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BOAT-WRIGHTS IN A PORT OF BLACK DIAMONDS

Waterfront Landscapes of the
Chesapeake & Ohio Canal's
Cumberland, Maryland Terminus

A Thesis

Presented to

The Faculty of the Department of Anthropology

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree of

Master of Arts

by

Oliver Mueller-Heubach

2006

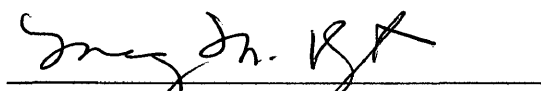
APPROVAL SHEET

This thesis is submitted in partial fulfillment of
the requirements for the degree of


Master of Arts


Oliver Maximilian Mueller-Heubach

Approved by the Committee, April 2006


Mary Voigt, Chancellor Professor


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Curtis Moyer, Instructor

In Memory of Cumberland native James Deetz,
whose works led to much of my fascination with historical archaeology.

TABLE OF CONTENTS

	Page
Acknowledgments	vi
List of Figures	vii
List of Abbreviations	xi
List of Terms	xii
Abstract	xiii
I. Introduction	2
II. Research Design	6
1. Landscape Archaeology	6
2. Questions	9
3. Methods	10
4. Sources- Benefits and Limitations	11
III. Background	15
1. Environment of a Mountain Port	15
2. Prehistory and History	16
3. A Canal Town	21
A. Potowmack Canal	21
B. Chesapeake and Ohio Canal	24
IV. Archaeology	30
V. Reconstructing the Physical Waterfront	34
1. Water and the Basins	34
2. Land and the Waterfront	39
3. Major Features: Wharves, Boatyards and Lumberyards	44
A. Wharves	44
B. Boatyards	47
C. Lumberyards	57

VI. Boats and Boat-Building	58
1. Tools and Materials of Boat Construction	58
2. Potowmack Canal Boats: Rafts and Sharpers	59
3. C&O Canal Boats: Mule and Steam Barges	59
VII. Analysis	66
1. A Man-Made Port	66
2. Economy	73
3. Labor	77
4. Social and Ethnic Space	82
5. Domestic Space and the Workplace	85
6. Foodways	88
VIII. Conclusion	90
IX. Epilogue	92
Appendix- Further Cumberland Boat-building Traditions	131
Key to Figure Numbering and Figures	132
Bibliography	134
Vita	142

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LIST OF FIGURES

Figure	Page
1. The State of Maryland, showing Cumberland (far left) in relation to eastern cities. (Map by author, after Browne 1912)	95
2. Detail of Cumberland with C&O Canal Waterfront encircled. (U.S. Geological Survey 1898)	96
2a. Enlargement of waterfront from FIGURE 2 showing general relationships of structures. (By author, after U.S. Geological Survey 1898)	97
3. The oldest extant map of the C&O Canal Terminus. Waterfront detail from “Map of Cumberland, Allegany Co. Maryland” by John Bevan, 1851.	98
4. Waterfront detail looking north. From “Bird’s Eye View of Cumberland, Maryland 1873” (P.A. Gross 1873)	99
5. Details from Sanborn Insurance Maps showing major changes in waterfront landscape, 1887-1923. (By author, after Sanborn Map Co.)	100
6. Cumberland’s waterfront in 1896. (By author, after Patterson 1896)	101
7. Waterfront detail looking west. From “Birdseye View of Cumberland, 1906.” (Fowler 1906)	102
8a. (<i>Northern Portion</i>) Landscape of the canal waterfront as of 1923. Note Canal Towage Company (center, right) is the sole surviving boatyard. (by author, after C.& P.R.R.)	103
8b. (<i>Southern Portion</i>) Landscape of the canal waterfront as of 1923. (by author, after C.& P.R.R.)	104
9. Looking down over Walnut Hollow from old Cumberland Courthouse. Note loop of C&P rails, center, which encompasses “Crescent Lawn.” (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	105
10. Looking north across Mertens’ basin, along Main Basin past	

Consolidation Wharf and Canal Towage Company mule barns. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	106
11. Standing in lumberyard of Mertens and Sons, looking across busy Mertens Boatyard basin to Consolidation Wharf and Wineow Street buildings. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	107
12. Looking east from Main Basin over Consolidation Wharf to Wineow Street. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	108
13. Consolidation Wharf with Shantytown skyline rising behind. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	109
14. Looking northeast from a Wineow Street upper window over Consolidation Wharf, Main Basin, Potomac River, Cumberland and the Narrows. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	110
15. Looking across Consolidation Wharf and down through Shantytown from the foot of Wineow Street. Shriver Basin, choked with boat traffic, lies beyond mules at center. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	111
16. Looking northeast from unidentified tracks across Shriver Basin to Coulehan Wharf. Johnson Mills at right. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	112
17. Looking south along Shriver Basin from near Coulehan Wharf. Johnson Mills and Wineow Street appear in upper left. Note also, timbers protruding from water, bottom right. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	113
18. Standing on towpath and looking northeast at New Boatyard of the Canal Towage Company on the Main Basin. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	114
19. Standing on towpath and looking northeast across Main Basin at Weld and Sheridan Boatyard with remains of Unnamed Basin and Steam Slipway near right-center. (Courtesy Herman and Stacia	

Miller Photo Collection, City of Cumberland)	115
20. Standing on towpath and looking northeast across Main Basin at Weld and Sheridan Boatyard with remains of Unnamed Basin and Steam Slipway near right-center. Note absence of large building at center of picture seen in FIGURE 19. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	116
21. Looking northwest across Little Basin to C&O Canal Company Boatyard. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	117
22. Standing on site of former Canal Company Boatyard, looking south along abbreviated Main Basin (post-1912). (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	118
23. Looking north from Consolidation Wharf along Main Basin. . Post card view, circa 1907 (McCrorey & Co.)	119
24. Site of Young Brothers Boatyard, (foreground, to right of bridge). Post card view. (Neff Novelty co.)	120
25. Mertens Boatyard and Basin, looking south from Consolidation Wharf. Note steam packet in foreground. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	121
26. Boats and Boat-wrights at the Canal Company Boatyard. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	122
27. Boat under repair in Canal Towage Company New Boatyard. (NPS)	123
28. Canal boatyards in art. From top, “Cumberland Boatyard” by John Wellington (NPS), canal boatyard on Ohio Canal (McCutchen 1879), canal boatyard on Erie Canal (Addams1953:68).	124
29. C&O Canal rural dry-dock. Clockwise from top: extant dry-dock (Kapsch 2004:113), artist’s reconstruction of dry- dock (NPS), architectural plan (Kapsch 2004:112).	125
30. Canal boatyards in the U.S. and England.	
a. Espy, Pennsylvania boatyard ca. 1885 (Shank 2001:52)	
b. Boat-building at Upper Black Eddy, Pennsylvania (Rivinus 1984:21)	

c. Selinsgrove, Pennsylvania Boatyard, 1882 (Shank 2001:48)	
d. Canal boat-building in Surrey, England (Ware 1987:48)	126
31. Hocking Canal boatyard and Ohio & Erie Canal rural dry-dock (Gieck 1988:42).	127
32. C&O Canal Company Buildings. Left: lock-gate carpentry shop in use and in ruins, showing construction methods and materials (Kapsch 2004:281). Right: Inlet-Outlet Lock-house in Cumberland (post-1924) showing gingerbread decoration. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	128
33. Canal boat section used as terrestrial dwelling. (Hahn 1985:53)	129
34. Old canal boats serving as dwellings. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)	130

LIST OF ABBREVIATIONS

B&O- the Baltimore and Ohio Railroad (later absorbed by Chessie Systems/CSX)

C.A.- *Cumberland Alleganian**

C&O- Chesapeake and Ohio Canal

C&O. C Co.- Chesapeake and Ohio Canal Company

C&P- Cumberland and Piedmont/Cumberland and Pennsylvania Railway (same)

C.S.T.- *Cumberland Sunday Times**

C.T.N.- *Cumberland Times-News**

D.A.- *Democratic Alleganian*

D.C.A.- *Democratic Cumberland Alleganian**

D.A.T.- *Daily Alleganian and Times**

N.P.S.- National Park Service

W.M.R.R.- Western Maryland Railroad

* The Alleganian newspaper under different names, later the Times.

LIST OF TERMS

Canawlers- captains, their families and hired hands who rode canal boats, also “canallers” or “boatmen.”

Forks at Will’s Creek- now Cumberland, Maryland where the Potomac River is joined by Will’s Creek.

Forks of the Ohio- now Pittsburgh, Pennsylvania, where the Monongahela and Allegheny Rivers meet to form the Ohio River. “The Point” between the rivers was once the site of Fort Duquesne and later Fort Pitt.

Oakum- hemp rope, boiled in pine pitch, which was used to seal canal boats. After boiling and cooling, the rope would be driven between the boat’s hull planking and often painted over.

Prism- the “ditch” of the canal, being of an inverted trapezoidal or prism-like cross-section.

Sharpers- those who captained small, swift boats (called sharps) through the shallow and rough waters of the Potomac River and Potowmack Canal.

Tolls- the amount paid by boat captains to keepers of the 74 locks for use of the Chesapeake and Ohio Canal.

Trippage- the rate paid by boat captains to their boat’s builder, the horse trader who sold them their mules and other major creditors, per round trip on the canal. This averaged from \$10 to \$30.

ABSTRACT

Although integral to canal life, boatyards have received little attention from historians and particularly from archaeologists. Waterfront landscapes uncovered at the Cumberland, Maryland Terminus of the Chesapeake and Ohio Canal provide an opportunity to view a mid-nineteenth to early-twentieth century specialty production center through its spatial organization and material culture. Between 1850 and 1924, a close-knit occupational community of as many as seven boatyards served the needs of the Chesapeake and Ohio Canal. Boat-builders worked on the banks of two major canal basins and the adjacent Potomac River within a landscape of manufacturing, service, and retail businesses. Surrounded by burgeoning industry and subject to a variety of outside influences, boatyards maintained their traditional craft. By adapting specialty production to new technology, Cumberland boat-wrights played a key role in the survival of the canal in the face of overwhelming political, natural and economic odds. This paper looks at how boatyard workers engaged in the specialty mode of production developed a landscape to meet their needs and in so doing helped form a unique community. Recent archaeology, historical documents, and oral history are used to recover the origins of this waterfront community and the landscape through which it developed and found expression.

**BOAT-WRIGHTS IN A PORT OF BLACK DIAMONDS:
WATERFRONT LANDSCAPES OF THE CHESAPEAKE & OHIO CANAL'S
CUMBERLAND, MARYLAND TERMINUS**

I. INTRODUCTION

The western terminus of the C&O Canal in Cumberland Maryland operated from 1850 to 1924. The terminus area presents a rare opportunity to view the evolution of the specialty production trade of canal boat-building at the doorstep of an emerging industrial city. Canal boatyards have been largely ignored by archaeologists and historians and there is an almost total absence of research into the world of canal boat-wrights. Within the vast space of the C&O waterfront, workers practiced a variety of specialized skills related to boat construction and maintenance. They labored under several different employers yet maintained a close-knit community. The rough-and-tumble waterfront neighborhood of Shantytown catered to their daily needs and put them in contact with railroad, glass and iron workers from diverse backgrounds. Boat-wrights labored at the water's edge; their landscape included a field of basins, pools and channels. Unlike the boaters themselves, most boat-builders stayed in town and experienced the raucous port-life day after day. They negotiated threats to their health and safety and fought political battles and sidewalk scraps. This truly was a unique community of labor.

Data used in this paper are the result of my own historical research and the excavation of the Ward-Weld and Sheridan boatyard and adjacent areas by John Milner Associates. This archaeology has revealed the physical remains of one of the earlier and more prolific of the Cumberland boatyards. A second has been just barely grazed in excavation. We can

now look to several original canal boats as well as two marine slip-ways, a saw pit and other structures and features of the trade. What is lacking is a unified picture of the terminus landscape. For this, we go to historical records: the documents, maps, photographs and other images and literature. By reconstructing the historic landscape, we open the door to understanding how waterfront workers interacted with bosses and one another, how they managed space and how innovation and loyalty to their peculiar occupational community helped sustain the C&O Canal. The creation, interpretation and maintenance of landscape hinge on the activity of individuals and groups performing social roles. The workplace is a locus for landscape creation and management as influenced by community ideals and ideology.

To better understand the processes that shaped and were shaped by the terminus landscape, we will consider boat building in terms of anthropologist Eric Wolf's specialty mode of production as expanded by historian Philip Scranton. Wolf established the division of manufacturing into four separate modes: custom, batch, bulk and mass production. Scranton has elaborated on Wolf's treatment of the custom and batch sectors, analyzing these "specialty producers" in 19th and early 20th century America. Scranton devised an expanded set of specialty production characteristics and revealed hidden progressive values inherent in these modes. Workers created their societal roles as craftsmen and as members of the larger waterfront community by first establishing precedents of how the landscape would be perceived and organized. Using such insights, we will see how specialty production and landscape development in the C&O boatyards relate to the equivalent processes in other industries explored by Beaudry and Mrozowski (1988), Mrozowski (1999), Gawronski

(2003), and others. This approach will be used to show how canal boatyards, although engaged in what was supposedly a more primitive mode of production, negotiated successfully many of the obstacles which faced much larger firms.

To date, very little study has been made of canal boatyards on the Chesapeake and Ohio, despite C&O Canal National Historical Park's long history of archaeological investigation. Surveys, excavations, and architectural analyses have instead focused on the mechanics of canal operation. This emphasis is due in part to the 1930's to late 1960's Georgetown re-watering project, in which a twenty two mile section of the eastern end of the canal was rejuvenated as a recreational waterway (see Odell 1967:64-5). Archaeological excavations along the canal were primarily feature-oriented, so that there exists a sizeable body of literature documenting locks, lock houses, and aqueducts. In crafting tourist boats such as the Canal Clipper used at Georgetown, boat-building techniques were learned from former builders and historical plans rather than archaeology. More in-depth study of canal boat construction has been limited, rarely considering variant styles of boats and generally ignoring the work environments and labor and social relations of the boat builders. Several works of historical fiction have touched on life at the Cumberland waterfront, but do not develop a complete picture (cf. Fradin 1974, Rada 2003).

The C&O Canal National Historical Park visitor's center at Canal Place in Cumberland provides the only public interpretation of the canal boatyards and terminus. A full-scale section of canal boat sits inside the center with hands-on activities for children such as driving oakum (here clean rope) in between mock planking. One wall is hung with a selection of woodworking tools and another with images and references to the historic

boatyards and the canal's fabled "five hundred boats" peak. There are also audio programs and a video showing a boat reconstruction being built, but there lacks a more in-depth social and labor history of the waterfront.

Combining sources ranging from archaeological excavation reports, news articles, plat maps and oral histories, to old postcards and photographs, I hope to provide a more complete picture of the C&O Terminus landscape. By applying the tools and methods of landscape archaeology we may then explore the daily relationship of the waterfront to the artisans who saw the C&O and its boats through a turbulent history of labor disputes, natural disasters, and local and national economic fluctuations. The most tangible value in this research is the possibility of bringing the subject area to life for visitors and locals. This is more than a revitalization of historical fact and process; it is a chance to renew and strengthen a sense of community and cultural relevance.

II. RESEARCH DESIGN

1. *Landscape Archaeology*

The term landscape was originally taken from the Dutch *Landskap* to refer to the artistic genre focused on the depiction of outdoor, natural scenes often of a distinctive regional character. Traditionally these paintings portrayed pastoral views or views of “pure nature” untouched by human hands. As soon as the artist rendered such an image however, the result was always a very human construct. It was not “nature” but it was nonetheless a valid interpretation thereof. Archaeologists’ recognition of this man-made essence of perceived and actual landscapes developed during the mid-20th century and led to the coining of “landscape archaeology” in the 1970’s. Landscape studies were reacting to a loss of ‘the forest for the trees.’ While archaeology had been prolific in producing individual site studies, there was no methodology for establishing their interrelationship and greater meanings. Rediscovering “Landscapes” would be a key step in improving archaeology’s relevance in past, present and future. Criticized in empiricist circles for weakness of method, landscape archaeologists responded by developing more coherent and in-depth narratives. The early years of this new post-processual sub-discipline saw landscape interpretation limited to physical features such as gardens, paths and walls and their role in human interaction. By the 1980’s houses and their yards became a staple of landscape studies, with more attention to hidden narratives of groups such as women or servants. Since the 1990’s

however, the interpretation of archaeological landscapes has increasingly included not only physical remains, but climate, ecology, gender, and ethnicity. The understanding of landscape has been expanded to include the full spectrum of sensory perceptions: sights, smells, tastes, sounds and those experienced by touch. Whole factories, neighborhoods and towns are potential landscapes. Interpretation now considers the politics of race and social and labor relations among many other facets of human interaction.

Historical archaeologists who have access to so much documentary and other historical evidence have been in the position to take full advantage of a landscape approach. Ten years ago, Anne Yentsch could remark on a paucity of minority and working class landscape studies (in Yamin and Metheny 1996:xxiv). Today these seem to be in the majority as archaeologists such as Stephen Mrozowski, Paul Shackel and others uncover more and more intricacies of and resistance to landscapes of industrial labor. Modern landscape archaeology or “archaeology sites writ large” as Cassell and Stachiw put it (2005:1) takes into account the whole of an historical environment and the human actors who created it either consciously or unconsciously. Not only are humans seen to shape and otherwise manipulate their real and perceived surroundings, but the perception of these surroundings then goes on to inform human actions in its own right. The human construct of landscape is an active player and can support or subvert the will of those to whom it is as real as bricks and mortar. British landscape archaeologist Peter Fowler refers to this enlightenment as the perception of a “fourth dimension.” “You begin to see time, or if not time itself then the consequences of time...a landscape which has evolved..and is still evolving, a product of the synergy of Humanity and the natural” (Fowler 2001).

Archaeologists assemble a vast and in-depth historical framework, an “über context”(Cassell and Stachiw 2005:1). All of this demands that the landscape archaeologist become something of a hermeneutic ‘renaissance man’ bringing in material from diverse and unconventional sources and disciplines. The *Oxford Concise Dictionary of Archaeology* divides Landscape Archaeology into descriptive and interpretive approaches (Darvill 2003:221). This study incorporates both by first aiming to reconstruct and describe the historical physical landscape and then to interpret how workers developed and interacted with this landscape.

In analyzing boatyards and a waterfront, we are faced with defining the boundaries of landscape versus maritime or seascape. Several studies have informed my interpretation of the extent of landscape for the present investigation. In their exploration of Irish Crannoghs, Breen and O’Sullivan (2002), emphasize relationships between land communities and the “floating communities” of the water as opposed to those such as Muckleroy (1978:228) who consider “maritime culture” as excluding the same. Maritime culture does not stop “at the water’s edge.” In a 1997 article on South Carolina’s plantation wharves and landings, James Errante proposes the term “Waterscape” to refer to “areas where human activities interface with a riverine environment (1997:205-207). I have avoided using the “waterscape” here for several reasons. Errante’s plantations were largely isolated in terrestrial terms, with but a few poor roads. Their landscape was, in fact, a “waterscape.” The same cannot be said of Cumberland’s canal waterfront. Firstly, the waterfront is in the urban core. It is surrounded by, and evolved alongside terrestrial routes of trade and communication: the National Road and the Baltimore and Ohio Railroad among

many others. Inhabitants of the waterfront were in daily contact with urban iron, steel, glass and other workers. Cultural processes of the boatyards, far more so than those of the ever-moving boatmen, were played out in this urban environment. Errante's waterscape is perhaps better suited to the 'canawlers,' lock tenders and others who were most intimately connected with the water. The Cumberland waterfront demands a "Landscape" that is inclusive of land *and* water, for both land and water became the triggers and medium of expression of community and landscape development. In this paper, *Landscape* will thus be taken to include both the terrestrial and underwater environments of the waterfront.

2. Questions

Landscape study may now be "ubiquitous" in historical archaeology (Brandón and Davidson 2005:113) but it has not previously been applied to a site such as the canal terminus. Unique in its crafts, urban location and proximity to emerging factories, the canal waterfront allows us to examine how a traditional, highly specialized industry evolved in the context of the American Industrial Revolution. For over three quarters of a century, the Cumberland waterfront landscape shaped and was shaped by the needs of canal boat construction and maintenance. Despite this legacy of activity, few have questioned the particulars of this interaction. Did specific waterfront activities spur a work environment entirely new to Cumberland? How did boatbuilders adapt products and production environments in the face of floods, recession, and railroad competition? To what extent were they successful? Was there a difference in approach to such matters between independently operated boatyards and that owned by the Canal Company? What role did waterfront

businesses such as the shops, saloons, and brothels of Shantytown play in the emergence and maintenance of the community? How did the spatial arrangement of these businesses reflect such roles? Answers to these and other questions must be determined with an eye to the manipulation of the landscape and demand combined support from documentary history, oral history, and archaeology.

3. Methods

We begin with the descriptive approach to landscape described above. First, we must reconstruct a map of the physical landscape and its evolution over the period of the canal's operation. With such a span of time, a detailed catalog of structures, features, and spatial patterns is impractical. Instead I will endeavor to give a feeling for the character and complexity of the canal waterfront in terms of its general evolution. Some of this physical development will not make sense without some of the social, economic or political reasons behind it, so these will be interwoven. This vision is to be compiled from archaeological data and cartographic, photographic and documentary sources. With a passable understanding of the layout of the waterfront we can turn to individual production loci and features: boatyards and sawmills, slip-ways and sawpits. Factors such as ecology and worker health, occupational safety, social interaction, politics and economy will be interpreted in terms of their part in forming the waterfront landscape.

The terminus waterfront is a vast area that consisted of from 50 to 100 structures and untold features at any given time during its history. It cannot be comprehensively treated in such a paper. We focus on one of the core groups that helped form the landscape and

community. Cumberland boat-wrights were the chiefs of their industry on the Chesapeake and Ohio. Their immediate landscape included not merely their place of employment, but all of the boatyards, saw and planing mills, shops and businesses of the waterfront. I will endeavor if in a rather schematicized way, to show these specialty production loci and satellite businesses in their relationships to one another and to their common landscape as hosts to a unique occupational community. In turn, this landscape will be interpreted within local and national political, economic and social relationships.

4. Sources: Benefits and Limitations

The historical background for the boatyards and waterfront in this paper is built upon a large body of canal research in archaeology and history. Unfortunately, very little material exists on the subject of boatyards, particularly those still unexcavated in Cumberland. This gap has been partly filled through the period reporting of the *Cumberland Alleganian*. The *Alleganian* went through numerous name changes during the 19th century, often reflecting popular political ideology. This newspaper was chosen as a source as it was the most vocal advocate of the C&O Canal, and hence, covered its events most thoroughly. Time did not permit the thorough scanning of other local newspapers and possible biases introduced by the heavily pro-Democratic and pro-canal *Alleganian* should be kept in mind.

Several historic maps of varying utility were found to help visualize the landscape of Cumberland waterfront. A large scale U.S. Geological Survey topographic map (Fig. 2, surveyed in 1897), has been used as a basis for the plan in figure 2a, to show general locations of buildings and the contours of the canal basins. The Consolidation Coal Wharf,

Wineow Street strip, and C&P rail lines are clearly delineated. The earliest known plan of the terminus area comes from a map drawn by John Bevan a year after the canal's 1850 opening (Fig. 3). Unfortunately, Bevan's depiction of boatyard structures is somewhat lacking. Two boat-builders, W.P.S. Ward (Fig. 3, no.32) and John Young (Fig. 3, no.35), are among the ninety five subscribers to the map. Other boat-builders may have been active at the time, but only those who funded the survey with subscription fees were recorded. In the case of Young, the property assigned is so far inland as to preclude use as a boatyard. Instead, it may represent either his home or office. Bevan does show the layout of the canal basins and waterfront.

Seemingly drawn from an aerial (balloon) photograph or one taken from the crest of a nearby ridge, Gross' three dimensional view from 1873 (Fig. 4) provides a detailed and well executed view of the terminus. Although not to scale, the pen-and-ink allows for considerable detail. Sanborn Insurance Maps of the late 1800's (Fig.5) are incomplete in their rendering of the waterfront according to Balicki, et al. (2000b). In particular, Sanborn draftsmen fail to provide details of bank contours in the area of the 18AG227 excavations. In terms of the waterfront as a whole, we are again faced with the subscriber issue, as other boatyards known from historical accounts have clearly fallen outside of the Sanborn survey plats. They do, however, show the general evolution of the basins. Much more complete in its representation, the Patterson map of 1896 provides evidence of new construction and recent modifications to basin contours and labels structures pertinent to boat-building (Fig. 6). Another "Bird's Eye View," a watercolor of Cumberland published by Fowler in 1906 (Fig. 7) poses several problems. Popular in the late 19th and early 20th centuries, such town

views were produced in profusion, typically by non-native artists with little understanding of the town at ground-level. That such was the case here is evident in misspellings of several street names (Greene, Centre, and others). In fact, the illustrator even labeled our subject waterway the “C.&P. Canal.” Although probably not to be trusted, this view does provide the impression of a heavily wooded basin area. A 1923 Cumberland and Potomac Railway plan (Fig. 8) shows the now much-reduced terminus in great detail on the eve of its final demise.

Unsuccessful attempts were made to interview surviving canallers and boat-builders. It has now been over eighty years since the close of the canal. Only a small handful of individuals who worked the waterway remain (none of whom worked in the boatyards). Interviews published in 1983 by Elizabeth Kyle in *Home on the Canal* thus provide the bulk of oral history information. I consulted historian Dr. Harold Steggmaier and Rita Knox of the National Park Service repeatedly on questions of canal and other local history. Dr. Steggmaier graciously consented to give me a tour of vanished canal architecture and features known to him.

There exist a number of photographic images which depict Cumberland boatyards and their remains. Features in these figures have been numbered and a key is provided on page 131. The majority of these were taken from the late 1800's to the mid 1900's and are presented here courtesy of the Herman and Stacia Miller Collection and the City of Cumberland. Vintage postcards (Fig's 23-4) occasionally gather the terminus or boatyard areas into their frames. John Louis Wellington, a local artist, produced several watercolors of boats in the basin and at least one of a boat in dry-dock (Fig. 28, top). Although these lack

photographic detail, they give a sense of life in the boatyards (Maryland Historical Society and NPS, Cumberland). Additional images of boatyards and dry-docks elsewhere on the C&O and on other canals have been included for comparative purposes (Fig's 28-31). In *Canals*, several views of a wayside concrete drydock at Lock 32 on the C&O are presented. Artistic renderings of boatyards on the Ohio and on the Erie canal illustrate the scale and work involved in canal boat building (McCrorey 1879, Addams 1953:68). Watercolors from the Erie Canal show boatyard and waterfront buildings similar to those in the C&O terminus (Waggoner 1958:160). Jack Gieck provides basin and dry-dock images of the Ohio canals which show excellent details of waterfront architecture (Gieck 1988:42,47,96). Michael Ware shows canal boat construction in England (1987:48, 50,79).

This paper relies heavily on photographic and other visual sources. If the practice of archaeological excavation constitutes a valid form of “dwelling” in an historic landscape (Ingold 1993:152), so too must the viewing of such images. I have held many of them in my hands while standing in the approximate location of the photographer. I experienced the landscape through the sight of the surrounding Allegheny Mountains, Cumberland and the Potomac River and Will’s Creek. The smell of the river at different seasons and that of the coal burning steam engines of the Western Maryland Railroad; the printing of soft and dark, oft muddy soil and so many other sensations allowed me to dwell in the landscape. It is a landscape in some ways little changed from the days of the canal.

III. BACKGROUND

1. Environment of a Mountain Port

Cumberland stands at the mouth of Will's Creek on the North Branch of the Potomac River, in the Allegheny Mountains of western Maryland (Fig's 1-2). The Eastern Continental Divide straddles a ridge six miles to the west, making the city's waterways part of the Chesapeake Bay drainage. A natural gorge known as "the Narrows" (Fig. 2, no.1) cuts through the sandstone and limestone of Will's Mountain. This natural passage through the Alleghenies, and Will's Creek which helped to form it, figure prominently in local pre-history and history. The surrounding area was thickly forested into the early 1800's, with oak, walnut and chestnut common. Soils in the Cumberland basin are young, having formed within the past 3000 years (Balicki et al. 2000b:55). Powerful freshets funneled spring melt-off from the mountains and carried masses of silt and debris, keeping river and creek beds in a state of flux.¹ Most of the basin's flood-plain lies to the east of Will's Creek and the Potomac while the terrain to the west rises in undulating hills and bluffs. Rich soils, abundant fish and game, and its location at a rare natural passage through the Allegheny Mountains made the area a nexus of trade and settlement.

¹

Silting has been limited since the mid-1950's when flood control measures were implemented.

2. Prehistory and History

The area of present-day Cumberland was home to Algonquin language-speaking Shawnee communities. Around 1728 European travelers recorded a palisaded Shawnee settlement called “Caiuctucuc” extending up what became known as the Potomac River from the mouth of Will’s Creek (Webster 1965:2, Garrett 1987:730). The latter waterway also bore the name Caiuctucuc, while the Potomac was known as “Cohongarenta.” The current urban environment is suspected to have compromised intact archaeological features from this period and excavation has been limited. While thousands of artifacts have been recovered by accident or by amateur collectors over the past two centuries, organized archaeological investigation by cultural resource management groups and the Maryland Archaeological Society is fairly new and thus far limited to more rural locales, such as the Addell site, a Middle Woodland occupation two miles to the south (Balicki et al. 2000b:56). Although CRM excavations in the canal terminus area investigated the possibility of undisturbed Native American occupations, evidence for such was sparse. Prehistoric strata were largely disturbed due to historic activity and excavation of the once-active flood-plain of the C&O waterfront area by John Milner Associates, yielded a mere two flakes (Balicki, et al. 2000b:56). The place near the confluence of Will’s Creek and the Potomac River saw its first European settlement in a log storehouse built by the Ohio Company (Browne 1912:220) (See Fig. 2, no. 2 for approximate location). Charles II granted this land to his followers a century earlier and title had descended to Lord Fairfax who chartered the Ohio Company as a speculative venture. The company included Virginians Augustine, Alexander, and George Washington, Henry Lee, George Mason, Governor Robert Dinwiddie, and Marylander

Thomas Cresap. With sights set on opening trade between the Chesapeake Bay and the Ohio Valley, the Ohio Company began surveying the western wilderness in 1749. The work of these frontier founders spawned a system of roads and a viable river and canal trade. Ohio Company shareholder and resident agent Thomas Cresap came from Baltimore in 1742 to settle at the abandoned Shawnee “King Opessa’s Town” where he built a trading post he named Fort Skipton (Oldtown, Maryland). Well-acquainted with local geography, customs and politics, Cresap managed the Ohio Company storehouse at the forks of Will’s Creek from his store twenty miles down-river. With the support of Dinwiddie and the Ohio Company, Cresap undercut fellow traders and enticed German settlers to homestead Ohio Company lands. It was from his “Fort Skipton” that Ohio Company officers departed on their 1749 maiden survey and set out on the trail Cresap and the Shawnee guide Nemacolin had blazed to lands westward. Cresap, Nemacolin, and surveyor Christopher Gist expanded this route and Gist laid out the plan of “Charlottes Burg,” (named for the future wife of George III) on either side of Will’s Creek at the Potomac. It would take a world war before the Potomac could become the trade route Washington and the others envisioned. When French governor Duquesne threatened to claim the Forks of the Ohio (Pittsburgh, Pennsylvania), Governor Dinwiddie sent Colonel Washington with troops and a demand for a French retreat (Washington 2004:3 and 25). Vaguely reasoned to belong to Virginia, the Forks of the Ohio were of strategic importance- the key to the Ohio River Valley and all of the Ohio Company’s hard-won settlements. Washington, familiar with the independent world-view of the frontiersmen, knew that allegiances would fall to whoever held the forks and river. French attempts to evict the Virginians and other settlers came to a head when

Washington's men ambushed a party of French officers. Later trapped at Fort Necessity, Washington unwittingly signed a French confession that he had assassinated the peaceful envoy Jumonville, thereby legitimating French retaliation (Washington 2004:27). Even at this low ebb, Washington was sketching and making plans for improved river navigation of the west (High 2000:6).

While the two powers squared off along the Alleghenies, in Europe and in Asia, trade went on along the Potomac. Both Cresap's Germans and independent settlers had come to appreciate the efficiency of river trade over the rough wagon roads. The trip to the Chesapeake Bay was arduous, involving long portages around Little and Great Falls but furs, whiskey and other products floated east in ever-increasing quantities. The Ohio Company store had now grown into a small fortified post and a second fort, Mount Pleasant, was built under Maryland sponsorship atop a nearby bluff (Browne 1912:220 and 222). Britain, humiliated by the "Jumonville Affair," ordered General Edward Braddock to Fort Mount Pleasant, which he enlarged and re-named for the Duke of Cumberland. Ignoring advice on guerilla warfare proffered by local British-allied Shawnee, Braddock set off with Washington to take Fort Duquesne. Braddock widened Nemacolin's trail for heavy artillery and lent it his name. "Braddock's Road" subsequently became the National Road and U.S. Route 40. Thanks in large part to Braddock's over-confidence, a last-ditch Shawnee ambush set by the tiny garrison of French at Fort Duquesne succeeded in defeating the British at the Battle of Monongahela (Browne 1912:225). Emboldened by their victory, the French and their Indian allies lost little time in pushing back the British even further. Although Fort Cumberland would only be decommissioned in 1765, by 1757 most of the garrison and area settlers had

retreated 47 miles east to the large, newly built-of-stone Fort Frederick (near Hagerstown, Maryland, Fig. 1). Even Thomas Cresap retreated from Oldtown and set up in Conococheague (now Williamsport, Maryland). With the local Shawnee now alienated by the likes of Braddock, “those who held the fort” came to rely on migrant Delaware and Cherokees to check the raiding of the French Native allies (Browne 1912:229). General John Forbes, forging a new road across Pennsylvania, dispensed with the French at Fort Duquesne in 1758. With the subsequent construction of Fort Pitt, the frontier was secured and the Cumberland defenses were made obsolete. Peace fell heavy upon the Ohio traders and settlers. Eastern leaders wooed the Indians by promising an end to British western expansion in the Treaty of Easton (Browne 1912:235). Although the renewed westward flow of settlers after the fall of Quebec soon sparked Pontiac’s Rebellion, major hostilities took place far west of Cumberland. In the Royal Proclamation of 1763, the frontier tribes were again placated with an end to settlement. Throughout this period, Cresap and other traders and opportunists were busy speculating in land, fighting one another, and generally testing the limits of colonial authority (Browne 1912:235). Cresap engaged in furious border disputes with Pennsylvania rivals such as George Croghan, who accused him of selling land bought from the western tribes. Through his own dealings and land granted through the now defunct Ohio Company, Washington emerged as one of the largest landholders in the area with over 30,000 acres. With Western Maryland and Pennsylvania secured, speculators now turned their attentions back to establishing trade connections with the eastern seaports.

During the Revolutionary War, Cumberland was well-removed from the centers of conflict and continued to develop quietly. Ringed about the now-abandoned Fort

Cumberland were private homes and businesses. Centered along Greene and Washington streets, the early town catered to travelers on the Potomac, Will's Creek and Braddock's Road as well as area farmers. Simple boats or rafts were built and loaded on the fort-side of the creek and river. Below the fort and across Will's Creek lay the still-wooded expanse of Walnut Hollow, site of Cumberland's 19th century downtown and the C&O Canal waterfront. It was not until well after president Jefferson's creation of the National Road from the old Braddock's Road beginning in 1805 that the area across the creek began to develop significantly. Initially traffic continued to cross the ford at the creek's mouth or, from 1820, over the adjacent chain bridge, and then to proceed northwest over Haystack Mountain (C.A. 11/21/1912 VCII 42). Rerouting and macadamization in 1834 however, sent the road through the Narrows, thus skirting both the steep ascent of Haystack Mountain and the Greene Street businesses. A new commercial district now developed on the eastern bank of the creek. Taking their cue from the "Charlotte's Burg" grid laid out by Gist in 1749, Mechanic and Baltimore Streets and the plain of Walnut Hollow blossomed. The Baltimore Road, which came west to Will's Creek and was, after 1806, united with the National Road, separated the southern end of the addition from the expanding retail districts of Mechanic and Baltimore Streets. For most of the first half of the 19th century, the land to the south remained underdeveloped. Tied to waterpower, tanneries and various mills were compelled to operate along a stream known as the Mill Race that ran through the business district. With the arrival of the Chesapeake and Ohio Canal, railroads and steam power, the southern addition entered into a long and prosperous era of growth.

3. A Canal Town

Canals and water traffic were a staple of Cumberland's 19th and early 20th century economy and culture. We will examine how river and canal trade developed and were catalyzed by the creation of first the Potowmack and then the C&O Canal. Noted in particular is the standardization wrought by the switch to organized canaling and how this changed the nature of boat-building.

Shawnee once paddled bark canoes through the mountains on the rivers and creeks. The water was the highway of their trade and communication, and a source of food through weirs and fishing with spear and hook. In the 18th century white settlers carried their produce to "civilization" on rough rafts and light boats. Loath to make an arduous trek overland on the Baltimore Road, many chose to shoot and portage the rapids and falls of the Potomac. This early history of boating on the Potomac does not admit of boat-building as a viable, specialized trade. Simple craft were assembled ad hoc to be taken down to the Chesapeake one-way by those in need. Only with the creation of canal companies did standardization and large-scale production of boats begin. Only then would the trade begin to support the specialized canal boat-wright.

A. Potowmack Canal

Canal traffic was not foreign to Cumberland residents. As early as the 1770's, men such as John Semple and John Ballendine had begun planning and even digging Potomac-fed canals (High 2000:9, Garrett 6/1987:742). George Washington was in contact with these

men and although their efforts came to naught, they had transmitted acute canal fever to the future president. The construction of a canal from the Tidewater to Pittsburgh via the Potomac became an obsession for Washington. Here was the ideal means to open his 30,000 acre holdings and at the same time rein in the isolated settlements in the west. Left to their own devices, frontier settlers would have been lost either to Spain via the Mississippi trade, or to Britain by way of the Great Lakes. Washington began a program of internal improvements which went far beyond the Potomac, resulting in both the Great Dismal Swamp Canal and James River and Kanawha Canal. Although construction began in 1786, problems of funding and labor slowed the Potowmack Canal's progress. The Little and Great Falls of the Potomac River, which once blocked John Smith in his quest for the Northwest Passage, took years to overcome. In the end the Potowmack utilized a series of skirting locks and short channels cut into the Virginia shore around rough water, including an incredible seventy seven foot set of rock-cut drops at Great Falls (Dent 1986, Garrett 6/1987:720). Once the way to Cumberland was opened in 1802, Washington's Potowmack Canal continued to provide a navigable route to Georgetown until takeover by the C&O Canal Company in 1828.

Although no visible trace of Washington's "Grand Idea" survives in Cumberland today, the impact of the Potowmack Canal was great both because it led to the C&O Canal's birth and to the opening of the west. Cargoes included lumber, grain, iron, beef, pork, tobacco, ginseng and domestic goods to sustain frontier life (Garrett 6/1987:731). Many boats were probably loaded and unloaded at the triangle of land on the fort-side of the Potomac/Will's Creek fork (today's Riverside Park). This position at the crux of creek and

river would have given shippers easy access to the National Road/Greene Street and Creek Street/Baltimore Pike via the Will's Creek Ford. Still, the presence of Potowmack Company canallers does not mean that residents were familiar with continuous, locked navigation or typical canal boats. The majority of the Potowmack route was navigated on the open water of the Potomac and special use was made of high water as in the spring freshets. The combination of rapids and shallow depths in the river demanded that vessels trading on it be fairly small and of shallow draught.

Potowmack Canal boats took the form of small skiffs, *Bateaux* and rough timber rafts meant to be broken up for lumber at the end of the voyage, leaving the captain to return afoot (Dent 1986). In the pre-canal days of the rapid-shooting "river sharpers," any vessel that could make the trip did so. The new Potowmack Canal locks meant that boats were somewhat regular in size for the first time. Like many American canals the Potowmack proved a failure to her investors, with tolls only turning a profit one year. It was routinely shut down by fluctuating water levels and only remained navigable for a small portion of the year. In spite of all this, the payload carried by Washington's canal was comparatively significant. In terms of the small trans-Appalachian population of the time, the canal can be justly said to have played a considerable role in the opening of the west (Garrett 7/1987). This moderate success was the Potowmack Company's undoing however, for as the west grew, so did the demand for a fully canalized route to the Tidewater. To this end, the Chesapeake and Ohio Canal Company was chartered to absorb remaining Potowmack Company assets and to create a canal on the Maryland side of the river linking the Chesapeake Bay with the Ohio River at Pittsburgh.

B. Chesapeake and Ohio Canal

July 4, 1828: While attempting to remove the first spadeful of dirt from what would become the “great ditch” of the Chesapeake and Ohio President John Quincy Adams struck a root. That same day, the inaugural spike of the B&O Railroad was driven effortlessly in Baltimore, hammer blows ringing in years of grief for canal investors. Initially estimating time of completion as twelve years, the C&O charter provided funding of eleven million dollars to pay for both the main line and for a spur line to Baltimore in a belated attempt to soothe the nervous merchants of that town. Baltimoreans had long known that when they or Washingtonians should make the trans-Appalachian connection, the first-comers would be assured prosperity (Browne 1912:342). Championing the new railroad was risky, with the commercial success of the still primitive Iron Horse far from assured, yet Baltimoreans did all they could to push the railroad through. The year 1833 saw the C&O Canal arrive pantingly at Harper’s Ferry and by 1839, in Hancock. While the canal was stalled for twelve long years at Paw Paw, West Virginia burrowing 3,118 feet through a mountain, the railroad traversed the last leg into Cumberland in a mere three years. The eastern city shepherded it’s project over the mountains while stymying the canal’s state funding and rankling Cumberlanders.

The prospect of the canal fostered significant changes in landscape even before it’s opening. The 1834 rerouting of the National Road had cleared the way for a massive inland port at Cumberland. A large coal wharf was constructed and basins and other infrastructure were enthusiastically developed. Boat-builders, joined and influenced by immigrants from other American canals, forsook the *Bateaux* and set about building barges professionally.

When the C&O finally reached Will's Creek, fanfare and speech-making welcomed the "Great National Project" as dreams of commerce poured into freshly-dug basins in the 'Queen City of the Alleghenies.' With band accompaniment, citizens and officials made their way to the locks on Will's creek to meet the first five completed boats at their moorings (C.A. 4/19/1871 7/51, NPS 2004). Despite such promise, however, the race had been lost. The B&O had now been comfortably shipping passengers and some cargo from Wheeling, beyond the mountains, for two years. Although interest was periodically renewed in pushing the canal to Pittsburgh to meet the initial plans of the charter, funding was never forthcoming. This, however, did not stop towns along the way from preparing for an anticipated commercial boom by engaging in public works such as new high bridges, roads and coal spur lines (Casselman's Bridge on Route 40 for example). By the late 20th century, the canal became known as "the most beautiful failure in America," yet this is to take only the investor's point of view. To the thousands of farming, boating, and boat-building families who made their living on and along the canal, it was a wellspring of life. Like president Adams, who shed his coat and stripped to the waist to attack the begrudging root, the Canal, its workers and supporters proved tenacious.

Commercial success and failure washed the canal in waves. Annual revenues could be quite impressive if debts incurred by storm damage and poor management could be ignored. Some years, prosperity seemed just around the corner, spurring renewed interest in expanding on to Pittsburgh. Much of the C&O's early business is attributable to certain technological advantages it possessed. Railroad cars may have transported passengers and consumer goods in a fraction of the time it took a canal barge to make its four mile-an-hour

way through the 74 locks and 184.5 miles to Washington, but the boats could handle bulk traffic. For moving heavy and large cargoes, water proved to be the most efficient highway. Still-primitive locomotives were literally incapable of transporting bulk goods, such as coal, efficiently. The C&O became an artery for moving heavy, bulky cargoes. Coal in particular, but also cement, stone, flour and agricultural produce were shipped at lower cost than the railroad. Moreover, when railroads matured to become serious competitors in bulk shipping, the boat-builders and canal planners adapted, notably by introducing and developing steam traffic. Were it not for repeated disastrous floods and machinations of the B&O, such technology would no doubt have been further developed on the Chesapeake and Ohio.

Combined, the railroad and canal radically altered Cumberland's commercial and social focus. Prior to the arrival of these two transportation marvels, there had been no central commercial district catering to east-west trade. True, the National Road had gotten Cumberland off the ground, but passengers and merchandise were not guaranteed to load and unload in the town-proper. Often as not, the chain of taverns, stores and factories in the miles approaching either opening to the Narrows commanded the travelers' business. The canal and railroad, with their need of large, fixed warehouses, depots, and maintenance facilities gave focus to a centralized commercial district. Workers who congregated in the bustling basin area came from many ethnic, economic and trade backgrounds. Where had been a modest fur traders' cabin and military outpost, the transportation revolution wrought a new, urban, landscape.

The canal was busy during the 1850's, but not so much as had been hoped. The 1860's provided a surprising boom. During the Civil War, Cumberland became a strategic

buffer against Confederate capture of the B&O Railroad and the canal. Upwards of 5000 Union troops were stationed in the Queen City to protect these personnel and supply arteries. Despite Confederate attempts to wreck and burn canal boats and blow up aqueducts, the railroad proved a much easier target to send to a screeching halt. Both the canal and railroad carried troops, equipment and casualties (C.A. 7/8/1867 4/9). When the market price of coal rose exponentially in the mid-1870's, the canal saw its finest hour. Again, plans to push the waterway on to Pittsburgh surfaced and were gaining momentum when the bubble burst. Although Cumberland's clean-burning bituminous coal had heretofore been judged the best and cheapest for use on ocean-going steamers, prices suddenly fell and even prime New York anthracite threatened to undercut the local variety. Coal companies, in an effort to keep the now largely superfluous fleet running, lowered tonnage rates to what amounted for boatmen to starvation levels. This sparked a prolonged and sometimes violent strike in 1876. This was followed hard upon by a crushing flood in 1877 which shut down the canal for months. The waterway regained some of its footing by the early 1880's, having a banner year in 1883. Before the end of the decade, however, another flood would nearly eliminate the canal altogether. In Johnstown, Pennsylvania, the 1889 storm burst a neglected Pennsylvania Canal reservoir, killing thousands. In Cumberland, it left the C&O to endure a painful recovery ending in sale to the Baltimore and Ohio Railroad.

During the same turbulent period, the city grew as a railroad hub, spawning a rapid industrialization which lasted into the mid-20th century. Near the Queen City Hotel and Station stood the B&O Rail Rolling Mill which opened in advance of the railroad's arrival in Cumberland. Furniture, shoe and cigar factories, foundries and numerous glassworks

made their home in the area. Nationally-known Footer's Dyeworks was long-established at the head of Shriver Basin, producing dyes, silk, cloth, and cleaning textiles. The Cumberland and German Brewing Companies and later Miller Brewing stood nearby. Enticed by Thomas Footer and other local leaders, Kelly-Springfield Tire Company came to the banks of the Potomac less than a mile upriver in 1924. American Celanese turned out synthetic thread and plastics in nearby Cresaptown. These industries have vanished today but for half a century their kind made Cumberland the second largest city in the state and formed a stunning contrast to the almost bucolic sawing, shaving, and hammering of the boatyards.

Forced into receivership to the B&O under the guise of the Consolidation Coal Company, the canal survived up to 1924 through subsidization. In order to keep the 184.5 mile long stretch of land out of the hands of competing railroads, the canal had to be sustained as a viable waterway with a modicum of trade (C.A.8/4/1904). For the investors, the sham was readily apparent, as it was to boatmen and builders; but the latter continued to make their living from the waterway just as they had since the mid-1800's. In 1902, the Canal Towage Company was formed to take control of the boats and their outfitting. This resulted in an arguably more efficient and standardized, if impersonal system. The canal persisted in the face of what threatened to be a permanent backfilling of the canal ditch or "prism" during the construction of the adjoining Wabash Railroad in 1905 (e.g. C.A. 2/16/1905) and several more minor floods. This lucky, albeit ignoble survival bred a vast nostalgia in the early 1900's for the "Glorious Days" of the Chesapeake and Ohio (cf. C.A. 3/2/1905 XXIV 60). The attitude is represented in newspaper articles and the writings and stories of grizzled "canawlers" of earlier years. By systematically undermining the C&O's

access to coal suppliers and wharfage, the railroad made a martyr which now rose again in a surge of sentiment.

Finally consigned to oblivion by major floods in 1924 and 1936, the C&O was purchased from the Baltimore and Ohio Railroad by the U.S. Government in 1938. Despite restoration efforts on the eastern end, by the early 1950's one hundred and sixty two miles were slated to become the bed of a new interstate highway. It took a famous 1954 hike organized by Chief Justice William Douglas and hundreds of canal enthusiasts and property owners to initiate the creation of a park and trail on the old waterway. The country's longest national park, Chesapeake and Ohio Canal National Historical Park was inaugurated in 1971 as a natural preserve linked across two states by the towpath turned bicycle and footpath. Cumberland, grown weary of the constant inundations of the industrial, commercial and residential properties in the valley enlisted the Corps of Engineers to initiate a flood control plan in 1954. This included demolishing Canal Dam No. 8 and filling in the last remnant of the Main Basin. Until recently, the only C&O related structure visible above ground was composed of the top five feet of one of the fifteen foot deep double intake/guard locks which fed the basins, fittingly smothered by a low iron rail bridge. As Route 48 became Interstate 68 and the high span of the Crosstown Bridge funneled more and more automobile and truck traffic hurriedly over town, even the railroad fell by the wayside. The B&O's once glorious Queen City Hotel and Station was demolished in 1971-2 and the downtown fell victim to commercial and industrial decline (NPS 2003). However, recent efforts to revive the area have included archaeological research intended to aid planners in recapturing the feel of the historic waterfront. This paper is a result of that research.

IV. ARCHAEOLOGY

Archaeology, and specifically a landscape archaeological approach serve to fill in gaps in the historical record and create a greater context which puts the 'past of documents' in a new, anthropological light. There is a large body of documentary data, but many details concerning everyday life in the Waterfront are missing. There is no unifying factor. Archaeology both recovers lost evidence of landscapes and permits the unification of a landscape approach with physical remains. It allows us to explore the landscape's human community, previously known only through anecdotal evidence.

Excavations were undertaken to evaluate the archaeological sensitivity and significance of "Crescent Lawn,"(compare to dotted outlines in figures 6 and 8). The focus of an elaborate urban revitalization effort begun in 1995, the Crescent Lawn project included the construction of the boutique-style "Shops at Canal Place," re-watering a section of canal and opening up part of the old Main Basin for recreational use. Fifty years ago, both canal and basin were filled with earth and debris as part of flood management measures (C.O.E. Maps 1953), leaving only the stones of the inlet/outlet locks above ground. In the ensuing years, the basin area was hidden beneath assorted service and manufacturing firms, parking lots and paving. Excavations by the cultural resource management firm of John Milner Associates were conducted under the supervision of the Maryland Historical Trust. Phase I and II archaeological investigations focused on identifying features in areas of proposed

construction and to nominate worthy elements for National Register of Historic Places (NRHP) membership. (Balicki, et al. 2000b:9) Due to the density and overlap of features, the area was assigned a single site number, 18AG227 (Balicki, et al. 2000b:54).

Skilled equipment operators from the Corps of Engineers were enlisted to quickly clear a large area of overburden that formed a layer up to two meters thick from the old waterfront. According to Joe Balicki of John Milner Associates speed was necessary due to deadlines connected to the construction of the “Shops at Canal Place,” and yet care was taken not to damage any structural remains (talk given at LaVale Public Library for Maryland Archaeological Society 2004). Excavation units ran from ten to one hundred twenty feet, though most were thirty to forty five feet long. Sodden, unstable ground demanded specialized trenching in the form of sloped and shored excavations. Those areas excavated to five feet were shored while those taken to four feet were typically sloped; none went below five feet. Time and funding would permit the full conservation of only a handful of the over 20,000 artifacts recovered (9,000 just in phase I). Well-preserved and structurally sound timber remains of boats and basin architecture were recorded and left in situ (Balicki, et al. 2000b:10-11).

To date, excavations have uncovered stone and timber foundations, two marine railways or slipways, a sawpit, wooden bulkheads and the remains of seventeen canal boats (Balicki, et al. 2000a,b). Also revealed were the remains of businesses not directly associated with the boatyards but which occupied land reclaimed as the basins grew smaller and smaller. These include the Gerbig Soap Factory, Gerbig home, worker housing of the Footer Dye-works and two foundries. The number of finds and intact nature of the deposits

stunned the excavators who were amazed that such a fragile landscape could have survived over three quarters of a century of industrial development (Hudson 2004). The Milner studies are limited to a physical description and analysis of the Crescent Lawn features. Landscape archaeology allows us to consider these results from a wider perspective. This paper aims to show how the archaeologically recovered areas functioned within the broader social and material landscape of the terminus as a whole.

Despite their speed, the Milner excavations only uncovered a small fraction of the Cumberland waterfront. Construction of the Shops at Canal Place and the re-watered basin demanded no more and at present, popular opinion does not hold out much hope for intact deposits in other areas of the waterfront. Even within the Crescent Lawn area, much ground was left unexplored. Some parts were deemed of little promise when compared to historic buildings and activity areas shown on period maps and photographs. Others were avoided out of safety concerns related to dangerous levels of contamination from foundry, coal ash, and automotive garage activities in the first three quarters of the 20th century (Balicki, et al. 2000b:55). Remains of buildings along the southern half of the Main Basin, and all of Shriver Basin and Wineow Street lay well outside the area of required excavation and were assumed to have been badly compromised or obliterated by modern development.² It should be remembered that prior to the Crescent Lawn excavations similarly low hopes were held

2

Although archaeological excavations have stopped, John Milner Associates have been monitoring machine excavations of the soon-to-be-re-watered canal basin. Two additional canal boats have been documented this way, as well as the post-1905 concrete slip-way of the Canal Towing Company (the latter was demolished to make way for the new canal prism relocated due to the new pump-house having been built in the old bed).

for the area of Ward's Boatyard. This paper approaches the whole of this expansive landscape. The Cumberland basins' activity areas are numerous and there is danger in segregating just the excavated part. Public interpretation of the canal terminus/waterfront area should not be biased to the excavated area, but should incorporate these new findings within the greater landscape as reconstructed through the application of anthropological and archaeological method to existing documentary history.

V. RECONSTRUCTING THE PHYSICAL WATERFRONT

1. Water and the Basins

While history gives us a glimpse of the grand opening day of the canal with its associated festivities; and maps provide images of the landscape they inaugurated, archaeology has gone further in enabling us to explore how this landscape was created.

Originally planned to serve a thousand boats (C.S.T 7/7/1987), by 1849, the terminus had assumed the more compact form (seen in Bevan's 1851 map, Fig. 3) of two basins fed by a dam across the Potomac below Will's Creek. This dam, demolished during flood control work in 1954, was four hundred five feet long and fifteen feet thick. Sandstone masonry rose from a limestone foundation planted on bedrock below the riverbed. Timber breastworks protected the stone from flood driven debris and wayward boats (C.A. 3/9/1905 XXIV 61).

Although a seemingly organic mosaic, the small islands, channels and odd-shaped pools between the two primary basins were created for a purpose. At the mouth of Shriver Basin and directly adjoining the Consolidation Wharf, a small basin was cleared out in 1876 to provide the Consolidation Coal Company with a private docking (C.A. 2/26/1876 I 48). In many places, channels were cut or left, increasing shore access and creating several small islands and spits of land. At least one of these channels (Fig. 7 near no. 12) appears to be the result of 1877 attempts to cut a channel between the Main and Shriver Basins to allow high-

riding “light” (empty) boats to bypass the Consolidation wharf in busy seasons (C.A. 9/15/1877 II 214). Although the channel was expected to be cut “near the Mill Race,” the channel that appears in maps such as Patterson’s (1896, Fig.6) chops haphazardly through the Island south of the Mill Race and C&P tracks. The Canal Company may have again made use of a natural, pre-existing partial channel and expanded it to link the basins. Archaeology is helping to reconstruct the formation of the basins, in particular a small unnamed basin (Fig. 4, no.17). Part of the original Main Basin shown in the 1851 Bevan map (Fig. 3), this wide-water dipped into the east bank across from the locks. John Milner Associates’ investigations have identified the banks of the Main Basin and the small, unnamed basin in the area stretching from the intake and guard locks to the bulkhead. The archaeological record agrees with the Bevan representation and shows how human choices like excavating in natural depressions, resulted in the terminus Bevan drew.

Later terminus workers did not allow the 1850 landscape to dictate their planning, instead redefining the basin in response to changing natural and economic cues. The footprint of the canal was changed significantly in the succeeding seventy four years. The physical evolution of the basins reveal surface contraction through the 19th century. The 1851 map shows the terminus’ two basins, in their largest incarnations (Bevan). Balicki, et al. discuss the possibility that the strip of land between the two large basins was historically a low rise flanked by old stream beds and that judging from Bevan’s rendering of Will’s Creek, both basins may have been partly excavated in these natural channels as a way of saving time and labor (2000b:57). By the 1880's, the basins gained greater definition, with more structured banks and canal prism. Throughout this time the basins were dredged and

relined to undo flood and erosion damage and maintain efficiency. Still, most areas of the bank consisted of natural sloping shore line with only stretches fronted by businesses having well-developed wharves and/or bulkheads. This makes sense, as the best dredged and most regular banks would be needed where low-riding, loaded boats docked.³ Balicki's 1996 investigations of the Cushwa Basin at Williamsport Maryland reveal bulkhead materials varying between waterfront proprietors. Thus, the responsibility for maintaining the bank in wide water areas like the basins seems to have fallen upon the individual businesses fronting it. This is in keeping with the reluctance of the Canal Company to provide funds for work where shipping was not immediately threatened by narrowing of the standard canal prism. Terminus bulkheads had either surprising longevity or were carefully maintained as they appear in maps and images over and over up to the early 1900's.

Around the turn of the 20th century, the little unnamed basin and portions of the Main Basin were filled in, regaining land. The area immediately adjacent to the intake and guard locks was left unchanged, so as to continue to provide water and river access to the basin. The breadth of the canal perpendicular to the locks remained constant from Bevan's illustration to the final filling of the basin. Firms that settled on the reclaimed land were not directly linked to the canal; they included foundries and a soap factory. The Mill Race, which had emptied into Shriver Basin, was redirected into the Main Basin. Although the decline of Shriver Basin began in the late 1870's, the final blow came in 1904 when Thomas

3

One photograph (Fig.17) however, suggests a continuous line of bank reinforcement pilings. It is possible that this is a remnant of the original 1850 basin construction or alternately, related to the boatyard of Doerner & Bender.

Footer bought the land and seems to have begun to fill in the basin to enlarge his dye-works. By the time the 1910 Sanborn Map (Fig. 5) was drawn, Shriver Basin truncated well below the former Coulehan Wharf and in the 1921 version, it is filled past the Consolidation wharf. Where once boat-builders had worked, now lay collection pools for the dye- works. By the closing of the canal in 1924 the Shriver Basin had been replaced with the Footer's buildings and the Mid-City Ballpark. The Main Basin had been decapitated by filling the Little Basin to provide room for the new Western Maryland Station and the islands and channels along its length had been reclaimed to become solid land mass.

Both the Main and Shriver basins functioned as turning space and home to boats and crews in the months when the canal froze into a ribbon of ice. Shriver Basin, being privately owned, was traditionally the more active, rougher, and arguably dirtier of the two. Banks along the slender finger of the C&O Main Basin served as winter ports to several hundred boats. Oftentimes boating families lived on the boats over the winter, finding temporary jobs in the city until opening day. This was periodically discouraged by canal company inspectors but only weakly enforced. Boats abandoned in the basins frequently played host to tramps and poor families and were cited as a fire and health hazard (e.g. C.A. 10/29/1903).

On occasion the canal company decided or was pressured by the coal companies to dredge the Cumberland basins "where the mill empties it's mud and filth and where the debris from loading and unloading the boats has covered the bed" (D.C.A. 2/21/1877 II 79). In addition to this and other man-made filth, periodic flooding and bank erosion due to boat collisions or the burrowing of muskrats and groundhogs deposited quantities of silt. While work scows and special dredges toured the length of the canal, basin dredging was usually

done in the off season. The first step was to draw off the water (e.g. D.C.A. 4/8/1876 I 73, 2/15/1877 II 34); at such times stranded fish found their way onto nearby dinner tables, and the boatyards surveyed and made necessary repairs and improvements to their slip-ways and bank-frontage. Sunken and abandoned boats were cut into firewood and the basin bottoms revealed lost treasures such as tools and personal possessions (D.C.A. 2/26/1876 I/42, 2/28/1876 I/43). Archaeologically, this should leave us with a bias toward the broken bottles, bones, and other rubbish of daily life, stripped of what were deemed still-useful materials. This supposition seems to be born out by John Milner excavations in the vicinity of the guard locks. In the same way most of the boat remains are hard to dismember keels and steam-curved bow and stern sections. The latter two probably routinely fell into the silt and were covered while a derelict was being salvaged more for straight lumber than firewood. Additionally, in the cold winter months wood near the bottom would scarcely dry out sufficiently to serve as firewood, even if exposed out of water. On at least one occasion, silt dredged from the basin was “taken into the river and emptied near the breast of the dam on the Virginia side” (D.C.A. 4/3/1876 I/73) Most of the activity on the Main Basin took place approaching the northern wall, where Ward’s Boatyard, company warehouses, and the mostly repair-oriented Canal Company Boatyard lay. Here also were the double intake and guard locks that kept the basins full, with the lock-house standing on the pedestal of land between.

2. Land and the Waterfront

Framed by Mechanic Street, Canal Parkway /Wineow Street and the northern branch of the Potomac River, the terminus area today encompasses a large, flat plain that is home to several service businesses, the Western Maryland Scenic Railway station, and the developing Crescent Lawn/Canal Place park. Most activity takes place indoors and is more or less invisible. Boats entering Cumberland one hundred and fifty years ago, however, would have been greeted by a vibrant, raucous shipping center. Many activities took place outdoors, such as building, repairing, caulking and painting boats; boiling oakum, sawing and planing lumber; loading and unloading coal and other goods; smithing and many more. Workers in different trades and employments would have been able to see one another across the basins and interact. In the self-contained community of the waterfront, everyone had at least the opportunity to know everyone else's business.

Returning from a run to Washington, Williamsport or elsewhere, a boat would have come in through Lock 74 and passed by the small basin of Mertens' Boatyard on the right (east) bank (Fig's 10 and 11, no.30). This was historically one of the most prosperous yards and the only such facility to survive the creation of the Towage Company in 1902. Frederick Mertens' yard lay a few hundred feet before the entrance to the massive Shriver Basin, marking the foot of Wineow Street. Here, spanning the mouth of the basin was the Consolidation Coal Company's wharf trestle, where locally mined coal was dumped through railcar chutes into the holds of waiting barges. In early February, 1876 a towpath was planned from the Consolidation to the Basin Wharf of Walsh & McKaig. This saved boatmen from having to pole their loaded boats out of the basin (C.A. 2/29/1876 II 14).

Many of the new warehouses and wharves erected around the time of the canal's opening rose at the mouth of Shriver Basin and the area continued to be a center of activity (NPS 2003). Tow-lines were expertly manipulated so as to clear boat and mule of the trestle as the barge was towed into the basin.

All along the eastern bank of the basin lay the shops, saloons, taverns and houses of ill-repute of "Shantytown." This neighborhood along the unintentionally alliterative Wineow Street catered to the needs and wants of the waterfront population as well as railroaders from the yards behind (east). This one-lane, wild-west "Five Points" has been a favorite of local lore for over 130 years, most recently glorified in the historical fiction of James Rada and the summer productions of Cumberland's Embassy Theater. Although now largely buried under roadway, and thus never investigated archaeologically, historical documents illuminate some of the landscape and interactions of Shantytown. Between Mertens' Boatyard in the south and Williams Street and the Mill Race in the north, saloons, hotels, artisans' workshops, and brothels jostled for business. Shopkeepers, hostellers, saloon keepers and prostitutes served and interfaced between workers from "both sides of the tracks." Many establishments carried colorful names which fed the sensationalism of period papers and modern nostalgists. Among these were "The Red Onion," "The Blazing Rag," "Aunt Susan's Rising Sun" and "Louise's Den of Iniquity" (C.A. 4/23/1908 LXXXVIII 17, NPS- Canal Place). Sometimes they were known by their proprietor: Bill Westbrook's and Bill Colby's taverns, or Mike Clark's Saloon (Kytle 1983:260). Local papers relished the opportunity to portray a Shantytown where "the air was streaked with blood and the gutters gushed with gurgling gore"(C.A. 7/16/1903 LXXXII 39). Such businesses were apparently lucrative enough that

city ordinances did little to dissuade illicit activity. Just across the river in Ridgeley, West Virginia (nee Sinclairsville) entrepreneurial Cumberlanders set up gambling dens and brothels as well.

Despite its unsavoriness, Shantytown was inextricably involved in waterfront life and the boatyards not even a stone's throw away. For poor boaters, vagabonds, and other outsiders, it served as a surrogate town when Cumberland's more affluent streets turned up their noses. For waterfront artisans and workers, it was if nothing else extremely convenient and would have offered a relaxed atmosphere in the company of friends and coworkers.

Shantytown seems to have been the city's necessary evil. A disastrous double fire which destroyed a large area of the downtown business district and twelve buildings in Shantytown could have been turned to the advantage of moralizing forces. All city fire engines were sent to quench the Baltimore Street blaze, leaving Wineow Street to form a bucket-brigade. Whether Shantytown was simply a low priority or whether some willed it to go up in smoke is unknown. A bordello named "The Bon Ton" and the former "Rising Sun" building were among the casualties. One might expect that after such a clearing of real estate, the city would have stepped in and taken measures to reform the district. Instead, familiar scenes persisted in rebuilt establishments like The Red Onion and The Blazing Rag. Shantytown, while not endorsed by townsfolk, did help to isolate bad-influences from polite areas of town. The area's continued popularity says something of the habits of waterfront workers. As the city evolved in its industrialization, the district would have served a further function. The entire street acted as an expanded cultural brokerage where traditional craftsmen of the boatyards interacted with the increasingly self-assured industrial labor of

the railroads, rolling and tin plate mills, glassworks and other industries.

Not all of Wineow Street was given to dubious business. About halfway up, R.D. Johnson's Milling Company marked a break in the retail establishments. Enterprising W.T. and D. Coulehan's lumberyard lay up the street here, just north of the trestlework of the Coulehan or Canal Coal Wharf. Coal carried from the mines on the Ridgeley, West Virginia side of the Potomac met the returning boats here, under the supervision of wharf superintendent Thomas Coulehan. A smattering of outbuildings and other small structures later, Shriver Basin abruptly terminated at a wall which doubled as a southern bank of the "Mill Race" (Fig 4, no.11).

Flowing under Mechanic, Harrison and Liberty streets, and through dual beds beneath the Baltimore Street business district, the "Mill Race" powered flour, grist and sawmills, as well as tannery equipment. Once offering clean, spring-fed water, by the mid 1800's the city had begun to take its toll on the race. Household refuse, gutter water and dead animals were tossed in and privies craned out over it from backyards. Polluted from such filth and rendered ineffective as a motive power source by silting and droughts, the stream's fate became bitterly disputed in city courts in the 1870's. That water in the canal basin in summer was "thick as gravy" (D.C.A. 3/10/1876 I 53) was at least partly due to the Mill Race, although the waterfront industries were not innocent. Benzine, issuing from Footer's Dye-works, at one point turned the Race into a ribbon of fire (C.A. 10/20/1904 LXXX IV 41). That the flames "flowed" toward town indicate that the water had grown largely stagnant. Compounding the trouble the city, under injunction by the B&O, sealed the race from discharging into the canal's Main Basin (C.A. 9/5/1907). A committee was appointed the

next year to clean, widen, and deepen the channel so that it might “make the same an ever-flowing, self-cleansing water course” (C.A. 5/21/1908 LXXXVIII 21). A scheme to remold it as the center of an attractive promenade and development quickly fell apart. In an effort to curb outbreaks of cholera and improve the visual and olfactory character of Cumberland, much of the race was covered in arched brickwork or chestnut beams, the whole topped with roadbed and new structures. During 1910, all semblance to a mountain stream would be shed and the race became the main conduit of a massive city sewer, emptying into Will’s Creek (C.A. 9/23/1909 LXXXIX 38).

Wineow Street may not have had any architectural gems, but the true “shanties” stood just across the water. Disregarded by surveys, the names of inhabitants live today in newspaper anecdotes which give scant indication of how this fringe group functioned in waterfront society. Toward the northern end of “The Island” and near the Basin Wharf was “Mosquito Flat,” home to Summer Tariton and his wife Polly Conrad (C.A. 11/7/1903 LXXX II 10). A different, two-roomed “shack on the Island” was home to banjoist Charles “Pegleg” Greenfield until he was shot (C.A. 11/10/1904 LXXXIV 74). A Mrs. Bridgett Cahill is also reported as living on the island in 1908 (C.A. 3/12/1908 LXXXVIII 11). Sometime after 1902, the Canal Towage company built a pair of mule barns on the western bank of the island to hold the animals which it leased to boatmen. Another example of dubious Towage Company streamlining, this close-quartering put the mules in danger of communicable diseases (C.A. 9/8/1904 LXXXIV 35). It is unknown how the relocation of the Towage Company Boatyard in 1904 and the construction of the mule barns two years earlier changed life for “Islanders.” With few dwellings, the western side of the Island and

the rest of the perimeter of the Main Basin were given mostly to work environments- the waterfront's major features.

3. Major Features- Wharves, Boatyards and Lumberyards

A. Wharves

Coal wharves distributed the bituminous lifeblood of the canal and the changing fortunes of individual wharves directly affected the local economy and the spatial focus of activity. The monopolization of coal transport by the B&O Railroad led to the decrease in demand for boats and the shutting-out of several long-established builders.

Wharves were a feature of the port since Potowmack Company days. Remains of one wharf of that era appear to have survived into the latter part of the 19th century (D.C.A. 5/24/1876 I 117). It was described as a wooden piling-constructed wharf on the West Virginia side of the river at the present Blue Bridge (Fig.4, no.41). This calls to mind that when the Crown began to invest in improving the future Fort Cumberland, Thomas Cresap built for the Ohio Company a "New Storehouse" in relative safety on the Virginia side of the river. The mystery wharf may have served the Ohio Company or settlements which sprouted around it later.

The canal catered to and was catered to by many wharves. Though not restricted to the basin area, it was in the basins that the longest-lived of the wharves arose. Others stood on the banks of Will's Creek and the Potomac River. Wharves became the focus of a bidding war in the 1870's when the B&O Railroad-puppet, the Consolidation Coal Company, began buying and leasing wharves and wharf access from private owners. This led to cries

for new feeder coal railroads not linked to the B&O but which failed to materialize. The monopolization of coal supplies via the wharves and feeders by the railroad would be instrumental in the decline of the canal.

Basin Wharf (Walsh & McKaig Wharf, Coulehan's Wharf)

Originally, there were two wharves arching over Shriver Basin, the Walsh & McKaig, also known as the Basin Wharf (Fig.4,no.42), circa 1870 (C.A. 3/9/1905 XXIV 61), and the Coulehan (Fig.4, no.43). As fortunes changed, the feeders combined to serve the larger of the two, Coulehan's, which stretched over the northern end of Shriver Basin. Neglected during boater strikes, the wharf was placed in good order again when the Canal Company leased it in 1877. Permanent repairs, including 4 ½" thick plank flooring, were made when the company bought the wharf a year later (D.C.A. 2/28/1877, D.A.T. 3/9/78 III 49, 4/9/78 III 76). In later years, the structure became known by the name of its superintendent, Mr. Coulehan. Coulehan men were involved in many of the waterfront activities, from boat-building and coal-dealing, to hostelry, to selling hardware and groceries. The wharf carried C&P coal across the island past the various Coulehan properties on Wineow Street. Although referred to as the "Old Canal Wharf" by 1900, and as the "abandoned wharf" in 1904, the Basin Wharf was repaired once more (C.A. 1/11/1900 LXXX 3, 10/27/1904 LXXXIV 42, 3/12/1908 LXXXIII 11). The wharf finally failed to make the 1910 edition of the Sanborn insurance map and was overtaken by the massive Footer's Dye Works factory not long after.

Consolidation Coal Company Wharf

Built about 1867 or 1868 (C.A. 3/9/1905 XXIV 61), the Consolidation Wharf (Fig.7, no.37) straddled the entrance to Shriver Basin and was one of the most active. From this position of power, the Consolidation Coal Company set about monopolizing the coal trade, buying other wharves and fixing prices, moves that soon forced litigation by the Canal Company. The Consolidation Company did at least renovate the property in the mid-1870's. They are credited with removing nineteen sunken boats from the surrounding basin, clearing and deepening the channel, building a "wood abutment" around the basin, supplying a spring-fed fountain for the mules, restoring the wharf itself, and packing the reclaimed land around it with cinders for sure footing (D.C.A. 3/10/1876 I/53).

Lynn's Wharf

Lynn's Wharf (Fig.3, no.39) stood on the west bank of Will's Creek, and like others on the creek or river, it was reached by canal boats via the outlet lock. Built in 1843, the 1010 foot wharf was first served by the flatboats of the Potowmack Canal era. Early on, mules crossed over the Baltimore Street bridge. By 1865, twenty five boats were loaded in a day, totaling 2500 tons (C.A. 2/12/1865 7/26). Although a mule bridge across Will's Creek to serve Lynn's was proposed in 1859, it was only erected in 1867. The bridge served up to about 1890, when the wharf seems to have ceased operations (D.A. 2/5/1859 24/6, C.A. 3/9/1905 XXIV 61, 3/16/1905 XXIV 62).

Potomac Wharf

The Potomac Wharf, as the name implies, lay on the river, on a stretch of shore well above the old Blue Bridge at Paca Street. This was the original wharf built in anticipation of the canal around 1849 and its size reflects the original plan for a 1000 boat-capacity inland harbor. Reported as covering eleven acres, the Potomac Wharf could load twenty nine boats a day via three chutes to total around 800,000 tons of coal per season (C.A. 4/11/1876 I 80). The Potomac wharf was in use through at least the 1870's, having been “put in perfect repair” by the canal company in 1877. At that time, the company was leasing the wharf from the Cumberland and Pennsylvania Railroad which bought it a year earlier (D.C.A. 2/28/1877 II 44). Another year, however, saw ownership pass to the Consolidation Coal Company, providing the B&O monopoly with yet another coal source (D.A.T. 4/17/78 III 83).

B. Boatyards

“Cumberland boats have attained such a prestige for durability and easy draught that boatmen will have them at any price, albeit we doubt ...that rates are lower at Georgetown”
(C.A. 6/3/1874 17/6)

Although canal boats were built elsewhere along the canal, Cumberland became the recognized leader in their construction and the great majority of the thousands of boats which plied the canal over the years was launched from Cumberland yards.

Most boatyards stood on the basins and enjoyed the proximity to various support industries and commerce. Builders frequently ran their own blacksmith, planing mills, lumber sheds, and “steam-box” set-ups for shaping wood (NPS-Canal Place). Although

some of each boat's equipment would invariably have to be manufactured by the builder, hardware merchants in the city marketed to boat-wrights. In the heyday of the basins, seven builders serviced the waterfront, with seven dry-docks at their disposal. Lean times resulting from strikes and stoppage due to flooding hurt the boatyards, but despite their situation in the flood-plain, most floods resulted in fairly minimal physical damage (e.g. C.A. 11/26/1877 II 274). Like everything else on the canal, receivership brought boat-building under control of the B&O through the Towage Company.

The 1878 Allegany County Directory lists the following as boat-builders: Richard Coulehan, Doerner and Bender (who are also listed under "builders and contractors," "lumber dealers," and "sawing and planing mills"), Frederick Mertens, and William Young. Lumberyards at the time included Francis Gannon, Peter Rein & Co., M. Landwehr & Co. of 45 Centre (also listed under "Sawing and Planing Mills") and Weld & Sheridan. A further sawing and planing mill is listed for James B. Walton.

Canal boatyards served two primary purposes: to build and to repair boats. The first quarter century of their existence, the yards multiplied and expanded, turning out a steady flow of new vessels. Coal became evermore the dominant cargo and warehouses and businesses originally built to handle retail goods were absorbed into the boatyard landscape (Balicki-LaVale talk 2004, Balicki 2000). Labor in the growing city was cheap and the canal benefitted from locals who, unlike those who dug the length of the channel, did not require temporary housing. Boatyard expansion slowed as falling coal prices and consequent hikes in trippage forced many boaters to tie up. The resulting glut of vessels eliminated demand for new boats. Serving as both production and service center helped boat-wrights ride out

these lean times. In the worst years, however, boaters put off repairs indefinitely and only the sinking of the vessel or legal action by boat inspectors could convince captains to have them put to rights. At such times, the boatyards lapsed into inactivity, while their owners relied on income from diversified holdings in other industries and retail to compensate.

Chesapeake & Ohio Canal Company Boatyard

Clustered at the northern end of the canal's "Little Basin" were the original shops and offices of the C&O Company Boatyard, later known as the "Old Boatyard." The main building (Fig.26 no.19) was accessed from a ramp off the towpath on the second floor and via a footpath on the ground floor. The large, two story structure housed offices above with tool shed, storage rooms, and workshops such as the blacksmith and carpenter below. Windows let in light to both stories and also afforded managers in the second floor office a view of the workers and boats under construction adjacent to the building. Presumably an interior staircase linked the managers with smiths and carpenters below. Boat spikes and other hardware either too specialized or non-lucrative for the downtown hardware merchants to carry were turned out by hand in the blacksmith shop. Tools were also made here, designed expressly to meet the demands of boat-wrights. Their blades, heads and other parts pounded out by the smith, the implements were hafted, assembled and repaired in the tool and parts shop next door. In railroad-fashion, tools made and used in the company boatyard bore a "C&O C.Co." stamp or brand to discourage thievery. The Cumberland Sunday Times states that the interior was heated by wood-stoves and that workers gathered around these to take their lunch (CST 7/5/1987). Pitch, with which the boats' "oakum" (hemp caulking) was

impregnated, was boiled in a large outdoor hearth. The cooled ropes were stored in a nearby “oakum house.” A planing mill was operated by Louis Young expressly for the Canal Company. The boats themselves were maintained just to the north of the main structure, on the bank of a square divot in the Little Basin. The boat slip was operated manually, with mules pulling the hull up rails and men lining it up by the turning of capstans. From 1902 to 1904, the Old Boatyard was operated by the Canal Towage Company. Under the Towage Company, boater’s supplies including mules, feed, lines and other equipment were doled out from the company office in Cumberland and from branch offices at Four Locks and elsewhere along the Canal (C.A. 2/19/1902 LXXX II 15). The company boatyard has entered into popular lore through books such as Morris Fradin’s “Hey-Ey-Ey, Lock!” (1974:106). German native Frederick W. Reith is noted as a long-standing boatbuilder here, dying at sixty eight (C.A. 5/9/1907)

Leveled by fire at the end of 1904 (C.A. 12/1/1904 LXXXIV 47), the Towage Company yard was rebuilt at a new location. This “New Boatyard,” (Fig. 18 no.23) according to the Cumberland Sunday Times, lay down the towpath, to the “rear of the old Community or ‘Mid-City’ Ballpark” that was later built on land reclaimed from the defunct Shriver Basin. Nelson C. Reid was the first Towage Company agent in Cumberland, being replaced by Samuel D. Young in 1905 (C.A. 9/21/1905). At the opening of the 1905 season, one brand-new boat was “on the ways” and three others undergoing rebuilding (C.A. 3/9/1905 XXIV 61). Although this new yard was mostly repair oriented, with occasional new boat construction, it was fully modern with an electric winch-assisted slipway. This 250 volt, 25 horsepower modern miracle promised to completely relieve workers of building boats and

doing other work by hand (C.A. 5/17/1906 LXXXVI 15, CST 7/5/1987). The large electric motor would replace the steam engine, powering the slipway and, through a drive system, a variety of other wood- and metal-working tools. This is the concrete slipway which was briefly recovered and documented by John Milner Associates before falling victim to the new prism being dug for Canal Place. In 1907 and again in 1909, the main building of the New Boatyard burned. The second fire “destroyed all the machinery used in the construction of boats “ (contained in the large building), the planing mill, and the free-standing oakum house. A nearby boat and piles of lumber stored in the open escaped with a scorching. Samuel Young felt the loss was a result of arson while reporters lay equal blame on the lack of accessible fire hydrants (C.A. 6/24/1909 LXXXIX 25). That fire engines could have reached the site was due to the filling in of Shriver Basin.

Clarke Boatyard

Only one reference has been found concerning the probably short-lived business of John H. Clarke. This was to note the launching of the “American Flag,” a boat of what would become common dimensions, in early November of 1850 (C.A. 11/9/1850 6/15/633). This may have been absorbed by a newer or expanding boatyard.

Coulehan Brothers

Although “T. Coulehan” (possibly Thomas) appears in the Alleganian in 1858 (12/18/1858 23/5), Michael and W.T. Coulehan seem to have been most directly linked to the waterfront. Michael operated a coal yard at the Basin Wharf where W.T. came at age 10

to learn the trade. The latter also learned boat-building skills and then went on to take a course at the Pittsburgh Commercial College. With this background, W.T. opened a general merchandise in a small brick building by the Basin Wharf on Wineow Street. He also engaged in the retail and wholesale of coal with Michael. W.T. Coulehan later served as Cumberland's mayor, inaugurating a number of public works and running for further office (C.A. 5/17/1900 LXXX 44). Meanwhile, work seems to have gone on at the boatyard associated with the Coulehans (probably located close to the Basin Wharf). No more is heard of Richard Coulehan as a builder outside of the 1878 Allegany County directory mentioned earlier. Although it is unknown when the Coulehan enterprise began or ended, it took part in the movement toward steam power. The winter of 1875-6 found the Coulehan yard busy creating a steamer "on the adjustable propellor plan of Messrs. Atkinson and Pierce [Pearce]" (C.A. 2/18/1876 1/35, 3/6/1876 1/49).

Doerner and Bender Boatyard.

The yard of Doerner and Bender was located on the Island, near the Basin Wharf and included an attached blacksmith shop (C.D.A. 2/1/77 II 19). They were builders and sole repairers of the American Line's fleet of around sixty boats. These boats, built on "a new and improved model" were painted "in a neat and attractive style" (2/18/1876) Doerner and Bender entered the steam competition with their "Ludlow Patton" (C.A. 5/4/1876). The "Ludlow Patton," "Alpha" (both designed by local J.T. Hill, C.A. 5/4/1876), and a series of "Star" boats secured Doerner and Bender's reputation as builders of steamers. Doerner and Bender also owned a sash factory and engaged in other woodwork, such as "handsome and

substantial wooden paling fencing” (C.D.A. 10/23/1877 II 245, 2/1/1877 II 19). The sash factory, and possibly the boatyard, were liquidated at auction in March of 1878 (D.A.T. 3/16/78 III 56).

Mertens Boatyard

Frederick Mertens and his boatyard have been mentioned elsewhere. The boatyard, again, was the longest-surviving private firm of its kind in Cumberland, from 1852 to 1911. It began on a small lot at the base of the Baltimore Street bridge (Mash 1996:192). Not long after, it was relocated to a point just before the opening of the Shriver Basin on the eastern (berm) side of the canal/Main Basin. Frederick Mertens was deeply involved in many major industries of the city, ranging from lumbering, to boat-building, to glass-making. Following a carpenters’ strike in 1902, Mertens’ Sons hosted a meeting in at which a number of local builders agreed to a nine hour day, a \$1.50 to \$2.50 wage scale and agreed not to employ one another’s workers (C.A. 7/ 24/1902). This was the first such strike and comprehensive agreement noted by the newspaper and indicates Mertens’ Sons becoming increasingly involved with non-boatyard-related building work. The advent of the Towage Company the same year and the attrition of boat-building firms are likely causes for this. Mertens’ yard continued to be a cultural and physical focus of the waterfront, even after its decline as a boatyard.

N.Y. Company Yard

Like the Clarke Boatyard, only one hint of the existence of this company was found.

This was an announcement of the December, 1850 launching of the H.H. Casey, a boat of the standard type and burden (C.A. 12/7/1850 6/19/637). Without an explanation of the initials “N.Y.” it is tempting to wonder whether this was a company owned by transplanted Erie Canal boatbuilders or just christened in honor of that state’s canal prosperity. As businesses tended to carry at least the complete surname of their proprietor, it is perhaps less likely that the abbreviation is that of a name.

Ward’s /Weld and Sheridan Boatyard

Weld and Sheridan nee’ Ward’s was one of the longer-lived boatyards of the C&O. Under the direction of J. Hildrich, a twenty two year canal veteran of the Empire State, Ward’s Boatyard turned out boats in the “most approved mode used on the New York canals.” Mr. Ward even employed W. Tremar to ornamentally paint and gild Hildrich’s vessels (C.A. 11/16/1850 6/16/634). John Bevan provides the first visual of the area of Ward’s yard, showing several buildings located about equidistant between the Main and Shriver Basins (Fig. 3 no.32). John Milner excavations uncovered what is thought to be the dry-laid, cut stone foundation of what Bevan marks as “Hudge & Co., For. and Com. Merch.”(Fig.3, no.33). This possible warehouse seems to have been absorbed into the neighboring boatyard. Weld & Sheridan took over the property and expanded operations, beginning steamer production in 1874. This boatyard was the first to implement the designs of a local inventor, Alexander McDonald, in the construction of a steamer, the “H.T. Weld” (C.A. 2/18/1876).

Innovative in its vessels, the yard was unique in both the amount invested in it by its

owner, \$50,000, and its early use of a twenty eight horsepower steam engine to power tools and a “marine railway”(Fig.19 center, behind derelict boats). When these “ways” were repaired, only “two or three feet” had to be drawn off the level to access them (D.A.T. 5/27/1878 III 117). The request to draw off the water by Mr. Sheridan seems to have been easily granted, suggesting a good relationship between the boat-builder and the Canal Company. That a two or three foot drop in the water level was sufficient to uncover the rails and workings seems to match the incline of the slipway uncovered archaeologically. Milner excavations also uncovered a sawpit, reinforced with recycled boat timbers which had been filled at an early date. Scattered planks lay all around the yard and a cistern, filled in the 1890's, pierced the subsoil. The wooden basin bulkhead was held in place by pilings driven 14 feet into the bank. What seems to be the steam-powered marine railway was uncovered archaeologically, complete with two rails of old beams, and cribbed boxes to prevent silting in. At the base of the ramps lay the last few feet of a boat, the curved planking discarded after all else had been stripped. Although more than one company eventually operated an automated marine railway, (e.g. the Canal Towage Company, and perhaps others), that found in the Crescent lawn area, primarily of wood, was likely built by Weld & Sheridan. Such inclined railways were built at the Georgetown end of the canal in 1876 and on the Pennsylvania canals to haul boats up and down particularly steep grades without using locks. Marine railways in Cumberland may have taken cues from these, though such boatyard slipways drawn by other means have existed for centuries. Short-lived, the railway was constructed on land reclaimed from the main basin at the west end of Howard Street in the 1890's and itself covered over by foundry debris in the first decade of the 1900's (Balicki, et

al. 2000b:57, Sanborn map1904).

Young Brothers Boatyard

Young Brothers began under John Young in the fall of 1849. Within two years, the boatyard, laid out at the south end of Paca Street, had already built a number of boats and Young advertised others- perhaps taken in consignment- for sale as well. (C.A. 6/1/1850 5/44/610, 2/8/1851 6/28/546). The Paca Street location places the boatyard on the Potomac, above the Blue Bridge, rather than on the canal, so that boats when launched or repaired had to use the outlet lock to return to the basin area. The Youngs joined their neighbors as producers of steamers with the assistance of Darragh of Rochester, Pennsylvania and built the "New Era." Three mule boats and two steamers were on the blocks and ways at Young's Boatyard in the winter of 1875-6. One of the latter, according to the *Alleghenian*, was being built with "a five foot propeller on the Chillicothe plan." The boatyard appears on the 1873 Gross map lying on a basin cut from the riverbank. From this basin, a further finger of water dips into the land and is fronted by a single structure. It is unknown when Young Brothers ceased operations. As far back as 1887, none of the Sanborn overview maps show anything at the site, but then, neither was this area among those surveyed. In 1906, Fowler (Fig.7 no.35) shows little more than a break in the foliage beyond the bridge. Certainly the Youngs, such as Samuel Young of the Towage Company, continued to be involved in the canal and boat-building.

C. Lumberyards

Whether owned by a boat-builder or as an independent business, lumberyards served needs besides those directly linked to lumber or boat-building. Lumberyards were often owned by the boat-builders thereby cutting expenses. Apart from furnishing necessary lumber to boat-wrights and carpenters and firewood in the form of scrap, lumberyards produced a significant by-product in the form of sawdust. Although a waste product at first glance, sawdust found a variety of uses in late 19th century America. It provided soft bedding for horses and mules and sopped up the messes in barrooms and saloons. In railway cars and elsewhere, it was injected in between walls and under floors as insulation. Along with animal bedding, one of sawdust's extensive uses was in insulating ice. As a river town, Cumberland had a ready supply of natural cake ice most winters. Private, subterranean icehouses and those adjoining businesses would have employed quantities of sawdust to keep ice through the summer. Although several references to ice-cutting were found, it is unknown whether Potomac ice was exported or only used locally. With literally dozens of sawmills in the area, the supply may have outstripped demand, leading to charges of dumping in creeks (e.g. C.A.4/16/1905). At any rate, the ready supply of both sawdust and ice provided winter employment to many in the waterfront, boat carpenters most likely among them.

VI. BOATS AND BOAT-BUILDING

Before turning to our analysis of the waterfront environment, it would be well to consider the methods and material involved in canal boat-building. The technical construction of canal boats has been considered elsewhere (cf. Mansberger and Stratton 1998), on the C&O as well as on canals around the world. Although studying the boat-builders here, we should consider the basics of what goes into a canal boat's construction and how Cumberland boat-wrights adapted existing forms to suit their situation. Thus, we begin to understand the labor and creative processes involved in shaping their social and economic existence.

1. Tools and Materials of Boat Construction

Cumberland builders favored a specific set of wooden media. Lower hulls, stern, bow, and timbers were of oak, the sides (at least later) of long, straight Georgia Pine, and the decks, cabins and race planks of yellow pine. Oak resisted damage in the areas most roughly treated while the Georgia pine was well-suited to the hundred foot sides. Other areas, exposed to less water and wear could be finished in the soft yellow pine, especially when protected by thick paint. With the oak and yellow pine procured locally, the Georgia pine was a departure from traditional vernacular boat building which would have chosen a local compromise. Other freshwater and vernacular vessels such as the *Bateaux* of the Potowmack

Canal had relied upon exclusively native species in their construction (cf. Alford 1999:275). Even more revealing was the use of Oregon fir, presumably in planking, beginning in 1905. “Like shipping coal to Newcastle” the tight-grained and sap-free lumber was nonetheless a welcome improvement (C.A. 3/9/1905 XXIV 61).

2. Potowmack Canal Boats: Rafts and Sharpers

Boats were first built in quantity in Cumberland in the early 1800's. These Potowmack Canal bateaux and rafts have already been mentioned. There is no record of where or whether they were built at any set location in Cumberland. Although the sleek “sharpers” were of more lasting construction, the majority of raft-like “gondolas” met their fate in Georgetown’s warehouse-district sawmills (Werner 1974:41). Against all odds, one of these flatboats was reported as being in service yet in 1902, having been floated down to Georgetown in 1849 (C.A. 3/16/1905 XXIV 62). If this story is true, it is a remarkable testament to the builders’ skill even in the craft’s fledgling years. At any rate, as the National Road led to no central commercial district, so the Potowmack Canal produced no permanent boat-building loci. The larger size of the new C&O Canal boats required both larger crews to construct and a more efficient mode of production.

3. C&O Canal Boats: Mule and Steam Barges

Boats used on the C&O may be characterized by a few defining features, though they varied in many aesthetic and technical designs. Each ninety to one hundred foot long, fourteen foot wide boat could carry one hundred to one hundred twenty tons of coal.

The average (mule-drawn) boat cost approximately \$1,400 at the time (NPS Canal Place), leaving many captains in debt and often essentially indentured, to their boat's builder. The usual arrangement was that captains carried only those cargoes signed by the builder. The urge to recoup such an investment as quickly as possible is made clear in light of an average vessel life-span of ten years (rarely up to twenty)- especially when combined with the constant threat of floods and droughts curtailing the boating season.

Chesapeake and Ohio barges were patterned after those used on the Erie canal and indeed several of the early boatbuilders, like the canal builders and engineers before them, migrated from DeWitt Clinton's "Big Ditch." The typical cargo boat was divided into two holds separated by a central hay house and with a mule stable fore and the cabin aft. Keel-built, the basic framework was laid first, followed by planking and decking topped lastly by the superstructure of cabins and accouterments. A "race way" by which boaters walked from one section to another was fastened to the binding streak with the sheer timbers as anchoring. The stable held berths for two mules, and the cabin was equipped with several tilt-out or bunk berths, a table, stove, and built-in cupboards or shelves.

Canal boat hulls were planked in a scarf-joint and sealed with tightly packed oakum caulking. Despite the best efforts of builders, the boats were notoriously leaky and were forever being re-caulked. Samuel Young, agent of the Towage Company and boat builder himself, introduced the "butt-jointed" boat in 1909 which required no "corking" [oakum] and could be constructed with "three hundred feet less lumber." Young created the first of these while also rebuilding eight other boats (C.A. 4/1/1909 LXXXIX 13). Although the boats seem to be mostly of straight lumber, direct from the planer, there was considerable steaming

involved about the bow and stern. Heavy timbers in “L” shapes or “knees” were fashioned, whenever possible, from naturally occurring crooked wood or spliced together out of separate pieces to avoid interminable days of steaming. Known to ship-builders from the dawn of the craft, the shortcut was especially handy in canal boats not faced with undue flexing from wave motion. Several special considerations came into play when building for the Chesapeake and Ohio trade. Old stone bridges in Georgetown gave scant clearance, even to low-riding, loaded boats and light boats frequently found themselves trapped. Rather than rebuild the series of bridges, a directive was put out in 1859 for “owners of high cabin boats” to modify their quarters into essentially ‘removable hardtops’ with or without hinges (C.D.A. 1/1/1859 24/1).

The typical life-span of a C&O mule barge was from ten to twenty years. Otho Swain claimed however, that his grandfather built fifteen boats around 1850 and ran them up until the takeover by the Towage Company in 1902 (Kytile 1983:131). This would give the boats over a half century and seems unlikely. Some efforts were made to ensure the average life expectancy. Before launching, the bare hull was painted to seal and protect the wood. Builders and boaters had always painted the boats but after 1902, the Towage Company supplied captains with standard grey paint to protect the hull and blend with the omnipresent coal dust. J.P. Mose stated that “carboline” was also used to seal wood (presumably in both boats and lock-gates), carboline being a mixture of coal oil and zinc chloride (Kytile 1983:114).

Initially, the boats carried a variety of commercial goods, such as “fish, furniture, groceries, dry goods, salt, pig and scrap iron, brick, iron ore and plaster” north and east to

Hancock and Cumberland. Downstream cargoes included “flour, wheat, corn, whisky, furniture, nails, potatoes, lumber, rough stone, lime and cement” (Werner 1974:43). Canal boats were well-suited to carrying produce, as goods stowed below the water line kept cool and fresh, a feature which even coal shippers appreciated for their own foodstuffs (Kytle 1983:191, 254).

Chesapeake and Ohio Canal steam boats have frequently been given short-shrift. Canawler’ George “Hooper” Wolfe once claimed that steam was not as “cheap or as dependable as a mule” (Johnston 1960:437). The decline of steam power on the canal was probably more a casualty of canal company politics and disruptive and damaging floods. Whatever posterity’s take on canal steamers, for years they made a profitable and inspiring trade for Cumberland boatbuilders.

The line of the Chesapeake and Ohio Canal had a surprisingly long association with steam propulsion. In 1787 James Rumsey a Marylander living in Shepherdstown, Virginia demonstrated what may well have been the world’s first steam-driven boat. His earliest designs involved a mechanical, spider-like ligature of poles which essentially walked on the bed of the river. He later designed a functional model of a propellor-driven steamboat but was delayed in perfecting it when asked by Washington to supervise the construction of the Potowmack Canal and later in helping design an Irish canal. Rumsey finished his improved prototype while in England, but died before securing the patent. At about the same time, Fitch created an independent design which suffered a similar fate. Almost two decades later a friend of Rumsey’s, Robert Fulton, successfully patented his own “paddle-wheeler” (Browne 1912:319-20). Cumberland saw its first steam-powered canal boat in 1851 when

the “Virginia” motored in on an experimental trip with three mule barges in tow. The quartet was bound for New York by way of the Delaware and Chesapeake and Delaware and Raritan Canals (C.A. 5/17/1851 6/42/660) Although no more is heard of this practice, one suspects that the effort involved in locking through and steering was deemed not worth the effort.

Steam-power was not limited to the Potomac and Canal. Founded the same year as the C&O, the Baltimore and Ohio, the first steam railroad in the United States, reached Cumberland in 1843, seven years before the canal. As the latter’s bulk coal trade was safe while railroad engines remained primitive and weak, little thought was given to steam-power.

When faced with rapidly improving railroad efficiency and monopolization, however, it must have seemed quite natural to boatbuilders in Cumberland to turn to steam to save their livelihood. The decade of the 1870's would spawn a steam craze which was to showcase the best and brightest of the city’s inventors, craftsmen, and engineers. The development of these new boats, sidetracked in modern histories in favor of the quaintly picturesque mule boats, presents a remarkable spirit of inventive agency long disallowed our “most beautiful failure.”

The earliest of the Cumberland-built steamships were based on modified mule boats, many with engines and running works designed and built by Charles Darragh of Rockville, Pennsylvania. Like steamboats of other canals, those built in Cumberland harkened back to Rumsey’s original screw prop design instead of the stern and sidewheeler descendants of Fulton’s Clermont. Once shielded against the entanglements of water weeds, the steam screws were far less destructive than paddles, propelling the boats at four to five miles per hour, the same as Rumsey’s 1787 design. A steamer needed not only to be steady and

efficient, but it had to throttle up and down without wave-producing jerks which damaged the banks (D.C.A. 6/3/1876 1/126). Propellers were the order of the day and the news rang with new “prop” designs which claimed to be faster and less damaging to the berm and bank. Adjustable propellers lowered and raised automatically depending on whether the boat was loaded or unloaded. Dual propellers, arranged either in different locations or set in opposition to one another neutralized the churning action. Builders strived to retain the average carrying capacity of mule boats of over one hundred tons while accommodating the great boilers, pistons, and fire boxes of engines (D.C.A. 3/6/1876 1/49). Although it was the foundries and not the boatyards which turned out the machinery, the design of the boats and mounting of the hardware were of equal importance. Additionally, it was the boatbuilders who commissioned the engineers to create these machines and it was in their smithies that the machines were repaired.

Cumberland boats thus distinguished themselves in their degree of specialization to conditions presented by canal coal traffic. Already in decline by 1860, non-coal commerce on the canal was minimal by the coming of the steam era (Werner 1974:43). Boats, with the exception of excursion packets and service vessels, were built first-and-foremost as coal barges. “Uncle” Darragh (C.A. 5/12/1876) would often visit the city in later years, designing new machines and encouraging local designers to seek perfection in their objectives. It was not long before Cumberland engineers and especially foundry owners such as Thomas McKaig began refining the Darragh designs as well as designing their own engines and drive trains. Cumberland steamers proved their durability on and off the canal. C&O steamers were taken onto the James River and Kanawha Canal and upon the wreck of

the warship *Huron* off of Cape Hatteras, the “Wagner” was chosen to take to sea and retrieve the dead (D.A.T. 3/20/1878 III 60).

The steam craze is paralleled on other canals in the United States and around the world. On the Illinois and Michigan Canal, steamboats were successfully introduced in the 1870's, leading to a smaller fleet of boats but increased tonnage. The Illinois and Michigan thus became one of the rare canals which actually turned a profit until commercial shipping's demise around 1900 (Illinois Canal Society). Steamers continued to operate on the canal, right up to the end. The disastrous 1889 flood seems to have played no small part in their demise.

A strategy of “keep it simple” seems to have informed the company after this point. When the Canal Towage Company took over, the majority of boats became its property. The Towage Company, which owned the boats, mules, and supplied other equipment, either could not or did not care to deal with the maintenance of two separate modes of propulsion. This left a handful of privately owned vessels, distinguished by their retention of personal names, rather than numbers. Otho Swain remembered “four or five” steamers on the canal during the 1910's and reported that the “very noisy” craft were used in hauling limestone (Kytle 1983:135). The short run between the quarries and points down-river probably saved these vessels from Towage Company edicts. They remained privately owned and operated outside of canal jurisdiction, much like “farm use” vehicles and with about as much public esteem.

VII. ANALYSIS

For all of its unusual physical features, the Cumberland waterfront is unique as an archaeological landscape because of the experiences of its inhabitants. Using a landscape archaeological framework we will examine how a community of labor emerged to create and define the Chesapeake and Ohio Canal's western terminus. The contributions of and influences upon boat-builders are here considered in terms of the use of space and the manipulation of labor within it via Ingold's *taskscape* (1993), and the *specialty mode of production* as defined by Wolf (1982) and Rotman and Stacier (2000). Technological attributes of boat-building are related to their historical precedents (Alford 1999, Gawronski 2003) and in turn to the organization of labor in space (Gawronski 2003, Mrozowski 1999). Discussions of ethnicity, class, and recreation show how boatyard employees created their societal roles, both as members of their own craft community and the waterfront at large. Incorporating various manufacturing, service, and retail businesses, and comprising a full spectrum of 19th and early 20th century modes of production, the Cumberland waterfront creates a rare window into the relationship between landscape, industry, and the unique occupational community of canal boat-wrights.

1. A Man-Made Port

The locking through of the first five boats into the newly completed basin in 1850

represented the culmination of years of planning and politicking. Much of this preparation was by transplants from canals such as the Erie. Among them were captains, financiers and boatbuilders. Their backgrounds were predominantly Anglo, Irish, and German. The terminus took advantage of the only undeveloped, level tract of land available in Cumberland, Maryland: Walnut Hollow south of the Baltimore/National Road. Unable to mobilize labor or funding, plans for the thousand-boat harbor had been modified, leaving two large basins which were likely adapted from existing depressions in topography. The initial landscape of the Western Terminus was thus created as a compromise between natural elements (i.e. topography) and the will of canal planners. The landscape which these planners realized was entirely new to the city of Cumberland. In the days of the Potowmack Canal, waterfront infrastructure had been minimal, with few wharves or storehouses and boats constructed ad hoc. The C&O waterfront's centralized facilities such as slip-ways, black smithies, and planing mills made for an efficient business. The owners and workers of this first generation of Cumberland boatyards were instrumental in directing the formation of their landscape environment and had set the precedents for boat construction. It was this first generation of waterfront workers who established the specialty mode of production and created a built environment around it.

The C&O canal boatyards exhibit several features to separate them from other specialty production centers discussed in the archaeological literature. Perhaps the most closely related site is the Schroeder Saddletree Factory discussed by Rotman and Stacier (2002).

It is easy to imagine Thomas Ingold's *taskscape* (Ingold 1993) in the images and

remains of the busy waterfront. The division of tasks is reflected in the arrangement of each boatyard individually and in the waterfront as a whole. Ingold defines the “tasks” as the “practices of work in their concrete particulars” and as the “constitutive acts of dwelling” (Ingold 1993:158). Ingold’s “taskscape” is the orchestration of all tasks in concert though not always in harmony. The inhabitants realize taskscape through their “interactivity (Ingold 1993:163). The rhythmic cycles in which Ingold’s tasks “interweave” are the basis of social activity. I would suggest that the waterfront, while Landscape, was composed of hundreds of individual taskscapes. These were at once separated by the goals of their separate tasks but united in their common service of the canal, its boats, cargos and people. They were the constitutive acts of Ingold’s “dwelling” and in the creation of community.

A working boatyard is illustrated in figure 11. Final reports by John Milner Associates on the archaeology of the yards interpret the “scatter of debris” as a landscape of convenience, with lumber thrown down to avoid mud, etc. By the late 1800's, the basins found themselves encircled by both hectic commercial areas and large industry.

The environment of the waterfront was often ravaged by weather and especially catastrophic floods, but there was very little left to nature in the landscape. Every feature was altered by laborers and planners and related to in ways peculiar to canal workers. Who was actually in control of this landscape? With the close quartering of worker homes, daily walks to work brought yard workers into contact with merchants, brewers, and iron and glass-workers among others. Significantly, many of these were sooner unionized than was the supposedly less-skilled labor of the basins.

Although vernacular architecture studies focus on domestic structures, some of the approaches seem appropriate to the present line of research. One familiar with the many surviving canal era warehouses, mills, and other structures of Georgetown is disappointed by the total absence of surviving vertical fabric in the area of the old Cumberland waterfront. Even during the canal's construction however, C&O architecture degenerated as the canal was pushed westward. Where Georgetown and eastern points had fine stone lock-houses and other structures, Cumberland and the western end can show only frame and sometimes only log-built structures. Cumberland's basin architecture was largely ephemeral with funds being funneled directly into shipping. One is unlikely to find the sort of construction which would be inaugurated with a cornerstone-laying or particularly careful attention to detail. Finally, Cumberland reached its industrial and commercial peak in the early to mid 20th century, long after Georgetown has fallen into architectural stasis and new development obliterated whatever structures remained. Waterfront structures were built to suit specific roles as part of a utilitarian landscape. A few brick buildings nestled in a forest of seemingly random wooden structures and debris. McCleary (1999) proposes the existence of a hybrid, community-loyal architectural form in the Shenandoah which gradually superseded traditional ethnic patterns. Could a similar tradition have developed along the C&O waterfront? Baxter who has studied California oil fields (2002) reminds one to ask whether structures on an industrial site were paid for and constructed by the owners or the workers and whether this had any bearing on the form of the resulting structures, not to mention their place in the landscape.

Rotman and Stacier (2002) note the social implications of expensive construction

materials like brick. The evolution of the basins witnessed in period maps over decades does reveal a tendency toward more substantial, permanent structures, but none could be considered showplaces. In most cases, structures were built by the boat-workers themselves and incorporated similar framing techniques and often recycled old or botched boat lumber. Amid this sprawl of vernacular architecture, however, stood brick structures, most home to yard offices, and later, a pumping station. Several factors seem to have played a part in this, including city fire ordinances, increased profits during the boom of the early 1870's and the necessity of building against flood damage.

The workplace may have been utilitarian, but this did not mean that some conspicuous consumption was not practiced. As many builders retained part or whole ownership of the boats, it behooved them to put on something of a show of prosperity, apart from a strong reputation and low bids to retain valued commissions. Men such as Frederick Mertens built attractive homes in the latest fashion for personal comfort and entertaining. This is opposed by the Schroeder Saddle tree factory examined by Rotman and Stacier where such ostentatious display was minimized in favor of thrift, quality, and good reputation. Long-standing Cumberland boat builders had all of these to their credit, yet held no qualms about displaying wealth (Rotman and Stacier 2002). Part of this may be traced to the more urban environment of Cumberland as opposed to the Schroeders' Madison, Indiana. By the late 1800's, Cumberland had risen to the rank of second-largest city in Maryland after Baltimore (High 2000:255). In the eyes of that "City of Monuments," however, Cumberland remained a provincial backwater, further stigmatized by things such as the Mill Race and an initial paucity of grand edifices. Cumberland, perhaps more so because of this pressure,

engaged in the construction of a series of stately public buildings and many fine private residences. In this atmosphere, ascetic architecture may have been unwelcome. That no such Victorian embellishments clung to boatyard structures was perhaps consciously or unconsciously meant as a leveling factor. Workers would not see their bosses upon a pedestal during the workday, instead, men such as Samuel Young and Frederick Mertens worked on boats alongside their employees.

Unfortunately, descriptions of boatyard buildings lack detail, especially in terms of interior uses of space and materials. In discussing worker housing, Beaudry and Mrozowski (1988:5) notes that interiors were a private sphere where decoration would reflect the values of the laborer, rather than of the manager. Boatyard workers lived in houses in town which were certainly removed from surveillance, but did the workspace provide a degree of privacy and potential for self expression as well? Rotman and Stacier (2002) note the pasting of labels as decoration in the workspace of the Schroeder saddle-tree factory. Boatyard craftsmen were surrounded by raw materials with which they might have embellished their work environment. There would, for example, be paint in various colors leftover from finishing boats. Did owners encourage or discourage such decoration? The workplace with its tools and smell of fresh wood and paint may have been more than enough to satisfy a labor of love for some workers. Only further archaeology can explore the intimate work environment.

Social relations appear in canal literature as expressed in the decoration and construction of the boats, the kinds of cargos they contracted, and even whether they were drawn by mules or horses. Boats and their contents functioned as portable status items for

canallers. It remains to be determined whether social relations of the waterfront were more commonly expressed through material wealth or through good reputation and community standing.

Another similarity to the Schroeder factory rests in a propensity for reusing materials. Just as the Schroeder factory workers recycled building materials, TV dinner trays and cardboard (Rotman and Stacier 2002:96), boatyard workers at the canal terminus used old boat timbers not only to stay warm and build slip-ways, workshops, and new boats, but also (if one is to believe local legend) their homes.

The natural environment of the boatyards left some things to be desired. True, fish, eels and turtles were usually to be had for the catching, and some reports remark on the clarity of the canal, but in general, the pervading conditions were those of a busy and badly polluted industrial center. Rank effluvia carried by the Mill Race from the heart of the downtown past or into the canal basins combined with the “home-grown” pollution emanating from Footer’s Dye-works and all of the basin industries to produce foul smelling, soupy water. This water, not fit for the boiler of a steam engine or the stomach of a mule, surrounded workers with the threats of waterborne disease. The basin area was not devoid of foliage and some of the trees afforded shade to those working near them. Air quality was passable. Unlike larger cities of similar back ground (e.g. Pittsburgh) when businesses had to keep their lights on at a smoky mid-day, it was due to a forest fire, rather than heavy industry (C.A.11/5/1903 LXXXII 45). Still, with many large manufacturers and rail lines in the vicinity, the smell of coal smoke and chemicals would rarely have dissipated.

Canals earned a reputation in the 1800's as carriers of cholera and other diseases, the C&O being no exception. Leone (1983:182,185) considers how pollution and the ability to maintain waterways and waterfronts affected the economy and survival of the surrounding terrestrial populations. Certainly this is important in epidemics such as cholera, as well as flood and normal wear damage such as bank erosion and silting of the channel. Working conditions in the boatyards were generally good. What few injuries were reported were relatively minor, such as the loss of a thumb by Marshall Ehrbar, an employee at Mertens or the crushing of a finger by Frederick Baer at Young Brothers (D.C.A. 4/15/1877 II 92, 3/30/1877 II 39). Compared to the long lists of casualties issuing from other local industries and especially the railroad, these were truly minor. Workers who died due to infections or accidents during the construction of the canal were usually buried in cemeteries in towns rather than in the generally haphazard settlements of the labor camps (personal communication Stephen R. Potter 3/30/04). Strong church affiliation was, and still is, a hallmark of the Cumberland workforce. On the site of Fort Cumberland, a feud was fought between the Lutheran and Catholic congregations. It is in the cemeteries of these churches and in the park cemeteries around the town that the canal boat-builders and their families are buried.

2. Economy

As we have seen, Cumberland boatyards were heavily impacted by prevailing economic conditions. Whereas bulk or mass producers could rely on a fairly stable market,

specialty producers such as canal boat-wrights were influenced by nature, economy, and politics on the canal and in the nation at large.

Most recessions and depressions on a national scale had only marginal impacts on boatbuilders for a variety of reasons. Cumberland and the boatyards seem to have escaped a national depression in 1857 by virtue of their own booming economy. During the Civil War, Cumberland avoided the fate of other southern towns through early occupation by federal troops. Local businesses and hospitals were kept active serving the needs of the large Union garrison and canallers profited from hauling military supplies, troops, and casualties. Boatbuilders, apart from maintaining the boats engaged in carrying these and traditional cargos, also worked to replace boats destroyed during Confederate raids by Generals Lee, Jackson, and Early. Economically, Cumberland passed through Reconstruction very much like a northern city; its growth was catalyzed by the trade carried by the canal and railroad. The first economic disaster on a national scale to make its mark on Cumberland's boatbuilders was the 1873 depression. Although the canal experienced a boom in 1874 due to advantageous coal markets, nationally this depression lasted until four years later. By 1876-7 hard times had reached the city. The 1893 gold panic was mercifully light on canallers. Protected by the railroad subsidies, canal pay and conditions remained stable. For the remainder of the canal's existence, the national economy was generally healthy and robust. That only one national depression coincided with "hard times" for the canal and its boat builders leaves us to seek local culprits.

Local economy had a greater impact on boatyards than that on a national scale. Cumberland's economic crises generally evolved through a combination of natural, political,

and economic factors. These generally began with a destructive flood, followed by the struggle between the political elite for funding to repair damage. Although the second bane of the canal community, falling coal prices, began as national crises, the vast majority of damage was inflicted by poor local policy.

Designed to withstand floods on the largest scale then in memory, that of 1816, the canal was inundated by a far greater flood in 1852. Although the canal was back and running before too long, this may have been a key to the demise of some of the early and little-known boatyards such as the “New York” and “John Clarke’s Boatyard.” Although most sources put the greatest number of boats on the canal at five hundred, some report as many as seven hundred and fifty, the balance probably was abandoned or in poor repair (C.A. 3/9/1905 XXIV 61 -*this article refers back to the boom times of 1874*). The boat glut combined with high trippage, low freights, and low coal prices to send the canal economy into a deep depression. A scene of desolation pervaded the basins in the wake of the 1876 strike. With no work in their chosen profession, boat-wrights made a trade of carrying derelicts over to the Sinclairsville (Ridgeley, West Virginia) side of the river to be broken up and burned in the lime kilns there (D.C.A. 2/13/1877 II/30). Boat wrights were organized in later years, though little documentation exists here. Fearing a repeat of the great strike, carpenters did succeed in fixing their wages at \$1.25, though this did not guarantee work (D.C.A. 2/23/1877 II/40). The season had been pitiful, effectively “closed” with only a hundred out of five hundred boats having cleared port (D.C.A. 3/21/1876 1/67). The boatyards lay empty and silent, the canal filled with rotting and sunken boats, and the Basin Wharf rotted and collapsed in Shriver Basin. This development levied a last indignity on the Maryland Coal

company, whose office lay submerged under the backed up water (D.C.A. 5/4/1877, 1/98). Despite the “firewood” trade and other entrepreneurship, this crisis constituted the first instance in which boat-wrights were unable to make their landscape work to their needs. After four months of some minimal activity, the boatbuilders were again without work (D.C.A. 9/11/1877, II/11). Peak shipping was recorded at over 500 boats on the canal in 1877. Around that time, production in the boatyards reached an unprecedented 170 vessels per year (NPS 2004). Even more remarkable is that this season came on the heels of one marked by an equal degree of desolation due to the strike. This unexpected prosperity even led to renewed lobbying to complete the channel through to Pittsburgh, but to no avail. In 1889 a torrential rainstorm famous for its role in the Johnstown Flood, caused massive damage to the C&O. The resulting smear of silted-up ditch, broken and randomly dropped vessels, and standing swamps led to an eighteen month period of inactivity, definitively ending any hopes for prosperity and forcing the canal into receivership to the railroad within a year. 1902 saw the birth of the “Canal Towage Company,” a false-front of the B&O Railroad. Thereafter, B&O subsidies kept the canal solvent and the land out of the hands of competing rail lines. The same year, the small Western Maryland Railroad purchased land at the juncture of Will’s Creek and the Potomac and proceeded to fill in the northern third of the mainline basin for a new station. The last Canawlers knew a waterway sailed by little more than a hundred barges and wintered in a port one fourth the size of that known in the 1800’s. In 1924 a staggering flood succeeded in undoing decades of stop-gap repairs, shutting down canal boat commerce once and for all. The canal was given over to pleasure boating for many years and in 1936, the last “boat” (more accurately a raft) made the trip

down. Following a final 1938 flood, the canal and its properties were sold to the Federal Government. During all of these hardships and with increasing rapidity in the succeeding years, waterfront infrastructure was torn away. Businesses failed and were demolished, boats were either salvaged, burned to the waterline, and or sunk to fill in the basin in efforts to reclaim valuable land. Local legend has it that many buildings in town were built of canal boat timbers over the history of the C&O and especially during this twilight. Figures 33 and 34 show a number of canal boats used as dwellings.

3. Labor

Subordinate to, though not powerless against the economics of coal and of freight politics, boatyards met the challenges of an inconstant market and outside manipulation through advantages posed by their organization of labor, specialty production. Cumberland's boatyards began with individual boatbuilders such as Frederick Mertens, John Young, and Thomas Ward. These men established themselves in the area of the new Terminus and through their activities, helped to create a novel industrial landscape in Cumberland. From the first, these builders valued skilled craftsmen and sought out individuals with experience building boats on other canals to form the basis of their enterprise. Through print advertising, word of mouth, and most importantly, through the quality and durability of the vessels they launched, these yards gained the capital needed to expand. As the boatyards grew, they evolved from partnerships of master craftsmen to more defined specialty production centers with an owner paying daily wages to a large group of

boat carpenters. Traditional ship and boat production usually requires artisanal means of mobilizing labor. Fully-skilled boatbuilders are found almost exclusively in small-craft construction (Alford 1999, Greenhill 1976, Penzo 2003:342). Like the boatbuilders of the Virginia and North Carolina Tidewater, some C&O builders also captained their own barges. Building larger vessels, necessitated task-division both in pre-modern and modern times, not to mention larger workshops and different social relations (Gawronski 2003:133-135). Gawronski's analysis shows how labor at the 17th century Dutch V.O.C shipyard in Amsterdam was horizontally organized with extreme task division; it would have been efficient enough in form to have accommodated modern industrial production (Gawronski 2003:135). The earlier, privately owned Hogendijk shipyard seems to be more along the lines of the Chesapeake and Ohio Canal boatyards, especially in its many small, fairly independent workshops. The Hogendijk yard's shops even built patch-work slipways of salvaged boat timbers similar to C&O boatyards such as Ward's (Gawronski 2003:136-142). The C&O yards seem to have resembled the Hogendijk yards early on while still privately run, but to have streamlined after the establishment of the Canal Towage Company after the turn of the century.

The taskscape, according to Ingold (1993:159) is social in its temporality as opposed to "astronomical." This means that efficiency was measured in terms of quality of work and working environment instead of in mean production. In the canal boatyards of the Chesapeake and Ohio and especially in the 1850 to 1902 period, this is evident. It is not a question of the presence of time-clocks in yard offices (unknown) but the informal, frequently outdoor work which encouraged social interaction. It is in such work experience

that Ingold finds “the very foundations of sociality.”

Social relations are shown in evidence of differentiation of trades as well as revealing how cultural pluralism was involved in ethnic relations of the waterfront. Many studies have considered the relationship between the physical landscape and laborers. Baxter raises the question of whether workers introduced domestic spatial patterns to and practiced more genteel consumption in their work environment because of prevailing theories of domesticity (Baxter 2002). Interviews with descendants of Chesapeake and Ohio workers have exposed the possibility of a similar scenario. Certainly there are no conspicuous “ornamental spaces” evidenced in documents or archaeology in the boatyards. There remained, however, a paternal aspect, as in most if not all of the yards, the owner had begun as a simple boat-builder and maintained this link despite his increasing fortunes. Men such as the Youngs and Mertens worked alongside the craftsmen they employed while continuously seeking ways to make their products and services more efficient. Owners worked in close contact with boat wrights and did not go to lengths to differentiate themselves from them while on site, whether through appearance or privileges.

Did “owners of production,” masters, and workers in canal industry see themselves as separate classes or remain more homogenous? Garman (1999:118) sought to determine what town leaders deemed appropriate for a sub-lower class of the poor and insane and Mrozowski (1999:141) pointed to differential allotments by New England mill owners to their skilled and unskilled employees. Did the Towage Company operators and master boat-wrights provide similar bonuses to favored workers or did they, as in Rotman and Stacier (2002:94), simply ensure fair treatment and the availability of employment? The latter would

seem plausible given the similarity of the Schroeder saddletree factory and the canal company industries. Both were “specialty firms” as defined by Rotman and Stacier (2002:93) and both were often in imperiled economic situations. Outside of a decade-long boom, the C&O was in constant economic danger, both through floods and competition from the railroad. The Schroeder company suffered from flood and replacement of the horse with automobile transportation. Both were left stagnant in times of national economic depression.

Are these landscape orientations indicative of “modes of resistance” in the Cumberland basin? In this congenial atmosphere, questions of surveillance or resistance and domination typically raised in industrial landscape inquiries seem moot.

If boatyard owners took the chance to actively oppress anyone, it was the boaters themselves. Before 1902, canal boats were often majority-owned by their builders and captains paid a set amount per run toward their boat, known as “trippage.” When coal prices fell and tolls, which the C&O was never able to reduce enough, eliminated profit and even the hope of breaking even, boatyard owners had the ability to reduce canallers to destitution through too-high trippage. So it was that canallers became defacto employees of boatyard owners. One possible example of an artifact used in resistance to this situation was the burning of the Doerner & Bender’s steamer Star No. 3 during the 1876 strike and blockade. Although the incident occurred many miles from the terminus, the effect was certainly felt in the boatyards, where steamers were a point of pride far above the traditional barge. As the canal men were too poor to afford repairs, and there existed neither the means nor need for new construction, trippage was sometimes a boatyard’s sole income. Many independent builders folded under such stresses. Owners who branched out into varied enterprises cut

their losses and stood a better chance of surviving in the craft. Fortunately for the carpenters who were inevitably laid off for long stretches, the city was still growing and work was to be had building homes for steel, tin, glass, brewery, and other workers. Boat-wrights seem to have become adept at surviving this instability as several of them, such as Christian Dreyer and Jacob Riehl, were lifelong boat-builders. After the formation of the Canal Towage Company in 1902, the relationship between owners and workers faced several challenges. There were now only two boatyards left, those of Mertens and of the Towage Company. Economically, this was as it should have been as smaller freights required far fewer than the long disintegrated five hundred boats. Boats, now owned by the company exclusively, were depersonalized, identified by numbers rather than fanciful names on their sterns and drab in their standard-issue grey and white paint. Canallers have spent the years since regretting the loss of personal attachment and of pride in the boats. One can imagine how it felt to boat wrights, weighed down by the fact that their creation would become just another in an anonymous line of dingy craft treated with the same care as we today bestow on a rental car. What the floods had not accomplished, the Towage Company did in eliminating the interest in steam propulsion. While boat wrights before 1902 probably owned and curated their own tools, the situation under the Towage Company is unknown. At least at Young's Boatyard, "tool chests belonging to workmen" are noted as casualties of the 1877 flood (C.A. 11/26/1877 II 274). Trippage issues, on the other hand, were eradicated and boaters began to make something akin to a living wage again. For better or worse the Towage Company kept the industry afloat. I have here tried to synthesize the available evidence. Given their unique evolution, it becomes clear, however, that not nearly enough is known of labor

relations in the Cumberland boatyards.

4. Social and Ethnic Space

Boatyard workers were members of a unique trade. In a city increasingly dominated by large scale factories, the traditional craft-focus of canal boat-building formed the nucleus of an “occupational community” (Applebaum 1981) with a well-developed sense of agency and loyalty. The environment of the Waterfront exposed this community to a variety of influences which shaped their daily life.

Using Don Shomette’s research on the Patuxent River and Baltimore, Maryland records, Leone (1983) emphasizes the importance of urban centers in supplying funding and labor to maintain ports. It seems clear that the Chesapeake and Ohio survived into the 1920’s as much because it had a major urban center to support it as because of Baltimore and Ohio Railroad subsidies. Officials of the canal company lived and worked alongside the builders, controlling activities, inspecting boats, and collecting tolls and rents. The 1878 Allegany County Directory lists C.V. Hammond as Canal Inspector, A. Willison as Collector, and Lewis G. Stanhope as Superintendent. Inspectors insured the smooth flow of traffic on the canal, banning any boat which took on water too rapidly through the mediocre oakum seals of hemp rope, tar, and linseed oil. A bottomed-out barge meant days of unloading and re-floating, costing the company and captains their fees. One M. Coulehan is listed as “Wharf Superintendent,” the person who answered for all coal shipments loaded at the company coal wharf. (Note R. Coulehan listed as boat-builder).

Like the labor camps during the construction of the C&O, the later boatyard population was predominately male. It was not until the establishment of the Canal Towage Company that a concerted attempt was made to subdue the rowdy waterfront environment by selectively hiring boaters and workers with wives and children. Obviously, the Towage Company drew a connection between the nuclear family and stability, if not Christian/Protestant work ethic. The lack of family life may be one reason for the ethnic and class battles that so pained the progress of the canal through the 1830's and 1840's. The atomization of social life caused by switch from reliance on community to reliance on the nuclear families resulted in a more peaceful and subdued waterfront.

19th century Cumberland was an ethnically diverse environment. Irish, Germans, Italians, Poles and other Europeans were joined by Asians and African Americans. While many of the more “exotic” groups were brought in as skilled workers in the glass works and other industries, waterfront workers were predominantly of Hibernian or Teutonic stock. Beginning in the early 1800's, Irish and German immigrants formed the body of canal labor on many American canals, including the C&O (Way 1997). During the construction of the waterways, unskilled labor was typically contracted to Irish, while skilled masonry work went to Germans. With the completion of the canal, boat construction and maintenance labor was again divided along ethnic lines, but now hardly as strictly. Many of the Irish immigrants of the 1840's had begun to learn specialized skills, both in masonry and carpentry. Germans, often coming from the old Hanseatic ports and inland river towns could sometimes apply familiar boat-wright's skills as well as statistically better financial backgrounds. In a bit of antique shop archaeology- a visit to a local Cumberland shop turned

up a 1905 copy of Schiffman's "Wasserbau" (Hydraulic Engineering) from a local estate. Dog-eared pages marked sections on canal prism, dam, and bulwark construction. The title-page lists self-teaching and technical classroom instruction (and also identifies Schiffmann as a professor of the Technical Institute of Bremen). This would indicate that even well after the decline of the C&O, German-speakers continued to be involved in maintenance engineering.

Evidence of ethnic and class tension in 19th and early 20th century Cumberland is abundant. Certainly this is not unusual for a city of its size during the time, but may be useful in determining waterfront relations. During the 1893 fire which leveled much of Baltimore and Mechanic Street, the *Weekly Civilian* (1893) noted several merchants reporting having shoes stolen by "Italians and other thieves." Were certain trades oriented, as in Rotman's and Stacier's factory (2002:97) toward specific ethnic or economic neighborhoods of Cumberland?

Given the multiple immigrant groups of western Maryland, studies by Alford, Newell, and Greenhill into the origins of vernacular American boat construction beg the question whether skills learned by German, Irish, and other craftsmen before coming to Cumberland played into the many canal boat forms of the C&O (Alford 1999:276-8, Greenhill 1976, Newell 1999:282). Although not typically familiar with canals, many German immigrants found skilled work as stone masons on the canal's plethora of locks, dams, and aqueducts. Although many of this first generation entered retail or other trades upon the completion of the canal, those who came after may have filled a similar niche in boatyards. According to the *Alleganian*, many of the first boatmen on the canal "came here

from Pennsylvania, where they had gained experience on [the Pennsylvania Canal]” (C.A. 3/9/1905 XXIV 61). To a carpenter of the Rhine Palatinate, newly arrived in Cumberland, many of the techniques and skills employed by canal boat-wrights would have been second nature. Rarely are the names of individual boatbuilders remembered, but it is perhaps an indication that those who are frequently bear German surnames, such as Jacob Riehl and Christian Dreyer (C.A. 2/8/1906 LXXXVI 5). Dreyer, says the *Alleghanian*, was originally Prussian and both “helped build the canal” and was a boat builder and carpenter by trade. He was also noted as a “consistent member of the German Lutheran church.” Although more is known of the proprietors of boatyards than their employees, most of the former began as boat-wrights themselves. Of the “owners,” Frederick Mertens and Doerner & Bender fit this group. Many boatbuilders of Irish background probably learned the trade after a stint at digging and migrated with demand from one canal to another, learning valuable skills and building styles.

5. *Domestic Space and the Workplace*

What the B&O and Wabash managements considered an epidemic of “floating saloons” arose on the canal at the turn of the century. Peter Gross, Danie Brinkmann, Brice Flora, and Edward Bechtol each ran one of these illicit establishments which went against company ideals of sober, family business (C.A. 12/17/1903 LXXXII 51).

While boatmen, especially in later years, often traveled with their families, boat wrights worked in an essentially male environment. Only with the expansion of the Footer

Dye-works did a large female workforce enter the basin area. Only in the bars and taverns of Shantytown and Mechanic street would workers socialize with women. In spite of this, or perhaps because of it, the temperance movement was prominent in South Cumberland and the area of Wineow Street. Kingsley Chapel, nearby, scheduled temperance lectures and speakers exhorted saloon patrons to give up “demon rum.” Carrie Nation came through Cumberland at least twice, but restrained her activities to speech-making, much to the relief of bottles and back-bar mirrors throughout Shantytown. It is at Ward’s/Weld and Sheridan’s boatyard that John Milner Associates found potential evidence for private space. Apparently removed from the line of sight of supervisors, excavators found a number of alcohol flasks. A very few clay pipe fragments were also found (Balicki 2000).

Opinions seem to be split as to the degree of violence and drinking practiced by the canawlers. Some remembered none at all, while others told of personally rescuing or recovering the bodies of victims of violence or alcohol and “scrapping” in Shantytown (Kytile 1983). Traditionally, on the C&O and other canals, such brawling was said to have centered on the railroad/canal division. Ben Garrish told Elizabeth Kytile that often when he came to Shantytown “these town-folk” would insult “muleskinners” such as himself and fights would break out (Kytile 1983:260). Given the historically vast animosity between railroaders and canallers, the use of the words “these town-folk” rather than “railroaders” suggests the offending parties belonged to another group.

Smoking was only weakly attested to by archaeological findings. Although only a few of the elsewhere ubiquitous kaolin/bisque pipes were found, other forms of tobacco may have been widespread. Chewing tobacco or snuff would leave the hands free for

woodworking and eliminate the breakage of pipes. By the turn of the 20th century at any rate, kaolin and stub pipes were nearing their end. Automated rolling machines were employed by cigarette manufactures making the archaeologically invisible “coffin nails” abundant.

Were the boat-builders any more or less “moral” than the boaters as they had access to the temptations of Shantytown all year? Most oral histories by early 20th century boatmen contend that there was considerable moderation practiced by boatmen. This would tend to agree with Canal Towage Company policy designed to encourage stability. Newspapers and local legend suggest a much different environment before the 1902 Towage Company standardization. Temperance workers and other reformers literally descended from the “moral high-ground” of Washington Street into the basin area. Daughters and wives of the town’s elite exercised their noblesse oblige in organizing meetings to promote fraternity and the virtues of teetotalism. Despite Ms. Nation’s and others’ best rhetoric, Shantytown and the waterfront were unimpressed.

Barring concerted excavation of many hundred ex-boat carpenters’ houses, the best chance to glimpsing this population’s consumer habits is in the boatyards. Although not a sealed context, the archaeological deposits of boatyards should present decades of continuous accumulation, whereas workers’ domestic households may have changed hands frequently. With the exception of the few dwellings in the area, deposits should be the remains of work clothes, lunches, and recreational activities. Most household goods would have been bought locally by waterfront workers. After the turn of the century, the large catalog companies such as Sears Roebuck came into their prime and the creation of the parcel post in 1906 (by a Cumberland senator) facilitated mail order business. Several boatmen and women

interviewed by Elizabeth Kytle recalled ordering Octagon Soap premiums such as stoves, furniture, and pans (Kytle 1983:252). There is no way at present to prove a parallel among builders' furnishings as their home sites have not been excavated, but some of the smaller items should be in evidence in the waterfront.

6. Foodways

Excavations at Canal Place found food and beverage related artifacts in quantity. Unfortunately few were successfully connected with the workers of the waterfront. Hopefully documentary and oral sources will help to identify dumps and other disposal patterns which will aid in understanding the landscape and its social relations. It would be interesting to see if household and boatyard refuse was disposed of in distinct areas as in Baxter (2002:35) and if there are indications of alcohol consumption in the workplace as pointed to by Rotman and Stacier (2002:103). Workers in the boatyards had a diet similar to, though perhaps more varied, than boaters. Oysters were a favorite delicacy brought up via the canal. The natural environment provided boat-wrights the opportunity to catch their dinner in the form of catfish, bass, carp, eel, and turtles. In the late 1800's and early 1900's, there are reports of seining of the canal and of selectively stocking the Potomac. Seining was often undertaken as a precursor to dredging the canal or closing it for the season. At this time, desirable species such as black bass and catfish were released into the river while undesirables, notably carp, were culled or given to nearby families. Fish invariably reentered the canal through the Cumberland lock and feeders and the canal was known to produce

massive catfish and turtles. At the same time, Will's and nearby Evitt's creeks were reported as having lost their fish to excessive industrial and domestic pollution. Given that waters from these streams entered the canal, it is unknown why there was not a more noticeable effect on the fish population there. While selective stocking of the river with native species was successful, attempts to introduce outside species, notably salmon, failed. Apparently confounded in their spawning attempts, some salmon were stuck at the falls of the Potomac while others found their way to the Monongahela and were not heard from again by the hungry Cumberlanders.

VIII. CONCLUSIONS

Forced by the wiles of the railroad leviathan to survive at all costs, Chesapeake and Ohio Canal terminus artisans managed a complex and ingenious industrial landscape. From the two great basins of the opening day terminus, workers carved and molded a specialized landscape to serve their needs. While the commercial trade brought by the canal reshaped the town around them boat-builders, saw-mill and iron workers slowly reconciled old differences. Workers living now as neighbors rather than migrants, began to confront ethnic differences which had lamed the construction of the canal. Corkers, Galwegians and Far-Downers now worked alongside the descendants of Rhineland stone masons. Lean years on the canal worked to unify old belligerents. The emergence of a true community of labor around the Cumberland Waterfront is attested to in a variety of ways. Through archaeology, newspapers, oral histories, and visual sources we enter the landscape of a trade actively engaged in developing innovative resource procurement and processing strategies and the development of new technologies. Among these are a highly flexible and surprisingly efficient adaptation of specialty production, diversification by owners and the development of steam propulsion and time and money-saving boat building techniques. Boat wrights took an active role in preserving their craft and encouraging the prosperity of the Chesapeake and Ohio Canal and of the Cumberland Waterfront. Compared with other canal and urban labor, boat builders seem to have experienced less class-based tension, an effect of their flexibility

to negotiate down-time. Their workplaces were safer, experiencing far fewer casualties than other canal and urban trades. Much boat carpentry work being done outdoors, the work environment was more healthful and congenial to forming a sense of community in the trade. Negative aspects, such as the effects of pollution, the loss of independence, cultural vibrancy and privacy created by the advent of the Canal Towage Company and the closure of the boatyards resulting from the same, beg many questions. This landscape analysis has introduced many of these questions and has explored the potential for future archaeology to provide answers toward a better understanding of Cumberland's Port of Black Diamonds.

IX. EPILOGUE

Today, a major change is already visible in the basin area, including the restored 1902 Western Maryland Railway Station, Canal Place shops, a pedestrian bridge across the mouth of Will's Creek to Riverside Park and exhibition boat "The Cumberland." A short section of the freshly dug canal has been partially re-watered and pumping machinery is functional. A new boathouse perches opposite the Inlet/Outlet locks. Ways are currently being sought to relocate a railroad bridge so that the rewatered section may be extended and boats may once again pass.

Still, this revitalization comes at a cost to public understanding of Cumberland's early industrial history. An amphitheater, trails, and decorative plantings will surely bring new life to "Walnut Bottom," yet the much reduced scale of the restored basin obscures the importance and sheer extent of the two basins, the industrial spaces, and the bustle of now-vanished Shantytown. Upon completion of the Crescent Lawn project, select artifacts recovered during excavations will be put on display at Canal Place (Hudson 2004). How this exhibit will bring to life such an extensive lost landscape has yet to be seen.

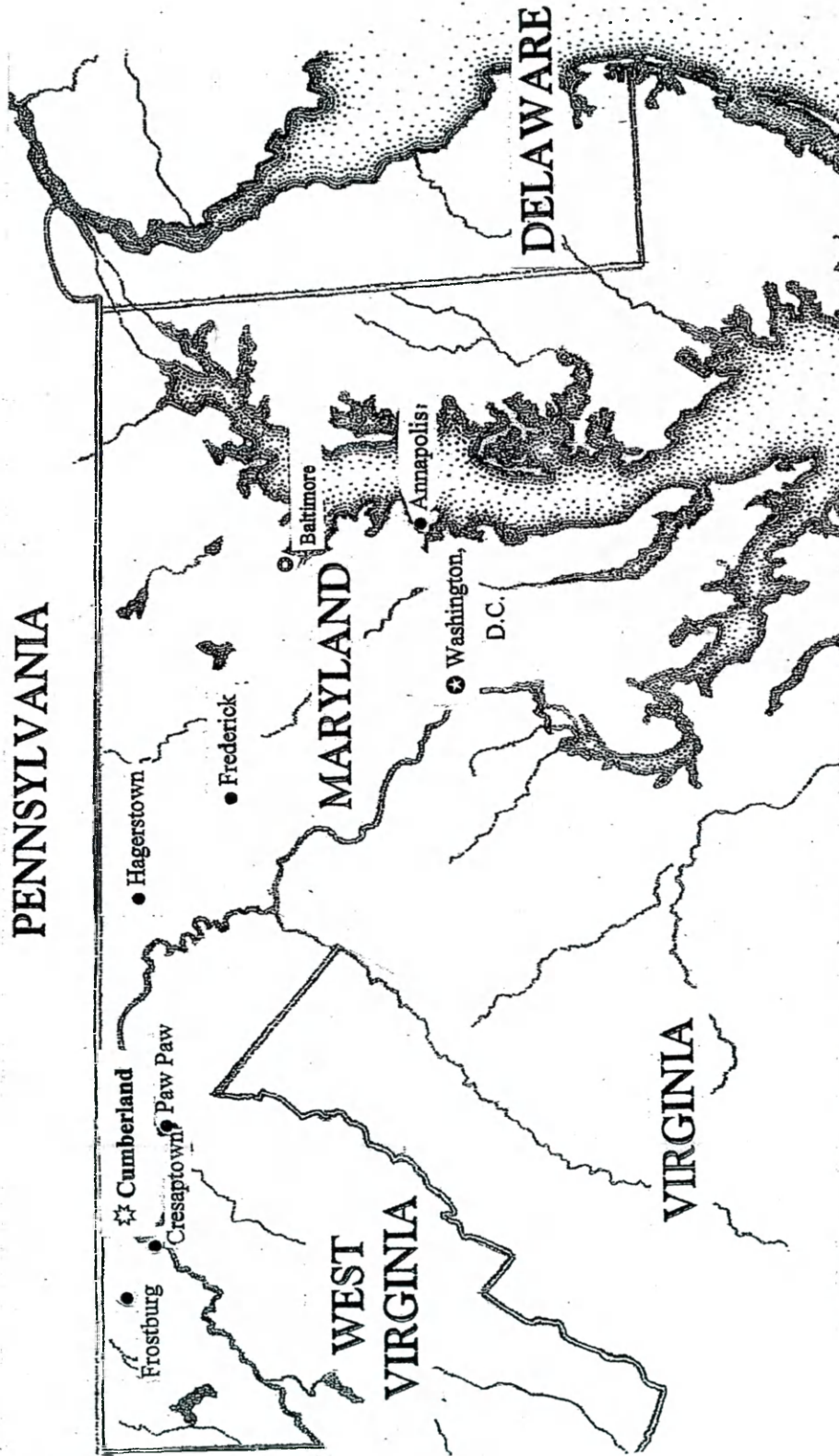
A key goal of Crescent Lawn's re-watering project is to have a working vessel to function as a tourist barge in the basin. Such historic boat reconstructions should ideally be informed by the rediscovery of social relations and the economic and ecological relationships of the boat and crew. Many have missed this mark, especially in construction method and

considerations of crew and crew relations, such as in Newell's mountain boat (Newell 1999:283). Thankfully, canal research has had a habit of producing not only accurate reconstructions, but studies of shipboard life and interaction. Although present plans call for a basic boat not unlike "The Cumberland" or "Canal Clipper" to be launched in the new basin, it is tempting to imagine a day when the archaeological discoveries at Crescent Lawn will lead to the rebirth of an authentic C&O steam packet or other forgotten form.

Crescent Lawn does not intend to return the Terminus area to the appearance of the Canal's 1870's "glorious days," but only to its reduced turn of the century incarnation. Even given this objective, many of the industry-related features which formed the circa 1900 physical landscape are omitted in the revitalization plan. Amphitheater, decorative plantings and trails all hide the vibrant history of the area. The Canal Place Shops are representative of the Ward/ Weld and Sheridan boatyard in their slight northeastern orientation and in their scale and semi-industrial aspect. They are not a reconstruction. The "boathouse," erected on the edge of the new basin, between the shops and the partially restored locks, has no historical precedent. It would not be difficult, however, to incorporate some of the waterfront features rediscovered archaeologically into the new design. Reconstruction of the marine railway, for example, would provide a more tangible feel of the power and labor involved in boat building. Even without the steam engine of the original, hauling a boat up the ramps could prove an entertaining experience. Western Maryland Scenic Railway already hosts "engine pulls" in which visitors engage in a tug of war with a steam locomotive. If for no other reason, the slipway would provide a necessary dry-dock for maintenance of canal boat reconstructions which will ply the re-watered basin. There is no

need to rebuild the landscape as it existed a hundred or a hundred fifty years ago. Visitors and the community will benefit more from green space and recreation opportunities. The best permanent means for interpreting the historic landscape will be the planned interpretive museum or exhibit. This will host a display of some of the artifacts recovered archaeologically from the Crescent Lawn excavations. It will be up to planners to make this small area relate to the historic waterfront and the modern city as a whole. If the exhibit features only Crescent Lawn, then it will be up to activities organizers and interpreters to bring the rest of the landscape to life and present it in a form easily recognizable but accurate. A recognition for and a passing understanding of the historic landscape and its community can only help make Crescent Lawn more successful and culturally relevant. This and similar studies may encourage the creation of a new, hybrid community identity for the area.

FIGURE 1
THE STATE OF MARYLAND, SHOWING CUMBERLAND
PENNSYLVANIA

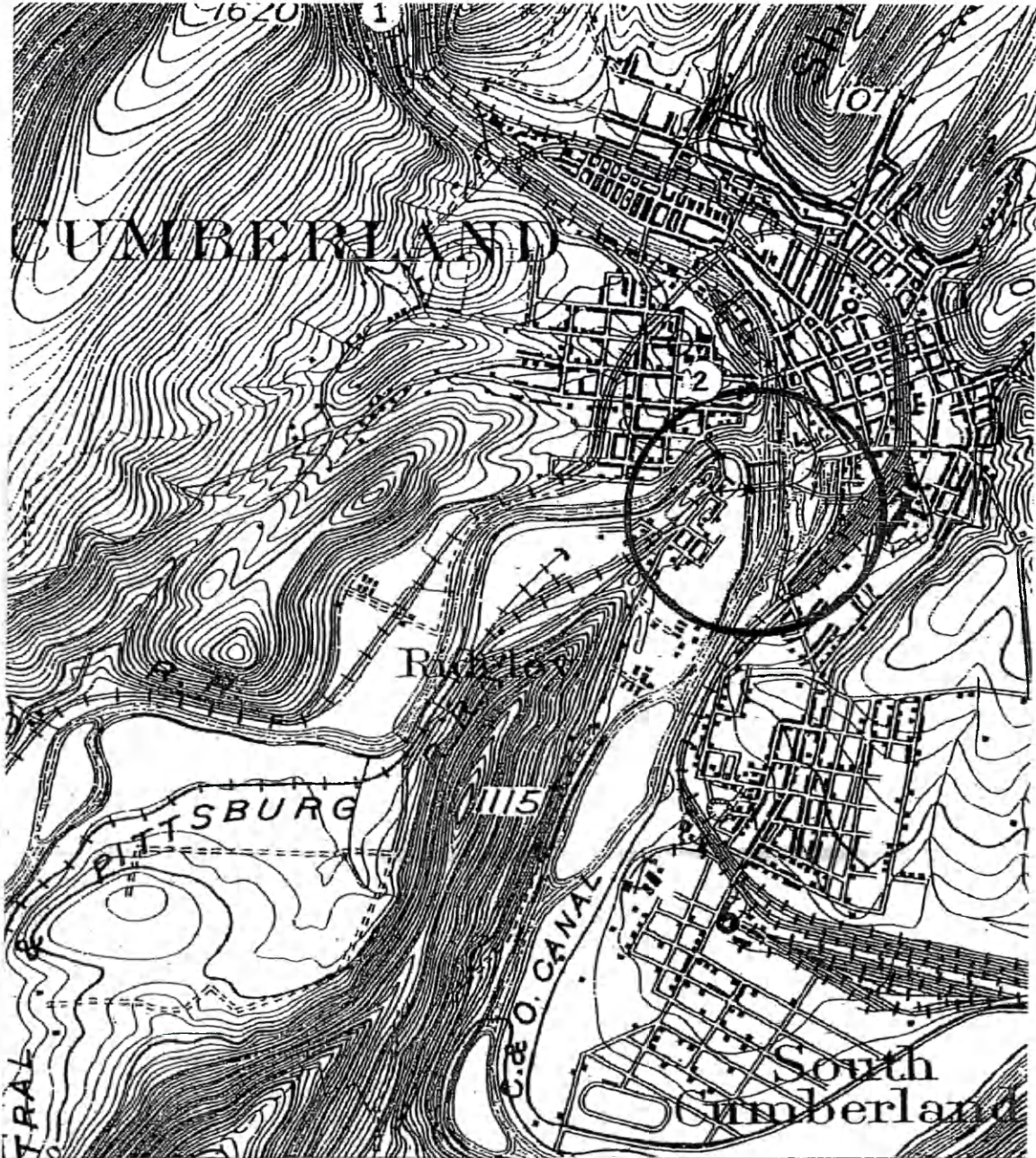


The State of Maryland, showing Cumberland (far left) in relation to eastern cities. (Map by author,

after Browne 1912)

FIGURE 2

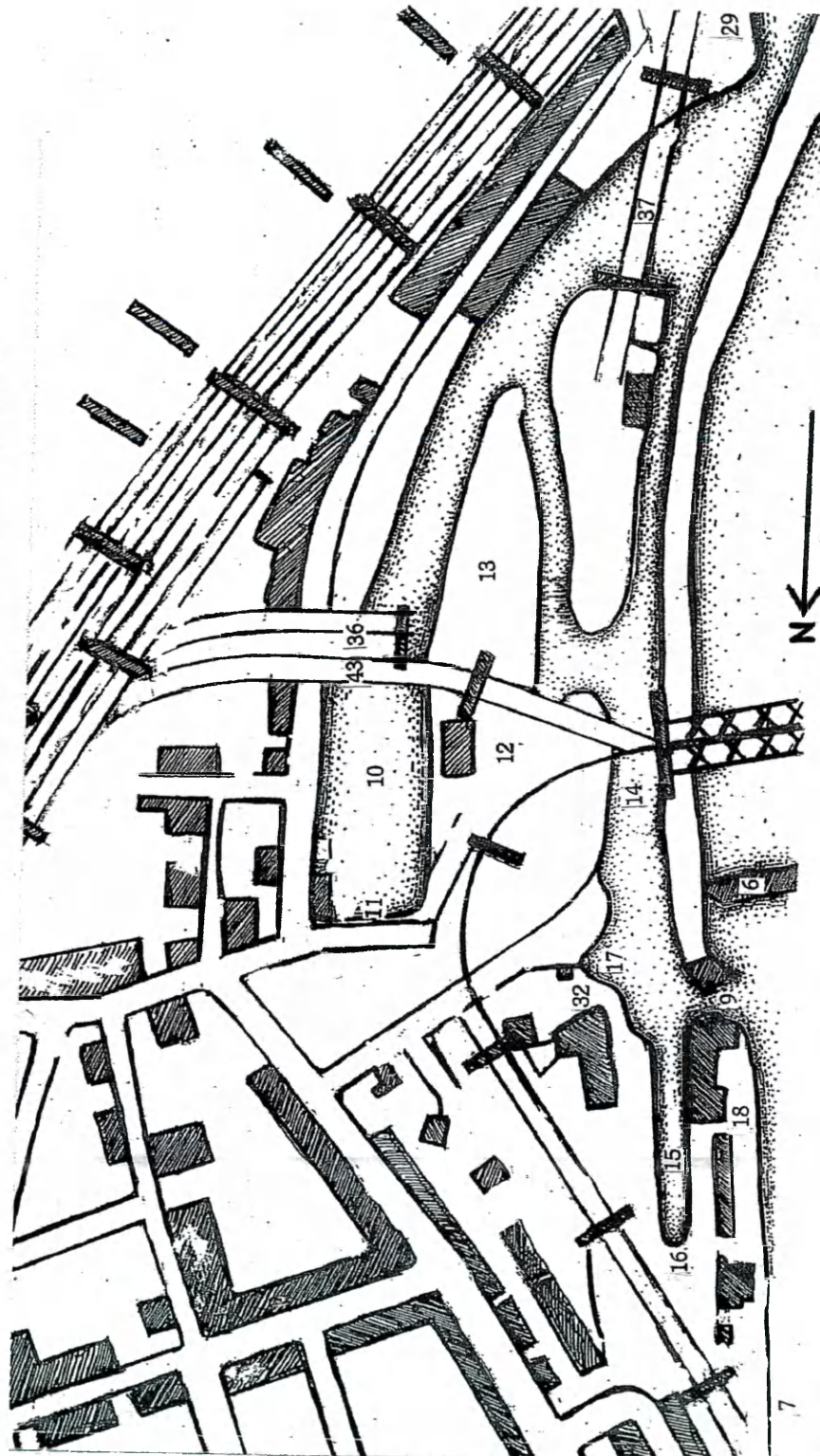
DETAIL OF CUMBERLAND



Detail of Cumberland with C&O Canal Waterfront encircled. (U.S. Geological Survey 1898)

FIGURE 2a

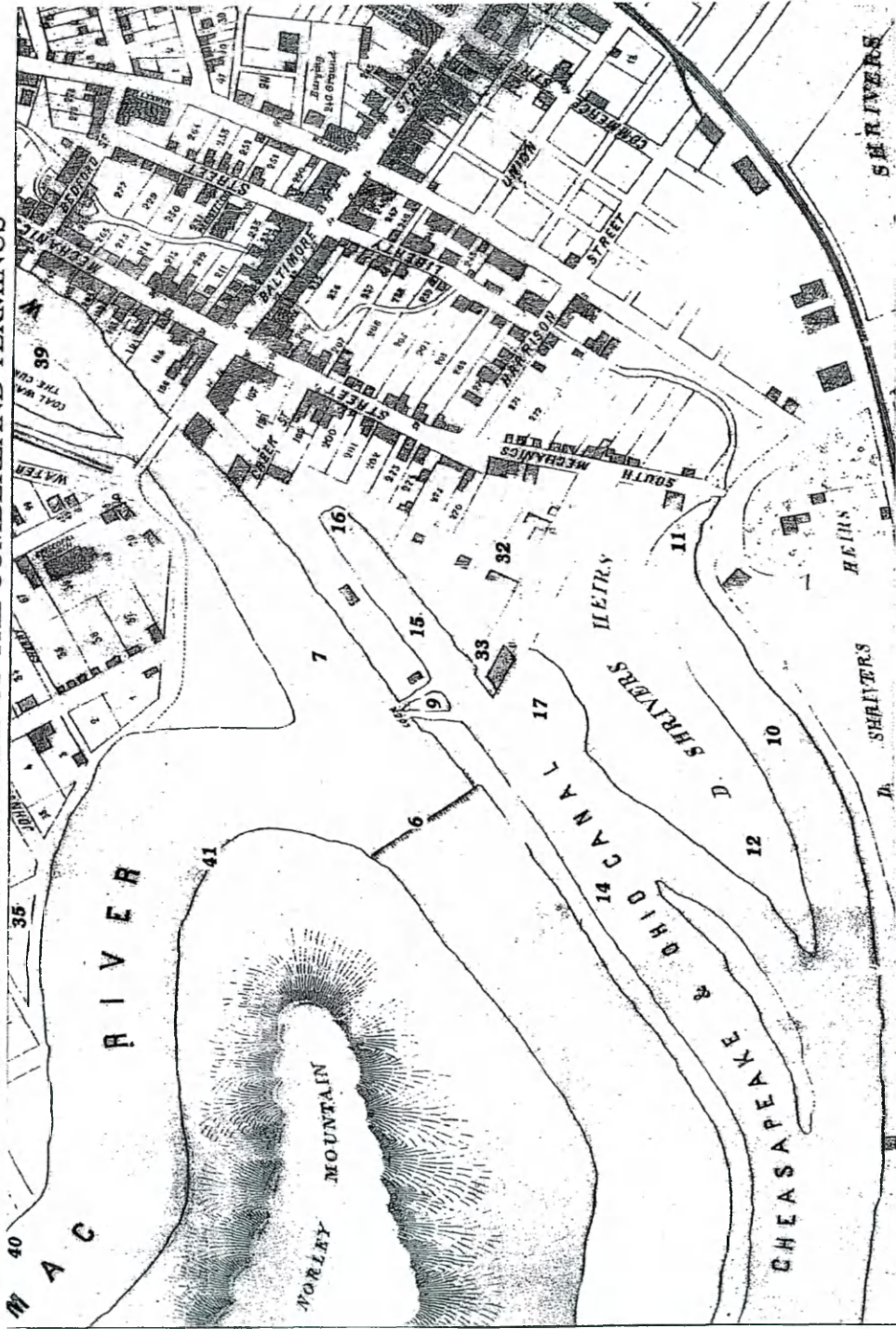
ENLARGEMENT OF WATERFRONT FROM FIGURE 2



Enlargement of waterfront from FIGURE 2 showing general relationships of structures.

FIGURE 3

THE OLDEST EXTANT MAP OF THE CUMBERLAND TERMINUS



The oldest extant map of the C&O Canal Terminus. Waterfront detail from "Map of Cumberland, Allegany Co. Maryland" by John Bevan, 1851

FIGURE 4

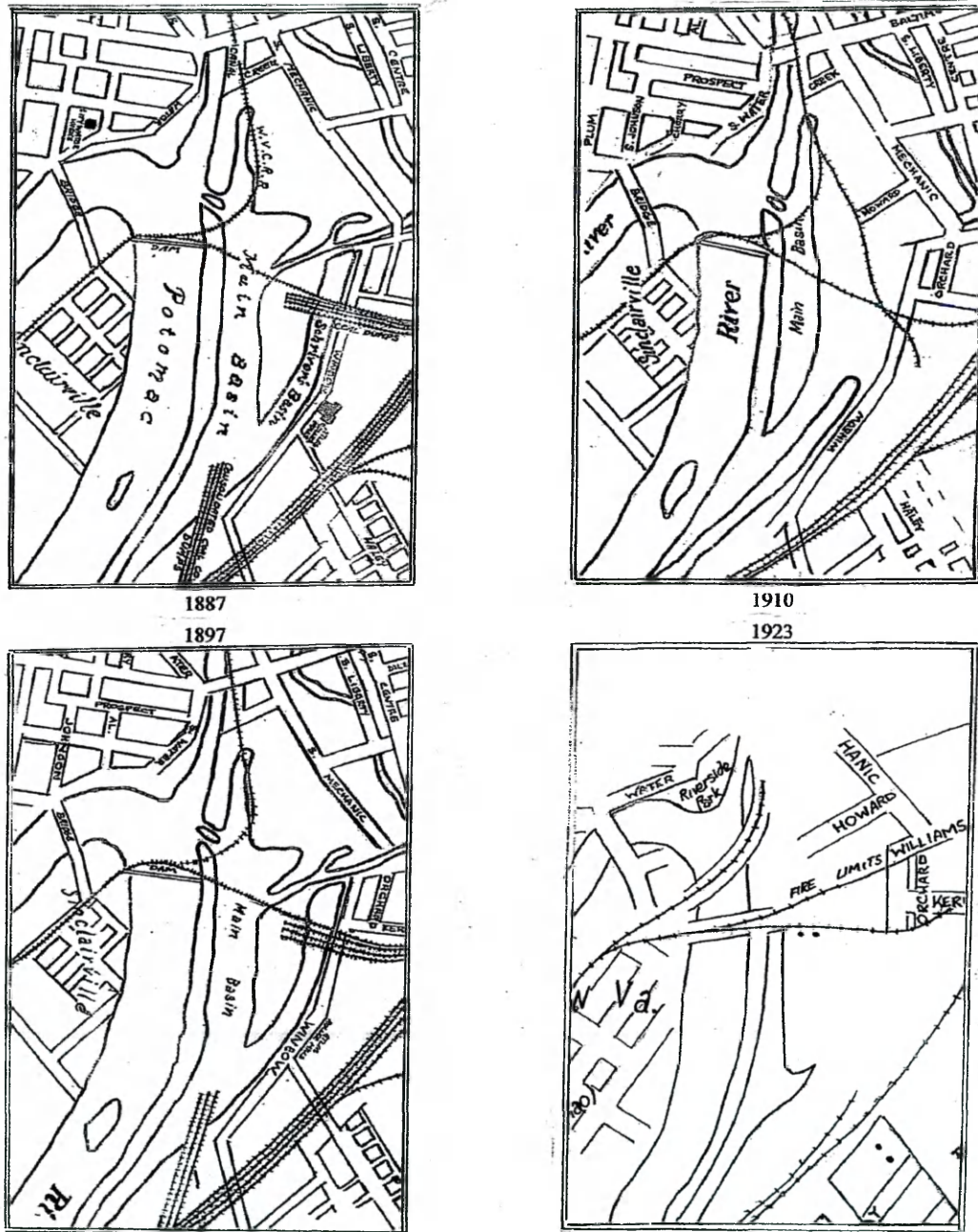
WATERFRONT DETAIL LOOKING NORTH



Waterfront detail looking north. From "Bird's Eye View of Cumberland, Maryland 1873" (P.A.)

Gross 1873)

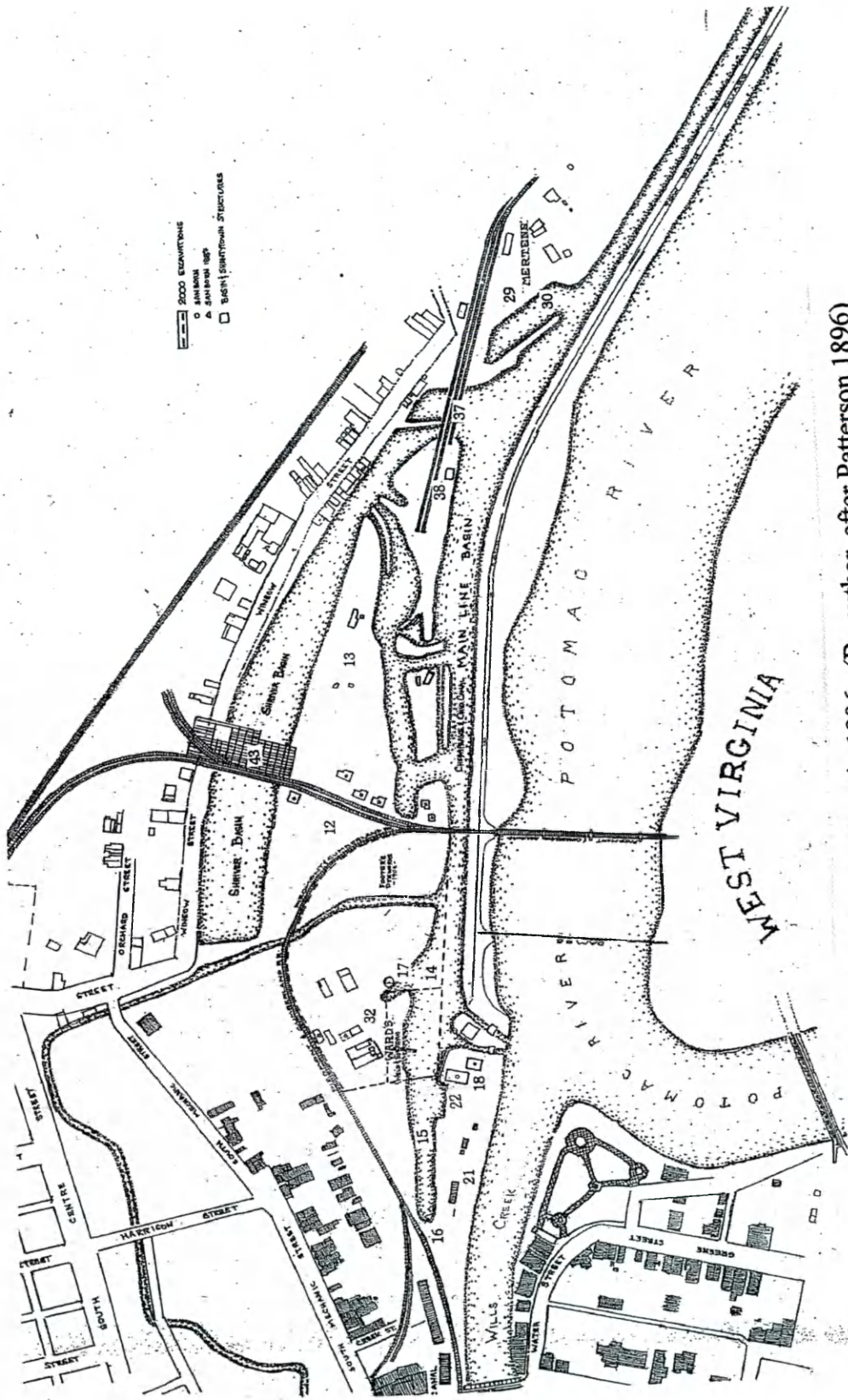
FIGURE 5
DETAILS FROM SANBORN INSURANCE MAPS



Details from Sanborn Insurance Maps showing major changes in waterfront landscape, 1887-1923. (By author, after Sanborn Map Co.)

FIGURE 6

CUMBERLAND'S WATERFRONT IN 1896



Cumberland's waterfront in 1896. (By author, after Patterson 1896)

FIGURE 7

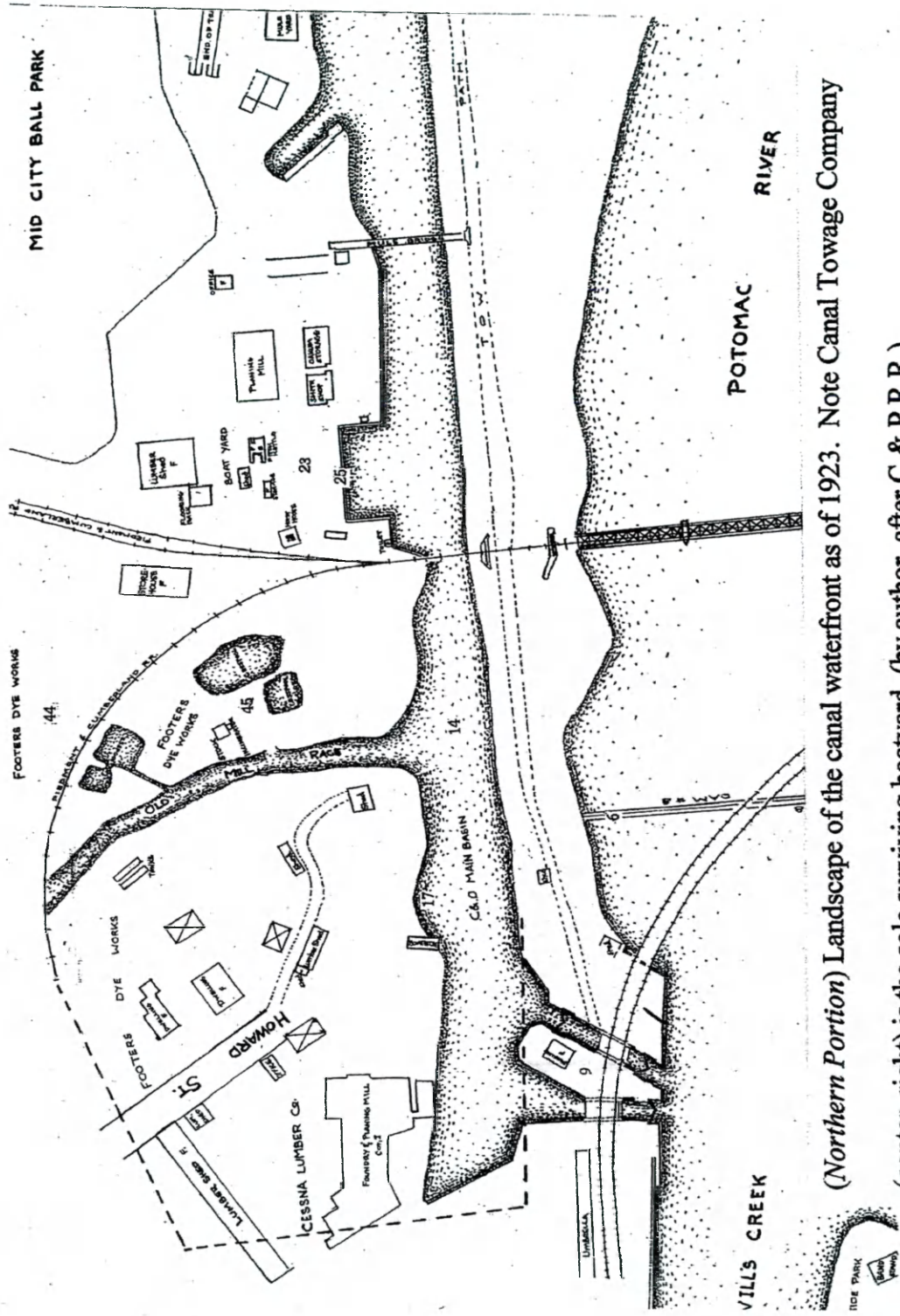
WATERFRONT DETAIL LOOKING WEST



Waterfront detail looking west. From "Birdseye View of Cumberland, 1906" (Fowler 1906)

FIGURE 8a

LANDSCAPE OF THE CANAL WATERFRONT AS OF 1923

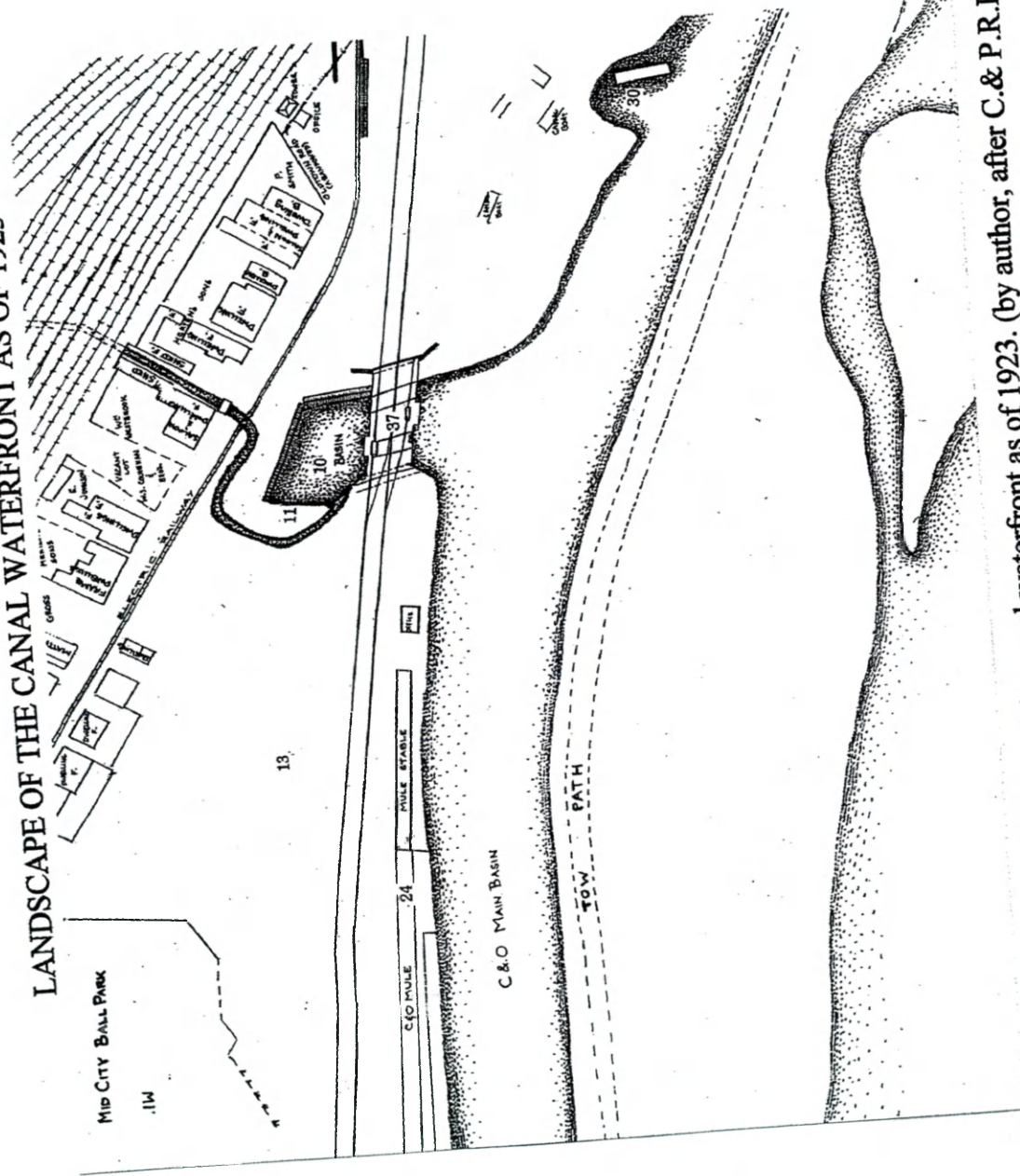


(Northern Portion) Landscape of the canal waterfront as of 1923. Note Canal Towage Company

(center, right) is the sole surviving boatyard. (by author, after C. & P. R. R.)

FIGURE 8b

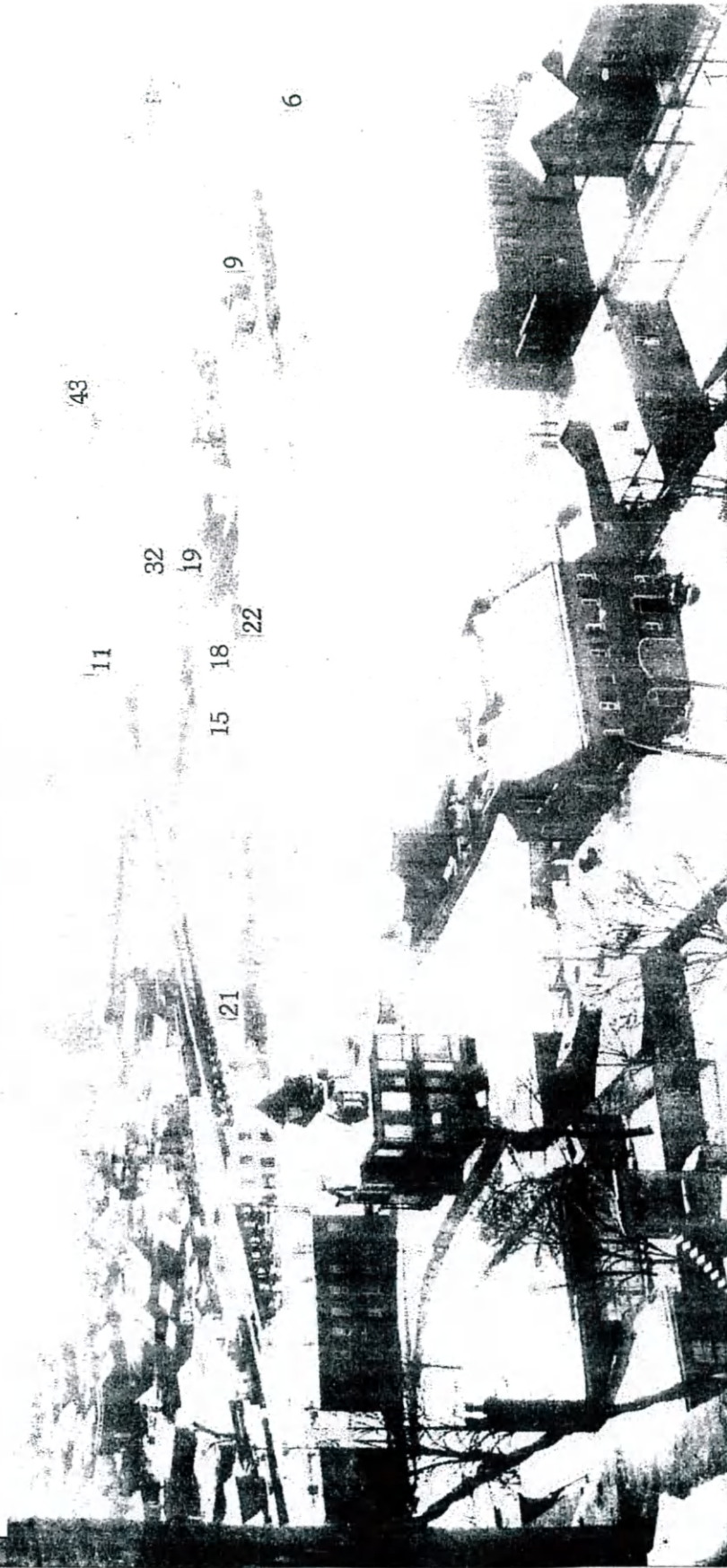
LANDSCAPE OF THE CANAL WATERFRONT AS OF 1923



(Southern Portion) Landscape of the canal waterfront as of 1923. (by author, after C. & P.R.R.)

FIGURE 9

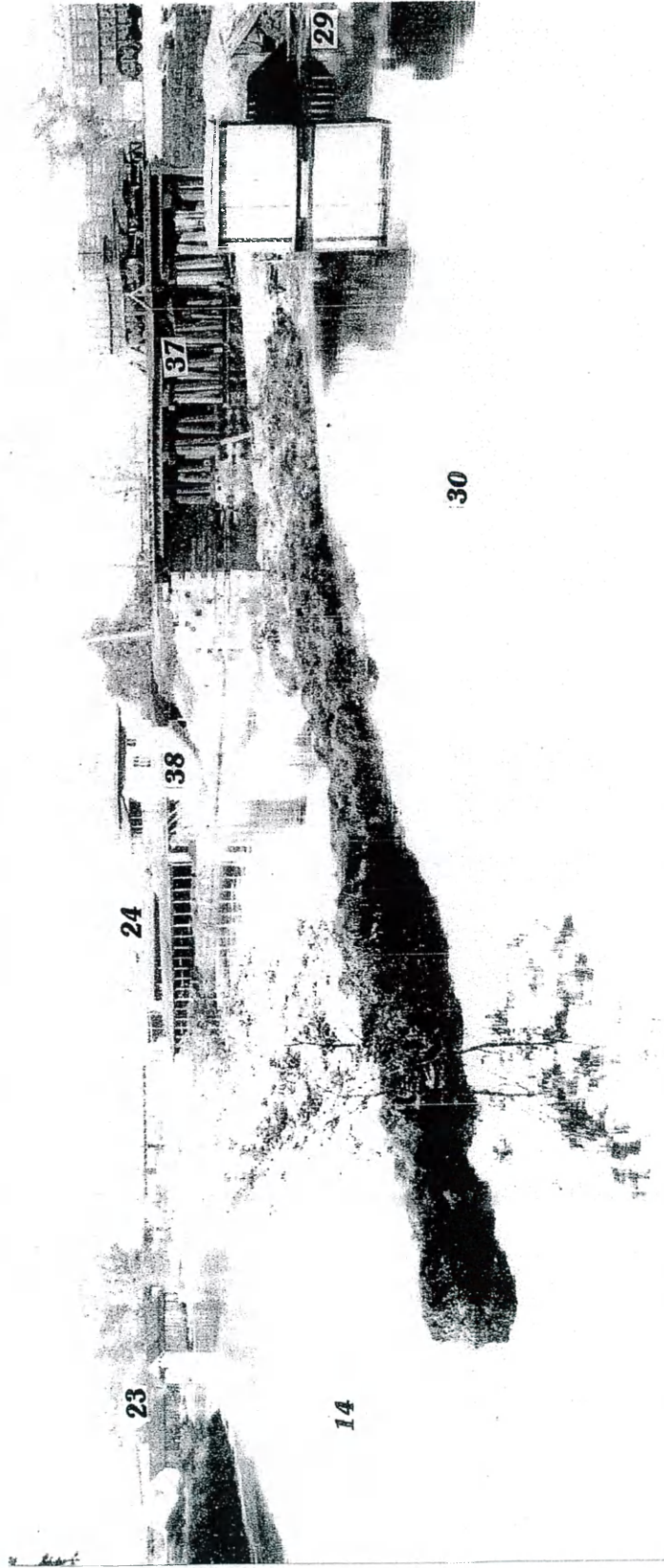
LOOKING DOWN OVER WALNUT HOLLOW



Looking down over Walnut Hollow from old Cumberland Courthouse. Note loop of C&P rails, center, which encompasses "Crescent Lawn." (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)

FIGURE 10

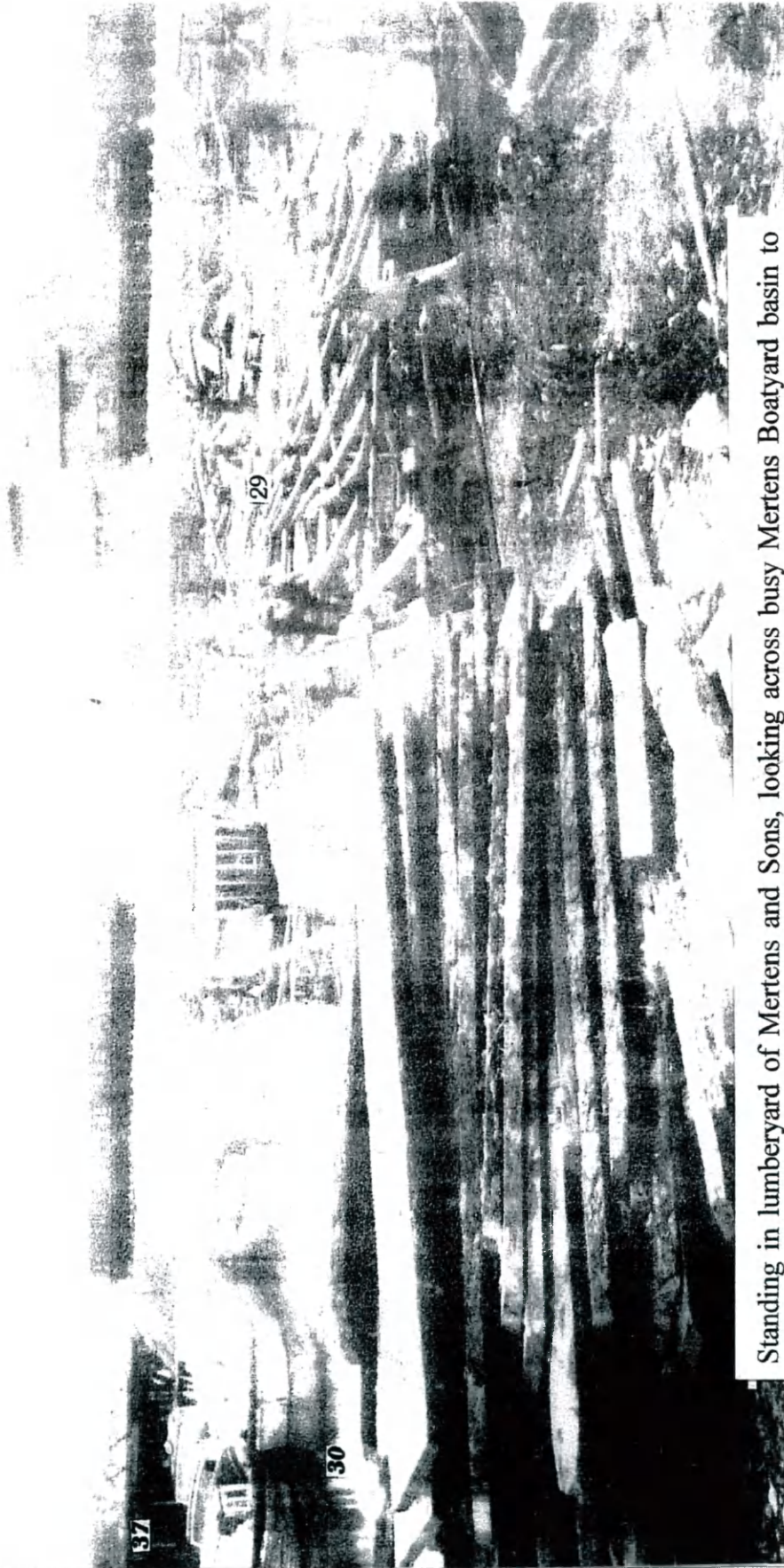
LOOKING NORTH ACROSS MERTENS BASIN, ALONG MAIN BASIN



Looking north across Mertens basin, along Main Basin past Consolidation Wharf and Canal Towage Company mule barns. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)

FIGURE 11

STANDING IN LUMBERYARD OF MERTENS AND SONS



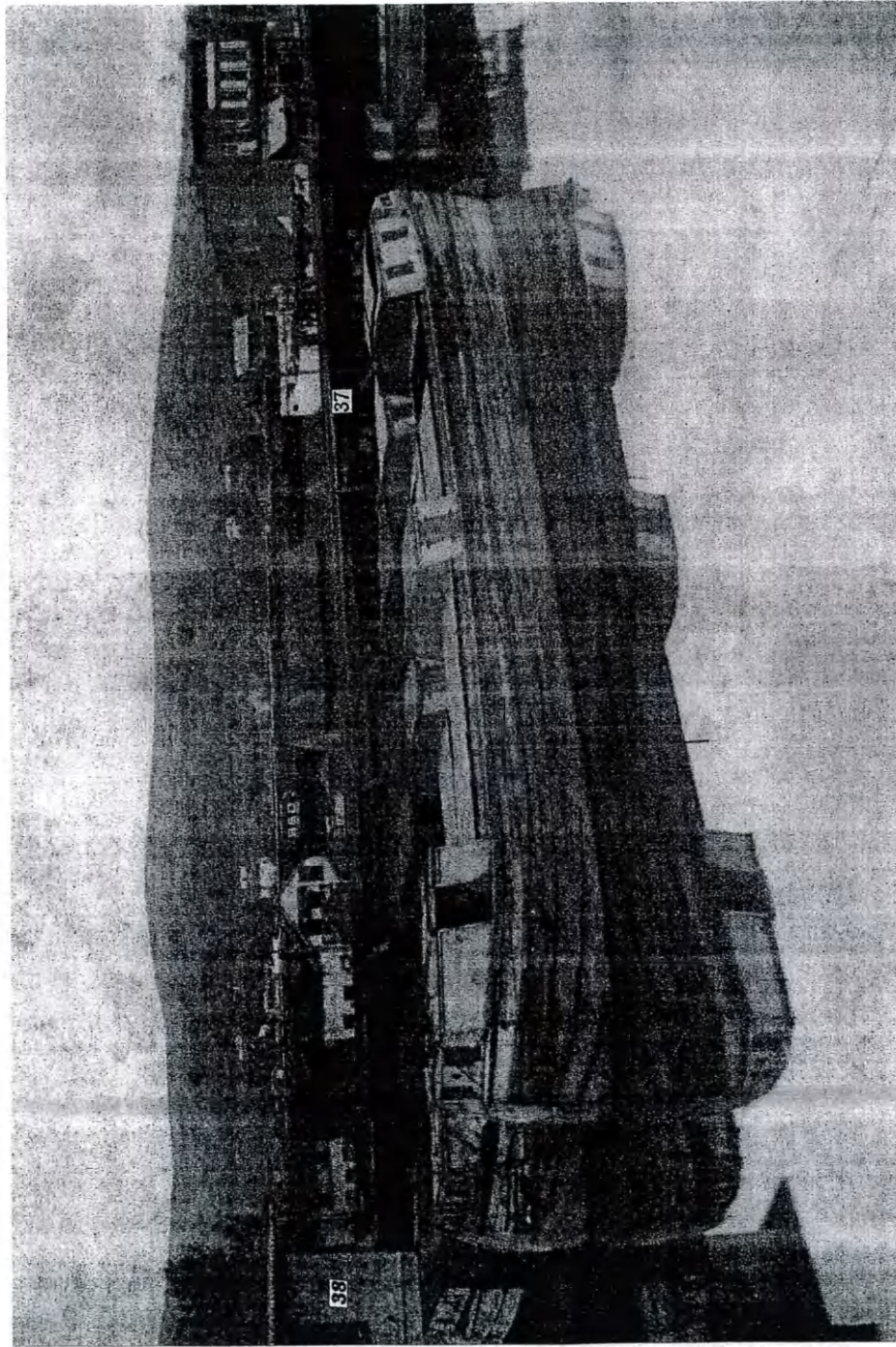
Standing in lumberyard of Mertens and Sons, looking across busy Mertens Boatyard basin to

Consolidation Wharf and Wineow Street buildings. (Courtesy Herman and Stacia Miller Photo

Collection, City of Cumberland)

FIGURE 12

LOOKING EAST FROM MAIN BASIN OVER CONSOLIDATION WHARF

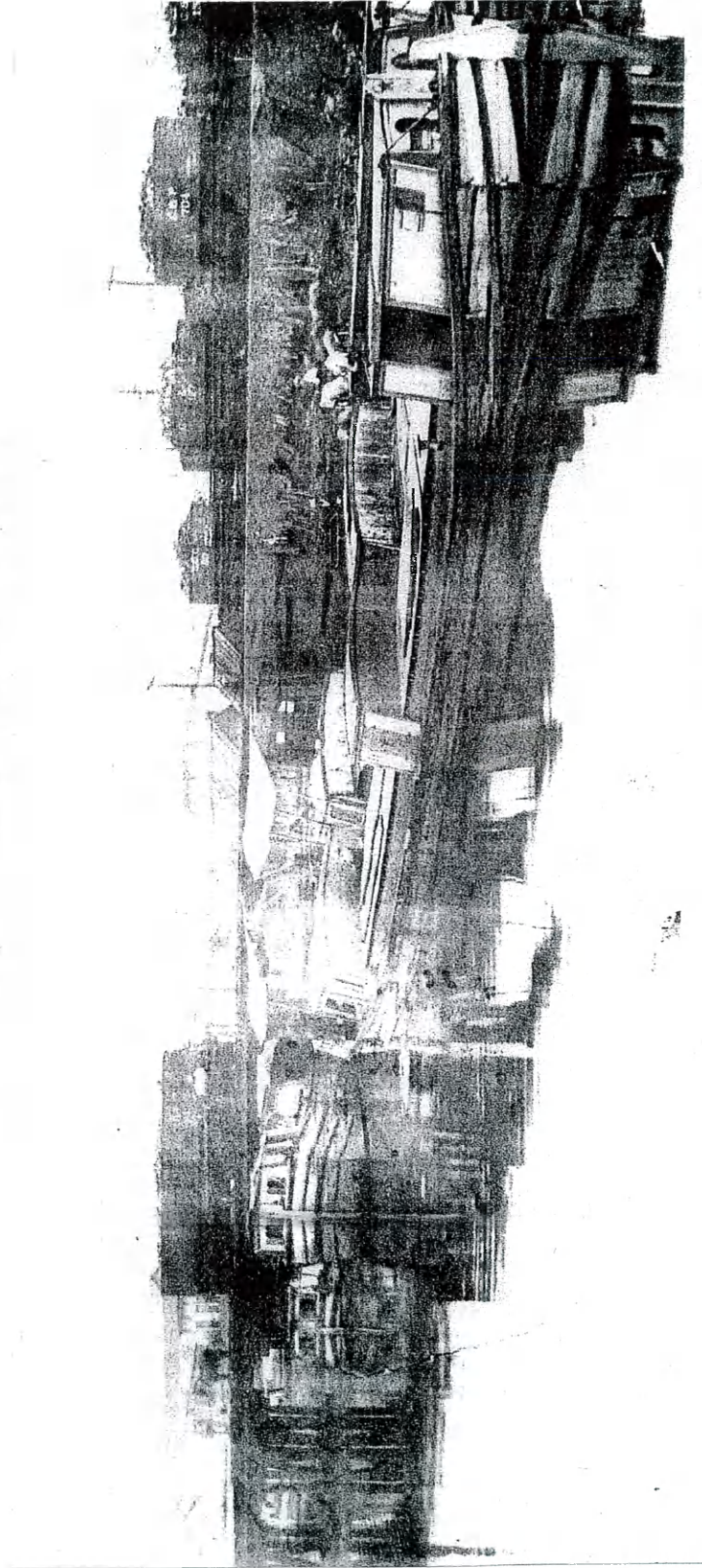


Looking east from Main Basin over Consolidation Wharf to Wineow Street. (Courtesy Herman and

Stacia Miller Photo Collection, City of Cumberland)

FIGURE 13

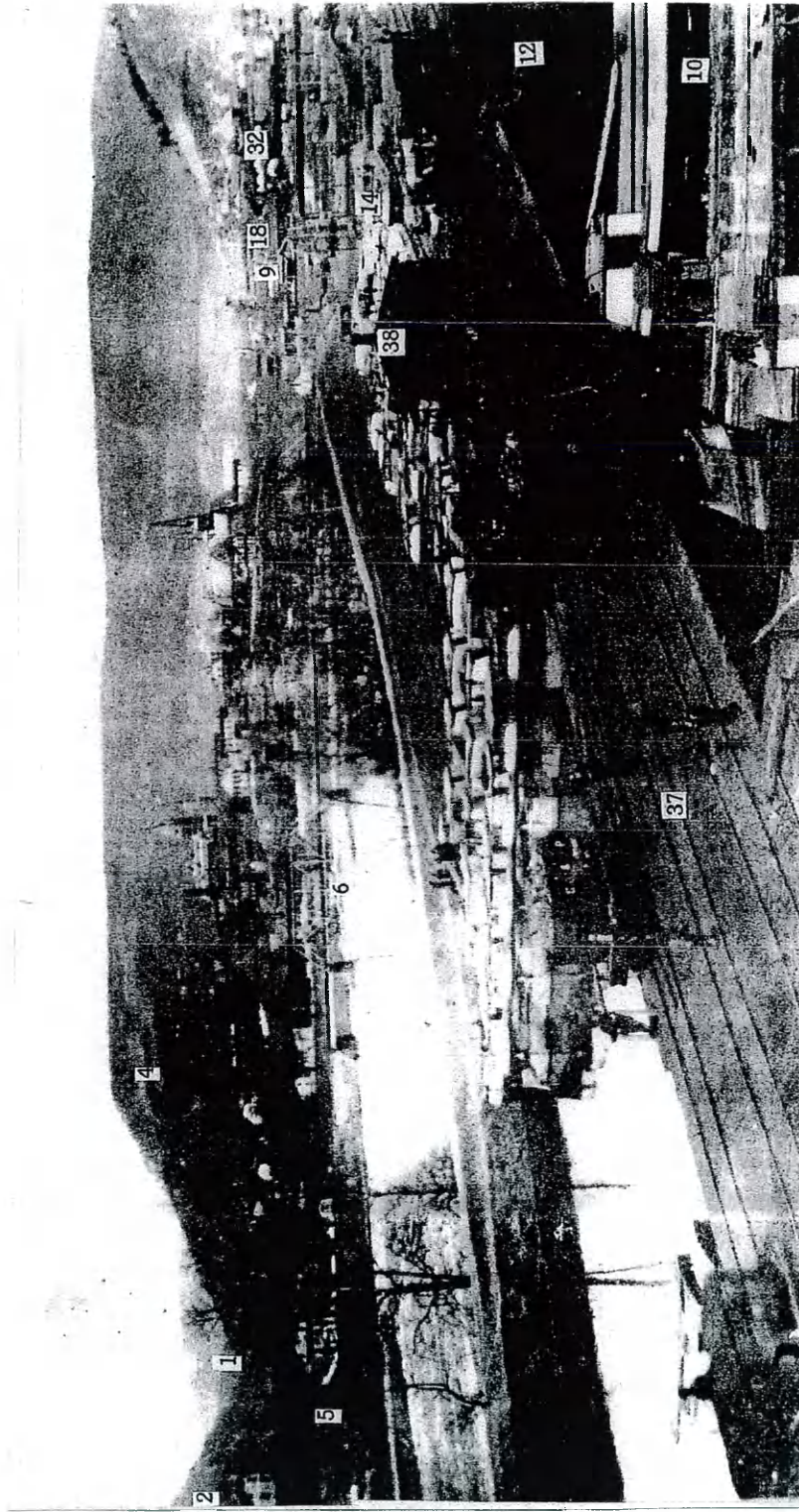
CONSOLIDATION WHARF WITH SHANTYTOWN



Consolidation Wharf with Shantytown skyline arising behind. (Courtesy Herman and Stacia Miller

Photo Collection, City of Cumberland)

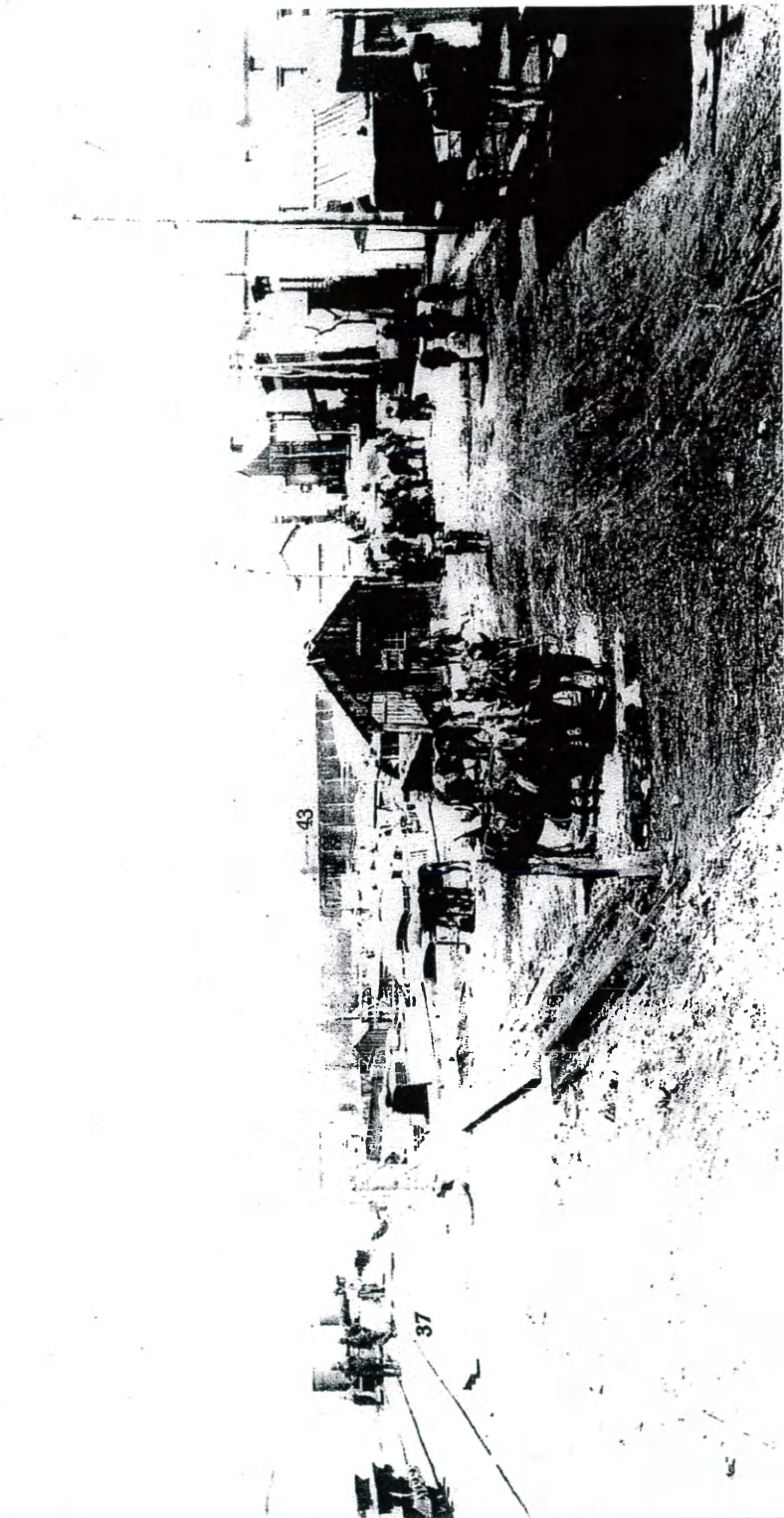
FIGURE 14
LOOKING NORTHEAST FROM A WINEOW STREET UPPER WINDOW



Looking northeast from a Wineow Street upper window over Consolidation Wharf, Main Basin, Potomac River, Cumberland and the Narrows. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)

FIGURE 15

LOOKING ACROSS CONSOLIDATION WHARF



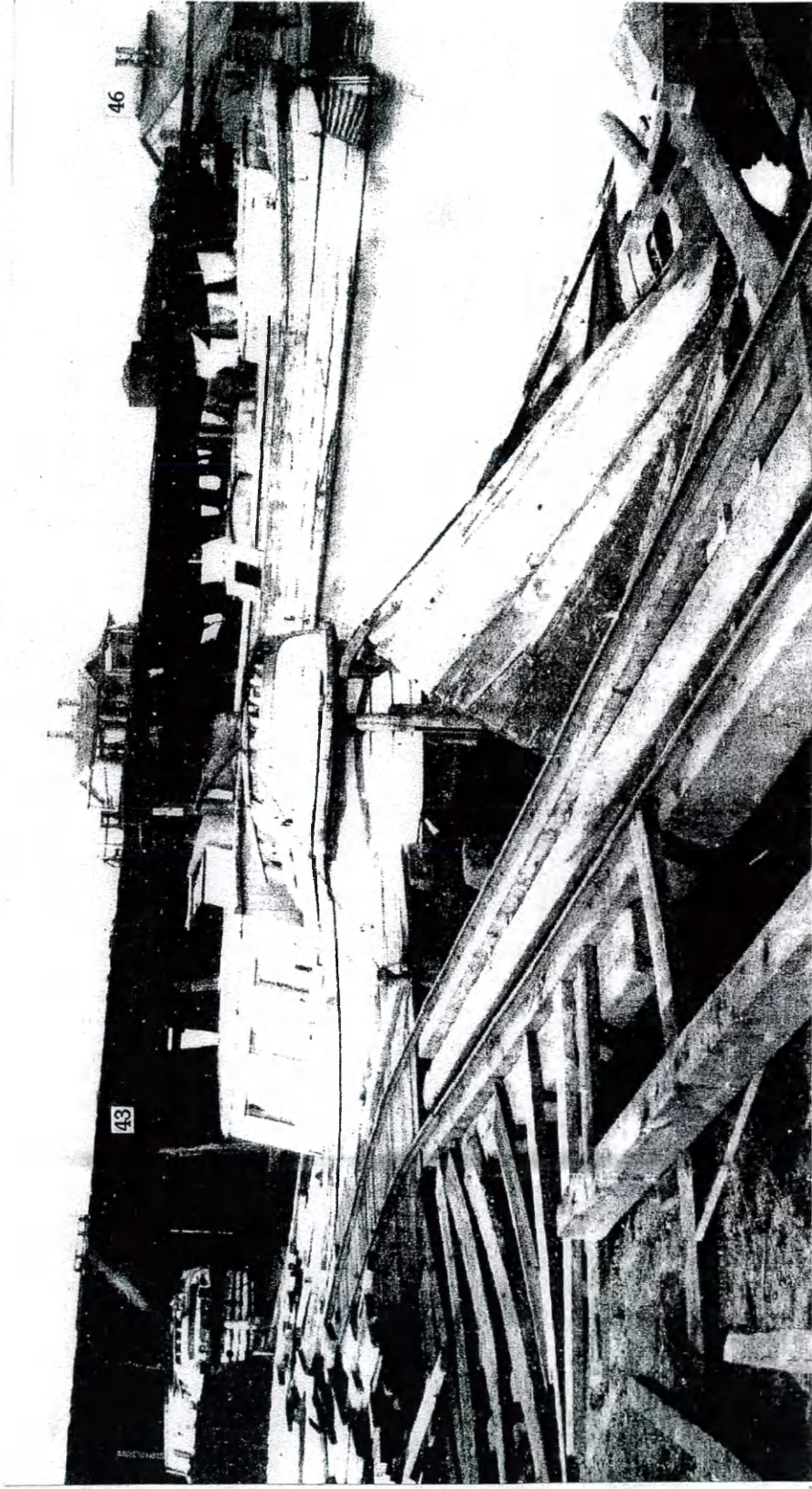
Looking across Consolidation Wharf and down through Shantytown from the foot of Wineow Street.

Shriver Basin, choked with boat traffic, lies beyond mules at center. (Courtesy Herman and Stacia

Miller Photo Collection, City of Cumberland)

FIGURE 16

LOOKING NORTHEAST ACROSS SHRIVER BASIN TO COULEHAN WHARF



Looking northeast from unidentified tracks across Shriver Basin to Coulehan Wharf. Johnson Mills at right. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)

FIGURE 17

LOOKING SOUTH ALONG SHRIVER BASIN FROM NEAR COULEHAN WHARF

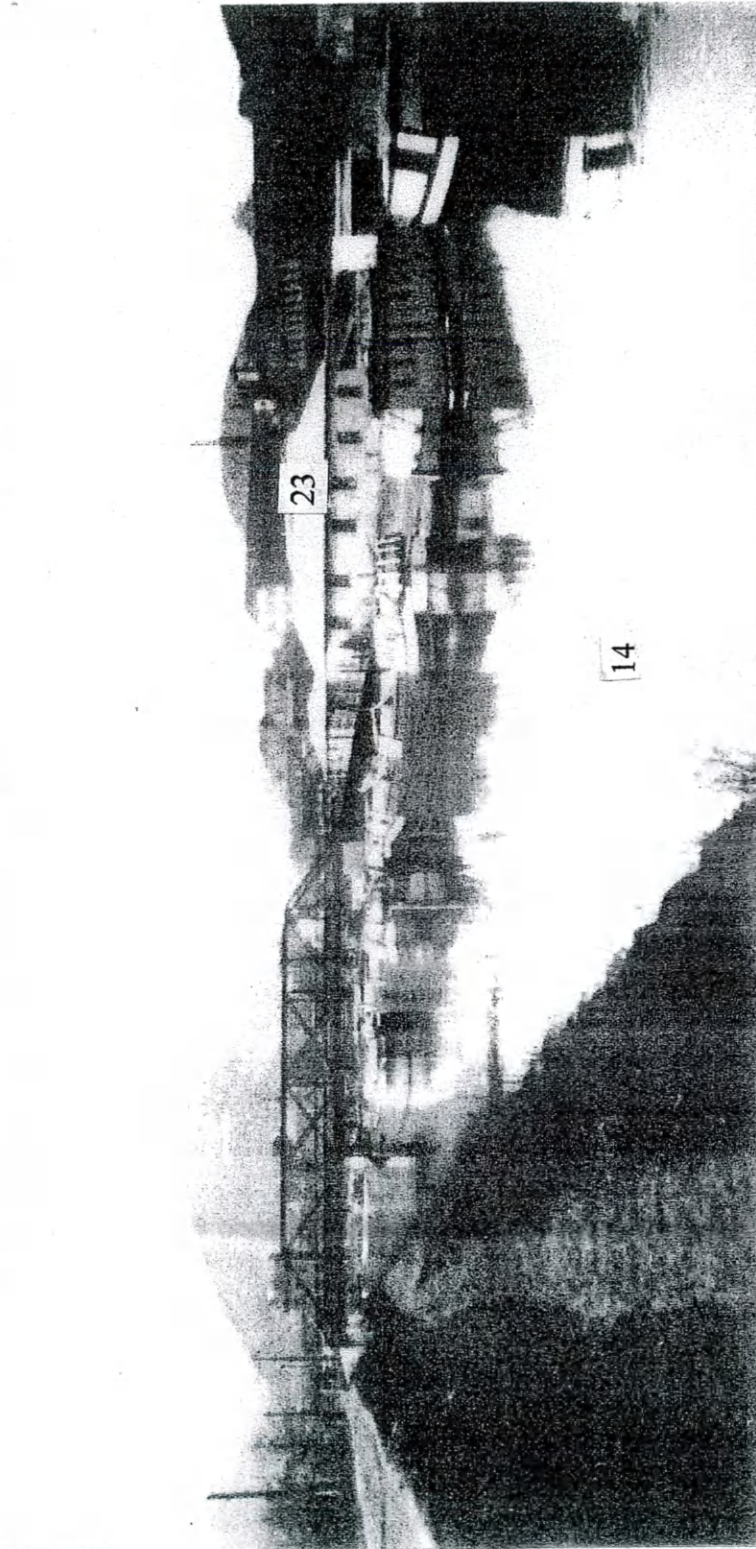


Looking south along Shriver Basin from near Coulehan Wharf. Johnson Mills and Wineow Street appear in upper left. Note also, timbers protruding from water, bottom right. (Courtesy Herman and

Stacia Miller Photo Collection, City of Cumberland)

FIGURE 18

STANDING ON TOWPATH AND LOOKING NORTHEAST AT NEW BOATYARD

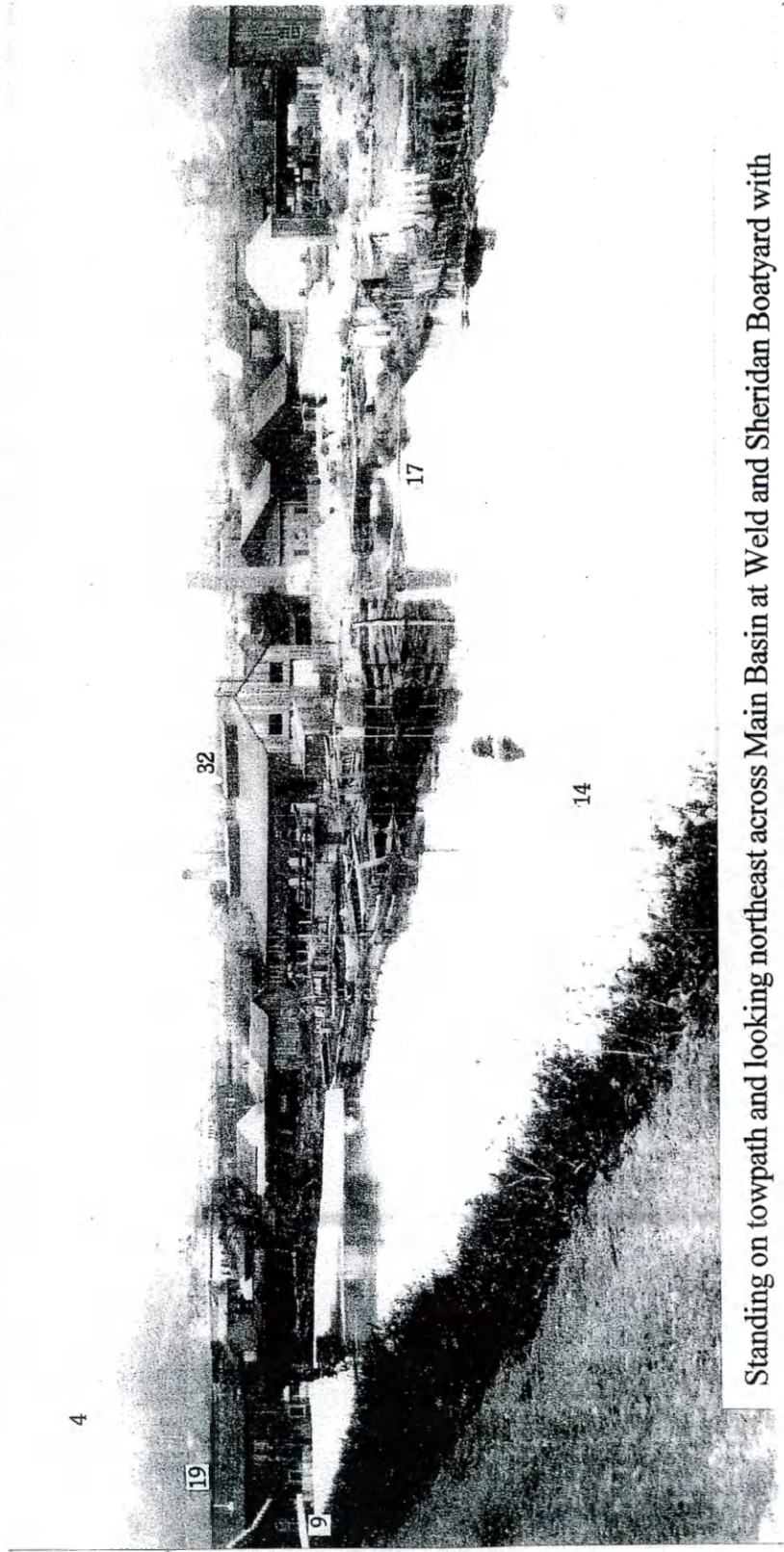


Standing on towpath and looking northeast at New Boatyard of the Canal Towing Company on the

Main Basin. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)

FIGURE 19

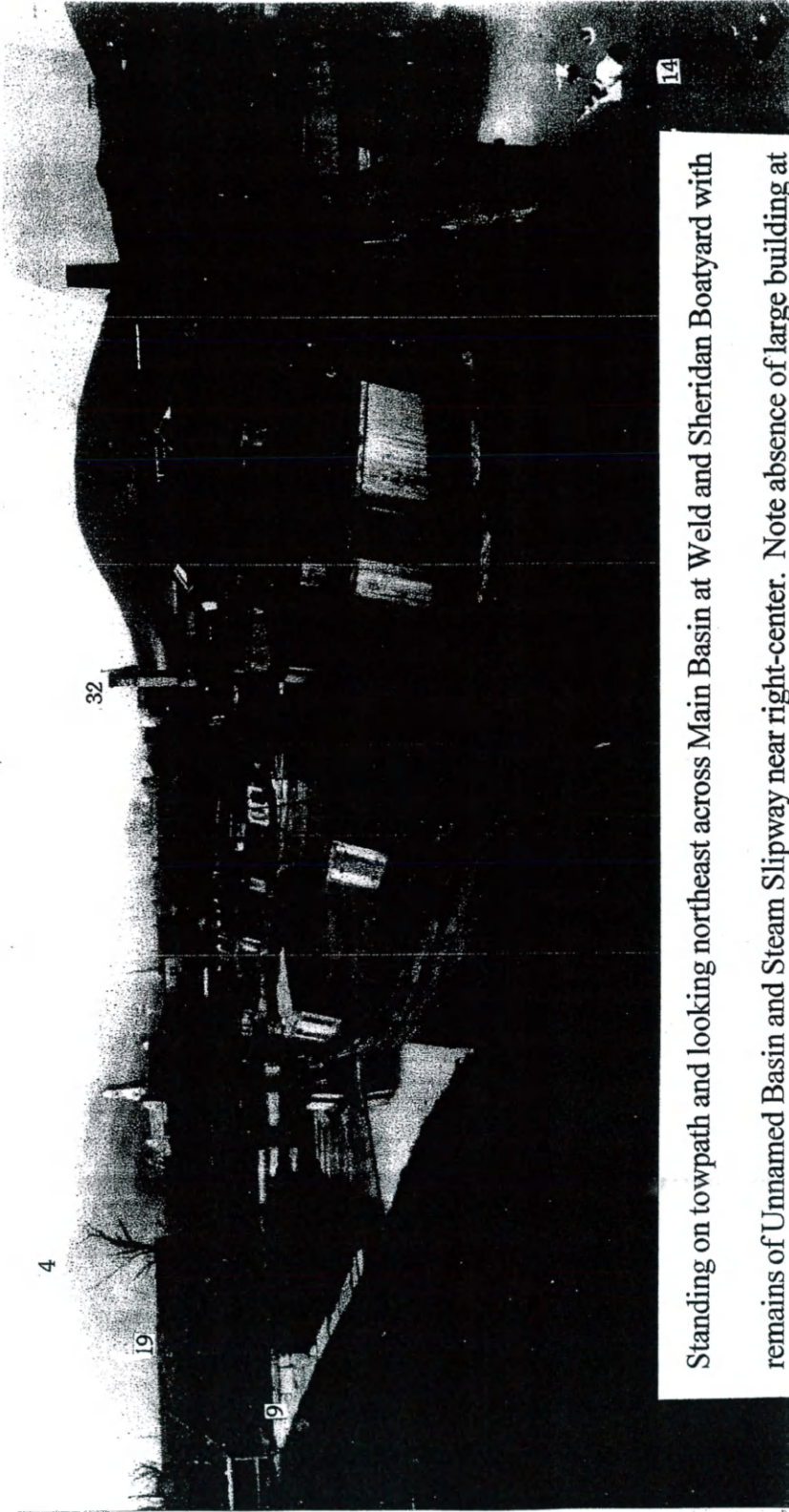
STANDING ON TOWPATH AND LOOKING NORTHEAST ACROSS MAIN BASIN (1)



Standing on towpath and looking northeast across Main Basin at Weld and Sheridan Boatyard with remains of Unnamed Basin and Steam Slipway near right-center. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)

FIGURE 20

STANDING ON TOWPATH AND LOOKING NORTHEAST ACROSS MAIN BASIN (2)

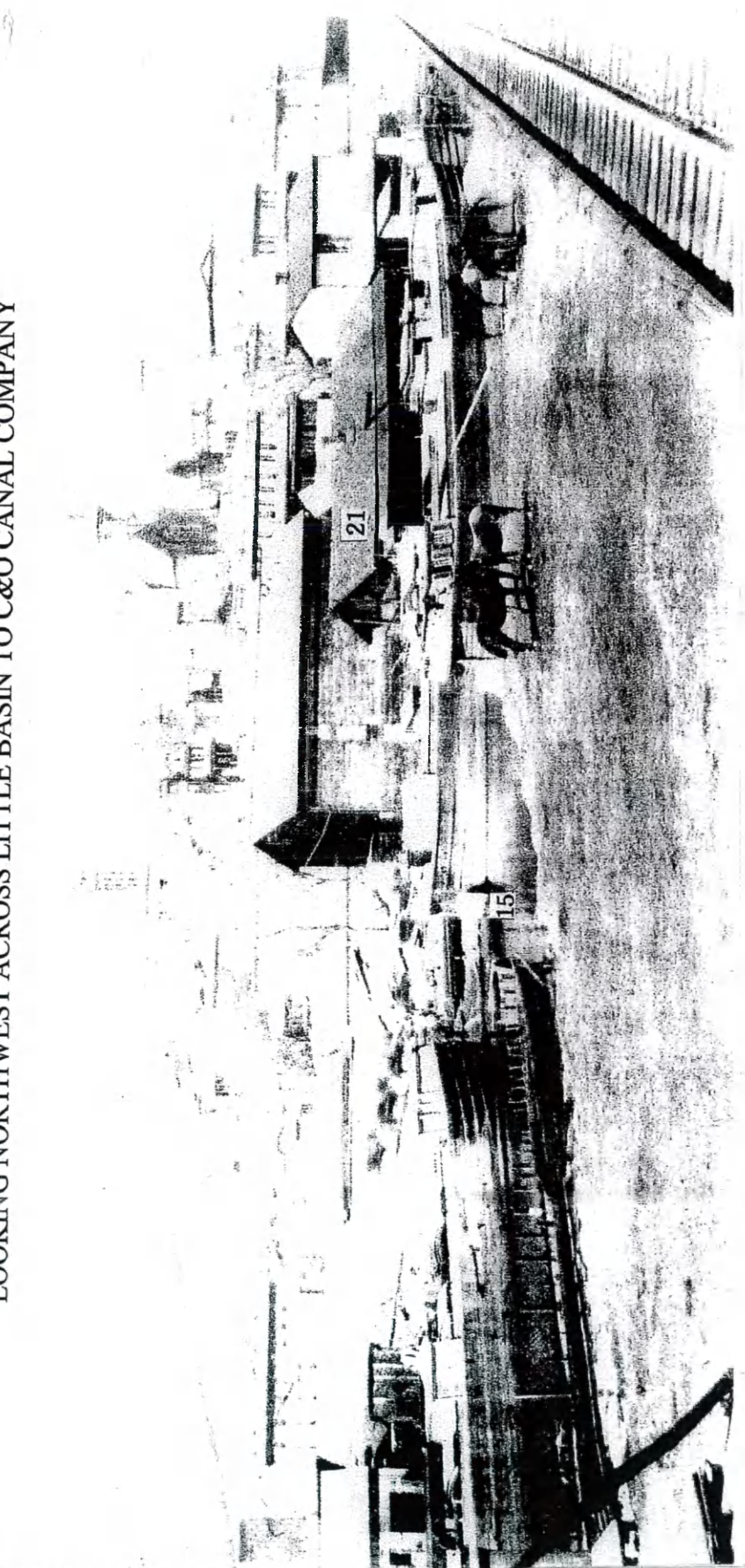


Standing on towpath and looking northeast across Main Basin at Weld and Sheridan Boatyard with remains of Unnamed Basin and Steam Slipway near right-center. Note absence of large building at

center of picture seen in FIGURE 19. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)

FIGURE 21

LOOKING NORTHWEST ACROSS LITTLE BASIN TO C&O CANAL COMPANY



Looking northwest across Little Basin to C&O Canal Company Boatyard. (Courtesy Herman and

Stacia Miller Photo Collection, City of Cumberland)

FIGURE 22

STANDING ON SITE OF FORMER CANAL COMPANY BOATYARD



Standing on site of former Canal Company Boatyard, looking south along abbreviated Main Basin

(post-1912). (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)

FIGURE 23

LOOKING NORTH FROM CONSOLIDATION WHARF ALONG MAIN BASIN



Looking north from Consolidation Wharf along Main Basin. Post card view, circa 1907.

FIGURE 24

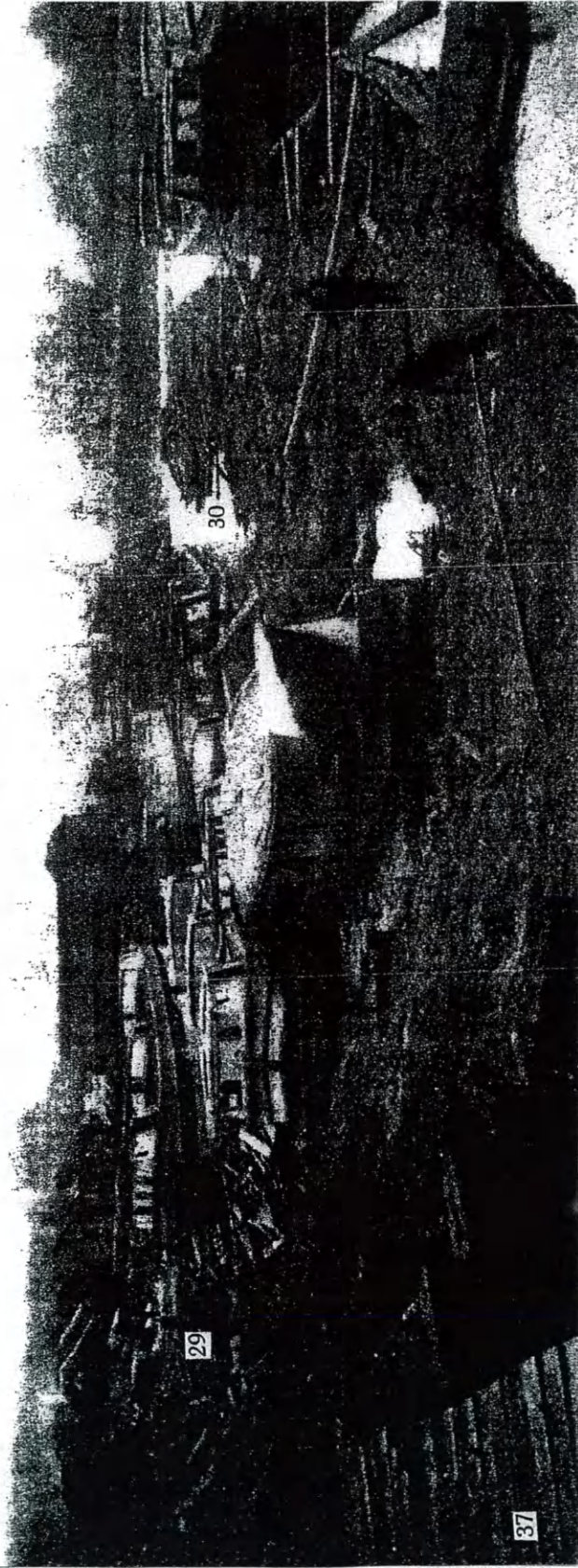
SITE OF YOUNG BROTHERS' BOATYARD



Site of Young Brothers Boatyard, (foreground, to right of bridge). Post card view.

FIGURE 25

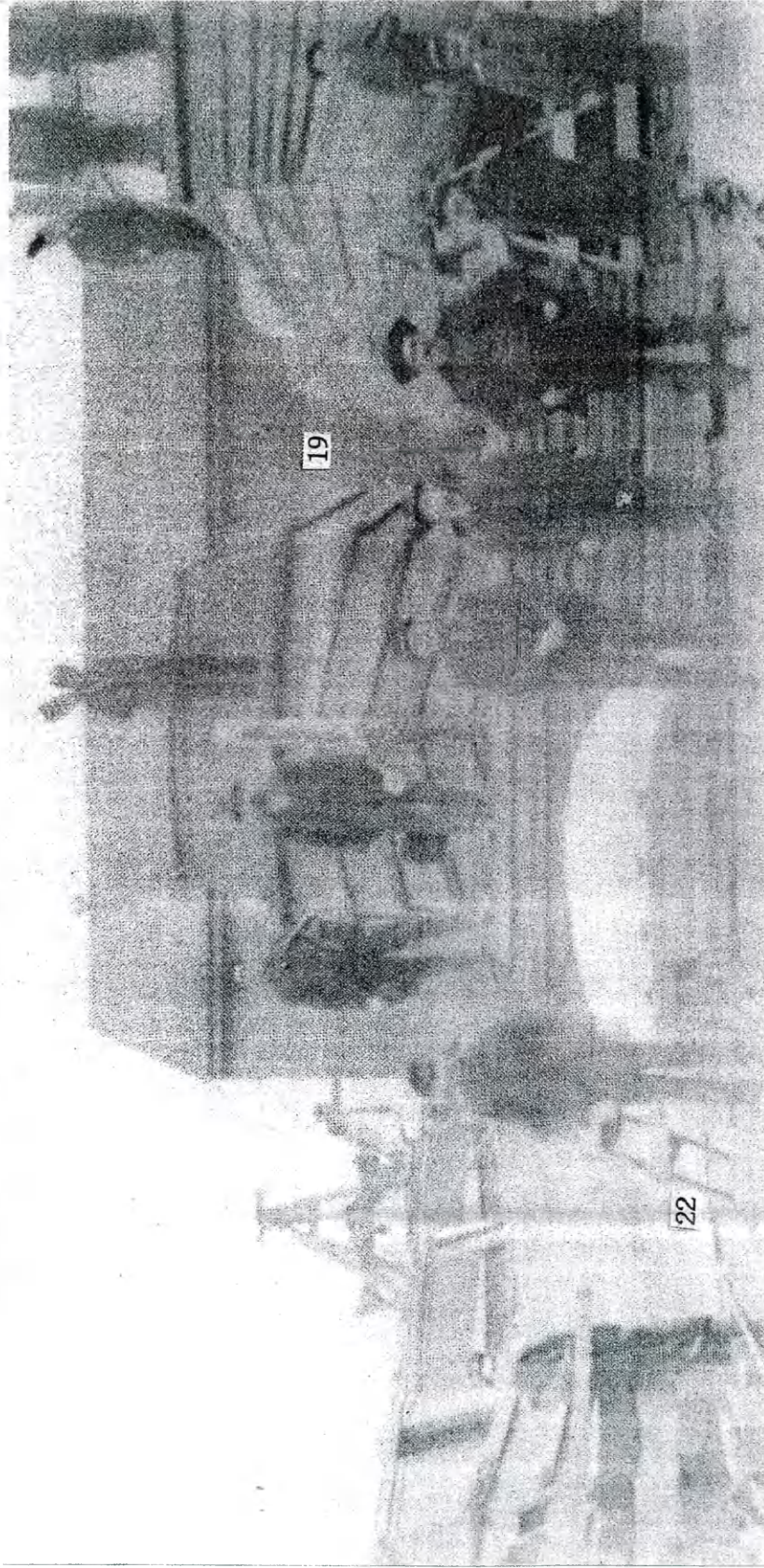
MERTENS BOATYARD AND BASIN



Mertens Boatyard and Basin, looking south from Consolidation Wharf. (Note steam packet in foreground) (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)

FIGURE 26

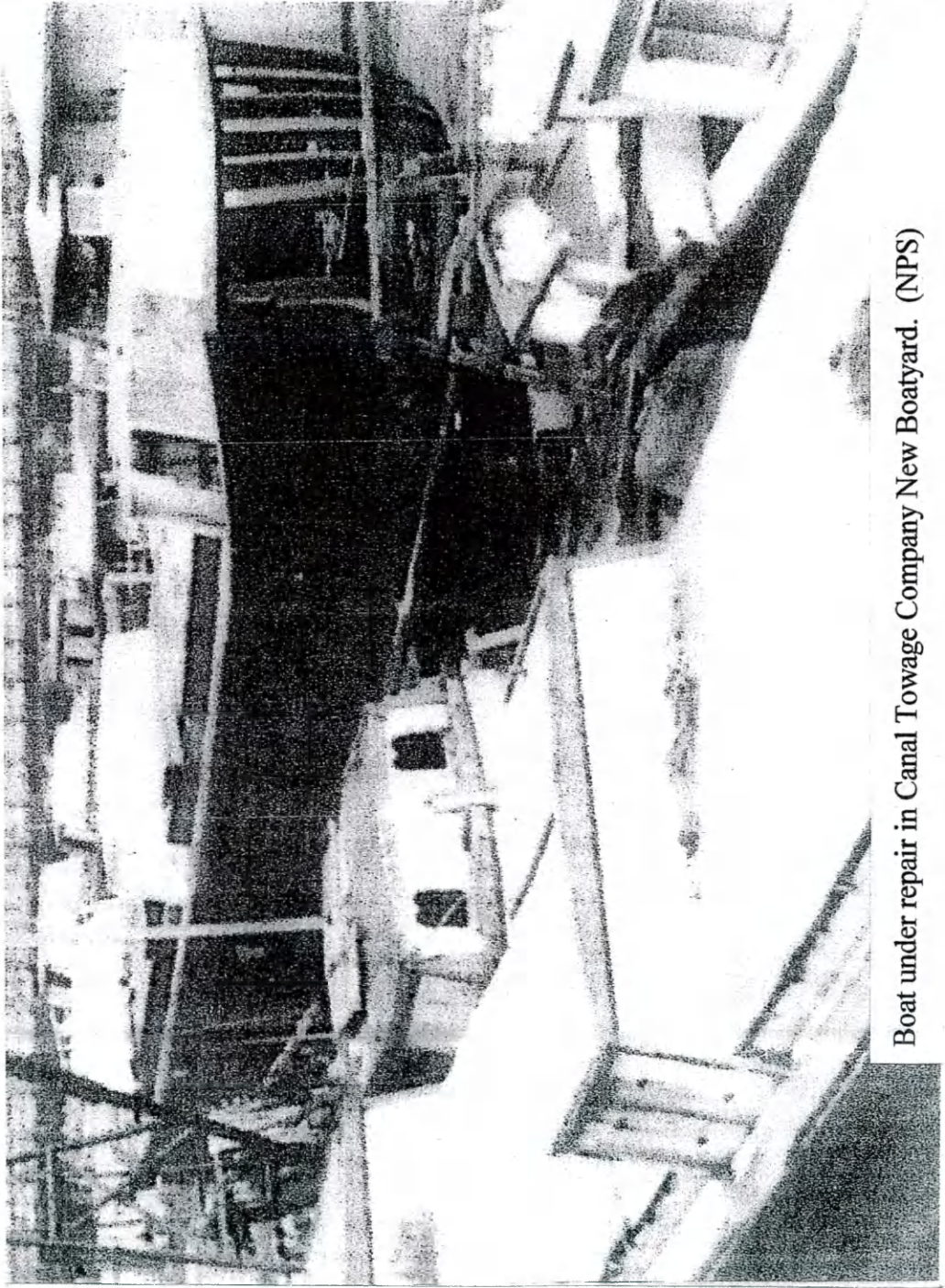
BOATS AND BOAT-WRIGHTS AT THE CANAL COMPANY BOATYARD



Boats and Boat-wrights at the Canal Company Boatyard. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)

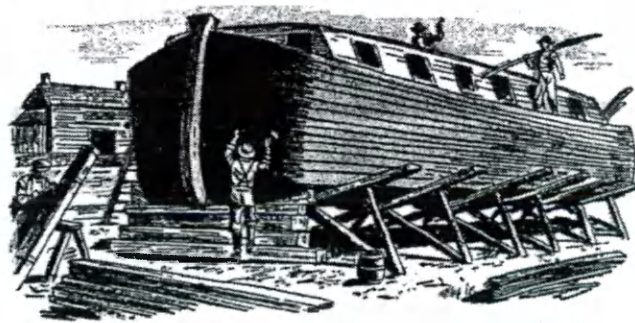
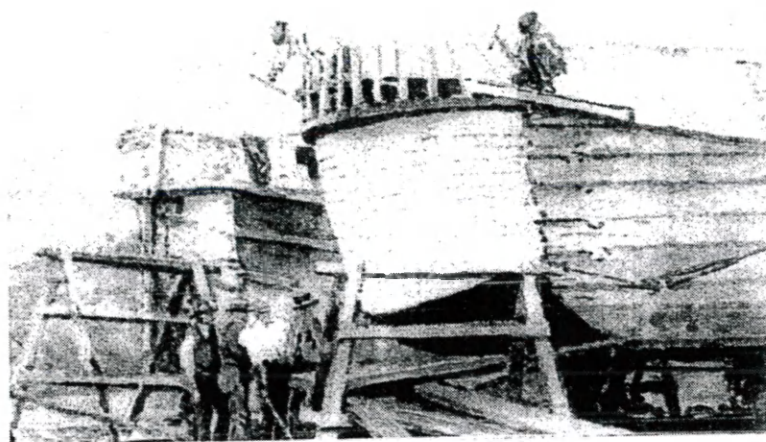
FIGURE 27

BOAT UNDER REPAIR IN CANAL TOWAGE COMPANY NEW BOATYARD



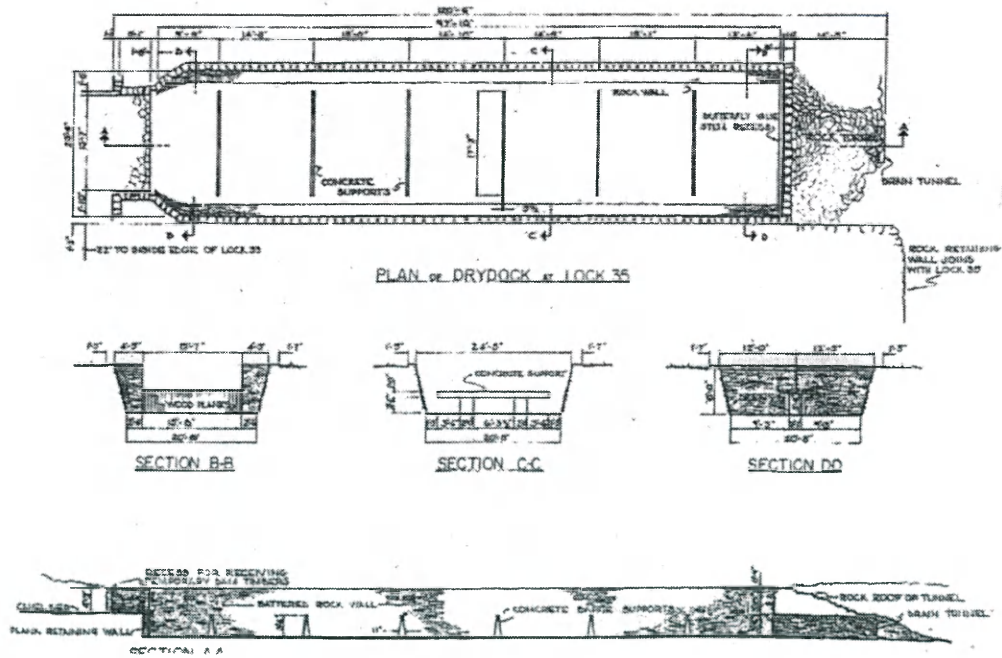
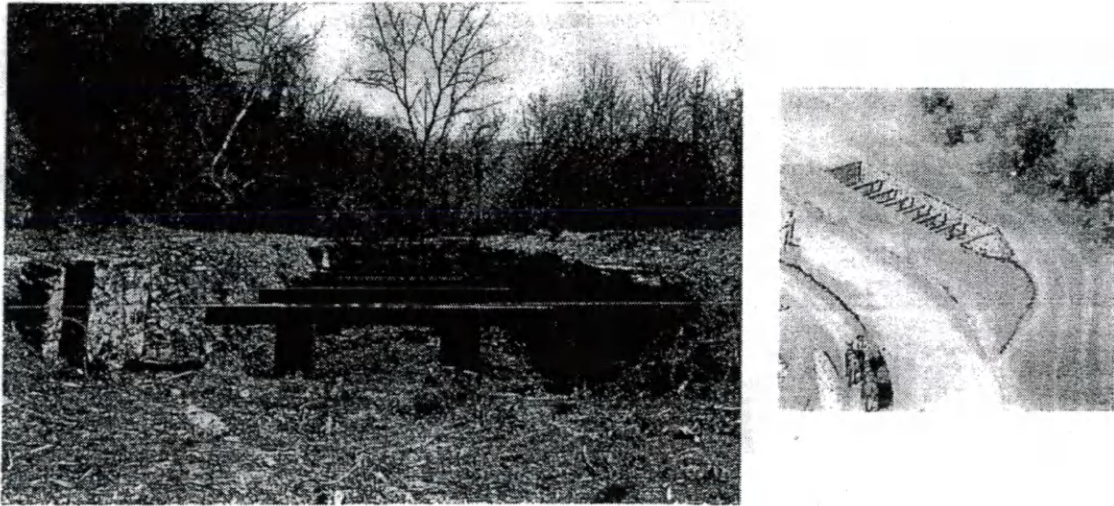
Boat under repair in Canal Towing Company New Boatyard. (NPS)

FIGURE 28
CANAL BOATYARDS IN ART



Canal boatyards in art. From top, "Cumberland Boatyard" by John Wellington (NPS), canal boatyard on Ohio Canal (McCutchen 1879), canal boatyard on Erie Canal (Addams1953:68)

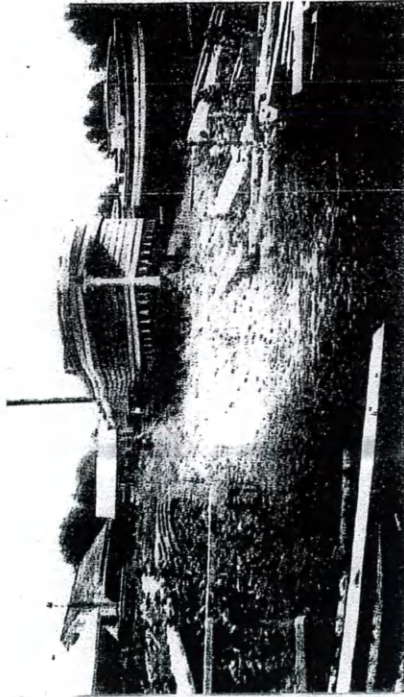
FIGURE 29
C&O CANAL RURAL DRY-DOCK



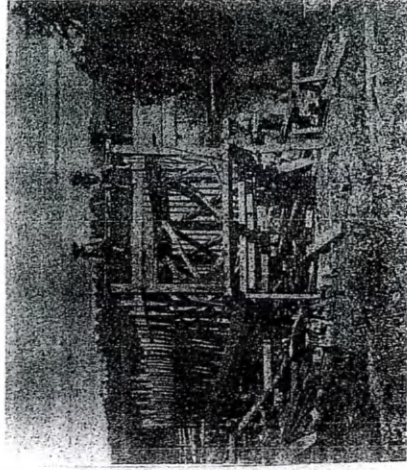
C&O Canal rural dry-dock (Kapsch 2004:112). Clockwise from top: extant dry-dock, artists reconstruction of dry-dock (NPS), architectural plan (Kapsch 2004:112)

FIGURE 30

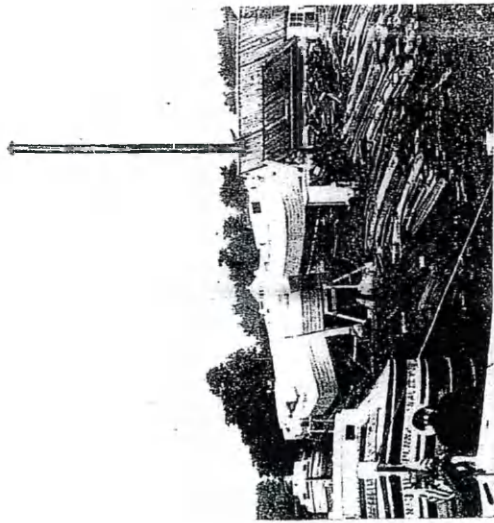
CANAL BOATYARDS IN THE U.S. AND ENGLAND



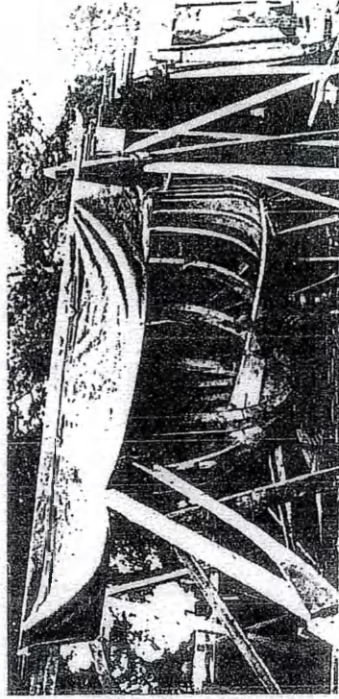
a. Espy, Pennsylvania boatyard ca. 1885 (Shank 2001:52)



b. Boat-building at Upper Black Eddy, Pennsylvania (Rivinus 1984:21)

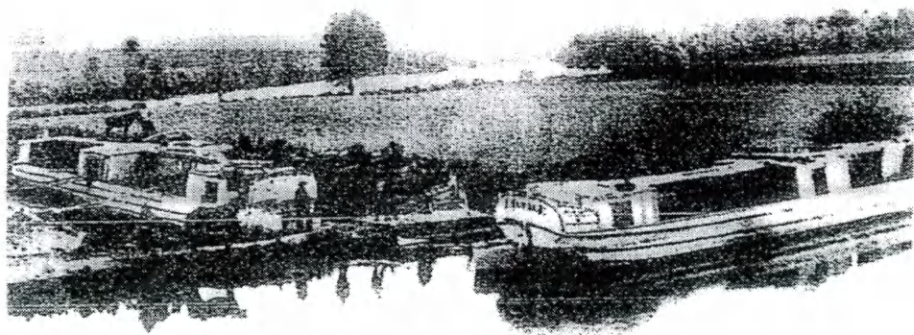
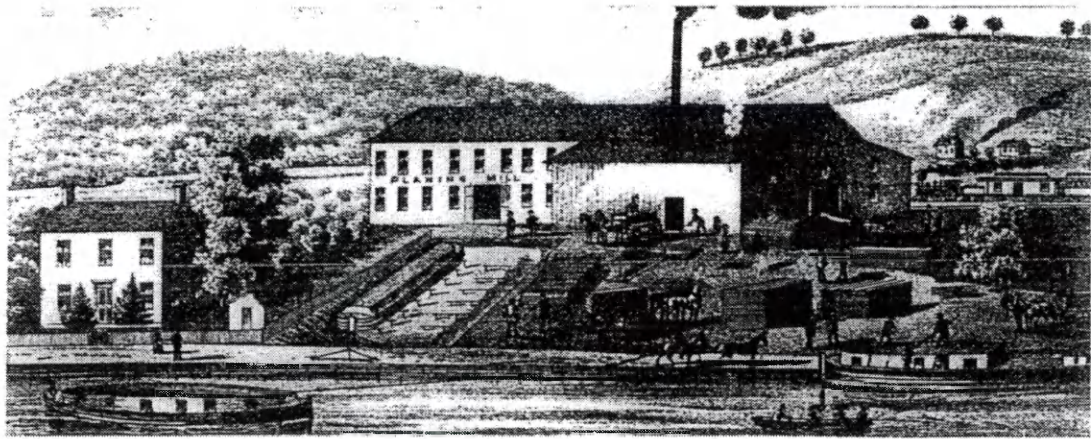


c. Selinsgrove, Pennsylvania Boatyard, 1882 (Shank 2001:48)



d. Canal boat-building in Surrey, England (Ware 1987:48)

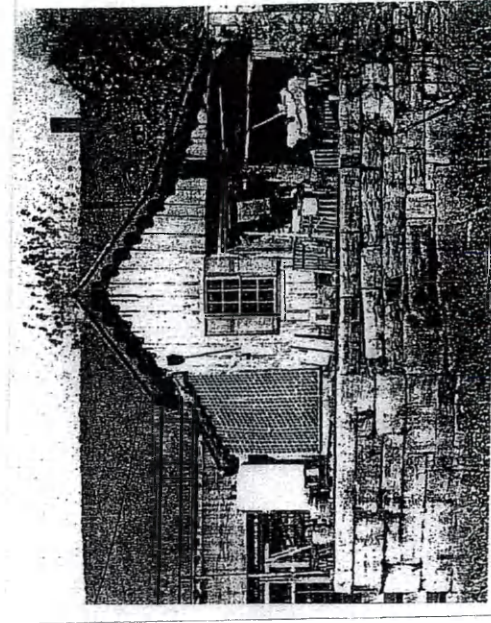
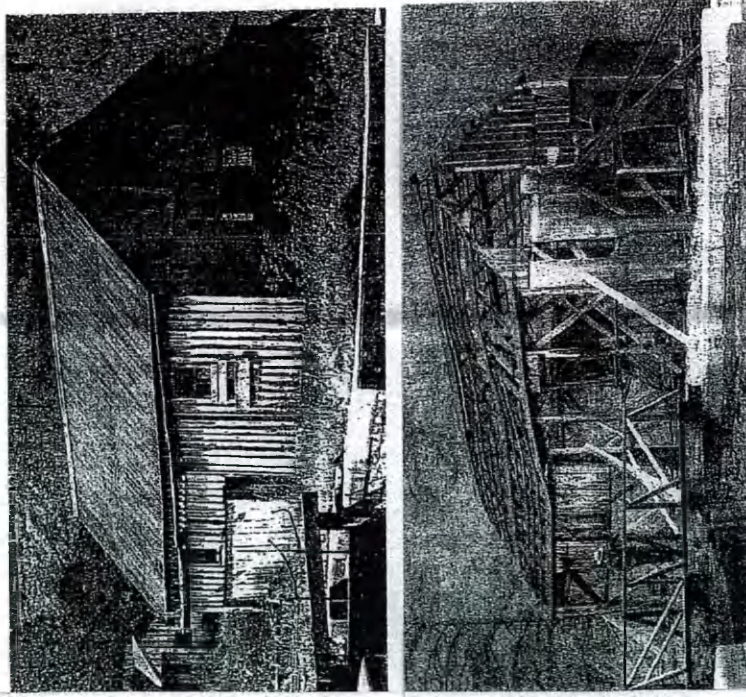
FIGURE 31
OHIO CANAL BOATYARDS AND RURAL DRY-DOCK



Ohio Canal boatyards and rural dry-dock (Gieck 1988:42)

FIGURE 32

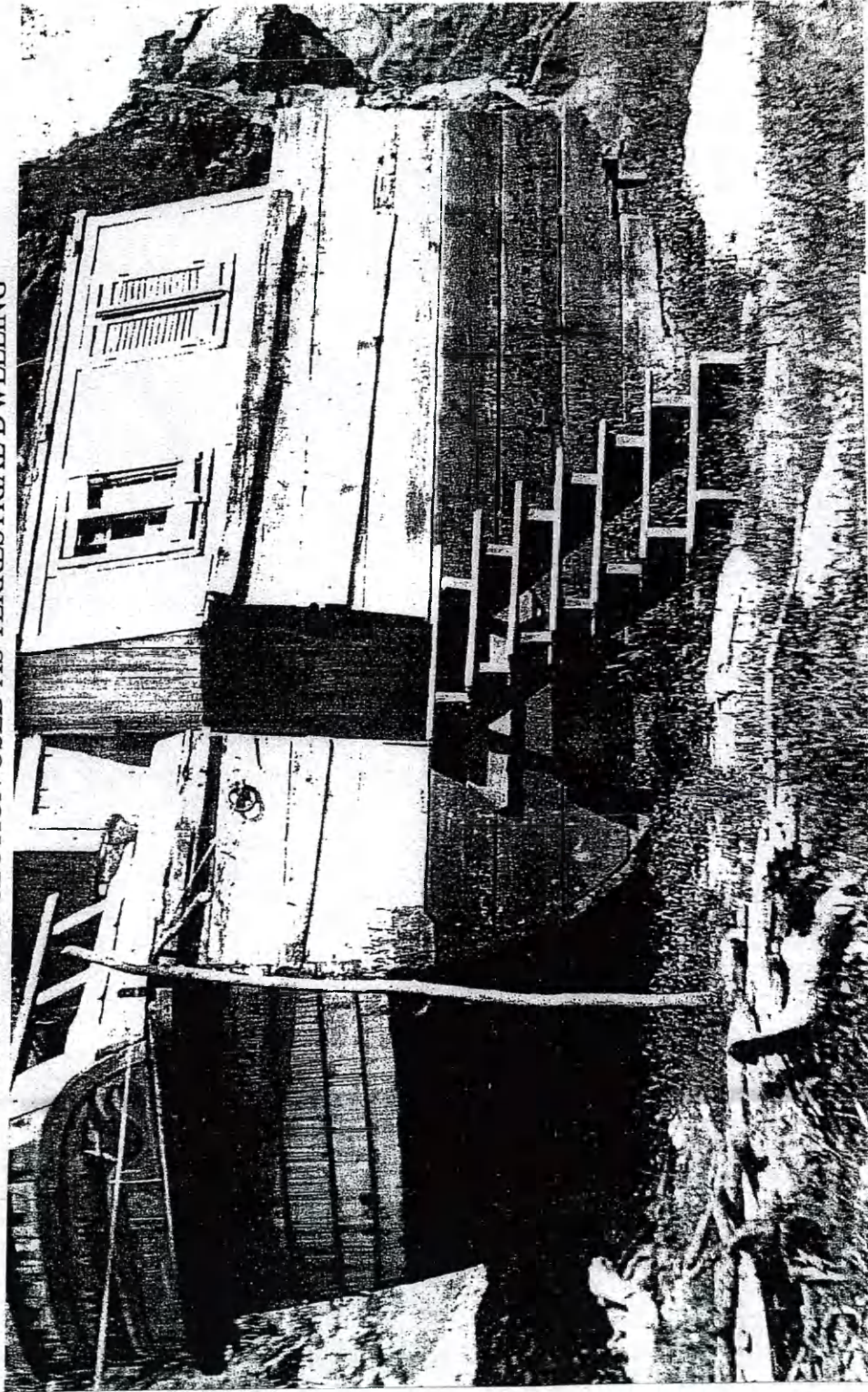
C&O CANAL COMPANY BUILDINGS



C&O Canal Company Buildings. Left: lock-gate carpentry shop in use and in ruins, showing construction methods and materials (Kapsch 2004:281). Right: Inlet-Outlet Lock-house in Cumberland (post-1924) showing gingerbread decoration. (Courtesy Herman and Stacia Miller Photo Collection, City of Cumberland)

FIGURE 33

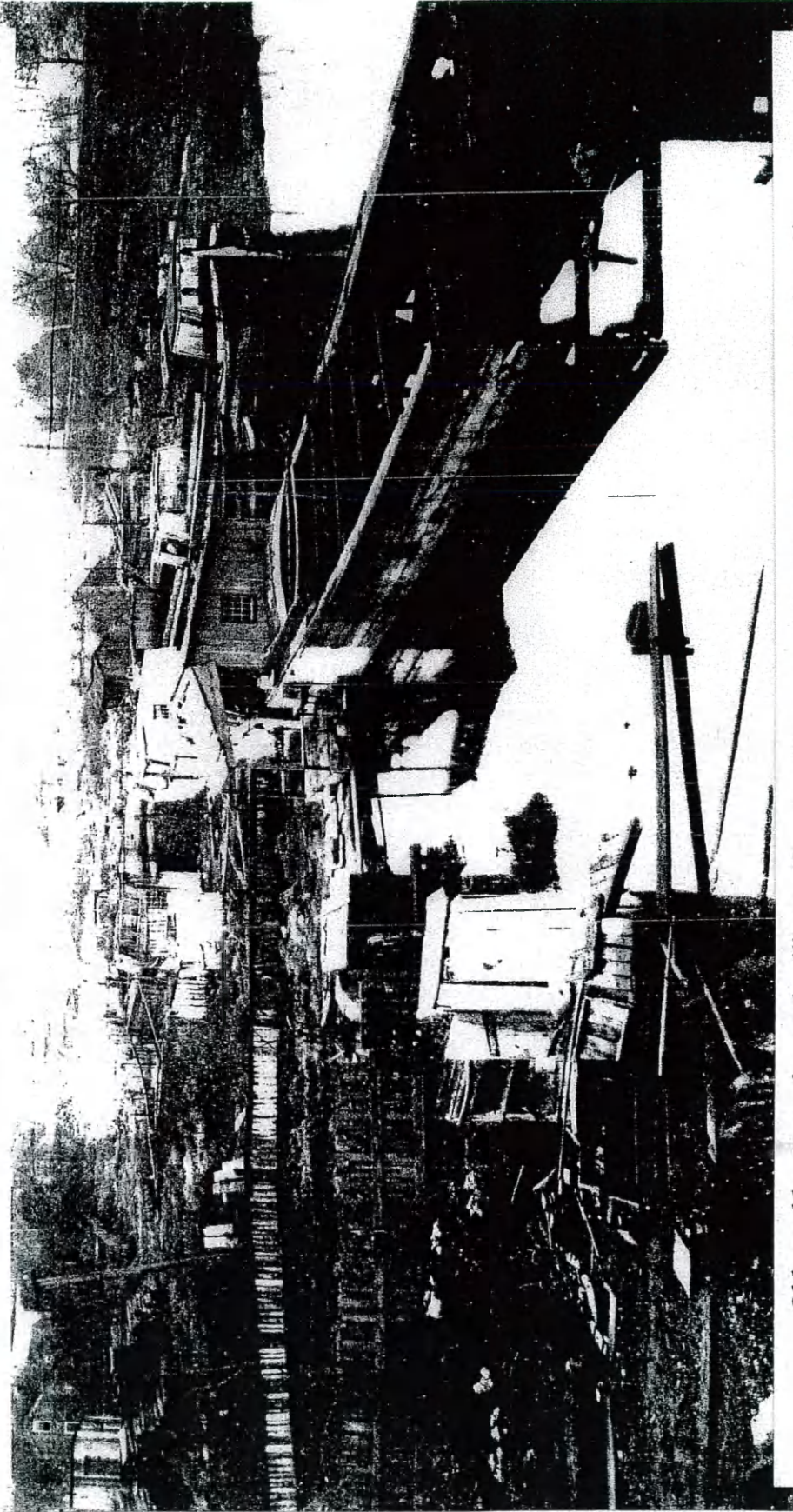
CANAL BOAT SECTION USED AS TERRESTRIAL DWELLING



Canal boat section used as terrestrial dwelling. (Hahn 1985:53)

FIGURE 34

OLD CANAL BOATS SERVING AS DWELLINGS



Old canal boats serving as dwellings. (Courtesy Herman and Stacia Miller Photo Collection, City

of Cumberland)

APPENDIX

Further Cumberland Boat-building Traditions

Cumberland newspapers occasionally mention skiffs or improvised sailboats being used on the river and canal and picture postcards of a century ago sometimes depict such vessels. With the considerable amount of down-time experienced by canal boat carpenters, one might suspect that at least some of these were their handiwork. Unfortunately, there is very little evidence at present, documentary or archaeological, to lend credence to such a supposition. The Swain family who were lock tenders also built boats and, in the beginning of the 1900's, rented canoes to campers (Kytte 1983:261). Some ready-made craft were already plying the canal in the early 20th century. Harvey Brant recalled running a canoe rental club utilizing "Old Town" canoes which began production in Old Town, Maine in 1903 (Kytte 1983:207).

KEY TO FIGURE NUMBERING

For ease of comparability and reference, features bear identical numbers in different figures.

- 1.The Narrows
- 2.Will's Mountain
- 3.Haystack Mountain
- 4.Shriver Ridge
- 5.Ridgeley, West Virginia (Sinclairsville, VA)
- 6.Dam
- 7.Will's Creek Ford
- 8.Mule Bridge
- 9.Lockhouse and Inlet/Outlet Locks

Basins:

- 10.Shriver Basin
- 11.Shriver Basin North Abutment
- 12.The Island
- 13.Mosquito Flat
- 14.Main Basin
- 15.Little Basin
- 16.Little Basin Abutment
- 17.Unnamed Basin

Boat-yards:

- 18.C&O Canal Company/ Canal Towage Company Boatyard (Pre-1904)
- 19.C&O Canal Company/ Canal Towage Company Main Building
- 20.C&O Canal Company/ Canal Towage Company Oakum House
- 21.Young's Planing Mill
- 22.C&O Canal Company/ Canal Towage Company Manual Slipway
- 23.Canal Towage Company Boatyard (post-1904)
- 24.Canal Towage Company Mule Barns

25. Electric Slipway
26. Clarke Boatyard (location unknown)
27. Coulehan Brothers Boatyard
28. Doerner & Bender Boatyard
29. Mertens & Sons Boatyard
30. Mertens' Basin
31. N.Y. Company Boatyard
32. Ward's/ Weld & Sheridan Boatyard
33. Hudge & Co. Building
34. Ward's/ Weld & Sheridan Steam Slipway
35. Young Brothers Boatyard

Wharves:

36. Basin Wharf
37. Consolidation Coal Company Wharf
38. Consolidation Coal Office
39. Lynn's Wharf
40. Potomac Wharf
41. Potowmack Canal Wharf Remains
42. Walsh & McKaig Wharf
43. Coulehan Wharf

Wineow Street:

44. Footer's Dyeworks
45. Dye Pools
46. Johnson Milling Co.

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