiana County.[12] Nine Row, a group of nine two-story frame houses overlooking the railroad shops, was built between 1911 and 1913 and served as the first bosses' houses until the new structures on the hill were finished. They have six rooms each but are the only houses in Colver with clipped front-gable roofs. Twenty-five semi-detached houses were built at Twenty Row in the late 1920s. Each side had four rooms: kitchen, parlor and two bedrooms. Both units together were valued at $1000 in 1931.[13]

All of the miners' houses had balloon frames covered with weatherboard siding. All interior surfaces except floors were covered with lath and one rough coat of plaster. Walls were painted, or papered if the family could afford it. Wallpaper was available at the company store, but miners with cars drove to stores in Ebensburg or Carrolltown where goods were cheaper. The company paid only for exterior paint; all of the houses were gray with white trim and they were repainted infrequently. To reduce maintenance costs, the company began applying green asbestos shingles in 1928 (See figures 5-11 & 5-12). Company houses contained few furnishings because families could afford only the bare necessities; the company provided only an enamel sink in the corner of the kitchen. Coal stoves in the kitchen and parlor provided the

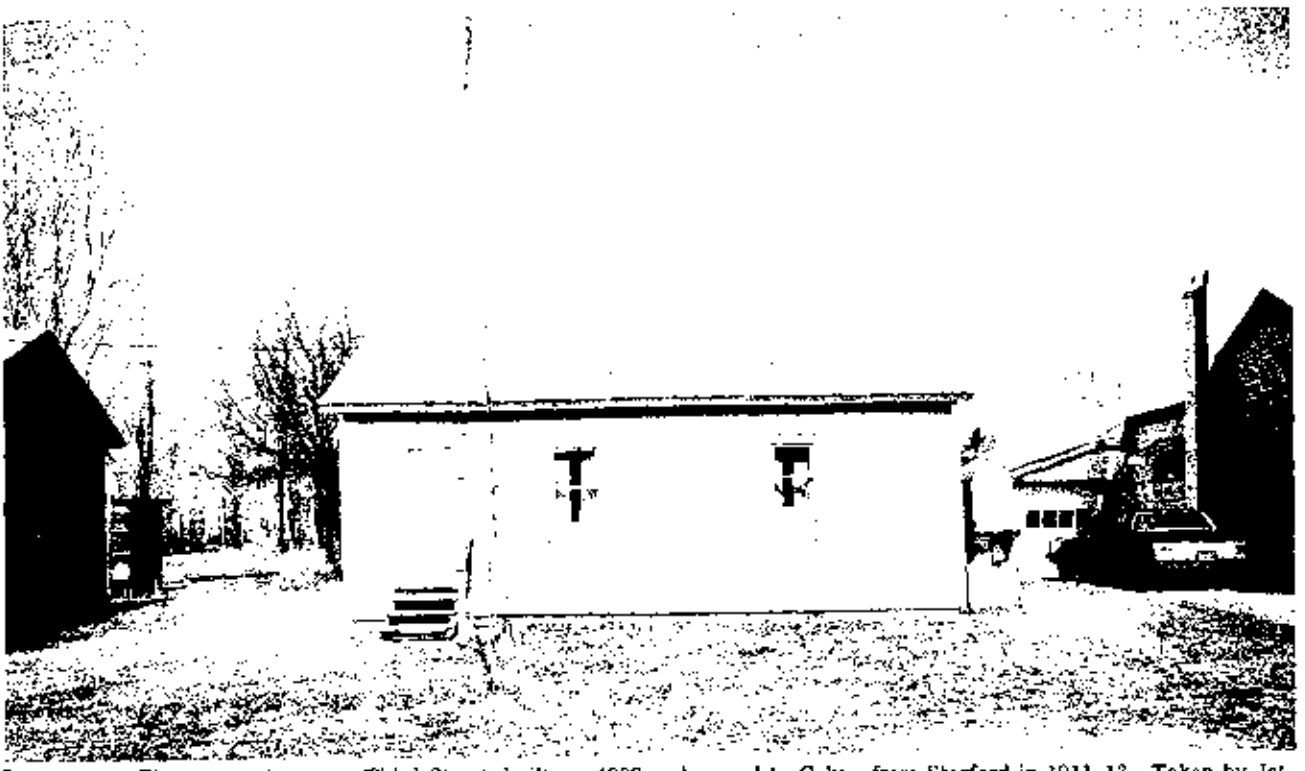


Figure 5-10 Three-room house on Third Street, built ca. 1900 and moved to Colver from Starford in 1911-12. Taken by Jet Lowe, HAER photographer, 1988.

only heat and individuals had to pay for fuel. By contrast, the "big shots" on Reese Avenue had steam heat piped in from the boiler house on Third Street.[12]

There is a great distinction between the housing of C & I employees and that of miners; the C & I houses are brick-veneered and line Reese Avenue between First and Fourth streets. There are six more on First Street between the superintendent's house and the hospital. This group, built between 1917 and 1919, are large, detached structures with six rooms and a bath. They have gable fronts and segmental window and door arches. The front porches originally had simple square pillars with vertical slat railings. The ten detached brick houses on Reese Avenue are similar except for hipped roofs with dormers. Three of these used beige brick instead of red. All ten date from ca. 1918. Farther down Reese Avenue are six semi-detached brick dwellings that have side gables, dormer windows and double porches. The C & I houses are further distinguished by shade trees that the company planted in their front yards (See figure 5-13). Because Coleman and Weaver provided them with superior dwellings, one may conclude that railroad employees were considered more skilled, and therefore more valuable, to the coal company than miners.

Regardless of their status, families were encouraged to keep gardens. The company paid to have them fenced in and even offered prizes for the best garden. Most households kept chickens and some had cows and pigs, too. John Smylnycky, who grew up in Twenty Row, recalls hunting for berries and nuts in the woods as a child, and having fresh bacon and pork when the family pig was slaughtered each fall. By raising their own vegetables and livestock, Colver families were able to supplement their diet without paying company store prices.

Inside, all of the houses had electric light. Each room had one naked bulb suspended from the center of the ceiling. Electricity and water were free. Running water came from spigots placed between every two houses. In the winter, the spigot handles had to be propped open to

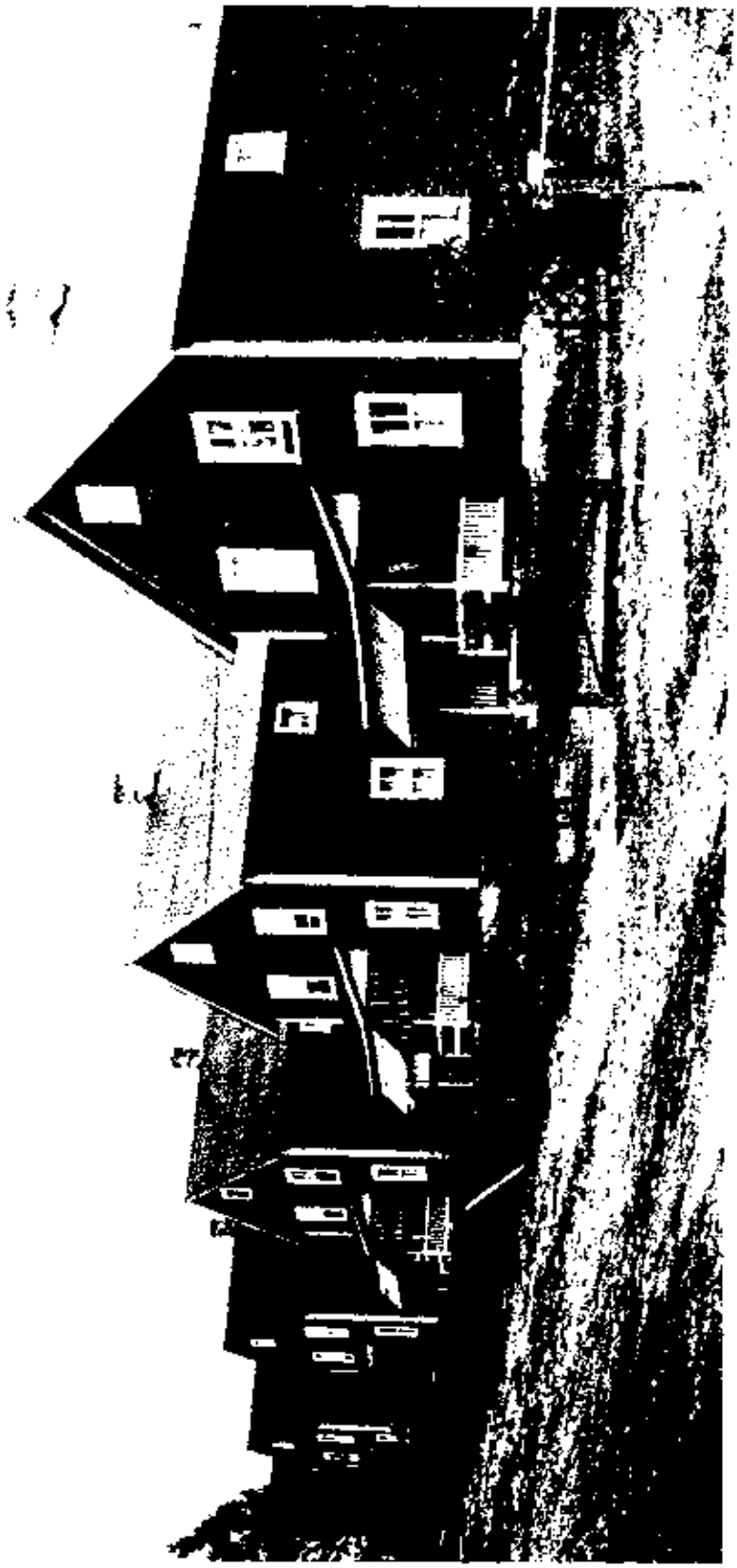


Figure 5-11 View of six-room company houses, built 1911-1912. Taken in 1930s. Courtesy of Max Vassanelli.

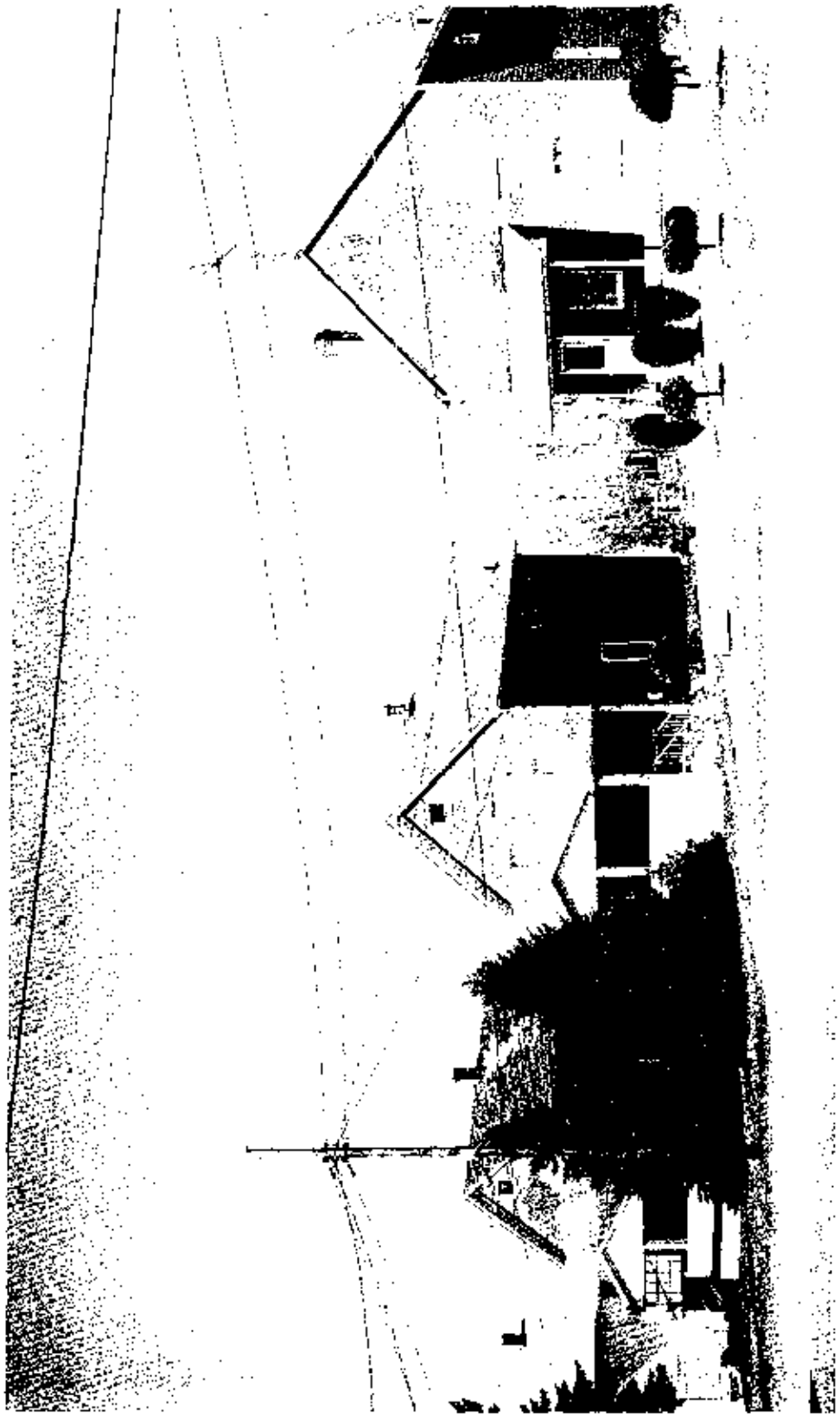


Figure 5-12 View of six-room houses on Fourth Street, built 1911-12. Taken by Jet Lowe, HAER photographer, 1988.

Figure 5-13 Semi-detached houses for Cambria and Indiana Railroad employees, built 1920-23. Taken by Jet Lowe, HAER photographer, 1988.

keep the water from freezing. Indoor plumbing was not added until the 1940s when the houses were sold to individuals. Almost immediately after purchasing their homes, employees added bathrooms and began altering the exterior appearance.[15]

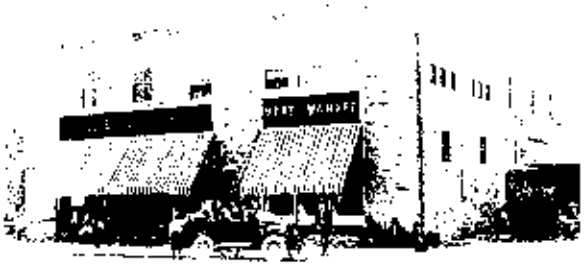


Figure 5-14 View of Colver company store. Taken by Deck Lane, ca. 1915. Courtesy of Max Vassanelli.

A 1913 map shows 224 houses in Colver, while the Pennsylvania Bituminous Mine Reports for the same year indicate a staff of 703 men (including everyone from superintendent to doorboy), or an average occupancy of three men per house. Adding together women, children and all of the C & I staff, the number of people per house is much higher. By 1914, the number of mine employees reached 1,000 but the number of houses did not increase substantially until after 1920. In 1924, Sanborn Fire Insurance maps indicated 405 houses and a population of approximately 2,000. The number of houses never increased again, yet Colver's population almost doubled by World War II. Several of those interviewed recalled families of ten or more living in a four-room house. And as smaller families took in boarders, crowded living conditions remained the norm until after the mine closed.

Overcrowding probably contributed to sanitation problems. Colver had a planned drainage system, but it was far from adequate.

Kitchen sinks, for example, drained through a small pipe set in the wall. Water and refuse flowed through the pipe and onto the ground outside, where it ran in gulleys to open ditches. Similarly, each house had only one outhouse to serve all of its occupants. According to one resident, the company employed local blacks to clean them out periodically. Some of the waste was transformed into compost material, but more often it was buried in the piles of coal waste, or "boney," around town. Trash and cinder removal were provided by the company as well, but only once a year. The rest of the time, refuse accumulated along the back alleys.

Management Housing

For the most part, Colver's management personnel lived in undistinguished six-room houses. Only the two superintendents' houses stand out. The mine superintendent's house sits on one corner of the Reese and First Street intersection; it is the largest house in Colver and has brick walls with concrete lintels and sills, a low hipped roof and wrap-around porch. The house was designed by the engineering staff in the spring of 1913 but built by a private contractor. The superintendent, F. D. Clark, had a great deal of input regarding the plans and construction and was apparently very hard to please; he moved in by the end of the year.[16] A small, two-story garage has since been converted into a residence. Located across First Street, the railroad superintendent's house has three floors and a gambrel roof. Its decorative features are the same as all other C & I houses. Both superintendents' houses have large corner lots.

Commercial Buildings

The company store is located on Reese Avenue between Third and Fifth streets. Begun in late 1911, the building was designed and constructed under the supervision of Chief Engineer S. H. Jencks. The original store was built with stone blocks taken from a quarry the company opened nearby. Historic photographs, taken soon after its completion in April 1912, reveal a handsome facade divided into two unequal parts by a full-length stone pier (See figure 5-14). The door, flanked by high, narrow windows, was located in the first floor of the larger, western side; picture windows filled the lower portion of the eastern half. In 1914, the company engaged Philadelphia architect Horace Trumbauer to design an addition to the store. Attached to the western side, the new addition had brick walls and a stone facade that matched the original. By 1916, the store covered 28,000 square feet, employed nineteen clerks, and contained over $40,000 worth of merchandise. It also had several sheds attached to the rear and a small brick stable and slaughterhouse next door.[17]

Like most company stores, it sold everything from fresh produce and meat to clothing, furniture and mining supplies. Most of the fresh food--such as butter, eggs, meats and vegetables--were grown on a company-operated farm nearby. Pre-packaged foods and other manufactured items were brought in by train and unloaded from the railroad siding along the eastern side of the store.[18]

There were three ways to purchase goods at the Colver Store: regular charge, budget system and lease system. The regular charge applied only to food and gasoline, and was deducted directly from the employee's paycheck every two weeks. Customers brought items to the proper counter in each department where a clerk wrote the price on a slip of paper. The paper was placed into an overhead basket which ran on tracks to the office in the back. There, another clerk would add the amount of that purchase to the employee's outstanding balance. The slip was then sent back to the employee for his records. The budget system was used to buy clothing, hardware and similar items. Like today's credit cards, payment proceeded on an installment plan. The lease system applied only to furniture and large appliances. The employee paid this bill in installments also, but presumably the company could repossess these items.[19]

According to various Colver residents, prices at the company store were generally higher than at stores outside of town. In fact, new employees were forced to sign an agreement permitting the company to make payroll deductions if they wanted a job. The deductions for merchandise and supplies were then taken biweekly. There

were also three grocers and a dry goods store in "Jewtown," a small group of private dwellings situated beyond Twenty Row. These merchants delivered goods from house to house via horse and buggy. They extended credit to customers, but collected in full every payday. These businesses were closed by the 1940s.[20]

The charge systems continued throughout the Ebensburg Coal Company's lifetime and into that of Eastern Associated Coal Company. Payroll deductions were also continued at the Colver store until 1977, although it has been privately owned and operated since 1963.[21] Few changes have been made to the store exterior. The interior was extensively remodeled in the 1950s but retains its pressed-tin ceiling and tiled butcher shop. The Colver Store still offers a wide variety of food stuffs along with clothing, shoes, hardware, furniture, school supplies, bicycles, and carpeting.

The Ebensburg Coal Company broke ground for the Colver Hotel in late 1911. Rather than use their own engineering staff, the company hired architect Horace Trumbauer of Philadelphia to execute the design. (See figure 5-15). Trumbauer is perhaps best known for his work on the Philadelphia Museum of Art and at Duke University in Durham, North Carolina. According to Trumbauer's ledgers at the Athenaeum in Philadelphia, he also designed most of the company houses at Revloc, the stores at Revloc and Nanty Glo, and an addition to J. H. Weaver's residence in Merion, a suburb of Philadelphia. Trumbauer also designed Edward J. Berwind's palatial mansion "The Elms" at Newport, Rhode Island, in 1899.[22]

In company towns, a hotel was usually intended to provide lodging for visiting salesmen, and company officials and their guests. Therefore, it often received a somewhat higher degree of architectural attention and detail. Indeed, the hotel utilized the same stone as Colver's other prominent buildings but included several Georgian Revival elements. For example, each dormer window had a round-arched opening surmounted by a broken pediment. This combination was repeated in the Reese Avenue entrance but with the addition of a keystone and fanlight above the door. The original porch had a similar level of ornament with Doric columns and a simple entablature. The porch, dormers and door surround have since been removed.

Figure 5-15 Colver Hotel (and staff?), ca. 1940. Shows original entrance and porch, now missing. Courtesy of Max Vassanelli.

The company clearly intended that the hotel mimic as closely as possible the better hotels of nearby cities. To that end they hired Robert Zweisele, who had managed several "high-toned" clubs in Washington, D.C. and came highly recommended. Thus, the hotel dining room and bar, with their high, arched windows, soon sported potted plants, linen tablecloths and gleaming wooden surfaces.[23] When the hotel bar opened to the public on June 27, 1911, it was considered "a red letter day for Colver." But as S. H. Jencks described it:

> No member of the common herd dare enter unless apparelled in their Sunday best. In time (and it took time) Zweisele discovered that to run an exclusive joint in Washington, patronized mostly by those who had their fingers in the public trough was all right there but not at Colver, where men worked to keep the country on an even keel.[24]

Lodging rooms occupied the second and third floors. Although at first reserved for visitors, the need for housing prompted the company to rent rooms to single employees. Since there were no other restaurants, the men had to patronize the hotel dining room and bar. This, and the rather small "high-class" clientele, probably prompted Zweisele to relax his

standards. Nevertheless, most miners patronized the ethnic clubs down the road in Tripolo instead. The upper floors of the hotel were converted into nineteen apartments, and in 1955 the public rooms on the first floor were closed. The hotel currently serves as the community senior center and as apartments.

Colver also had its own movie theater, called the Nickelodeon (See figure 5-16). Begun in October 1912 by the Colver Amusement Company, a subsidiary of the coal company, it was finished in four months; the first movie was shown on January 18, 1913.[25] A simple red brick building, it also housed the bank and an ice cream parlor replete with potted palms, curved metal chairs and soda fountain. A central, recessed alcove gave access to all three establishments. A thin, denticulated cornice ran above the doorway and its flanking windows. The second floor contained meeting rooms and offices at first, later a basketball hall and dentist's office. Local residents remarked that the theater usually offered first-run shows, and a common trick among the miners' children was to throw a handful of pennies on the counter and run in before the attendant could finish counting. During the era of silent films, a local girl would play musical accompaniment on the piano. The theater closed soon after World War II. At present, the building houses Ralph Costello's barber shop and Conigy's restaurant. The first floor of the facade has been covered with a combination of aluminum and asbestos siding.

The Ebensburg Coal Company built its administration building next to the theater around 1914. The main block of the building is brick and three stories high (See figure 5-17). The street facade, however, was laid in stone to match the store and hotel. The ground floor has three doors; the one to the east leads into the post office, which has been located there since the building was constructed. The other two doors lead to offices on all three floors. A pent roof separates the first and second floors, above which are five rectangular windows. Only the windows of the third floor have round arches, and they have since been bricked over. To the rear of this main block is a one-story, wood-frame ell with brick infill. Only one other building in Colver, a supply house at the C & I

Figure 5-16 Colver Amusement Building, taken by Deck Lane, ca. 1915. Courtesy of Max Vassanelli.

shops, was constructed in this manner.

Institutional Buildings

The hospital was originally built in 1914 as the mine office.[26] Because of the size and complexity of the Colver mine, the administration of mining-related activities soon outgrew this structure. In 1915 the company built a new office on Reese Avenue and decided to use the old office as a community hospital. Previously, the hospital occupied two connected six-room houses on the south corner of Reese Avenue and First Street. When it opened, the Colver Hospital had eighteen beds in two wards and several private rooms. There was also an infant nursery, operating room, clerical room and doctor's office. Two doctors have played important roles in the history of the community: Dr. A. W. Beatty, who ran the hospital from 1911 to 1928, and Dr. A. D. Martin, from 1928 to 1965. The UMWA bought the hospital in 1940 and kept it open until the state closed it in 1974. Community support soon led its reopening as a private clinic. Named in honor of Dr. A. D. Martin, the clinic still operates.[27]

Figure 5-17 Ebensburg Coal Company office building, built 1912. Taken by jet Lowe, HAER photographer.

Because of its wide ethnic and religious diversity, Colver supports three churches. The Presbyterian Church is by far the most prominent. Designed by architect Horace Trumbauer, the structure took more than three years to complete. Situated on the corner of Eighth Street and Reese Avenue, it is the first public edifice one encounters upon entering town. Built of stone, the church has a steeply pitched gable roof, buttressed walls and Gothic-arched, stained-glass windows. A small vestibule projects from the nave toward Reese Avenue. Financed mostly by Coleman and Weaver, the final cost was estimated at $10,000, not including a $2,500 pipe organ. The church was dedicated on October 1, 1915.[28]

Colver's other two parishes are the Holy Family Roman Catholic Church and the Holy Ascension Orthodox Church. The presence of the two Catholic churches is typical of most southwestern Pennsylvania mining towns and reflects substantial numbers of southern and eastern Europeans. Holy Family's simple brick church was dedicated in 1912 and served the local Italian and Polish families. Holy Ascension occupies a small stucco-covered brick building with a central tower. The tower is capped with a traditional onion dome and orthodox cross. The parish was founded in 1914 by Colver's Slavic community.[29]

The first public school in town was a 50'-long structure that contained some seats, one table, and a coal stove but no blackboards. Taught by one teacher, Miss Parrish, there were ninety-eight children in grades one through seven in 1912. After seventh grade, students went to high school in Ebensburg. The school was open to all residents of Cambria Township and came under the administration of the township school board. Although the coal company contributed funds, the school board paid for its construction. The company managed to exert influence indirectly, as several of its highest officials sat on the board, including the mine superintendent.[30]

By 1912 the school required two more teachers, and by the following year, a larger brick school had been built to replace it. The number of children continued to grow steadily and before the year was out, four more classrooms were added to this building. An auditorium and two more classrooms were added in 1921, and in

1927, a larger school was built next door. The 1913 school has been torn down.

Recreation

Because of Colver's isolated locale, the Ebensburg Coal Company made certain provisions for entertainment and recreation. Chief among these was the construction of the amusement building in 1912, but for the most part, the company merely financed activities that the residents planned themselves. Baseball teams are a good example. The town had its own mens' ball team, the Colver Colts, and each street supported a boys' team (See figure 5-18). There was also a basketball team. The company provided uniforms and equipment, arranged games between other companies' teams, and set up a playing field. One miner, recruited by Coleman and Weaver in 1933 specifically for his skill as a catcher, was offered a better place in the mine and more money. He said good ball players could name their jobs.[31] Similarly, the company financed a band for recitals and dances. Band members and leaders also had better jobs.

There were ethnic clubs and lodges such as the Sons of Italy and the American Slovak Club. Some met in rooms above the theater, others met in Tripolo. Colver had a gun club with a shooting range outside of town, while in town, annual competitions took place between the first aid teams. Gardening was popular, too, particularly when the company began offering cash prizes ranging from $2.50 to $25.[32] Children enjoyed scouting and baseball. Among the men, drinking was a common activity and continued with the aid of homemade stills during Prohibition. Residents said the company police went crazy trying to find out where the liquor came from!

Transportation

Coleman and Weaver purchased the Blacklick and Yellow Creek Railroad in 1910 to service their new mines in Cambria County. New extensions and additions to the "rickety logging railroad" continued throughout most of 1910 and 1911. The short-line reached Coleman and Weaver's new Colver mine by October 1911 and commenced shipping coal from the mine to a connection with Penn Central's main-line railroad. Because the railroad would serve Coleman and Weaver mines in Indiana County, too, the line was rechristened the Cambria and Indiana Railroad on April 20, 1911.[33]

The C & I shops were built just south of the present town of Colver at the bottom of a hill. Passenger service to Colver Heights, as the town was then called, began in 1912 via a complicated series of switchbacks leading from the shops up the hill to the company store. For a small fee, Colver residents could ride to nearby Nanty Glo or Ebensburg, but since the C & I was a company-owned railroad, their comings and goings were closely monitored. Passenger service ended in 1931 as a result of Depression-era cutbacks, but the C & I still functions as a short-line, common-haul carrier. Bethlehem Steel has been its primary stockholder and operator since 1950 (See figure 5-19).

Labor Relations

Coleman and Weaver were consistently anti-union before, during and after their partnership and made no exceptions when it came to suppressing pro-labor sentiment. The first instances of trouble in Colver occurred in 1912, not even one year after the mine opened. It is unclear exactly what happened, but according to S. H. Jencks' chronicle, the problems created by the labor organizers and agitators were so great that "the company gave up thoughts of selling lots in the town of Colver as was done in Windber."[34] Although retaining ownership of all property in town may have given the Ebensburg Coal Company a hold over their employees, it could not dispel the miners' demand for unionization.

Union activity in Cambria County was centered in Nanty Glo, the hometown of UMWA leader John Brophy. Located only a few miles away, Colver soon reflected its influence. Trouble started again in earnest in early 1915. By April E. F. Saxman, a stockholder and friend of Weaver, came to Colver to "take a hand in management," the labor situation being disturbed by agents sent by the union. On October 20, Saxman routed a carload of these

Figure 5-18 View of Colver baseball team, ca. 1935. Courtesy of Max Vassanelli.

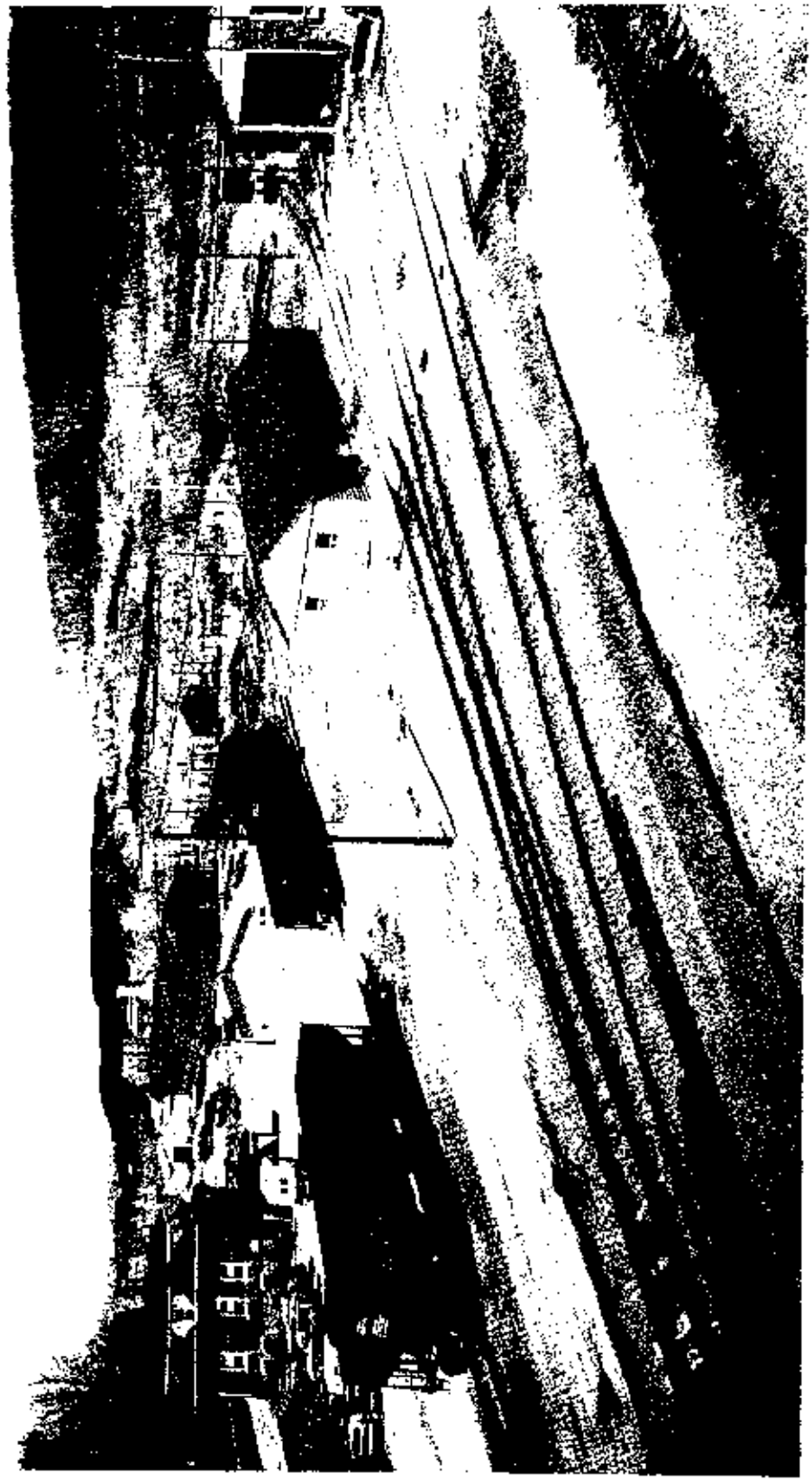


Figure 5-19 View of Cambria and Indiana Railroad shops and yard, dating from 1910. Taken by Jet Lowe, HAER photographer, 1988.

persons from the hotel, using his fists on a few "to show he meant business." Then, taking Jencks and two others with him, Saxman followed the men to the Metropolitan Hotel in Ebensburg and cautioned Jencks to keep an eye out for these "disturbers of the peace." Jencks later noted that "this was the beginning of real trouble with the miners' union."[35]

Labor problems plagued all of Coleman and Weaver's mines. In response, the company brought in the Coal and Iron Police to patrol the streets. These "Gestapos" or "pussyfoots," as residents call them, stopped all persons entering or leaving town for questioning. Many persons were turned away, including outside deliverymen. Fritz George remembers being stopped and questioned simply for going to visit a friend who lived down the hill in Nine Row. Evictions began at the same time, and curfews were established. Riding on horseback, the police literally chased people inside at 9 PM.[36] Labor relations deteriorated further through the rest of the decade, and came to a head during the nationwide coal strike of 1922.

The first big mine to walk out in Cambria County was the Maryland No. 1 shaft at St. Michael. Employees of the Maryland Coal Company, more than 200 men walked to South Fork--the nearest union town--to sign on as new members. Two hundred more sent their names. Miners throughout the county began holding secret meetings with union organizers. The Revloc miners walked out on April 6 and converged on union representatives in Ebensburg. Three days later, 4,000 more men met with John Brophy at Nanty Glo. Back in Colver, Jencks reported that that mine was one of the few still open, but the situation must have been extremely tense, for the Ebensburg Coal Company was forced to suspend operations by July 10 when its miners finally walked out. Fifty eviction notices were served immediately and the miners and their families ordered from company property. The miners had to comply; there were no written leases. Those who refused to leave were moved bodily by company police. Tent colonies were set up on nearby farms. Striking miners' cows and pigs were impounded and the company store was closed to them. Soldiers, possibly the state militia, were called in by late July.[37]

The men were eventually forced back to work under the same conditions which had prompted the strike. Ralph Costello recounted how miners returning from the end of their shift one Christmas Eve were ordered back into the mine for another trip. Those who refused were threatened with losing their jobs. Another retired miner noted that it was common to be cheated by the company man on the tipple when the full coal cars were weighed.[38] Such abuses did not end until 1933 when passage of the National Industrial Recovery Act permitted the Colver miners to join UMWA Local 860.[39]

In spite of their past hardship, retired Colver miners seem to feel that the Ebensburg Coal Company was "a pretty good company" because at least there was work. Conditions were not necessarily better anywhere else and many other mines were not operating as often. Furthermore, many felt that "the law wasn't on your side, so you had to put up with it." This was especially true for immigrants, who faced greater barriers than native American miners. Steady, plentiful work and a roof overhead were the miners' primary considerations. And as long as one "didn't make waves," neither of these were in jeopardy.[40]

Past to Present

Conditions improved somewhat for Colver miners and their families in the 1930s and '40s. Unionization stabilized wages, hours and working conditions, while giving men representation in the work place. World War II boosted the demand for coal so that Colver miners saw a marked increase in productivity and profit. Beginning in 1948, Colver residents were able to purchase their homes and make much-needed alterations. Max Vassanelli bought his four-room house for $750 and over the years has added a new bathroom and kitchen, a new heating system, a cellar, wall-to-wall carpeting, paneling and aluminum siding. Some of the company houses, like Arthur and Martha Price's old house on the corner of Fifth Street and Weaver Avenue, are practically hidden by porches, additions and garages.

Despite such obvious changes, some aspects of life in Colver are the same. Every morning

people flock to the post office to pick up mail and exchange pleasantries with neighbors. The Colver store remains open, selling everything from furniture and clothes to batteries and microwave popcorn. Ralph Costello, the town barber, is open only a few days a week now, but when it is open, his shop still serves as a social gathering place. Nevertheless, Colver is a quiet place today. Many residents are retired, while those who do work often commute long distances. Lately there has been talk of a new power plant to be built at the old mine site. It is said that the plant will convert the massive boney pile into a usable fuel and have a life expectancy of many years. Some people hope that new jobs will mean renewed prosperity but whatever the future holds for Colver, it is certain that vestiges of the coal company town will remain.

Notes

[1]Jerome C. White and Samuel Law, "The Coal Industry in Cambria County," Sesquicentennial of Cambria County, 1804-1954 (Ebensburg, 1954); S. H. Jencks, former Chief Engineer, Cambria and Indiana Railroad, "A History or Record or Chronicle of the Cambria and Indiana Railroad and Connections and Coal Companies in Cambria and Adjoining Counties, Pennsylvania With References to the Pocahontas and New River Coal Fields, West Virginia, from 1887 to 1944" (Photocopy, Cambria and Indiana Railroad, Colver, Pennsylvania), 19.

[2]David H. Hamley, "This is a Short Line?" Trains (March 1971): 39.

[3]Department of Internal Affairs of Pennsylvania, Report of the Bureau of Mines (Harrisburg: State Printing Office, 1911); Coal Age 6, no. 2 (July, 1914): 797.

[4]Hamley, 39.

[5]Ibid., 39-40; White and Law.

[6]Jencks, 7 and 24.

[7]Mildred Burket, "The Story of Colver," Mountaineer Herald (20 August 1954): 42.

[8]"Building Colver, Cambria's New and Bustling Mining Town," Johnstown Weekly Tribune (14 April 1911): 10; Tax Assessment Records, Cambria Township, Cambria County, Pennsylvania, 1913, Cambria County Courthouse, Ebensburg, Pennsylvania; Photographs.

[9]"Colver Booming-Many New Houses-200 More This Summer," Mountaineer Herald (25 April 1912): 8.

[10]Morris Knowles, Industrial Housing (New York: McGraw-Hill Book Co., Inc., 1920; reprint, New York: Arno Press, 1974), 310.

[11]Tax Assessment Records, 1913-1931.

[12]Johnstown Weekly Tribune (6 December 1912): 9, vertical file clipping, Cambria County Historical Society, Ebensburg, PA.

[13]Tax Assessment Records, 1931.

[14]Ralph Costello, interview by author, 29 March and 14 April, 1988, Colver.

[15]Costello; Max Vassanelli, interview by author, 29 March and 14 April, 1988, Colver.

[16]Jencks, 30.

[17]Jencks, 24; Frederick Platt, Elkins Park, Pa., to Cambria County Historical Society, Ebensburg, Pa., 24 November 1975, vertical file, Cambria County Historical Society, Ebensburg, Pennsylvania; "A Model Mining Town," Grit (9 July 1916): 4, vertical file clipping, Cambria County Historical Society, Ebensburg, Pa.

[18]John Smylnycky, interview by author, 12 July 1988, Colver.

[19]Ibid.

[20]Ibid.

[21]Ibid.

[22]Jencks, 24; Platt; Sandra L. Tatman and Roger W. Moss, Biographical Dictionary of Philadelphia Architects: 1700-1930 (Massachusetts: G. K. Hall and Co., 1985), 802.

[23]Photographs.

[24]Jencks, 28.

[25]Ibid.

[26]Coal Age (8 August 1914): 246.

[27]Report of the Bureau of Mines, 1915; Mountaineer Herald, 21 April 1977, vertical file clipping, Cambria County Historical Society, Ebensburg, PA.

[28]Mountaineer Herald, 20 August 1954, 42, vertical file clipping, Cambria County Historical Society, Ebensburg, PA.

[29]Ibid.

[30]Ibid.; Arthur Price, interview by author, 12 July 1988, Ebensburg.

[31]Fred "Frite" George, interview by author, 15 March 1988, Colver.

[32]Report of the Bureau of Mines, 1917, 1427.

[33]Hamley, 39.

[34]Jencks, 28.

[35]Ibid., 35.

[36]Costello; Vassanelli; George.

[37]Heber Blankenhorn, The Strike for Union (New York: H. W. Wilson Company, 1924; reprinted, New York: Arno Press and the New York Times, 1969), 18, 142-143; Jencks, 48; Costello.

[38]George.

[39]Mountaineer Herald, 10 August 1983, vertical file clipping, Cambria County Historical Society, Ebensburg, PA; also see n.26, Chapter II. Ebensburg Coal Company employees were apparently not permitted to conduct union meetings on company property for in 1934 members of UMWA Local 860 constructed a union hall in Tripolo, just outside Colver.

[40]Costello.

CHAPTER 6

STATUS, MOBILITY AND HOUSING

From the various sources used in this study, it appears that occupational status, and hence, the division of housing in Colver, Windber and Star Junction was dependent upon several related factors: the method used to work the mine; the size of the company and the mine; and the ethnic make-up of the laborforce. In all three towns, the superintendent, foremen, fire-boss, assistant foremen, coal inspector, doctor, chief clerk, and store manager were considered the highest status positions, and miners, the lowest status. In between was a whole range of occupations--such as electricians, painters, carpenters, laborers, blacksmiths and plumbers--whose status could not be classified as easily. Then there were professional occupations to be considered, such as teachers, ministers, engineers, surveyors and clerks. Divisions also existed within an occupation, as evidenced by miners who were further differentiated as loaders, scrapers, cutters and shot-firers.

While divisions between management personnel, skilled labor, unskilled labor, and professionals in the towns are not surprising, the criteria which divided them are. Mine foremen and company store managers, for example, were considered high status occupations because their skills were vital for the financial success of the mining operations. Similarly, all three coal companies seem to have regarded skilled electricians, blacksmiths and plumbers as more valuable than miners, although the work of mining usually required as much, if not more, training. As a result, those men and their families often occupied better dwellings. Clerks and bookkeepers also had somewhat better accommodations in coal towns, whereas such occupations would not have been so highly valued or rewarded in a non-company-controlled community. So while the architecture of Colver, Windber and Star Junction suggests a clear division between management and labor, it does not necessarily reflect the subtle distinctions that existed within each group nor the peculiar hierarchy of the coal industry.

To a large extent, the division of labor in the three communities was influenced by the method in which the mine was worked. In the nineteenth century, when Windber and Star Junction were founded, the miner was responsible for every aspect of extracting coal: undercutting the face of the seam with a pick and shovel; drilling the holes for explosives; firing the "shot," or charge; and sorting and loading the coal. By the turn of the century, however, mechanical cutters and loaders had been introduced into many mines, and with them came new divisions of labor (See figure 6-1).[1] In these mechanized mines, clear distinctions were made between miners, cutters, drillers, loaders, and scrapers, because the latter four occupations were considered more skilled. Speaking of Windber-area mines in 1911, the U. S. Immigration Commission reported, "as all mining is done by machines, the number of men loading is much greater than the number in more skilled work, such as operating the machines."[2] Yet these new divisions of labor had little impact on the segregation of mine workers in town. Prior to the implementation of machinery, all miners were considered equal and housed accordingly; after the turn of the century, specialization had created a complex hierarchy of occupations below ground that coal companies like Berwind-White apparently ignored above ground.

As Thomas Coode indicates in Bugdust and Blackdamp, many of the new specialized occupations which arose after 1890 were for supervisory personnel. Companies like Berwind-White, Ebensburg Coal and Washington Coal and Coke soon hired additional men to serve as firebosses, assistant foremen and tipple bosses. The Pennsylvania Bituminous Mine Reports show that some miners were able to move up the ranks during this period by passing a series of examinations. In this manner, companies were assured of having loyal, experienced help in positions of authority rather than strangers.[3] But the employee's new status did not necessarily earn him a better place to live. Housing in coal

WASHINGTON COAL AND COKE COMPANY

INSIDE OCCUPATIONS

DATE	MINE NO.	FOREMEN	FIRE BOSS	MINERS	LABORERS	DRIVERS	DOOR BOYS	OTHERS	TOTALS
1899	1	3	1	375	14	39	0	19	417
	2	1	1	150	7	9	1	3	172

OUTSIDE OCCUPATIONS

DATE	MINE NO.	FOREMEN	BLACKSMITHS/ CARPENTERS	FIRE MEN	PICKERS	CLERICAL	OTHERS	TOTALS
1899	1	3	5	7	0	5	124	144
	2	3	4	6	0	0	39	52

BERWIND-WHITE COAL MINING COMPANY

INSIDE OCCUPATIONS

DATE	MINE NO.	FOREMEN	FIRE BOSS	MINERS	LABORERS	DRIVERS	DOOR BOYS	OTHERS	TOTALS
1900	30	2	0	352	28	14	0	30	426
	31	2	0	372	62	14	0	37	487
	32	2	0	330	20	11	0	18	381
	33	2	0	195	25	9	0	17	248
	34	2	0	355	25	11	0	25	418
	35	2	0	350	30	11	0	17	410
	36	2	0	157	31	6	0	16	212
	37	2	0	150	15	7	0	18	192

OUTSIDE OCCUPATIONS

DATE	MINE NO.	FOREMEN	BLACKSMITHS/ CARPENTERS	FIRE MEN	PICKERS	CLERICAL	OTHERS	TOTALS
1900	30	1	2	10	2	1	25	41
	31	1	2	5	2	1	23	34
	32	1	2	6	2	1	17	29
	33	1	2	5	2	1	17	28
	34	1	2	5	2	1	15	26
	35	1	2	8	2	1	17	31
	36	1	2	4	2	1	15	25
	37	1	2	4	2	1	15	25

EBENSBURG COAL COMPANY

INSIDE OCCUPATIONS

DATE	FOREMEN	FIRE BOSS	MINERS	MACHINE RUNNERS	MACHINE LOADERS	MACHINE SCRAPERS	DOOR BOYS	COMPANY MEN	TOTALS
1913	4	2	205	9	370	9	3	80	682

OUTSIDE OCCUPATIONS

DATE	SUPERINTENDENT	FOREMEN	BLACKSMITH/ CARPENTERS	ENGINEERS & FIREMEN	BOOKKEEPERS & CLERKS	TOTALS
1913	1	2	7	4	7	21

Figure 6-1 Charts showing the breakdown of employees for Washington Coal and Coke Company (1899), Berwind-White Coal Mining Company (1900), and Ebensburg Coal Company (1913) for comparison. Compiled from Pennsylvania's bituminous mining reports of 1899, 1900, and 1913.

towns remained segregated by ethnic group so that the relationship between occupational status and housing after 1900 ceased to reflect the clear-cut hierarchy that characterized earlier nineteenth-century company towns.

The size of the company, or rather, how many persons it employed at a particular mine, played an important role in determining the hierarchy of workers' housing. A large firm would have more employees and hence, a more complex occupational structure than a smaller firm. Berwind-White, for example, maintained a large engineering staff in Windber. The chief engineer occupied a spacious residence on Somerset Avenue, as befit his status in the company. According to the census records, the rest of the engineering department lived in boardinghouses or detached residences amid merchants, professionals and craftsmen, yet apart from miners. The Washington Coal and Coke Company, by contrast, had a much smaller operation at Star Junction, so that while its two engineers lived on Tony Row, they actually occupied low-status houses.

Like the engineers at Star Junction, Washington Coal and Coke's "boss" carpenter, "boss" painter and coke yard "boss," lived on Tony Row. So did the railroad's station agent, several company bookkeepers, the company butcher, two railroad engineers, and a few salesmen for the company store. But although the occupations of these men did merit them accommodations on the most socially-prominent street, their houses were no different than those of many miners and coke workers. Similarly, Colver's mine foreman, chief of police, school principal, and boss electrician lived in better-quality six-room houses, while the company's three carpenters, painter and plumber lived in three-room bungalows. However, since these particular three-room houses were on the south side of Reese Avenue along with the six-room houses, and where only Americans and immigrants from the British Isles lived, it appears that segregation in Colver was based solely on ethnic grounds.

The case of Windber also demonstrates that ethnicity also had a profound impact on occupational status and mobility. According to the Immigration Commission's report, almost all immigrants entering the Windber mines did so as unskilled labor. The company did not provide any sort of job training, with the result that its workers had to learn from experienced miners. Theoretically, the longer an immigrant worked in the mine--or on the tipple--the more likely he was to advance up the occupational ladder. The report also noted a strong correlation between the nativity of an employee and his tendency toward advancement. The Berwind-White Company preferred to hire "native whites, Germans, Irish, Scottish and Welsh" because they were believed to be more productive and reliable; but "as they will not work in the lower occupations, employment of the Southern and Southeastern Europeans is necessary." Magyars, Poles and Slovaks made up the bulk of Berwind-White's labor force and so were seen as the most progressive ethnic groups. Northern Italians were also prone to job mobility, and--according to the company--demonstrated a particular suitability for work on the tipple. Southern Italians were considered the least desirable and were "dropped from the rolls at every opportunity."[4] The following chart, taken from the Immigration Commission's report, provides detailed information about the relationship between race and occupation in the Windber-area mines (See figure 6-2). The chart confirms the notion that occupational status, and thus, the amount of money an employee could earn, was limited by ethnic group: American, English, Scottish, Irish, German and Swedish workers occupied positions in all levels, yet eastern and southern Europeans were confined to the lower status occupations.

Because of the interrelation between ethnicity, job status, mobility and housing, it becomes possible to view the segregation of workers in these three towns as the result of a cyclical progression (See figure 6-3). Each component of the progression determines and reinforces its neighbors in such a way as to establish an unbroken chain. Thus, the ethnic group to which an individual belonged determined what occupation he held; this, in turn, determined his earning power. Contemporary sources confirm that companies used an employee's earning power to compute the amount of rent he could pay, generally one-

Occupation.	American, White.	Bohemian and Moravian.	Croatian.	English.	French.	German.	Greek.	Irish.	Italian, North.	Italian, South.	Lithuanian.	Magyar.	Polish.	Roumanian.	Russian.	Scotch.	Slovak.	Slovenian.	Swedish.	Tyrolean.	Welsh.	Total.
1. Assistant foreman				1				1								2			1		2	7
2. Blacksmith	1			1				1	3	1		4	1				1					13
3. Brattice man				1	1																	2
4. Bricklayer									1								1					2
5. Carpenter	8											1			1		2		1			13
6. Clerk	1																					1
7. Coal inspector				1															1			2
8. Company man													1			1	3					5
9. Contractor						1		1									3					5
10. Cutter	2								1	1	3	19	12		2	1	20				1	62
11. Driller												2										2
12. Electrician	3											1					1					5
13. Engineer	1					1															1	3
14. Fireman	4					3			1													8
15. Foreman	1			2				1														4
16. Heading man	2					2						15	14		1		9					43
17. Laborer	4			2		1			10	8		11	6	2			9		1			54
18. Loader	1		10	2	4	2		3	11	7	4	163	62				122			6		397
19. Machine man	1								2			7	4				4					18
20. Miner	55		6	14	2	24	1	14	300	119	26	666	481	26	50	5	504	2	9		12	2,122
21. Motor man	9			2	1	1		1				2				2	5		1		1	25
22. Pipe man				1								3					7		1		1	13
23. Prop man										1												1
24. Pump man	2												1			1	7		1		1	13
25. Road man	1								2			8	5				39					55
26. Rock man	1			1		1						15	1				7					26
27. Sandman						1											1		1			3
28. Scraper	1	1						1	1		5	10	4		1		10					34
29. Spragger	4			1		3			1			1				3	9		2			24
30. Timberman												8					4				1	13
31. Tipple man	5					1			21	10		2					2					41
32. Watchman						1		1				4					1					7
33. Weighmaster	2																					2
Total	109	1	16	29	8	42	1	24	160	147	38	942	592	28	53	15	771	2	19	6	20	3,025

Figure 6-2 Chart showing occupation of Berwind-White Coal Mining Company employees by ethnic group. Taken from U. S. Immigration Commission, Report on Immigrants in Industries (In Twenty-five Parts), Part I: Bituminous Coal Mining, Vol. 1. Washington, D.C.: Government Printing Office, 1911.

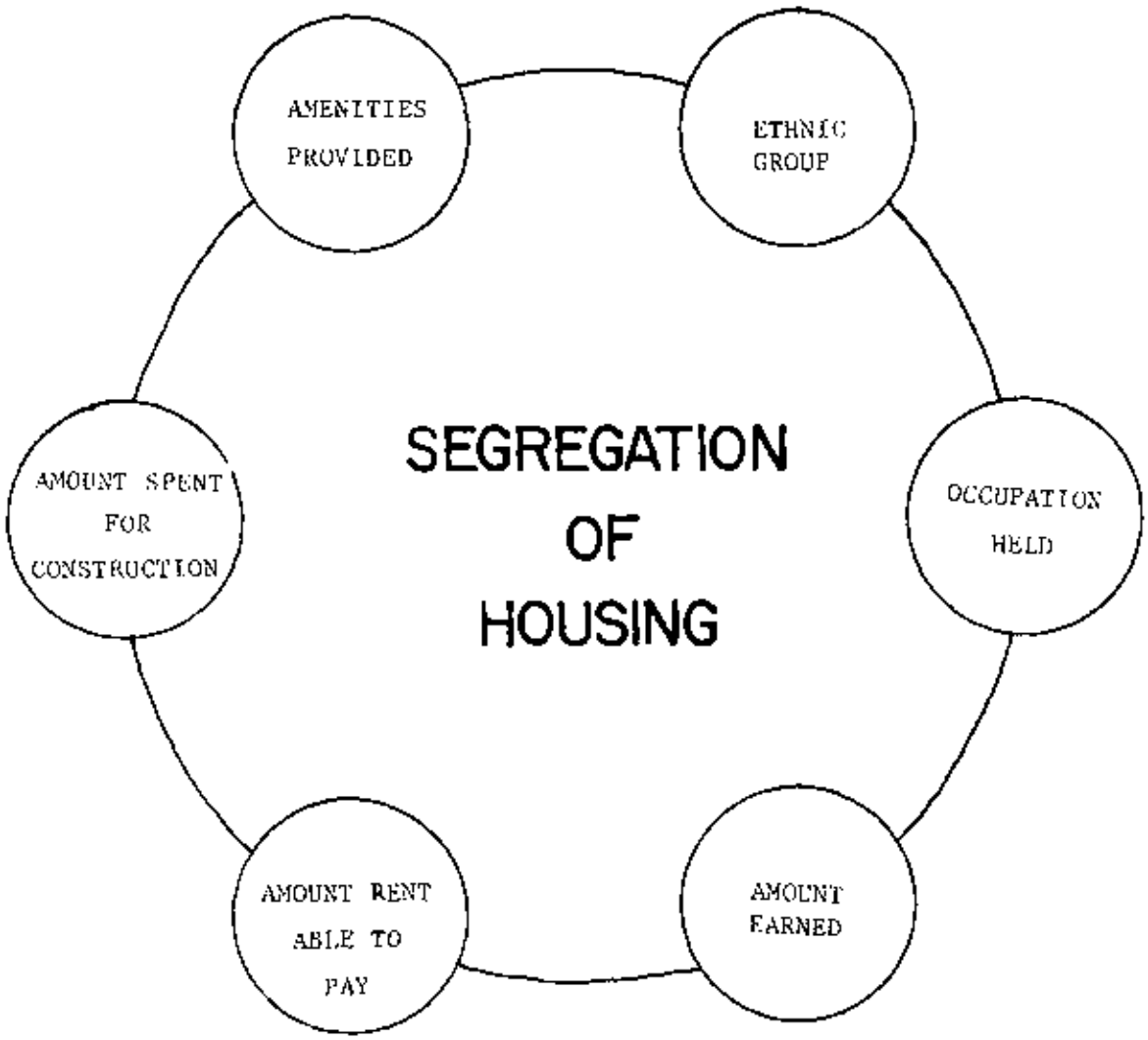


Figure 6-3 Chart showing the relationship of various factors which influence the segregation of housing in a coal town. By author, 1988.

fourth of his monthly wages. Each company then used that figure to determine how much it would spend on construction so that, ultimately, the amenities provided were a direct result of how much the employee earned. And to bring the cycle to a close, companies based the provision or exclusion of certain amenities, such as bathtubs, on the ethnicity of their workers. Yet, unlike other cause-and-effect relationships, this type of progression was not proportional; although an employee might alter the status of his occupation, and hence, his earning power, he could not change his ethnic origins, and so remained limited in terms of housing. This aspect of coal-town life did not change until after World War II, when mine workers in Colver, Windber and Star Junction were finally able to purchase their own homes.

Predictably, the rigid division of housing which characterized these three coal towns was considerably weakened when the companies departed in the 1950s. Many miners and their families moved away in search of better jobs, but those that remained eagerly bought their company houses when the surface land and its improvements were put up for sale. Sometimes the miners purchased vacant houses elsewhere in town, while in other cases, houses were sold to outsiders. As a result, Poles were soon living next to Scots, Italians next to Americans, and foremen next to miners.

The social character of the towns also changed dramatically. When the companies owned the towns, everyone "knew what each other was about."[5] All of the men worked in the mines in some capacity and all of the women stayed at home. Bound together by the same values and principles, if not the same ethnic background, the communities shared both good times and bad. Now it has all changed. Fewer and fewer miners remain in the old coal towns. Instead, they have been replaced by a new generation drawn by low real estate values. Speaking of Colver, one older resident stated, "In spite of all the hardships, I'd say 90 percent turned out to be pretty good citizens, but I wouldn't trade any of the older folks for the new ones, though. I can't figure out their purpose in life."[6]

Based on the number of miners who bought their houses, it seems likely that the need to regain control over their private lives was intrinsically linked to the idea of home-ownership.[7] For the first time in their lives, many miners could exercise and enjoy all of the privileges and responsibilities associated with owning property. Quite understandably, their first step was usually to begin altering their homes.

Figure 6-4 Modified company houses in Colver. Taken by Jet Lowe, HAER photographer, 1988.

First, miners added indoor bathrooms and updated their heating systems. Windows were changed, doors moved, porches replaced, and asbestos shingles or siding added. Old privies became sheds, sheds became garages, and additions were made from porches and lean-tos. The retired miners proudly point out such changes and draw attention to how nice the houses are now. Since the coal dust and smoke are gone, some coal-town residents have beautified their yards with shrubs, flowers, and various yard ornaments. (See figure 6-4 & 6-5). And yet, despite such cosmetic changes, the repetition of forms and regularity of placement still identify communities such as Star Junction, Windber and Colver as coal company towns. Reflecting a unique ideology, coal towns provide an excellent opportunity to study the somewhat neglected social and cultural legacy of the coal industry in southwestern Pennsylvania.

Notes

[1]Thomas Coode, Bugdust and Blackdamp: Life and Work in the Old Coal Patch (Comart Press, 1986), 41.

[2]U. S. Immigration Commission, Immigrants in Industries (In Twenty-five Parts), Part I: Bituminous Coal Mining, Vol. I (Washington, D.C.: Government Printing Office, 1911): 485.

[3]Coode, 41-42.

[4]U.S. Immigration Commission, 502.

[5]Walter Woodward, interview by author, 12 April 1988, Smock, Pennsylvania.

[6]Ralph Costello, interview by author, 29 March and 15 April, 1988, Colver.

[7]For more information about workers' perceptions of homeownership see Marjorie L. White and Carter Hudgins, Village Creek: An Architectural and Historical Resources Survey of the Village Creek Neighborhoods (Birmingham: Birmingham Historical Society, 1985), 71-72 and 112; and Richard Harris and Chris Hammet, "The Myth of the Promised Land: The Social Diffusion of Home Ownership in Britain and North America," in Annals of the Association of American Geographers 77, no. 2 (June 1987): 181.

PART III: THE PENNSYLVANIA COAL TOWN IN GEOGRAPHIC CONTEXT

CHAPTER 7

A STATE-BY-STATE SURVEY

In 1925 there were approximately 600,000 bituminous mine workers scattered over twenty-six states. Of these, 70 percent were concentrated in the Eastern Province, a 900-mile wide strip stretching from the northwestern corner of Pennsylvania, through Ohio, West Virginia, Maryland, Virginia, Eastern Kentucky and Tennessee to central Alabama. Twenty percent of the 600,000 miners were located in the central mining states of the Interior Province, namely Indiana, Illinois, Iowa, Missouri, Kansas, Arkansas and Oklahoma. The remaining 10 percent were employed in the Gulf, Northern Great Plains, Pacific, and Rocky Mountain provinces (See figure 1-1). Not surprisingly, the areas with the highest percentage of coal miners also possessed the greatest number of coal towns. Yet coal towns--or rather, miners' housing--varied greatly from region to region and even from state to state.

The most informative sources for this study of American coal towns were undoubtedly the reports of the U. S. Coal Commission (1923-25), U. S. Immigration Commission (1911), and U. S. Bureau of Labor Statistics (1917 and 1920). All three agencies conducted nationwide surveys of the living and working conditions of bituminous miners. Their reports readily noted regional differences in housing, ethnicity, topography, production and labor relations, yet seldom offered any reasons for such differences. If field agents made any connections between the ethnicity of a miner and the house he occupied, or between the dominant house-form in a community and its date or place of construction, they are not noted. Yet it is apparent from these and similar studies that such connections do exist, and are not coincidental; due to time constraints, however, it was impossible to conduct an in-depth investigation of the sort necessary to arrive at any definite explanations. So, instead of extensive fieldwork and research, this study made use of secondary sources and the fieldwork of others to establish the major characteristics of miners' housing in other coal regions, namely date of construction, local climate and available materials, and the dominant ethnic groups employed. It was also decided expedient to limit the discussion of miners' housing in other regions to only those that were (historically) most productive. Furthermore, since nationwide reports tended to classify coal regions by state, this section is also organized on a state-by-state basis. In compiling this section, particular care was taken to note the dominant miners' house form in each area, and the incidence of the Pennsylvania miners' dwelling.

Regional Differences

While conducting research for the U.S. Bureau of Labor Statistics' 1920 publication Housing by Employers in the United States, Leifur Magnusson travelled all over the continental United States and surveyed hundreds of company-built houses. From his extensive field work, it was readily apparent to Magnusson that regional differences were as much a characteristic of industrial housing as economy of construction. He concluded:

> The company house tends to become standardized in each locality, as respects both plan and material of construction, and even with regard to the color of the interior. Certain types, however, are characteristic of different sections of the country; and in the eastern states there is further differentiation between the manufacturing and mining town, which is not true of the northern and southern states. . ."[1]

From Magnusson's study, and others like it, it appears that three factors determine regional differences in workers' housing: date of construction of the houses; local climate and available materials; and the ethnic composition of the workforce. The standard Pennsylvania miners' dwelling, then, can be seen as a product of both its era and area.

Originating in the anthracite fields of the Lehigh Valley, just north of the densely-settled Philadelphia region, the first Pennsylvania miners' houses were two-story, semi-detached, braced-frame structures on solid stone foundations.[2] Built in the undeveloped countryside, where space abounded, the houses were crowded together with little setback from the streets, small yards, and shared party walls (See figure 7-1).

Figure 7-1 Anthracite miners' dwellings, built ca. 1850 in Eckley, Luzerne County, Pennsylvania. Houses like these were copied by coal companies in southwestern Pennsylvania, Maryland, Virginia, West Virginia and elsewhere. Courtesy of the National Register of Historic Places.

This form seems distinctly urban but there are precedents for it; photographs of extant Welsh miners' houses show bleak rows of identical, two-story, four-room, gable-end masonry structures that were clearly based on urban housing models.[3] American coal operators retained the two-story, four-room, gable-end unit, but built braced-frame, semi-detached dwellings, because timber was cheaper and more abundant here than in the British Isles. Furthermore, semi-detached structures pleased operatives more than rowhouses, while remaining cheaper to build than detached houses.

Early anthracite miners' dwellings utilized expensive and labor-intensive braced-frame structural systems. Although the cheaper balloon-frame was known in Illinois and Indiana as early as 1847, it did not receive universal acceptance by eastern builders until at least the 1860s so that braced-frame construction was the most viable method of wood-frame construction available for early miners' housing.[4] Because of its availability, wood remained the preferred material throughout the United States, but by the end of the century, improved technology enabled the simpler and cheaper balloon-frame to supercede the braced frame, and by World War I, prefabrication supplanted balloon-frame construction. Housing may therefore differ from region to region because of its date of construction.

The Pennsylvania miners' dwelling seems to have surfaced next in the soft-coal regions of the state. At the same time, development began in the coalfields of Appalachia. By the 1890s, the coalfields of Maryland, Pennsylvania, West Virginia and Virginia were booming; Tennessee, Kentucky and Alabama followed soon after.[5] Preliminary research has shown that the Pennsylvania miner's dwelling was built in all of the above states but was dominant only in Maryland, Pennsylvania, West Virginia, and Virginia, as other forms arose to meet the specific requirements of each geographic area. The southern coal operators, for example, particularly favored a one-story cottage on post foundations for their employees. References indicate that solid foundations were abandoned because the warmer climate demanded more ventilation. However, the same one-story house form was also dominant in the coal towns of Ohio, Illinois and Indiana, where the climate is far colder. A possible explanation for this discrepancy may lie in the date of construction, for by the 1910s, when the central coalfields were developed, engineers, architects and other industrial housing experts were actively promoting the bungalow as the culmination of their efforts to provide suitable accommodations for workers.

Yet there is still one important regional difference whose influence on housing cannot be overlooked: workers. Reports by the U. S. Immigration Commission and U. S. Coal Commission reveal that the ethnic make-up of the bituminous mining force varied considerably from region to region and even from state to state. In almost all cases, coal mines in a given area first drew workers from the indigenous population. Then, as these local reserves became depleted, new workers were brought in.

In the early- and mid-nineteenth century, Pennsylvania and Maryland coal miners were drawn almost exclusively from the British Isles and Germany coalfields. After the 1880s, these experienced miners were followed by waves of Eastern and Southern Europeans. Yet this formula did not apply to all mining regions. Evidence for the Appalachian states, for example, indicates that their first mining employees came from the established coalfields of Pennsylvania and Maryland. These skilled employees were in high demand, but as the need for labor increased, southern coal operators were forced to look elsewhere. Unlike the northern states, West Virginia, Tennessee, Kentucky and Alabama had two large, native groups to draw on: blacks and rural whites. Although Eastern and Southern Europeans did find their way to the coalfields of Appalachia, their numbers were often insignificant. The ethnicity of the workforce also differed in the central and western mining regions. Illinois, Indiana, Iowa and Ohio employed mostly native-born white Americans, while Kansas, Missouri, Oklahoma, Texas and the far western states employed American Indians and Mexicans. While housing did not always differ radically from region to region, there is ample evidence that coal operators attributed what differences there were to the presence of any non-white, American workers.

Maryland

Despite the cost, the two-story, braced-frame miners' dwelling was adopted readily by coal companies in western Maryland and was commonplace there by 1840. The Maryland Historical Trust recently completed a survey of twenty-nine towns located in the Georges Creek Valley coal region and built between 1830 and 1860. Three of the earliest company-built communities in Maryland--Eckhart Mines (1835), Lonaconing (1838) and Mount Savage (1842)--consisted primarily of two-story, semi-detached, gable-end, braced-frame structures with mortised and tenoned members (See figure 7-2). By 1852, these houses were dominant in such communities as Borden Mines, Allegheny Mines, Barrellville, Franklin, Detmold, Gilmore and Phoenix. There were also a number of stone dwellings. Mount

Figure 7-2 Semi-detached, vertical plank miners' dwelling in Lonaconing, Maryland, built ca. 1840. Courtesy of the National Register of Historic Places, 1983.

Savage, for example, had "several hundred" stone houses for operatives by 1855. Vertical-plank structures were present, too. According to Katherine Harvey's book The Best-Dressed Miners, Maryland's coal towns were "typical of mining estates in the English tradition," and may reflect the influence of British investors.[6]

While similar to Pennsylvania towns in physical appearance, Maryland coal towns were conspicuously different in "the amount of real estate owned by the miners."[7] Harvey found that many Maryland miners owned their own homes by the 1880s. In fact, by 1885, more than one-third of the mining population were homeowners. In Pennsylvania, by contrast, less than one-eighth of the state's miners owned houses in 1902.

The predominant ethnic groups in Maryland's coal fields were the Welsh, Irish, Scottish, English and Germans. Almost all had experience as miners upon arrival. Eastern and Southern Europeans did not arrive in this state until the 1910s, and then only in small numbers. The picture of Maryland miners that emerges from Harvey's book is one of hard-working, family men, who settled into the community, sought citizenship, and were thus respected by their native-born neighbors. Long considered by locals to be a valuable part of the community, home-ownership enabled Maryland miners to become members in fact. This was not the case in Pennsylvania, where between 1880 and 1900, companies eagerly hired Eastern and Southern Europeans to work their mines. Harvey looked at contemporary newspapers and concluded that "Pennsylvania companies viewed experienced Anglo-saxon and Celtic miners as persistent trouble-makers," and substituted unskilled Eastern and Southern European immigrants instead, hoping that "their ignorance and poverty would make them more docile." As Harvey observed, this turnover was accomplished with ease in Pennsylvania because the companies owned the houses and stores.[8] Since most Pennsylvania firms retained ownership until the 1940s, they clearly intended to maintain the control over their employees that had been established earlier.

The sale of houses to Maryland miners also stemmed from the increasing settlement of the region. By the turn of the century, the properties of Maryland coal companies had "ceased to be self-sustaining units, remote from other settlements," forcing owners to relinquish "the complete feudal control of the environment, which Pennsylvania companies and others maintained and were perpetuating in the new coal regions of their states."[9] As has already been noted, many Pennsylvania coal towns were so secluded as to compel companies to retain property, rather than sell it.

West Virginia

When West Virginia's coal reserves were first developed in the 1860s, Appalachia was only sparsely settled. This situation quickly changed as coal operators brought in workers from outside the region. The Immigration Commission found that, "negroes, particularly from Virginia, began to be attracted to the coalfields, while some white native miners from adjoining states also appeared."[10] Immigrants came next, drawn by the promise of good wages and a decent house. Initially, Italians were the dominant group but Slovaks, Poles, Magyars and Croatians arrived in increasing numbers after 1897. By 1911, native-born white Americans made up 32.6 percent of West Virginia's mining population, blacks made up 35.7 percent, and foreign-born whites accounted for 31.7 percent. In contrast, Pennsylvania's mining population at that time was broken down into 2.5 percent native-born white, 97.5 percent foreign-born white, and no blacks at all.[11]

As to housing, the Immigration Commission had this to say:

> There are three general types of houses found in the coal-mining villages of the state, and it is not uncommon to find all three represented in one town. The most general type found, especially in the older, established villages, gives every appearance of cheapness and lack of permanence. This is a one-story structure of from two to four, or sometimes five to six rooms. They are usually boxed on the outside with 10 or 12 inch boards nailed on vertically with 3-inch strips over the cracks. They are either ceiled with good dressed and matched lumber, or plastered and in some cases papered. They

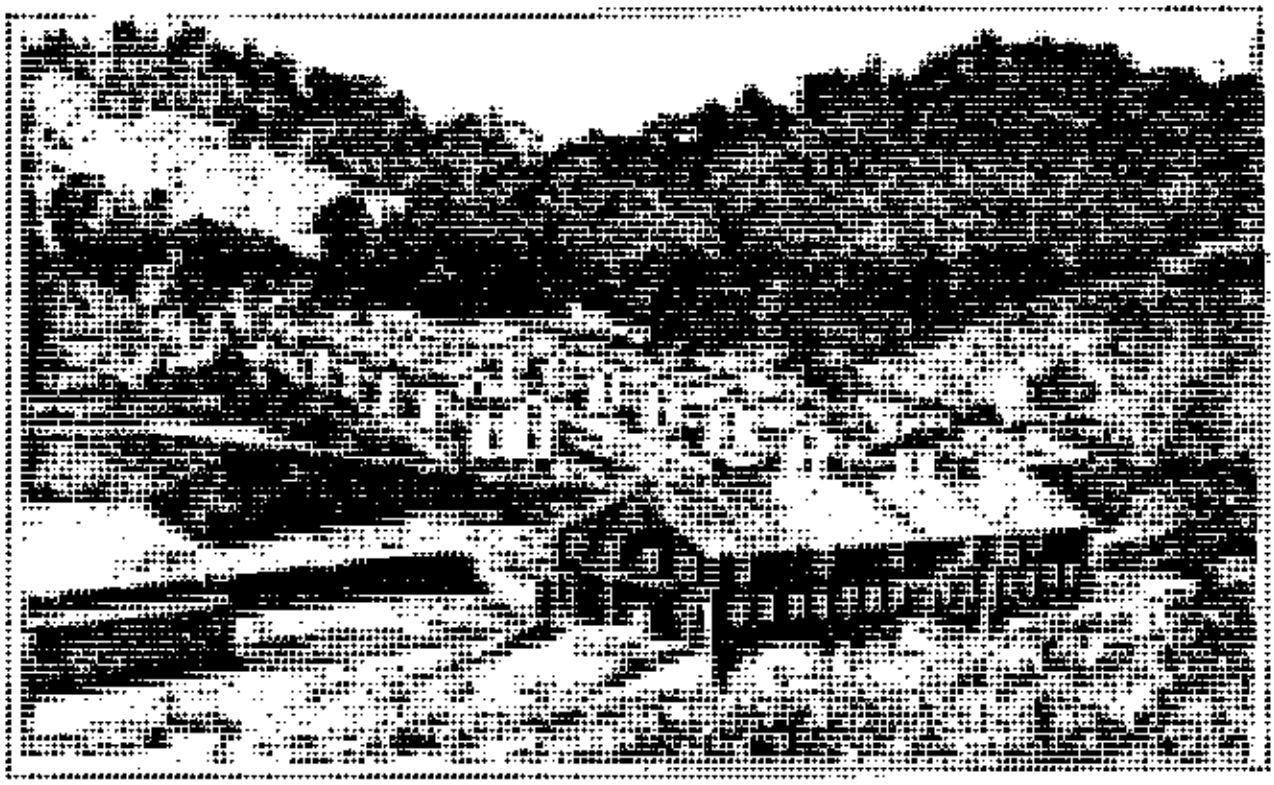


Figure 7-3 Taken from the U.S. Bureau of Labor Statistics's report on bituminous miners' housing in 1920, this photograph was entitled, "A typical West Virginia coal mining town." All of the houses appear to be two-story, semi-detached, frame structures like those in Pennsylvania.

are usually two rooms long, and, if there are more than two rooms, the additional rooms are usually built as a wing running back from the front part. A rather narrow porch is built on the front of the house, and in some cases in the rear. The double houses are two stories high, two rooms wide and two long. If they contain six rooms, the rear ones are only a story high; and if there are eight rooms, the front and rear are both two stories . . . The third type of house found in mining villages is better in quality and general appearance, and occurs less frequently than any other. It is a single, one-story building of four or five rooms and hall, and finished both inside and out with better material than that usually found in the types above described.[12] (See figure 7-3)

Information gathered by field agents of the U. S. Coal Commission ten years later differs somewhat from this description. Although 98 percent of the 5,740 houses the commission surveyed in West Virginia were frame, 70 percent had weatherboard cladding. Weatherboard cladding usually implies balloon-frame construction yet the Immigration Commission report clearly indicates that vertical-plank construction is dominant. In addition, the Coal Commission found that most West Virginia miners' houses were semi-detached, four-bay structures with gable or pyramidal roofs and not one-story cottages as the Immigration Commission suggested. The Coal Commission also reported that 49 percent of the miners' houses had lathed and plastered interiors and 49 percent had wood sheathing (tongue and groove). On the exterior, 62 percent had composition paper roofs, and 68 percent had post foundations.[13]

One particularly popular miners' house by 1925 was the so-called "Jenny Lind," a one-story box-like structure with three or four rooms on posts.[14] The proliferation of one-story houses on post foundations may have arisen in response to West Virginia's natural topography and climate

because posts were better suited to the hilly terrain than solid foundations and afforded greater air circulation.

Tams is a good example of the West Virginia coal town. Planned in 1909, Tams is located in southern Raleigh County. By May 1910, there were 125 houses in the small community, all built from local timber cut in a sawmill specifically brought in for that purpose. Many of the houses were two-story, balloon-frame structures. Each had three or four rooms, weatherboard siding and plastered interiors. There were also a number of one-story, three-room cottages.[15]

Houses in Tams were divided into three sections: those above the tipple were for blacks; those below the tipple were occupied by white Americans; and those far below the tipple were for foreign miners. This arrangement coincides neatly with information in the Immigration Commission's report. The commission found that, on the whole, "American whites occupy a somewhat better and commodious house as compared with the foreign born, and that the foreign-born, with the exception of Mexicans, are practically living in the same general style of company house."[16] Yet the commission also noted that foreigners were better housed than blacks and blacks were better housed than Mexicans. Certainly, there were no Mexicans in the West Virginia coal fields, but the presence of equal numbers of blacks, whites and foreigners created an ethnic mix that did not occur in the extreme northern fields.

W. P. Tams, the town's benefactor and namesake, once indicated that he just built "the style of houses [his workers] were used to living in." On the surface, this statement implies that Tams copied the form of his miners' dwellings from indigenous models, yet recent studies suggest that "he and other local builders were more influenced by the examples of other [coal] towns than by native building style."[17] If so, then Tams' statement has an entirely different meaning: he copied miners' house forms from other--perhaps older--mining towns because he believed employees were accustomed to those forms. Stated another way, Tams believed certain house forms were appropriate for his employees and built them accordingly. Thus, the two-story, semi-detached miners' house was built only where employers considered it appropriate for their workforce.

Virginia

Virginia coal towns exhibit the same three forms of miners' housing that characterized West Virginia. Many were three-room, one-story structures and built "of rather cheap material." Usually, these houses were weatherboarded, and "when placed on the sides of hills . . . pillars of brick, stone or wood are built so as to make them level." There were also a large number of two-story, semi-detached, wood-frame miners' houses. Those that survive are similar to double houses found in West Virginia and Pennsylvania, although many have a saltbox configuration. Four-room, detached houses with an eight-foot-wide center hall were also built in the Virginia coal region, but never in great numbers.[18]

The Virginia coal fields were not opened until the 1880s. By 1890, the Big Stone Gap field led the state in the production of a high quality coke that rivalled that of Pennsylvania's Connellsville Coke Region. Pennsylvania coal operators were anxious to expand their coking operations and quickly acquired property in West Virginia and Virginia. Because this region, too, was sparsely settled, acquiring labor became a primary issue for potential investors. Companies therefore began importing workers from other areas to supplement the local labor supply. By 1911, labor in the Virginia coal mines was divided into three roughly equal-sized groups: native-born blacks from other areas inside the state; native-born whites from within the state; and foreign-born whites from the soft-coal region of Pennsylvania.[19]

One representative firm, the Virginia Coal and Iron Company, was incorporated by a group of Connellsville, Pennsylvania investors in 1882. By November 1896, the company had built more than 100 houses, a store, offices, a stable and 500 coke ovens at Pioneer, Virginia, now called Stonega. Like most coal towns, Stonega was built from local timber that was cut and milled on site. By 1900, there were 363 houses in the community; most were two-story, semi-detached, vertical-plank structures (See figure 7-4).

Interiors were almost always finished with wood sheathing. Although most of the houses were alike, the company nevertheless divided them into five groups: first-class American; low-class American; foreign; first-class colored; and low-class colored. Importantly, many of the Stonega houses were designed by the company's general superintendent, John Taggart, a native of Connellsville.[20] That Taggart built replicas of the Pennsylvania miners' dwelling to house mine workers from Pennsylvania seems to be no coincidence.

Tennessee

The major sources used to compile this chapter were surprisingly devoid of information on Tennessee coal towns. The Immigration Commission, for example, excluded both Tennessee and Kentucky from its study of southern mining towns because the number of immigrants in those states was "so low as to be of no consequence."[21] It also appears that there simply were not as many coal towns in Tennessee as in other states. While the Cumberland Plateau was an extension of the same coal deposit under the rest of Appalachia, Tennessee's output never approached that of its neighbors. As a consequence, when the U. S. Coal Commission began its investigations in 1923, it found so few coal towns that Tennessee was grouped together with Kentucky, Maryland and Virginia. The number of coal towns continued to drop as the industry declined. By 1930, the Tennessee coal boom was over; at present, it seems unlikely that any coal towns exist except in "an archaeological context."[22]

It has been suggested that Tennessee miners' houses were based on indigenous building traditions.[23] By the turn of the century, the most popular rural house was the "box-house," which was "built of undressed planks set up vertically with weather strips covering the cracks between the boards." The frame box-house was said to be similar to the traditional log cabin because a front porch extending across the front of the structure gave the house a "cabin-like" atmosphere.[24] Although these box-houses appear to have been dominant in Tennessee coal towns,

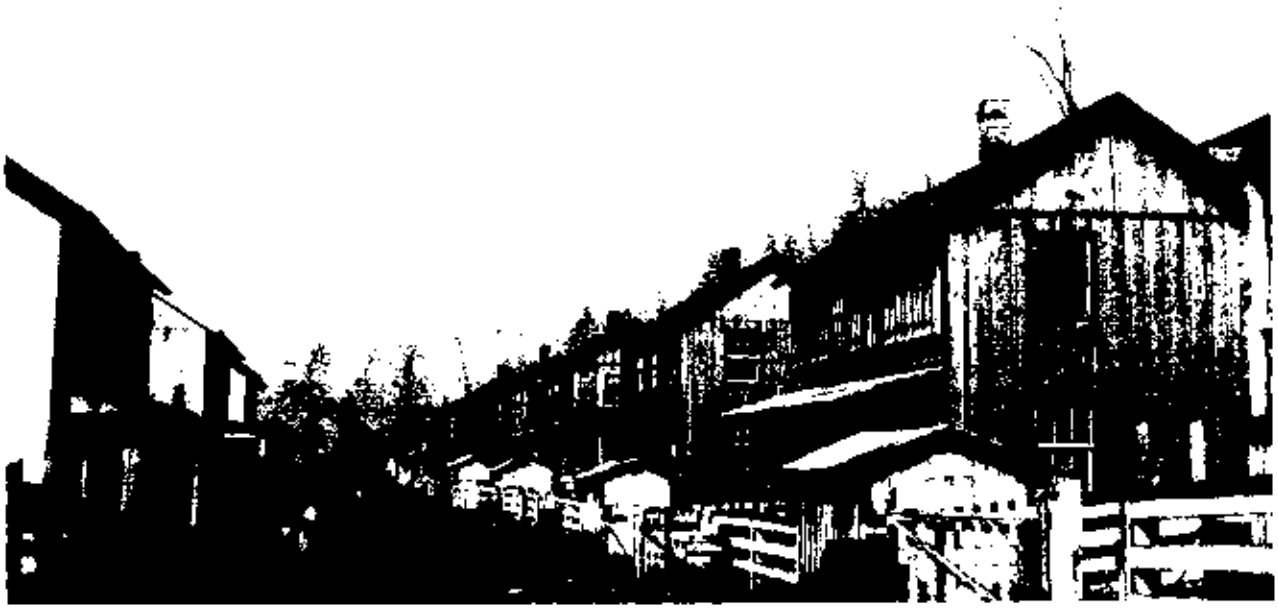


Figure 7-4 Shows similar two-story, semi-detached, vertical-plank houses in Stonega, Virginia, ca. 1915. Photograph from National Archives.

there is no conclusive evidence that coal operators consciously imitated local forms.

Additional research indicates that several other house forms existed in Tennessee mining communities, as well. By 1920, Leifur Magnusson described all southern Appalachian miners' houses as being detached or semi-detached, wood-frame, one-story cottages with hipped roofs. The houses were plastered inside and clad with weatherboards outside. Generally, these structures had four rooms and a front porch.[25] Miners' dwellings in Coalmont, Tennessee, are representative of these one-story, detached cottages. The former community of Wilder-Davis possessed a third dwelling, the two-story, detached, wood-frame house more characteristic of coal towns farther north. Future field work in Tennessee will likely discover more examples of these house-types.

Kentucky

Like Tennessee, little information is readily available on the coal towns of Kentucky itself. For the most part, sources like Ronald Eller's Miners, Millhands and Mountaineers assume that miners' dwellings in Kentucky are identical to those in found in Tennessee, West Virginia and Alabama. It is apparent from the data that can be found, however, that such conclusions are purely hypothetical and not based on field research of extant structures. One source that does use field research to make its conclusions is a 1969 dissertation by Claude Eugene Picard entitled, "The Western Kentucky Coalfield: the Influence of Coal Mining on Settlement Patterns, Forms and Functions."[26]

Picard lists the western Kentucky coal community characteristics as "dominantly, almost exclusively, of single story, one-unit dwellings," with weatherboard siding and composition paper roofs. A simple "box with a shed, pyramid or cone (gable) roof" was most frequent; second in number was the rectangle. Rectangular houses were either of the two-room bungalow or shotgun variety.[27] Picard's statistical information for western Kentucky (See figure 7-5) confirms a predominance of the one-story miners' house but dismisses the presence of any two-story dwellings as an anomaly of minor significance. Yet, taken in the context of the entire Appalachian Plateau, the presence of these two-story, semi-detached forms assumes primary significance.

In the three mining communities Picard lists--Graham, Beech Creek and St. Charles--the proportion of two-story dwellings in each town is 27.5 percent, 9.6 percent and 11 percent, respectively. The incidence of the two-story, semi-detached miners' dwelling rises when the coal towns of eastern Kentucky are considered. McRoberts, Benham, Lynch, and Jenkins are just four of the larger communities where the two-story form is present in noticeable, but uncalculated, quantities.[28]

Although Kentucky differed in its house forms, the ethnic composition of its mining workforce was very similar to that of West Virginia and Tennessee: almost three-fourths were listed as native-born, white Americans by the Immigration Commission in 1911.[29] The remaining fourth was comprised mostly of native-born, black Americans and a few foreign-born, white families.

Alabama

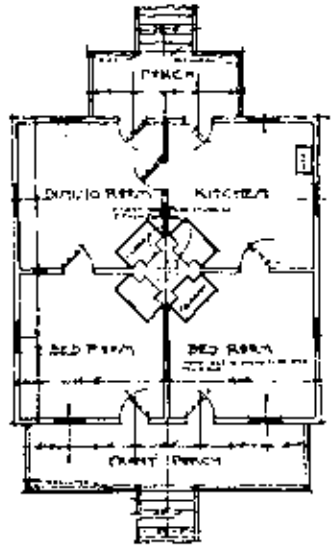
In Alabama, most bituminous mining communities were located around Birmingham. Outlying coal mines had their own settlements which included miners' housing, but in the city itself, miners' houses alternated with those of steelworkers, coke workers and common laborers. Nevertheless, various sources confirm that by 1910, the typical Alabama miners' dwelling was a one-story, square, wood-frame structure with a pyramidal roof. The houses were raised on piers and had both front and back porches.[30] Each had four or five rooms with an average size ranging between 12' x 12' and 14' x 14' (See figures 7-7 and 7-8). The Coal Commission surveyed 3617 miners' dwellings in 1925. Of these, all were frame and 57 percent had board-and-batten exteriors. Since 99 percent had wood-sheathed interiors, the houses with board-and-batten siding may actually have been vertical-plank structures; wood-sheathing inside would have provided much-needed stability.

HOUSE TYPES FOR SELECTED SETTLEMENTS AND CROSS-SECTIONS
IN HOPKINS, MUHLENBERG AND MCLEAN COUNTIES, KENTUCKY
(In percentages)
1966

	TOWN			COUNTY			
Type (Cases)	Graham 78	Beech Creek 65	St. Charles 98	McLean Co. 127	N. Mul. Co. 106	Hopkins Co. 185	S. Mul. Co. 158
Bungalow A		12.9	9	11	30.2	16.9	9.7
Bungalow B	2.4		4.0	18.9	1.9	21.2	7.8
T	10	4.8	7.0	5.5	11.3	2.1	16.2
2 T		3.2	1.0	3.7	0.9		1.9
2/1 T (Midwestern)	2.4	1.6					0.6
L		6.5	16	3.7	4.7	4.8	2.6
2 L			1.0	0.9		1.5	0.6
2/1 L	2.4		5.0			0.5	
1 Pyr	24.8	38.7	2.0	4.7	6.6	10.5	3.9
2Pyr			1.0	1.6			0.6
Shed Room Type	5.0	9.7	40	18.9	3.8	15.9	23.4
Ozark (2-Room Shack)			3.0	0.9		1.5	0.6
Shot Gun Type	20.5	4.8	3.0			2.1	1.9
Two Story Linear		4.8	4.0	0.9	5.7		1.3
Modern	6.9	12.9		24.4	25.5	20.6	19.5
Trailer	3.6				5.7	1.5	3.9
Other			4.0	3.9	3.8	0.5	3.9
Saltbox Type	22.7						

Figure 7-5 Table showing percentages of different miners' dwellings in Kentucky. Taken from Claude Eugene Picard, "The Western Kentucky Coalfield." Ph. D. dissertation, University of Nebraska, 1969.

—TYPICAL 4-ROOM FRAME HOUSE IN MINING TOWN IN ALABAMA.



—FLOOR PLAN OF TYPICAL 4-ROOM HOUSE

Figure 7-6 Typical four-room, frame miner's house in Alabama. Taken from "Company Housing in the Bituminous Coalfields," by Leifur Magnusson, 1920.

Early workers' housing consisted of uniform, detached, two-room structures, built of vertical planks or 2" x 4" members. Interiors were unfinished, lacking ceilings or plaster. These two-room structures established a precedent for company-built dwellings that Alabama employers were reluctant to abandon. For example, the four-room structure was readily adopted as the standard form because it could be easily converted into a semi-detached dwelling. Depending upon the number of dwelling units, it became known as a "four-room square-top" or a "double-two." In 1904 alone, more than 1,500 of these structures were built in the Birmingham district.[31]

In Alabama, more than any other state, there is a strong correlation between the ethnicity of a miner and the house he occupied. The Immigration Commission noted that "as a general rule, negro miners occupy a poorer kind of house than either the native white or immigrant." This is no surprise, but the report suggests that only blacks occupy the two-room "cabins." Considering that by 1911, 53 percent of the mining population was black, the majority of Alabama's miners and their families inhabited these two-room dwellings. The correlation becomes even more apparent when the two-room structure is identified as a shotgun.[32]

According to a recent survey of the Birmingham district, the shotgun is the "most persistent form" of miners' housing. The study further states that, "the shotgun type is widely distributed throughout the South, in both urban and rural settings, where it is occupied by sharecroppers, small farmers, miners and industrial workers."[33] It can be no coincidence that in Alabama, blacks were the dominant ethnic group for these occupations and that the shotgun was so closely associated with them (See figure 7-8).

Thomas, Alabama, provides an interesting example of an ethnically-based hierarchy of housing. Modelled after the towns of Hokendauqua, and Alburtis, Pennsylvania, the coal and steel town of Thomas had three forms of workers' housing: (1) two-story, detached,

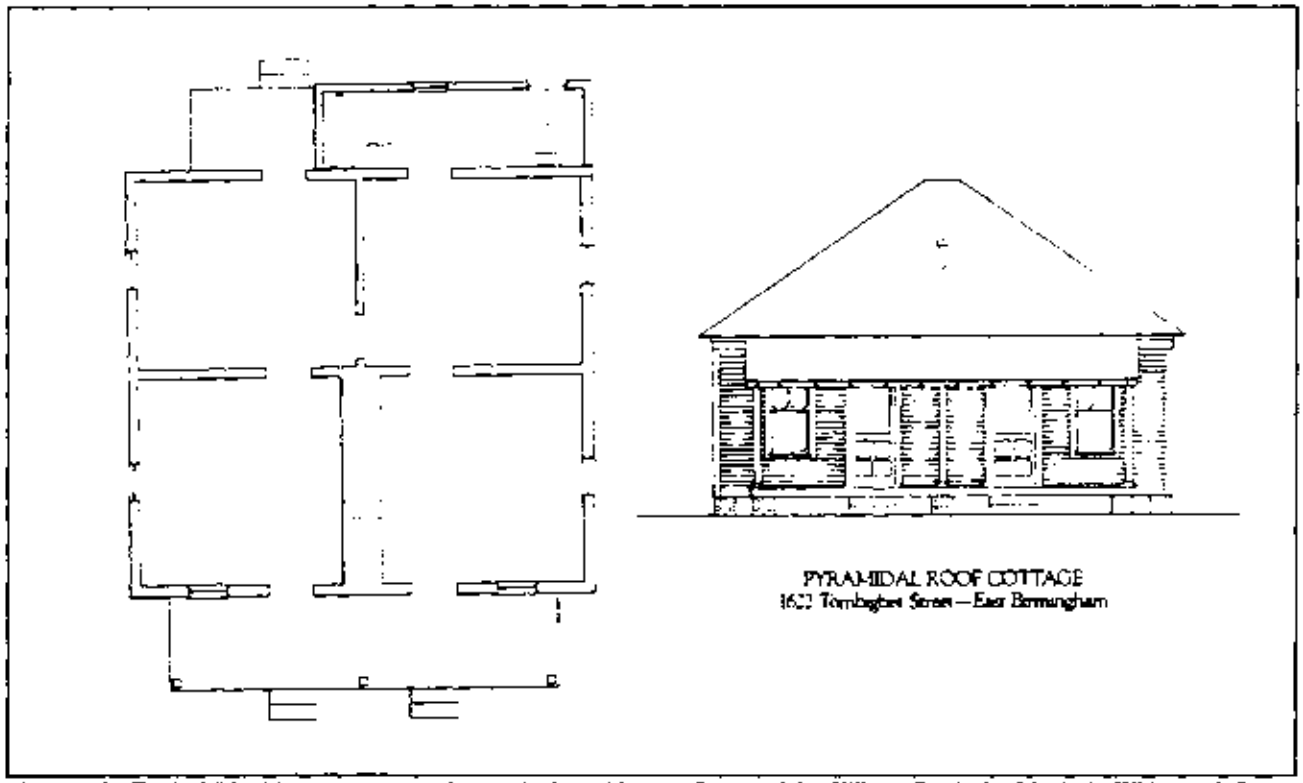


Figure 7-7 Typical "double-two" now used as a single residence. Surveyed for Village Creek, by Marjorie White and Carter Hudgins, 1983.

five-room, brick residences for the company's foremen, mechanics and skilled laborers; (2) one-story, detached, four-room, frame, hipped-roof bungalows for semi-skilled and day laborers; and (3) one-story, "board-and-batten" shotguns for blacks. Importantly, the two-storybrick residences were the original workers' dwellings, built in the 1880s by the Pennsylvania-based Pioneer Mining and Manufacturing Company. The one-story bungalows and shotguns were built by Republic Steel after 1889 and were reported to "showcase Southern industrial types."[34] Both Alburtis and Hokendauqua were located in eastern Pennsylvania (near Allentown) so the two-story, brick house-form at Thomas was no doubt a derivative of the Pennsylvania miners' dwelling that originated in the anthracite fields nearby.

Illinois

With the exception of the northernmost counties, all of Illinois is underlain with bituminous coal. This field, considered part of the central bituminous fields, also extends beneath the southwestern corner of Indiana and the western counties of Kentucky. Development began in the late-nineteenth century and by 1910, Illinois was the second-largest coal-producing state in the country after Pennsylvania.[35]

After World War I, and probably in response to the rising interest in immigrants in industry, the state of Illinois created its own Immigration Commission to investigate the living and working conditions of its foreign-born residents. In 1920, the Illinois Immigration Commission, through the Department of Registration and Education, published its findings on bituminous coal miners in a bulletin entitled "The Immigrant and the Coal Mining Communities of Illinois." This report was particularly helpful in establishing the physical conditions of that state's coal towns and coincides nicely with contemporary reports of other regions.

The Illinois commission looked at four counties representing the north, central and southern coal fields of the state. In all,

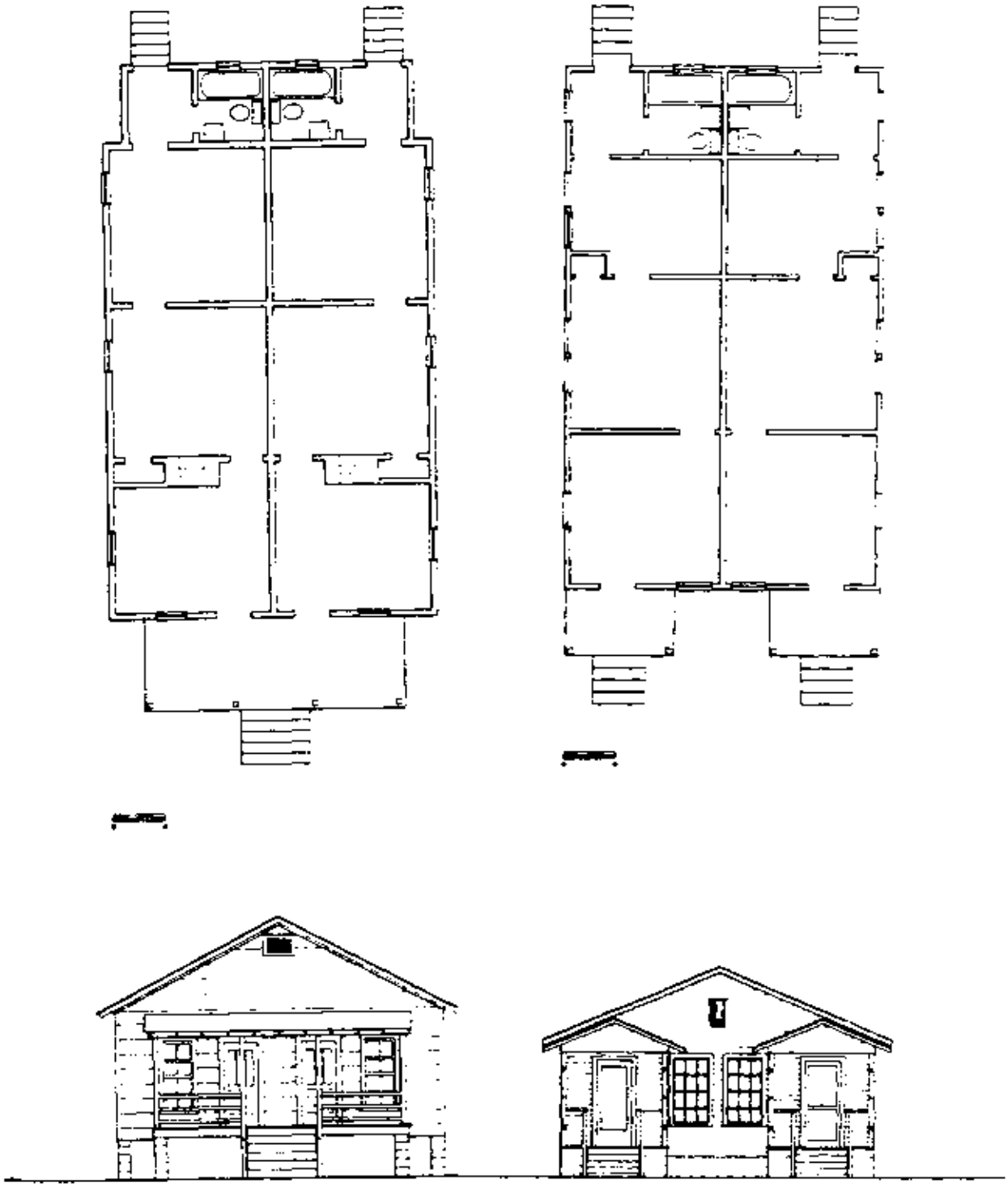


Figure 7-8 Floorplans and elevations of "shotgun double" houses for miners in Alabama. Taken from Village Creek.

twenty-six towns and camps were surveyed. The commission declared that "the mining towns and camps are almost painfully alike in appearance." They found four- or five-room, box-like houses built in long rows and elevated on posts. The U. S. Coal Commission's report reflects similar information: Illinois miners' dwellings were predominantly one-story, wood-frame structures with weatherboard siding, plastered interiors, wood-shingled roofs and either post or solid foundations.[36]

Although housing was remarkably similar in the midwestern states, Illinois differed dramatically in the ethnic composition of its mine workers. In Illinois, 48 percent of the workforce were native whites, 48.4 percent were foreign whites and 3.6 were native blacks; both Indiana and Ohio were approximately 75 percent native whites, 23 percent foreign whites and 2 percent native blacks. The combined town of Bush-Hurst, Illinois, was cited as typical by the state commission: "All those in Hurst are American and most own their own homes, but Bush is a company-owned immigrant settlement," that consists of "approximately 200 houses of the ugliest box-type."[37] Zeigler, Illinois, had similar one-story, wood-frame houses although it was built as a model coal community. Houses in Zeigler were of two varieties: T-shaped, semi-detached cottages or square, detached structures with pyramidal roofs. More than 60 percent of Zeigler's residents were foreign yet the company began selling houses to employees immediately after World War I ended. Only the town of Reynoldsville, Illinois, had the familiar two-story, five-room, wood-frame houses seen elsewhere.[38]

Indiana and Ohio

Few studies have been done on these central bituminous states for two reasons: first, less than 9 percent of the miners in Indiana, and only 25 percent of the miners in Ohio ever lived in company houses; second, more than three-fourths of the mining population were native whites. Indiana and Ohio therefore received little attention from housing-reform and immigration commissions. As a result, only scattered pieces of evidence exist on mining communities in these states.

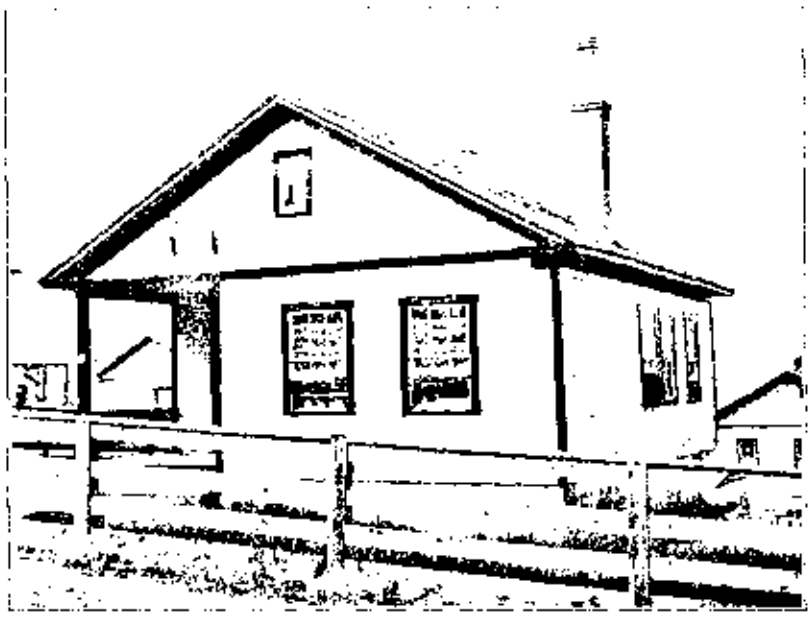
The U. S. Coal Commission surveyed two representative towns in Ohio and one town in Indiana. Used in conjunction with other sources, this information provides a clearer picture of miners' housing in the Mid-West. The commission looked at 1,107 houses in Ohio. All were of frame construction; 852 had weatherboard siding, 142 had clapboards and 75 had board-and-batten exteriors. Almost all had plastered interiors and post foundations. Unlike other regions, 604 of the houses had slate roofs instead of wood shingles or composition paper. Indiana miners' houses were very similar, being wood-frame with clapboard siding and plastered interiors. All of the Indiana houses, however, had solid foundations and wood shingle roofs. Fifty-five percent of the miners' houses in both states were detached and the average number of rooms was four.[39] (See figure 7-9)

According to the U. S. Immigration Commission, living conditions in Indiana coal towns were:

> At first crude, owing to the rapid growth, and development along this line did not go forward rapidly enough to furnish adequate house facilities for the steadily increasing numbers of employees needed. Under these conditions, it was difficult to secure native and English-speaking workers and so recourse was had to races of immigrants who were not so exacting as to living and housing facilities.[40]

Oklahoma, Arkansas and Kansas

The southwestern coalfields did not encounter any large-scale development until after 1885. Faced with a fairly small local population, prospective coal operators began to recruit experienced mine workers from eastern states. At that time, coalfields in the eastern United States were experiencing numerous strikes. Many of the miners who eventually found their way west came from the anthracite fields of Pennsylvania. Either Americans or natives of the British Isles, they possessed many of the skills western employers sought. On the other hand, they were also fiercely pro-union and considered to be labor agitators; many came to the western



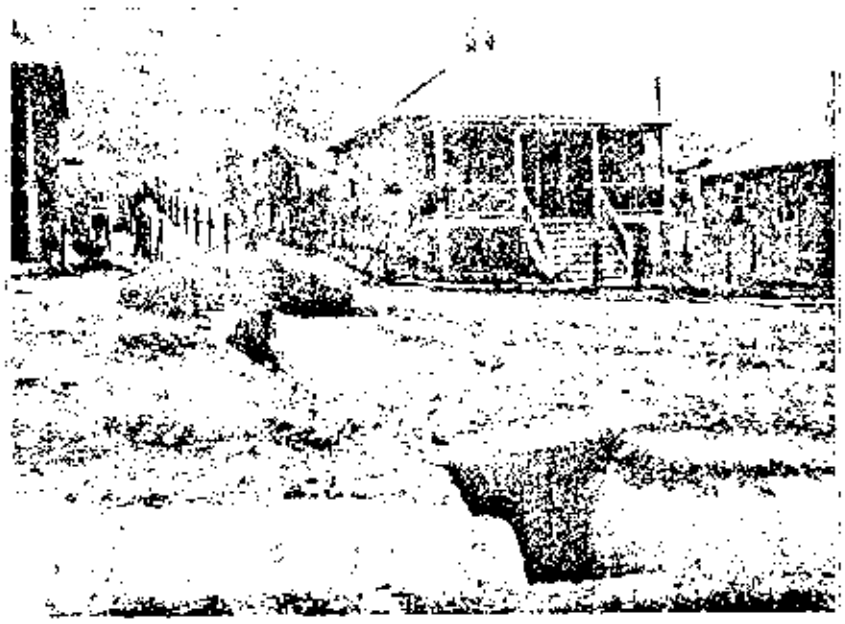


Figure 7-9 Views of typical miners' houses in the central and western United States. Taken from the U.S. Bureau of Labor Statistics's 1920 report.

mines because they had been blacklisted in the east. Then, too, the region was even more sparsely settled than older mining areas in the east. Western employers found experienced, English-speaking employees difficult to retain and so looked to other ethnic groups.[41] Thus, employment in western mines followed the same pattern as the rest of the United States: native-born whites and English-speaking foreigners, then native-born blacks and Eastern and Southern Europeans. In the southwest, however, American Indians and Mexicans were also recruited for labor. While the presence of these two groups does not appear to have prompted an alteration in house-form, it did create an unusual hierarchy of housing.

The typical southwestern miner's house was a frame structure, generally having between three and five rooms and intended to hold only one family. Room sizes averaged about 14' x 14' as in Pennsylvania, but seldom appeared in the two-story, semi-detached form. Resting on piers about three or four feet above the ground, they were usually poorly constructed (See figure 7-6). To reduce expenses, only cheap lumber was used; one house could be built for as little as $100.[42]

The Immigration Commission concluded from its survey of the Southwest that "the particular race predominating in a community also has a noticeable influence in regard to the general appearance of the home and the sanitary conditions surrounding it." Mexicans and Italians were found to be especially untidy, although Mexicans occupied "the least desirable" company houses and Italians often purchased their own.[43]

The information on miners' housing in this region is as scanty as that of other areas since many of the active, large-scale operations were closed by the 1920s. Arkansas, for example, was not included in the Immigration Commission's report of 1911 because at that time, its mines were either too small or closed. The Arkansas State Relief Commission nevertheless found enough destitute mining families in 1934 to conduct a detailed investigation. This group described the average Arkansas miners' dwelling as one-story, frame, unpainted, in need of repairs, and having an average of four rooms.[44]

Conclusions

In order to interpret regional differences in miners' housing, one must look closely at four elements: form, structure, materials and type.[45] For this report, "form" includes the size, proportion and massing of a structure. In miners' housing, this means the number of stories, and floor plan arrangement. "Structure" refers simply to the method of construction employed, usually either braced-frame, balloon-frame, vertical-plank, or masonry bearing walls. "Materials" include interior and exterior finish as well as structural fabric, while a "type" is what results when the previous three elements are used to classify houses into specific groups.

Using these elements as the tools of analysis, four easily recognizable miner's house types emerged:

(1) The SHOTGUN, typically a one-story, two-bay, wood-frame structure with a gable roof, post foundations, end chimney and two or three rooms.

(2) The PYRAMIDAL-ROOF HOUSE, a one-story, three- or four-bay, wood-frame dwelling, often semi-detached, with post foundations, central chimney and four rooms.

(3) The PENNSYLVANIA MINERS' DWELLING, always a two-story structure, but either detached or semi-detached, with two bays per dwelling unit, a wood frame, four or five rooms, front- or side-gable roof, end chimneys, and often a rear ell containing one or two more rooms per unit.

(4) The GABLE-ROOF HOUSE, a one-story residence with two, three or even four rooms, end chimneys, wood-frame construction, and occasionally a projecting one-story ell which resulted in a T- or L-shaped plan.

Each of these four types can be seen as characteristic--either singly or jointly--of a particular region. In the Appalachian coal fields, the Pennsylvania miners' dwelling typified only coal towns of Pennsylvania, western Maryland

and western Virginia. This type plus pyramidal- and gable-roof cottages characterized West Virginia, although towns in that state could and often did possess a majority of only one type. As coal development spread farther south, the incidence of the Pennsylvania miners' dwelling declined. There are comparatively few of these two-story houses in Kentucky or Tennessee, which are equally characterized by pyramidal- and gable-roof cottages. The pyramidal-roof cottage also appeared in Alabama coal towns in considerable numbers, but the shotgun was more characteristic of this state because it was already an established form of unskilled workers' housing when coal mining began.

This chapter has offered several possible explanations for why a particular house characterizes one region and not another. Surviving sources indicate that economic, ethnic and climatic considerations were most fundamental in determining the construction of one form over another, yet regional differences were apparently affected by time, as well. For example, there are as yet no references to one-story miners' houses predating 1900. In fact, a look at the oldest coal-company houses (located in Pennsylvania and Maryland) indicates that almost all miners' houses built between ca. 1840 and 1900 were modeled after the Pennsylvania type. While two-story houses continued to be built after 1900, we can be reasonably sure that the delayed appearance of one-story miners' houses until after that date was a result of changing views on workers' housing around the turn of the century.

The most notable factor influencing the construction of miners' houses around the turn of the century was the increasing amount of attention paid them by industrial-housing reform activists. By 1910, negative publicity about the living and working conditions of American miners combined with acute labor shortages to compel coal operators to improve housing in order to attract and retain workers. One expert stated:

> We are at last beginning to recognize that people who live in pigsties are likely to be and act like pigs. If we want respectable and intelligent men and women to work for us in our plants, we must see that they have decent, healthy and comfortable homes.[46]

To meet the demand for better miners' housing, articles on colliery dwelling construction began to appear in mining periodicals and journals. One particular series, written by A. T. Shurick for Coal Age in 1911, offered plans for an "the average miner's house" that fell somewhere "between the shack and the cellar-bathtub-house." All eight examples proposed by Shurick were one-story structures reflecting what appears to be a nation-wide trend away from two-story miners' houses after 1900. As Shurick explained:

> While in some instances the two-story house is used in large camps and where land values are an important item, these conditions do not often prevail and houses of this class are rather the exception than the rule.[47]

Similarly, the Bureau of Mines recommended in 1914 that two-story dwellings be built only when a large number of rooms was required because two-story houses "cheapen the proportionate cost of foundation, roof, and of land occupied."[48] However, since the number of rooms seldom surpassed four or five, one-story houses usually sufficed. In this manner, the recommendations of so-called authorities on industrial housing may have caused coal operators in some regions to reject the two-story form. This especially seems true for operators in the southern, central and western coalfields, since they were not developed on a large scale until after 1900. Coal companies in the older northeastern coalfields, however, continued to build two-story dwellings.

The rejection of the two-story house outside northern Appalachia after 1900 also coincided with the rise of the bungalow. Scarcely known at the turn of the century, the bungalow was commonplace in the American landscape by 1910. Its popularity was so great that countless variations arose during this decade, from the elaborate structures built by Greene and Greene in California, to middle-class, suburban Craftsman-style bungalows, to the mail-order structures offered by companies like Sears and Aladdin. But while the bungalow could be "built to suit all pocketbooks," its simplicity of design

and economy of construction was such that it soon became intimately associated with the working class. Indeed, some advertisements stressed that the bungalow was "especially suitable for a workingman to afford."[49] Not surprisingly, miners' housing of the same period incorporates many bungalow-like elements. In fact, the similarities were so great that many firms actually referred to their company houses as "bungalows."[50] This adaptation of the bungalow suggests that not only were coal company officials aware of current building trends, but that they consciously chose to incorporate popular architectural elements into company houses in an effort to improve housing and draw labor.

Despite improvements, most miners' housing built after 1900 was still based on employers' assumptions of what employees would want. In the first place, most Americans believed that immigrants--who dressed, spoke, ate, and worshipped differently--probably lived differently. There was a pervasive belief that immigrants did not warrant quality housing because they neither expected nor appreciated it. Yet American management personnel could not have known what kind of housing foreign laborers wanted or needed. In fact, statements from industrial housing authorities like Leslie Allen and Morris Knowles clearly indicate that early-twentieth century architects were as ignorant of working-class housing needs as coal operators. Leifur Magnusson, however, recognized that one of the greatest problems with company housing was "a failure to study the desires of the workingman in the matter of the type of housing to be provided."[51] Magnusson explained that for employers, "the character of labor to be housed, native or immigrant, skilled or unskilled, high-paid or low-paid," determined what kind of house was built. Thus Eastern European miners' housing differed from English miners' housing in American coal towns because Americans thought different ethnic groups deserved different kinds of homes. Climatic conditions, availability of labor, building costs, and accessibility of materials were also considered determining factors.[52]

It is difficult to ascertain what role each of these factors played in shaping the characteristic miner's house of a given area without extensive fieldwork. Why, for instance, are there relatively few two-story miners' houses in Alabama coal towns and even fewer shotguns in Pennsylvania? Is this difference more a result of ethnic variations in the workforce than variations in climate or local building traditions? What about the preference for posts over a solid foundation? One source states: "Posts are used only on the cheapest or more temporary structures," suggesting that the selection of a post foundation is based on economic considerations.[53] Yet posts were dominant in every coal-producing state except Pennsylvania, Maryland, Virginia and, to a certain extent, West Virginia. After 1900, however, a considerable amount of northern capital was diverted into the southern coalfields where coal leases and labor were cheaper.[54] With lower operating costs and greater capital, why did the characteristic southern miners' house utilize the cheapest materials and method of construction? Again, it seems that other considerations were at work besides financial ones, but more research is needed here, as well.

Without an understanding of the reasons behind regional differences, it is hard to see the Pennsylvania miners' dwelling in any kind of geographic context. Yet from the material presently available, it appears that this form was originally intended for a certain class of employee, namely experienced miners from the British Isles, and that it was built wherever this class occurred in noticeable quantities. When the proportion of these experienced miners increased and decreased over years and distance, time and geography became significant factors which influenced the diffusion of the Pennsylvania miners' dwelling. It is hoped that future studies of miners' housing will result in a more comprehensive examination of the forces which led to the brief dominance of the Pennsylvania miners' dwelling on the coal-mining landscape of northern Appalachia.

Notes

[1]U. S. Department of Labor, Bureau of Labor Statistics, Housing by Employers in the United States, by Leifur Magnusson, Bulletin 263 (Washington, D.C.: Government Printing Office, 1920), 12.

[2]Peter Roberts, Anthracite Coal Communities, (New York: Macmillan and Co., 1904), Chapter V; U.S. Department of Labor Statistics, "Company Housing in the

Anthracite Region of Pennsylvania," by Leifur Magnusson, Monthly Labor Review 10 (Washington, D.C.: Government Printing Office, May 1920), 1261. Due to the absence of conclusive evidence at this time, the true origins of this two-story, semi-detached frame house are only conjecture; the data presently available, however, points to the masonry rowhouses built at collieries in the British Isles. By the 1830s, such wood-frame miners' dwellings characterized both anthracite towns in Pennsylvania, and bituminous towns in western Maryland. The two coal fields developed almost simultaneously, but more detailed information in needed to determine when and where the first frame structures arose.

[3]W. Gerwyn Thomas, Welsh Coal Mines (Cardiff: National Museum of Wales, 1979), 32, 33, 38.

[4]It is also possible that the building method described by Roberts and Magnusson may not be braced-frame construction because it appears that they were not well-acquainted with building techniques. For example, what Magnusson described as "board-and-batten siding" may actually have been vertical-plank construction, which was more economical than braced-frame in terms of materials, time and labor.

Unlike braced-frame construction, vertical planks require no costly joints or difficult structural members so the only skill involved is the ability to wield a hammer. The major economical consideration in the erection of a vertical--plank structure, then, is the cost of the planks themselves. Most coal operators bought vast acres of timberland in order to acquire underground mineral rights and established or contracted with sawmills. Thus, even the cost of raw lumber was minimized.

A large number of vertical-plank houses have turned up in western Maryland and southwestern Pennsylvania. The Maryland Historical Trust's survey of the state's coal region traces the antecedents for vertical-plank construction to Somerset County, Pennsylvania, where a plank church was built at Jennerstown in 1851. The earliest plank houses identified in western Maryland, however, are found at Old Row in Mount Savage and are believed to be the last of twenty-two houses built by the Maryland and New York Coal and Iron Company before 1842. Kendale, Bond, Davis, and Vindex, Maryland, were also mid-nineteenth-century vertical-plank communities but they are no longer extant.

Board-and-batten siding was one of the most common forms of cladding in the coalfields of West Virginia, Kentucky, Tennessee and Alabama, where the "box-house," or vertical-plank house was built in great numbers. Although plank houses seem to have been more characteristic of Appalachian coal towns, the Coal Commission noted that more than one-fourth of the approximately 61,600 houses it surveyed throughout the United States were of "board-and-batten construction." See Abbott Lowell Cummings, The Framed Houses of Massachusetts Bay (Cambridge: 1979), 89-90; Fred Kniffen and Henry Glassie, "Building in Wood in the Eastern United States: A Time-Place Perspective," in Common Places, edited by Dell Upton and John Michael Vlach (Athens: University of Georgia Press, 1986), 149; U.S. Coal Commission, Report of the U.S. Coal Commission (Washington, D.C.: Government Printing Office, 1923), 1429; Maryland Historical Trust, Final Report on the Historic Sites Survey of the Maryland Coal Region, submitted to the Maryland Bureau of Mines in June 1983 (published version at press), 306; and Robert Jensen, "Board and Batten Siding and the Balloon Frame: Their Incompatability in the Nineteenth Century," Journal of the Society of Architectural Historians, XXX:1 (March 1971), 40-50.

[5]Howard N. Eavenson, Coal Through the Ages (New York: Maple Press Co., 1935), 137-149.

[6]Many early Maryland coal companies looked to Great Britain for financial backing. The St. George's Creek Coal and Iron Company, for example--which founded Lonaconing--was formed in 1835 by a group of investors from London and Baltimore. See Maryland Historical Trust, Final Report, 466; and Katherine Harvey, The Best-Dressed Miners: Life and Labor in the Maryland Coal Region, 1836-1900 (Ithaca: Cornell University Press, 1969), 76, 83.

[7]Harvey, 79.

[8]Ibid., 17-24.

[9]Ibid., 24.

[10]U.S. Immigration Commission, Immigrants in Industries (In Twenty-Five Parts), Part I: Bituminous Coal Mining, Vol. II (Washington, D.C.: Government Printing Office, 1911), 145.

[11]Ibid., 146.

[12]Ibid., 204.

[13]U.S. Coal Commission, Records of Living Conditions Section, National Archives and Records Service, Washington National Records Center, Suitland, Maryland, Record Group 68, E69.

[14]Mack Gillenwater, "Cultural and Historical Geography of Mining Settlements in the Pocahontas Region of West Virginia, 1880-1930" (Ph.D. dissertation, University of Tennessee, 1972), 79; Winthrop D. Lane, Civil War in West Virginia: A Story of the Industrial Conflict in the Coal Mines (New York, 1921), 184.

[15]W. P. Tams, Jr., The Smokeless Coalfields of West Virginia (Morgantown; West Virginia University, 1963), 67.

[16]U.S. Immigration Commission, Vol. II, 74.

[17]Charles K. Sullivan, "Coal Men and Coal Towns: Development of the Smokeless Coalfields of Southern West Virginia, 1873-1923 (Ph.D. dissertation, University of Pittsburgh, 1979), 156.

[18]U.S. Immigration Commission, Vol. II, 211.

[19]Ibid.

[20]Dean Herrin, "From Cabin to Camp: Southern Mountaineers and the Coal Town of Stonega, Virginia" (M. A. Thesis, University of Delaware, 1984), 54.

[21]U.S. Immigration Commission, Vol. II, 137.

[22]James Jones, Study Unit No. 6, "The Development of Coal Mining on Tennessee's Cumberland Plateau, 1880-1930" (Nashville: Tennessee Historical Commission, 1987), 27.

[23]Ibid., 21-22.

[24]Ibid.

[25]"Housing by Employers in the U.S.," 72.

[26]Claude Eugene Picard, "The Western Kentucky Coalfield: The Influence of Coal Mining on Settlement Patterns, Forms and Functions" (Ph.D. dissertation, University of Nebraska, 1969), 162-3.

[27]Ibid.

[28]Consolidation Coal Company, Photographs of Kentucky and West Virginia coal towns from 1911 to 1946 at Agriculture and Natural Resources Division, Smithsonian Institution.

[29]U. S. Immigration Commission, Vol. II, 136.

[30]Magnusson, "Employers' Housing," 57; U.S. Immigration Commission, Vol. II, 197.

[31]U. S. Bureau of Mines, Houses for Mining Towns, by Joseph H. White, Bulletin 87 (Washington, D.C.: Government Printing Office, 1914), 77-81.

[32]In their report on Village Creek, Marjorie White and Carter Hudgins define the shotgun as a long, narrow dwelling, one room wide and two to four rooms deep. A wooden structure, the shotgun house typically has two bays across the front facade, a shed porch and a gable roof. In the Birmingham district, "shotgun double" houses were also built in large numbers. These were semi-detached versions of the detached shotgun. See Marjorie White and Carter Hudgins, Village Creek: An Architectural and Historic Resources Survey of Village Creek Neighborhoods (Birmingham: Birmingham Historical Society, 1985), 76-82; and John Vlach, "The Shotgun House: An African Architectural Legacy" in Common Places, edited by Dell Upton and John Michael Vlach (Athens: University of Georgia Press, 1986), 58-78.

[33]Village Creek, 75.

[34]Marjorie White, The Birmingham District (Birmingham: Birmingham Historical Society, 1981), 131-133.

[35]State of Illinois, Department of Registration and Education, Bulletin of the [Illinois] Immigrants Commission, No. 2, "The Immigrant and Coal Mining Communities of Illinois" (Springfield, 1920), 13.

[36]Ibid., 14; U.S. Coal Commission, Records of Living Conditions Section. Record Group 68, E69, National Archives and Records Service, Washington National Records Center, Suitland, Maryland.

[37]Bulletin of the [Illinois] Immigrants Commission, 14.

[38]"New Homes for Miners," Colliery Engineer, Jan. 1914, 364.

[39]U.S. Bureau of Labor Statistics, "Employers' Housing in the United States," by Leifur Magnusson, Monthly Labor Review, No. 5, November 1917, 884; U.S. Coal Commission, Report of the U.S. Coal Commission (Washington, D.C.: Government Printing Office, 1923), 880.

[40]U. S. Coal Commission, Report, 613.

[41]U. S. Immigration Commission, Vol. II, 15.

[42]Ibid., 64.

[43]Ibid., 71-73.

[44]Arkansas State Relief Commission, A Study of Arkansas Coal Mines and Miners (Little Rock: n.p., 1934), 46, 57.

[45]These four elements were adapted from the five elements proposed by Mack Gillenwater in his 1972 dissertation on southern West Virginia mining settlements: form, structure, construction materials, architectural style, and classification. Because his definition of these terms was vague and in some cases, inappropriate to the discussion of miners' housing, the terms were modified. Mack Gillenwater, "Cultural and Historical Geography of Mining Settlements in the Pocahontas Region of West Virginia, 1880-1930" (Ph.D. dissertation, University of Tennessee, 1972), 68.

[46]Leslie Allen, Industrial Housing Problems (Boston: Aberthaw Construction Company, 1917), 7.

[47]A. T. Shurick, "Colliery Dwelling Construction," Coal Age, 21 October 1911, 38.

[48]U.S. Bureau of Mines, "Houses for Mining Towns," by Joseph White, Bulletin 87, (Washington, D.C.: Government Printing Office, 1914), 17.

[49]For a good, general discussion of the American bungalow, see Clay Lancaster, "The American Bungalow," in Common Places, edited by Dell Upton and John Michael Vlach (Athens: University of Georgia Press, 1986), 79-106; and Alan Gowans, The Comfortable House (Cambridge: M. I. T. Press, 1987), 71-84.

[50]George Atwell Richardson, "Cambria Steel Company Finds That Good Housing Increases Output," Coal Age, Vol. 23, No. 20, 1922, 816.

[51]Magnusson, "Employers' Housing," 47.

[52]Ibid.

[53]A. T. Shurick, "Colliery Dwelling Construction," Coal Age, 25 November 1911, 211.

[54]Ronald Eller, Miners, Millhands and Mountaineers: Industry of the Appalachian South, 1880-1930 (Knoxville: University of Tennessee Press, 1982), 128-130.

GLOSSARY

Administration Department

COAL INSPECTOR. Conducts a continuous inspection of mined coal both in the mine and on the tipple to furnish the company with information about the quality of coal taken from the mine.

FIRE BOSS. Safeguards underground workers from the dangers of explosive or poisonous gases by examining the interior of the mine with a flame safety lamp; has the sole authority to prevent or permit workers to enter the mine at the beginning of a shift.

MAINTENANCE FOREMAN. Supervises the activities of workers engaged in the maintenance of all repair work necessary to keep the tipple, tracks and all company property outside the mine in satisfactory condition.

MINE FOREMAN. Supervises all activities necessary to the extraction and removal of coal from the mine with special attention given to the safe working conditions in the mine and the observance of safety regulations by workers; organizes mine crews; assigns workers to their work places.

SAFETY INSPECTOR. Makes inspections of working places in the mine to locate all hazardous conditions, except gaseous, and reports the results of such inspections to the proper mine officials.

SUPERINTENDENT. Superintends all coal-extracting, preparation, and shipping activities.

SUPPLY MAN. In charge of all incoming or outgoing supplies for a company operating one or more mines; requisitions, receives and issues supplies; keeps written records of all transactions and stock on hand.

Construction and Maintenance Department

BONDER. Bridges the gap between steel rails in a mine track by brazing or welding a bond to form a continuous path for electric current.

BRATTICE MAN. Controls the circulation of air throughout the mine by constructing BRATTICES of canvas, wood, or other materials; erects stone, brick or cement OVERCASTS and UNDERCASTS.

CAR REPAIRMAN. Reconditions mine cars by repairing worn or broken parts or by replacing such parts with new ones taken from stock or made by himself.

CENTERMAN. Establishes the center line of mine rooms, entries, and passageways so the excavation work will be carried forward in a straight line without the constant service of the engineering crew.

GREASER. Lubricates all moving parts of the tipple equipment; may assist TIPPLE MECHANIC in making repairs.

LAMP MAN. Issues a cap lamp to each worker entering the mine and receives the lamp when he comes off shift; cleans, repairs, tests and refills/recharges lamps.

MINE ELECTRICIAN. Installs, maintains and repairs the electrical distribution lines and the electrical power units of machines used inside or outside of the mine.

POST PULLER. Operates a pulling machine to remove all timbering from an abandoned section of the mine.

PUMPMAN. Removes excess water from the mine floor by operating a motor-driven pump.

SLATEMAN/ROCKMAN. Locates dangerous slate conditions and eliminates them by removing the slate from the roof and the face of the mine and loads it into cars for removal.

STONE GOBBER. Operates a loading machine which disposes of waste materials left at working places by moving it to other locations.

TIMBERMAN/DRIFT CARPENTER. Reinforces the mine roof, wall or RIB (where he determines necessary), by installing timber or other supports to prevent coal, rock or slate from falling.

TIPPLE MECHANIC. Inspects all tipple machinery for the operation of which he is responsible; makes emergency repairs, and overhauls and makes permanent repairs.

TRACKMAN. Prepares track bed and lays, maintains, and repairs mine tracks on which carloads of coal or supplies may be transported from or into the mine.

TRACK CLEANER. Cleans litter from mine tracks or drainage ditches along main haulageway in mine.

WIREMAN. Installs and repairs wires and equipment necessary to supply a mine with light, power, telephone and trolley service.

Coal Extraction Department

COAL LOADER. Loads coal into mine cars or onto conveyors, shovelling the coal from a pile on the mine floor where it lies after blasting.

DRILLER. Uses portable drilling machines to bore holes for explosives in coal, slate or rock seams at the working FACE.

LOADER-OPERATOR/MACHINE LOADER. Operates, maintains and makes minor repairs to an electrically-driven coal-loading machine which gathers loose coal from a pile on the mine floor and dumps it into mine cars or onto a conveyor.

MACHINE MAN/MACHINE CUTTER/COAL CUTTER. Operates an electrically-powered coal-cutting machine in order to make deep cuts into the coal seam at the FACE to free one or more sides of a large block of coal so it can more easliy be broken down by explosives.

POWDER MAN. Assumes charge of the magazine where explosives are stored; receives, stores and issues supplies as needed.

SECTION FOREMAN. Supervises and directs the activities of all workers engaged in the extraction of coal in the section of the mine to which he is assigned; assures a maximum production schedule and a regard for safety regulations; assigns workers to their places; informs dispatcher when loaded cars are ready to be hauled to the surface; makes periodic inspections; regulates levels of water and fresh air in his section of the mine.

SHOT FIRER/SHOT FIREMAN/SHOOTER. Uses explosives to blast coal from a working FACE so that it may be loaded into mine cars.

Haulage Department

BRAKEMAN/SPRAGGER. Assists the MOTORMAN in the makeup and movement of trains inside and outside the mine by coupling and uncoupling cars, displaying proper lights, throwing switches, setting brakes and signaling MOTORMAN when to proceed, reverse or stop.

CAGER. Directs and participates in loading and unloading the cage at the bottom of a shaft; advises HOIST OPERATOR when to raise cage.

CONVEYOR MAN. Tends an electrically-powered conveyor which moves coal from the FACE into mine cars or to other points in the mine.

DISPATCHER. Routes all traffic over the main line of a haulage system of a mine with the responsibilty for prompt movement of trains.

DRIVER. Hauls loaded or empty mine cars between working places and main line haulage track by driving either a single animal or a team of mules, horses or ponies.

GRIP CAR RIDER. Operates a GRIP CAR to haul loaded mine cars up an inclined track which connects the mine opening with an upper TIPPLE; uses a CAR RETARDER to move loaded cars to the scale and dumping equipment.

HOIST OPERATOR/HOIST MAN. Operates a power hoist to raise and lower men, equipment, supplies and materials from one level to another, either inside or outside the mine.

MONITOR OPERATOR. Operates hand controls at the upper TIPPLE to control a pair of gravity-propelled cars, called monitors, that run on separate inclined tracks and transfer coal from a bin at the upper TIPPLE to one at the lower TIPPLE.

MOTOR BOSS. Directs the activites of train crews between the main line haulage track and the working FACES.

MOTORMAN. Operates an electric locomotive which moves trains of empty or full mine cars from one location to another, as directed by DISPATCHER or MOTOR BOSS, in response to signals from BRAKEMAN.

OUTSIDE MOTORMAN. Operates an electric locomotive in the outside yard to move cars loaded with equipment or supplies.

SAND MAN. Processes sand used for sanding tracks by hand-firing a coal-burning sand drier.

SLATE LARRY-MAN. Loads LARRY CARS with slate and other impurities from the TIPPLE slate bin, and empties cars out at slate dump.

STABLE BOSS. Cares for horses, mules and ponies; assigns animals to other workers during each work shift.

SUBSTATION OPERATOR. Tends a rotary converter or generator to change alternating current to direct current for mine consumption.

SUPPLY MOTORMAN. Loads or assists in the loading of cars with mine supplies and operates a locomotive which hauls supply cars into and out of the mine.

TRAPPER. Opens and closes the trap doors between haulageways when mine trains or other equipment pass through so as to insure a minimum of interference with ventilation.

Preparation and Shipping Department

AERIAL-TRAM OPERATOR. Operates an aerial tram which carries slate or other refuse from the mine opening to the GOB pile.

CAR CLEANER. Shovels or sweeps refuse from mine or railroad cars before they are loaded with coal.

CAR COUPLER. Makes up TRIPS of empty mine cars which are lowered down an inclined track from the dumping euqipment at the tipple to the empty yard below.

CAR DROPPER. Controls the movement of empty or loaded mine or railway cars down an inclined track.

CAR DUMPER. Operates the car-dumping device at the TIPPLE; directs coal and GOB into separate bins by means of a manually operated chute; moves cars into and out of the dumping device.

CAR TRIMMER. Loads railway cars with coal and trims the tops of loads to evenly distribute coal as it falls from the loading conveyor, or BOOM.

CHECK PICKER. Removes load CHECKS from the full mine cars as they arrive at the TIPPLE and gives check to WEIGHMASTER so that the worker who loaded the coal will receive credit for the amount of coal in the car.

CHECK WEIGHMAN. Reads the scale weights and records on a tally sheet the identification number of the worker and how many tons of coal the worker loaded; posts tally sheet where workers may read it and learn their wages for the day. Wages of COAL LOADERS are computed on a tonnage basis.

COAL-CRUSHER OPERATOR. Tends a coal crushing machine in the TIPPLE to produce market sizes of coal by breaking up the larger lumps.

COAL-YARD FOREMAN. Supervises a crew of men who store surplus coal in the yard until needed for shipment.

DRY CLEANER. Tends an air table which removes dust from otherwise marketable fine coal by forcing a

current of air through it.

JURY MAN. Makes periodic inspections of cars of coal coming from the mine in order to determine the amount of impurities.

SAMPLE TAKER. Takes samples of coal coming to the TIPPLE from various sections of the mine and prepares samples for delivery to lab where it is analyzed.

SCREENER. Controls the operation of shaker screens which separate lump coal into various sizes, and drops coal into storage bins.

SLATE PICKER/PICKER. Picks through lump coal on a conveyor to remove pieces of slate, rock and other debris.

TIPPLE FOREMAN. Supervises the processing of mined coal by directing the tipple workers who weigh, grade, clean and transfer the coal from one place to another; also supervises those workers responsible for maintainance and repair of tipple machinery.

TIPPLE OPERATOR. Oversees, from his station at the control board, the operation of all tipple machinery necessary for the processing of coal.

WASHER OPERATOR. Operates a coal-washing plant consisting of one or two coal-washing machines which separate slate and pyrites from the mined material.

WEIGH MASTER. Receives CHECKS from CHECK PICKER, weighs each car of coal as it comes from the mine, and records the weight for comparison with the figures taken by the CHECK WEIGHMAN.

Mining Terms

BONEY. The broken waste which accumulates during the mining of coal. Also called GOB in some areas.

BRATTICE. A wall or partition constructed in an underground passageway of a mine to control ventilation.

CAR RETARDER. A piece of mechanical equipment containing a long rope or cable with a hook at one end that attaches to the underside of a mine car so that the operator may retard the motion of the car as it ascends or descends an inclined track.

CHECKS. Metal tags upon which the identification number of the loader is stamped; a tag is placed on each car the worker fills so he can receive proper credit.

FACE. The exposed surface of a coal seam. Called a WORKING FACE when extraction is in progress.

GRIP CAR. A flatcar with standard couplings, flanged wheels and a pair of vise-like jaws that is used to haul mine cars over an inclined section of track.

LARRY CAR. A mine car with high sides and a trap door on one side; used to move and dump mine refuse materials.

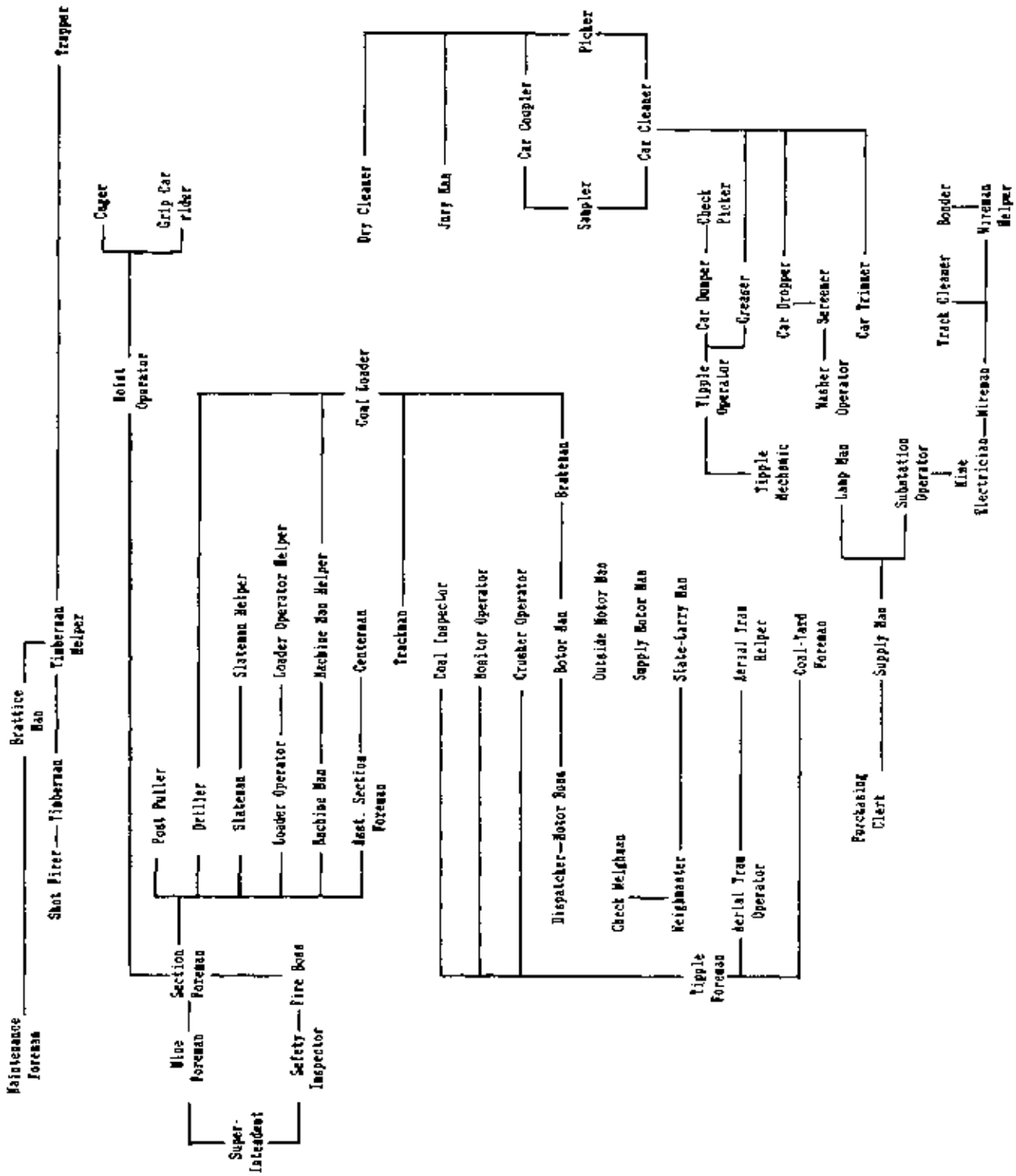
OVERCAST. An air course used to direct air current over a passageway.

RIB. A solid face of coal forming the side of a passageway.

TIPPLE/BREAKER. May refer to the actual machinery which dumps, sorts and processes raw coal, but usually designates the structure in which such equipment is housed. Also known as a CLEANING PLANT.

TRIP. A string of mine cars coupled together and hauled as a train. When carrying workers into the mine, it is called a MAN TRIP.

UNDERCAST. An air course used to direct air current under a passageway.



OCCUPATIONAL ORGANIZATION CHART

Showing the major relationships and paths of promotion between various occupations in a bituminous coal mine. Adapted from: Local Job Descriptions for the Bituminous Branch of the Coal Mining Industry, West Virginia State Employment Service, February 1939.

SOURCES OF INFORMATION

GENERAL

Unpublished:

Birdwell, Michael. "The Stearns Coal Company," prepared for the Big South Fork Scenic River and Recreation Area by the Upper Cumberland Institute, Tennessee Technological University, under the direction of Homer Kemp.

Chapman, Mary Lucille. "The Influence of Coal in the Big Sandy Valley." Ph.D. dissertation, University of Kentucky, 1945.

Company literature, U. S. Steel Mining Office, Washington, Pennsylvania. Courtesy of Tony Grazziano, 17 March 1988.

Consolidation Coal Company. Photographs of Kentucky and West Virginia coal towns from ca. 1911 to 1946. Agriculture and Natural Resources Division, National Museum of American History, Smithsonian Institution, Washington, D.C.

Cubby, Edwin Albert. "The Transformation of the Tug and Guyandot Valleys: Economic Development and Social Change in West Virginia, 1888-1921. Ph.D. dissertation, Syracuse University, 1962.

Enman, John Aubrey. "The Relationship of Coal Mining and Coke Making to the Distribution of Population Agglomerations in the Connellsville (PA) Beehive Coke Region." Ph.D. dissertation, University of Pittsburgh, 1962.

Environmental Consultants, Inc. "An Inventory and Evaluation of Architecture and Engineering Resources of the Big South Fork National River and Recreation Area, Tennessee and Kentucky, Final Report, Cultural Resources Report 82-4." Lexington, Kentucky: Environmental Consultants, Inc., 1982.

Jencks, S. H., former Chief Engineer, Cambria and Indiana Railroad. "A History or Record or Chronicle of the Cambria and Indiana Railroad and Connections and Coal Companies in Cambria and Adjoining Counties, Pennsylvania With References to the Pocahontas and New River Coal Fields, West Virginia, from 1887 to 1944." Photocopy, Cambria and Indiana Railroad, Colver, Pennsylvania.

Kaplan, Stella. "Recent Developments in Housing for the Bituminous Coal Miner." M. A. thesis, University of Pittsburgh, 1945.

Gillenwater, Mack. "Cultural and Historical Geography of Mining Settlements in the Pocahontas Region of West Virginia, 1880-1930. Ph.D. dissertation, University of Tennessee, 1972.

Herrin, Dean. "From Cabin to Camp: Southern Mountaineers and the Coal Town of Stonega, Virginia." M. A. thesis, University of Delaware, 1984.

Palka, Eugene. "The Cultural Landscape of the Athens Coal Region: A Reflection of its Mining Activities from 1885-1986." M. A. thesis, University of Ohio at Athens, 1986.

Picard, Claude Eugene. "The Western Kentucky Coalfield: The Influence of Coal Mining on Settlement Patterns, Forms and Functions." Ph.D. dissertation, University of Nebraska, 1969.

Sparks, Betty Huehls. "Life in the Coal Towns of White County, Tennessee, 1882-1936." M. A. thesis, Tennessee Technological University, 1983.

Sullivan, Charles Kenneth. "Coal Men and Coal Towns: Development of the Smokeless Coalfields of Southern West Virginia, 1873-1923. Ph.D. dissertation, University of Pittsburgh, 1979.

Thomas, Jerry Bruce. "Coal Country: The Rise of the Southern Smokeless Coal Industry and Its Affect on Area Development, 1872-1910." Ph.D. dissertation, University of North Carolina at Chapel Hill, 1971.

The Wilder-Davidson Story: The End of an Era, Parts I-IV. Produced by the Upper Cumberland Institute and WCTE Public Television Station, Cookeville, Tennessee, 1987. Videocassette.

U. S. Coal Commission. Records of Living Conditions Section, Record Group 68, National Archives and Records Service, Washington National Records Center, Suitland, Maryland.

U. S. Farm Security Administration photographs, Prints and Photographs Division, Library of Congress.

Published:

Ackerman, Frederick L. Homes for Workers. New York: Industrial Extension Institute, 1918.

Allen, Leslie H. Industrial Housing Problems. Boston: Aberthaw Construction Co., 1917.

Arkansas State Relief Commission. A Study of Arkansas Mines and Miners. Little Rock: n.p., 1934.

Armstrong, John Borden. Factory Under the Elms: A History of Harrisville, New Hampshire, 1774-1969. Cambridge: M.I.T. Press, 1969.

Arnold, Philip A. "A Few Changes in Usual House Plans Afford Miner Comfort." Coal Age 25, no. 12 (20 September 1923): 427.

Athey, Lou. Kaymoor, a New River Community. Eastern National Park and Monument Association, 1986.

Berger, Karl, ed. Johnstown: The Story of a Unique Valley. 2nd ed. Johnstown: Johnstown Flood Museum, 1985.

Blankenhorn, Heber. The Strike for Union. New York: H. W. Wilson Company, 1924; reprinted, New York: Arno Press and the New York Times, 1969.

Boyer, Charles E. Early Forges and Furnaces in New Jersey. Philadelphia: University of Pennsylvania Press, 1931.

Brestensky, Dennis F., Evelyn A. Hovance, Albert N. Skomra. Patch/Work Voices. Pittsburgh: University Center for International Studies Publication Section, University of Pittsburgh, 1978.

Byington, Margaret. Homestead: The Households of a Milltown. Pittsburgh: Russell Sage Foundation, 1910; reprint, Pittsburgh: University Center for International Studies, University of Pittsburgh, 1974.

Brody, David. Steelworkers in America: The Nonunion Era. New York: Harper and Row, 1960.

"Building Complete 1000 Dwelling Town for a Mine Population of 7000 at Lynch, Kentucky." Coal Age 20, no. 25 (6 October 1921): 533.

Carter, C.F. "The Latest in Steeltowns," Illustrated World 25 (April 1916): 181-184.

Chaffee, Zechariah, Jr. "Company Towns in the Soft Coalfields." The Independent 111, no. 3852 (13 October 1923).

Coal Age.

Cohen, Lizabeth A. "Embellishing a Life of Labor: An Interpretation of the Material Culture of American Working Class Homes, 1885-1915," in Common Places, edited by Dell Upton and John Michael Vlach. Athens: University of Georgia Press, 1986.

"The Company Community in the American Coalfields." The New Statesman 30, London (15 October 1927): 6-7.

Condit, Carl. American Building. Chicago: University of Chicago Press, 1968.

Coode, Thomas H. Bugdust and Blackdamp: Life and Work in the Old Coal Patch. Uniontown, PA: Comart Press, 1986.

Coolidge, John. Mill and Mansion: A Study of Architecture and Society in Lowell, Massachusetts, 1820-1865. New York: Columbia University Press, 1942.

Cooley, A. B. "Machine Shop, Bath House, Houses and Other Accessory Buildings at New Gallup American Mine." Coal Age 24, no. 12 (20 September 1923): 427.

Cummings, Abbott Lowell. The Framed Houses of Massachusetts Bay. Cambridge: M.I.T. Press, 1979.

Department of Internal Affairs of Pennsylvania. Report of the Bureau of Mines. Harrisburg: State Printing Office, 1897, 1899-1920, inclusive.

Dishman, Roberta C. "Life and Death of Proud Coal Town." The West Virginia Hillbilly (10 December 1987): 20.

Eavenson, Howard. Coal Through the Ages. New York: Maple Press Company, 1935.

Eller, Ronald D. Miners, Millhands and Mountaineers: Industry of the Appalachian South, 1880-1930. Knoxville: University of Tennessee Press, 1982.

Enman, John Aubrey. "The Shape, Structure and Form of A Pennsylvania Company Town." Proceedings of the Pennsylvania Academy of Science 42 (1968).

Fitton, R. S. and Alfred P. Wadsworth. The Strutts and the Arkwrights, 1758-1830: A Study of the Early Factory System. Manchester, England: 1958.

Garner, John. The Model Company Town: Urban Design Through Private Enterprise in Nineteenth Century New England. Amherst: University of Massachusetts Press, 1984.

Gibson, A. M. "Early Mining Camps in Northeast Oklahoma." Chronicles of Oklahoma, 34 (1956): 193-202.

Gowans, Alan. The Comfortable House. Cambridge: M.I.T. Press, 1987.

Gutman, Herbert. Work, Culture and Society. New York: Vintage Books, 1977.

Hareven, Tamara K. and Randolph Langenbach. Amoskeag: Life and Work in an American Factory City. New York: Pantheon Books, 1978.

Harris, Richard and Chris Hammet. "The Myth of the Promised Land: The Social Diffusion of Home Ownership in Britain and North America," in Annals of the Association of American Geographers 77, no. 2 (June 1987): 173-190.

Hartley, E. N. Ironworks on the Saugus. Norman: University of Oklahoma Press, 1957.

Harvey, Katherine. The Best Dressed Miners: Life and Labor in the Maryland Coal Region, 1836-1900. Ithaca: Cornell University Press, 1969.

Hays, Samuel P. The Response to Industrialism, 1885-1914. Chicago: University of Chicago Press, 1957.

Horwitz, Richard P. "Architecture and Culture: The Meaning of the Lowell Boarding House," American Quarterly (1972).

Hunt, Edward Everett, F.G. Tryon, and Joseph H. Willits. What the Coal Commission Found. Baltimore: The Williams and Wilkins Co., 1925.

Jensen, Robert. "Board and Batten Siding and the Balloon Frame: Their Incompatibility in the Nineteenth Century," in Journal of the Society of Architectural Historians 30, no. 1 (March 1971).

Jones, James. Study Unit No. 6, "The Development of Coal Mining on Tennessee's Cumberland Plateau, 1880-1930." Nashville: Tennessee Historical Commission, 1987.

Kniffen, Fred and Henry Glassie. "Building in Wood in the Eastern United States: A Time-Place Perspective," in Common Places, edited by Dell Upton and John Michael Vlach Athens: University of Georgia Press, 1986.

Knowles, Morris. Industrial Housing. New York: McGraw-Hill Book Co., Inc., 1920; reprint, New York: Arno Press, 1974.

Lancaster, Clay. "The American Bungalow," in Common Places, edited by Dell Upton and John Michael Vlach. Athens: University of Georgia Press, 1986.

Lane, Winthrop D. Civil War in West Virginia: A Story of the Industrial Conflict in the Coal Mines New York: privately printed, 1921.

Lane, Winthrop D. The Denial of Civil Liberties in the Coalfields. New York: George H. Doran Co., 1924.

"Logan's Ferry has Front Lawns, Street Lights, Open Fires, Lined Flues, Roomy Cellars and Other Conveniences." Coal Age 20, no. 25 (22 December 1921): 1012.

Marsh, Ben. "Continuity and Decline in the Anthracite Towns of Pennsylvania," in Annals of the Association of American Geographers 77, no. 3 (1987).

Martin, Charles. Hollybush: Folk Building and Social Change in an Appalachian Community. Knoxville: University of Tennessee Press, 1984.

Maryland Historical Trust. Final Report on the Historic Sites Survey of the Maryland Coal Region, submitted to the Maryland Bureau of Mines in June 1983. Published version at press.

Milnes, Rev. Henry H. Lowell, As It Was, and As It Is. Boston: S.N. Dickinson and Co., 1846.

Montgomery, David. The Fall of the House of Labor. New York: Press Syndicate of the University of Cambridge, 1987.

Murphy, Raymond E. "A Southern West Virginia Mining Community." Economic Geography 9, no. 1 (January 1933).

Murphy, Raymond. "The Geography of Mineral Production," in American Geography: Inventory and Prospect, edited by Preston James and Clarence Jones. Syracuse: Syracuse University Press, 1954.

"New Homes for Miners." Colliery Engineer (January 1914): 364.

Nolen, John. The Industrial Village. New York: National Housing Association Press, 1918.

Parsons, F. W. "A Modern Coal Mining Town." Engineering and Mining Journal (3 November 1906).

Pierson, William H., Jr. American Buildings and their Architects: Technology and the Picturesque, the Corporate and the Early Gothic Styles. New York: Doubleday and Co., Inc., 1978.

Prude, Jonathan. The Coming of Industrial Order. New York: Cambridge University Press, 1983.

Reps, John. The Making of Urban America, a History of Urban Planning in the United States. Princeton: Princeton University Press, 1965.

Richardson, George Atwell, "Cambria Steel Co. Finds That Good Housing Increases Output." Coal Age 23, no. 20 (1922): 812.

Roberts, Peter, Ph.D. Anthracite Coal Communities. New York: Macmillan Co., 1904.

Roth, Leland M. A Concise History of American Architecture. New York: Harper and Row, 1979.

"Saltaire and its Founder." Harper's Weekly (May 1872): 827.

Schlesinger, Arthur M., Jr., ed. The Almanac of American History. Connecticut: Bison Books Corp., 1983.

Scott, Mel. American City Planning Since 1890. Berkeley: University of California Press, 1971.

Shalloo, Jeremiah Patrick, Ph.D. Private Police, With Special Reference to Pennsylvania. Concord, N.H.: Rumford Press, 1933.

Sheppard, Muriel Early. Cloud by Day. Chapel Hill: University of North Carolina Press, 1947.

Shuey, Edwin Longstreet. Factory People and their Employers. New York: Lentilhorn and Company, 1900.

Shurick, A. T. "Colliery Dwelling Construction." Coal Age 25 (November 1911): 211-214.

"Stonega Coal and Coke's Operations in Virginia." Coal Age 3 (3 April 1915).

State of Illinois, Department of Registration and Education. Bulletin of the (Illinois) Immigrants Commission, No. 2, "The Immigrant and Coal Mining Communities of Illinois." Springfield: 1920.

Tams, W. P., Jr. The Smokeless Coalfields of West Virginia. Morgantown: West Virginia University, 1963.

Tarbell, Ida M. "The Golden Rule of Business IX - Good Homes Make Good Workmen." The American Magazine 80 (July 1915): 39-43.

Tatman, Sandra L. and Roger W. Moss. Biographical Dictionary of Philadelphia Architects: 1700-1930. Massachusetts: G. K. Hall and Co., 1985.

Thernstrom, Stephen. Progress and Poverty: Social Mobility in a Nineteenth Century Industrial City. Boston: Harvard University Press, 1964; reprinted, New York: Athenaeum, 1975.

Thomas, W. Gerwyn. Welsh Coal Mines. Cardiff: National Museum of Wales, 1979.

Thurmond, W. R. The Logan Coalfield of West Virginia Morgantown: West Virginia University, 1964.

Two Industrial Towns: Pratt City and Thomas, a brochure compiled and printed by the Birmingham Historical Society, 1988.

U. S. Department of Labor, Bureau of Labor Statistics. "Employers Housing in the United States," by Leifur Magnusson, Monthly Labor Review, no. 5 (November 1917).

U. S. Department of Labor, Bureau of Labor Statistics. "A Modern Copper Mining Town," by Leifur Magnusson, Monthly Labor Review 7, no. 3 (September 1918): 754.

U. S. Dept. of Labor, Bureau of Labor Statistics. Housing by Employers in the United States, Bulletin No. 263, by Leifur Magnusson. Washington, D.C.: Government Printing Office, 1920.

U. S. Dept. of Labor, Bureau of Labor Statistics. "Company Housing in the Bituminous Coalfields," by Leifur Magnusson. Monthly Labor Review, no. 10 (April 1920): 1045-52.

U. S. Dept. of Labor, Bureau of Labor Statistics. "Company Housing in the Anthracite Region of Pennsylvania," by Leifur Magnusson, Monthly Labor Review 10 (May 1920): 1260-1267.

U. S. Immigration Commission. Immigrants in Industries (In 25 Parts), Part I: Bituminous Coal Mining, Vol. I. Washington, D. C.: Government Printing Office, 1911.

Vlach, John Michael. "The Shotgun House: An African Architectural Legacy," in Common Places, edited by Dell Upton and John Michael Vlach Athens: University of Georgia Press, 1986.

Wallace, Anthony F. C. Rockdale. New York: Alfred A. Knopf, 1978.

Watkins, H. M. Coal and Men: An Economic and Social Study of the British and American Coalfields. London: George, Allen and Unwin, 1934.

Williams, Bruce and Michael D. Yates. Upward Struggle: A Bicentennial Tribute to Labor in Cambria and Somerset Counties. Johnstown: University of Pittsburgh at Johnstown, 1976.

White, Joseph Hill. "Houses for Mining Towns," U. S. Bureau of Mines Bulletin #87. Washington, D.C.: Government Printing Office, 1914.

White, Marjorie. The Birmingham District Birmingham: Birmingham Historical Society, 1981.

_____, and Carter Hudgins. Village Creek: An Architectural and Historic Resources Survey of Village Creek Neighborhoods. Birmingham: Birmingham Historical Society, 1985.

"Wonderful Transformation of Farm and Forest is Being Wrought as the Model Coal Town of Revloc, Cambria Township, This County, Begins to Take Shape." The (Johnstown) Daily Tribune (8 September 1917): 9.

Wood, John. A Series of Plans for Cottages and Habitations of the Laborer, Either in Husbandry or the Mechanic Arts, Adapted as well to Towns as the Country. London: 1806; reprint, England: Gregg International Publishers, Ltd., 1972.

Wright, Gwendolyn. Building the Dream: A Social History of Housing in America. Cambridge: M.I.T. Press, 1981.

Zelinsky, Wilbur. "The Pennsylvania Town: An Overdue Geographical Account." The Geographical Review 67, no. 2 (April 1977).

STAR JUNCTION

PHOTOGRAPHS

Collection of Mr. and Mrs. W. R. Palonder, Perryopolis, PA.:

1.) View of Victoria showing company houses.

2.) View of Washington No. 2 power house showing tipple, conveyors and ovens.

3.) Star Junction public school.

4.) View of Victoria.

5.) Interior view of butcher shop in Star Junction company store.

6.) Interior view of linen shop in Star Junction company store.

7.) Church Street, Star Junction.

8.) Junction House Hotel.

9.) Rear view of Delos Graham house on Tony Row.

10.) Company store and office showing men getting paychecks.

11.) Washington No. 2 tipple.

12.) Company store, front elevation.

13.) A workers' house in New Town.

14.) A street in New Town.

Collection of Mr. and Mrs. Walter Woodward, Smock, Pa.:

1.) Baseball player, Star Junction team.

2.) Star Junction residents going to the reservoir; shows company houses in background.

3.) Jennie Baughman and Vinnie Howarth standing in front of an outdoor pump.

4.) Washington No. 2 mine.

5.) Howarth family, 1900.

6.) Howarth family and Aunt Sara, 1900.

MAPS

"Surface Tracts of United States Steel Corporation at Washington Works, Situate in Perry, Franklin and Jefferson Townships, Fayette County, Penna.," no. 79A (26 August 1930). Courtesy of Tony Grazziano, U. S. Steel Mining Office, Washington, PA.

INTERVIEWS

Arnold, J. Harold. Director of Laurel Highlands Tourism Office, Director of Fayette Festival Association, and member of Cultural Committee, America's Industrial Heritage Project. Interview by author, Vanderbilt, Pennsylvania, 12 April 1988.

Balentine, Rita. Fayette County Co-ordinator, Laurel Highlands Tourism Office and Star Junction resident. Interview by author, Star Junction, Pennsylvania, 13 April 1988.

Davis, Helen. Former Star Junction resident and teacher. Interview by author, St. Basil's Home, Uniontown, Pennsylvania, 13 April 1988.

Griglack, Cyril. Former Star Junction and Victoria resident. Interview by author, Perryopolis, Pennsylvania, 14 July 1988.

Easter, Mary. Former Victoria resident. Interview by author, Dainty's Home, Star Junction, Pennsylvania vicinity, 28 April 1988.

Jones, Ada Vance. Former Star Supply Co. clerk. Interview by author, Star Junction, Pennsylvania 13 April 1988.

Lint, Eugene. Guide, Linden Hall, Dawson, Pennsylvania. Interview by author, Dawson, Pennsylvania, 13 April 1988.

Palonder, Betty. Former Star Junction resident. Interview by author, Perryopolis, Pennsylvania, 14 July 1988.

Rebottini, Pete. Retired miner and Star Junction resident. Telephone interview by author, Washington, D. C., 8 September 1988.

Sirilla, Mike. Retired miner. Interview by author, Perryopolis, Pennsylvania, 14 July 1988.

Torussio, Mary. Resident, Star Junction, Pennsylvania. Interview by author, Star Junction Pennsylvania, 29 April 1988.

Torvish, Mike. Retired driver. Interview by author, Star Junction, Pennsylvania, 28 April 1988.

Wells, Clyde. Retired Washington Coal and Coke Co. blacksmith. Interview by author, Star Junction, Pennsylvania vicinity, 12 April 1988.

Woodward, Walter and Lavinnie. Former Star Junction residents. Interview by author, Smock, Pennsylvania, 12 April 1988.

BIBLIOGRAPHY

Unpublished:

U. S. Department of Commerce, Bureau of the Census. Enumeration District 52, Fayette County, Pennsylvania, 1900. Microfilm, National Archives, Washington, D. C.

U. S. Department of Commerce, Bureau of the Census. Enumeration District 61, Fayette County, Pennsylvania, 1910. Microfilm, National Archives, Washington, D. C.

Published:

Centennial Anniversary, Borough of Dawson 1872 - 1972. Dawson, PA.: Dawson Anniversaries Corporation, 1972.

Donehoo, George P., ed. Pennsylvania - A History. New York: Lewis Historical Publishing Company, Inc., 1926.

Ellis, Franklin, ed. History of Fayette County, Pennsylvania. Philadelphia: L.H. Everts and Co., 1882; reprint, Evansville, Indiana, Whippoorwill Publications, 1986.

Nelson, S. B. Nelson's Biographical Dictionary and Historical Reference Book of Fayette County, Pennsylvania. Uniontown: S. B. Nelson, 1900.

Rook, Charles Alexander. Western Pennsylvanians. Pittsburgh: James and Jones Co., 1923.

Souvenir Book: 1872-1972, Centennial Anniversary, Borough of Dawson, Dawson, Pennsylvania. Dawson: Dawson Anniversary Corporation, 1972.

Souvenir, Perryopolis Centennial Celebration. Perryopolis, July 1914.

WINDBER

ORIGINAL ARCHITECTURAL DRAWINGS

Berwind-White Coal Mining Company. Miscellaneous historic drawings: C-7/350, 1903; C-5/414, 1905; D-2/115, 1900; C-9/819, 1913; D-2/144, 1901; D-2/32, 1897; E-1/114, 1900; E-1/116, 1900. Windber Municipal Building, 15th and Somerset Ave., Windber, PA.

PHOTOGRAPHS

Collection of Windber Museum, Windber, PA.:

1.) Hotel at Eureka mine No. 40.

2.) Groceries Department, Interior of main Eureka Department Store, Windber.

3.) Groceries Department, Interior of main Eureka Department Store, Windber.

4.) Linen Department, Interior of main Eureka Department Store, Windber.

5.) Graham Avenue showing commercial structures.

6.) Miners' semi-detached house at Eureka No. 35.

7.) Company store at Eureka No. 37.

8.) Rear view of Eureka No. 35 houses.

9.) Miners' semi-detached house at Eureka No. 35.

10.) Miners' semi-detached house at Eureka No. 42.

11.) Berwind-White Coal Mining Company main office.

12.) Union meeting at Bantley Place, Scalp Level, 1922.

INTERVIEWS

Barrett, Robert. Former Vice-President Berwind-Wilmore Division, Berwind Corporation. Interview by author, Davidsville, Pennsylvania, 31 March 1988.

Oldham, Sewell. Retired Berwind-White Coal Mining Co. surveyor. Interview by author, Windber, Pennsylvania, 14 April 1988.

Sharp, Methven. Retired Berwind-White employee. Interview by author, Windber, Pennsylvania, 16 July 1988.

Trovato, Basil. Retired Berwind-White miner. Interview by author, Eureka 42, Windber, Pennsylvania, 15 July 1988.

Verotsky, Karol. Retired Berwind-White miner. Interview by author, Eureka 42, Windber, Pennsylvania, 28 March 1988.

MAPS

Sanborn Map Company. Windber, Pennsylvania, 1899. New York: Sanborn Map Co., 1899).

Sanborn Map Company. Windber, Pennsylvania, 1904. New York: Sanborn Map Co., 1904).

Sanborn Map Company. Windber, Pennsylvania, 1910. New York: Sanborn Map Co., 1910).

Sanborn Map Company. Windber, Pennsylvania, 1916. New York: Sanborn Map Co., 1916).

Sanborn Map Company. Windber, Pennsylvania, 1924. New York: Sanborn Map Co., 1924).

BIBLIOGRAPHY

Unpublished:

Bureau for Historic Preservation, Pennsylvania Historical and Museum Commission, Somerset County Historic Resource Survey. Prepared by Glessner, Lehman and Kendall, 1986.

Jencks, S. H., former Chief Engineer, Cambria and Indiana Railroad. "A History or Record or Chronicle of the Cambria and Indiana Railroad and Connections and Coal Companies in Cambria and Adjoining Counties, Pennsylvania With References to the Pocahontas and New River Coal Fields, West Virginia, from 1887 to 1944." Photocopy, Cambria and Indiana Railroad, Colver, Pennsylvania.

U. S. Department of Commerce, Bureau of the Census. Enumeration District 164, Somerset County, Pennsylvania, 1900. Microfilm, National Archives, Washington, D. C.

U. S. Department of Commerce, Bureau of the Census. Enumeration District 169, Somerset County, Pennsylvania, 1910. Microfilm, National Archives, Washington, D. C.

Untitled manuscript history of the Berwind family and the Berwind-White Coal Mining Company, [ca. 1980], photocopy, collection of Robert Barrett, former vice-president, Berwind-Wilmore Division, Berwind Corporation, Davidsville, Pennsylvania.

Published:

Alcamo, Frank Paul. The Windber Story, a Twentieth Century Model Pennsylvania Coal Town. Windber: privately printed, 1983.

Blankenhorn, Heber. The Strike for Union. New York: H. W. Wilson Company, 1924; reprinted, New York: Arno Press and the New York Times, 1969.

Doyle, Fred C., ed. Fiftieth Anniversary, Windber, Pennsylvania, 1897-1947. Windber: privately printed, 1947.

Statement of Facts and Summary of Committee Appointed by the Honorable John F. Hylan, Mayor of the City of New York to Investigate the Labor Conditions at the Berwind-White Company's Coal Mines in Somerset and Other Counties, Pennsylvania. By David Hirshfield, Chairman. New York: M. B. Brown Printing and Binding Co., 1922.

Reed, Henry Hope. "The Fabulous Shack that Coal Built." The West Virginia Hillbilly (29 September 1979): 11-15.

Williams, Bruce T. and Michael D. Yates. Upward Struggle: A Bicentennial Tribute to Labor in Cambria and Somerset Counties. University of Pittsburgh at Johnstown, 1976.

Windber Era, Illustrated Edition. Windber: Windber Era, 1900.

Windber Journal, 10 February 1903.

Wood, George R. "Central Power Station at Windber, Pa." The Coal and Coke Operator 9, no. 22 (2 December 1909): 338.

COLVER

PHOTOGRAPHS

Collection of Max Vassanelli, Colver, PA.:

1.) Exterior of Colver company store before Trumbauer addition.

2.) Interior Colver Hotel lobby.

3.) Exterior of Colver Amusement Building.

4.) Interior, ice cream parlor.

5.) Interior, hotel dining room.

6.) Interior, hotel bar.

7.) Exterior, Colver store after addition.

8.) Exterior, Colver Hotel.

9.) Colver band and bandstand.

10.) Colver houses looking northwest from corner of Reese and 5th streets.

11.) Colver houses with asbestos shingle siding.

12.) Colver baseball team.

13.) Houses on 3rd Street.

14.) Houses at Shanty Town.

15.) Colver houses.

INTERVIEWS

Costello, Ralph. Owner, Costello's Barber Shop, Reese Street, Colver, Pennsylvania. Interview by author, Colver, Pennsylvania, 29 March and 15 April 1988.

Dominick, Daniel. Retired miner. Interview by author, Colver, Pennsylvania, 15 April 1988.

George, Fred "Fritz". Retired miner. Interview by author, Colver, Pennsylvania, 29 March and 15 April 1988.

Price, Arthur and Martha. Former Colver residents and teachers. Interview by author, Ebensburg, Pennsylvania, 12 July 1988.

Smith, Mark. Division accountant, Cambria and Indiana Railroad. Interview by author, Colver, Pennsylvania, 30 March 1988.

Smylnycky, John. Owner, Colver store. Interview by author, Colver, Pennsylvania, 12 July 1988.

Vassanelli, Max. Retired miner. Interview by author, Colver, Pennsylvania, 29 March 1988.

MAPS

Sanborn Map Company. Colver, Pennsylvania, 1923. New York: Sanborn Map Co., 1923).

Colver, Pennsylvania, 1947. County plat map, Cambria County Courthouse, Ebensburg, Pennsylvania.

BIBLIOGRAPHY

Unpublished:

Jencks, S. H., former Chief Engineer, Cambria and Indiana Railroad. "A History or Record or Chronicle of the Cambria and Indiana Railroad and Connections and Coal Companies in Cambria and Adjoining Counties, Pennsylvania With References to the Pocahontas and New River Coal Fields, West Virginia, from 1887 to 1944." Photocopy, Cambria and Indiana Railroad, Colver, Pennsylvania.

Platt, Frederick, Elkins Park, Pa., to Cambria County Historical Society, Ebensburg, Pa., 24 November 1975. Vertical file, Cambria County Historical Society, Ebensburg, Pennsylvania.

Tax Assessment Records, Cambria Township, Cambria County, Pennsylvania, 1913, 1914, 1916, 1917, 1918, 1919, 1920, 1931. Cambria County Courthouse, Ebensburg, Pennsylvania.

Published:

"A Model Mining Town." Grit 9 (July 1916): 4. Clipping, vertical file, Cambria County Historical Society, Ebensburg, Pa.

Blankenhorn, Heber. The Strike for Union. New York: H. W. Wilson Company, 1924; reprinted, New York: Arno Press and the New York Times, 1969.

Burket, Mildred. "The Story of Colver." Mountaineer Herald, 20 August 1954, 42.

"Building Colver, Cambria's New and Bustling Mining Town." Johnstown Weekly Tribune, 14 April 1911, 10.

"Colver Park Dedicated." Johnstown Tribune Democrat, 11 October 1975, 12.

"Colver Booming-Many New Houses-200 More this Summer." Mountaineer Herald, 25 April 1912, 8.

Hamley, David H. "This is a Short Line?" Trains (March 1971): 38-45.

Johnstown Weekly Tribune, 6 December 1912, 9. Vertical file clipping, Cambria County Historical Society, Ebensburg, Pennsylvania.

Johnstown Weekly Tribune, 22 October 1914, 8. Vertical file clipping, Cambria County Historical Society, Ebensburg, Pennsylvania.

Mountaineer Herald.

"Thirty Houses Being Moved to Colver." Johnstown Weekly Tribune, 6 December 1912, 3 & 9.

White, Jerome C. and Samuel Law. "The Coal Industry in Cambria County," Sesquicentennial of Cambria County, 1804-1954. Ebensburg, PA: privately printed, 1954.

☆U.S. GOVERNMENT PRINTING OFFICE: 1989-239-147/00507