NETWORKS OF RESISTANCE:
OPPOSITION TO STRIP COAL MINING IN CENTRAL APPALACHIA, 1977-2012

By

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A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2013
To my family.
ACKNOWLEDGMENTS

I have found this undertaking to be akin to a batch of stone soup, with more people than I can list here helping in the cooking process. I would first like to thank some folks I never properly acknowledged for getting me to the University of Florida, especially: Toni Calasanti, Wilma Dunaway, Ted Fuller, Jim Hawdon, Bradley Hertel, Lawrence Grossman, and Neal King. At UF I have been lucky to have many wonderful professors, many of which make up my committee. Anna Peterson revealed to me the glories of Raymond Williams, David Harvey and pit bulls, while inspiring me with her books. Christine Overdevest challenged me to think past polemics, greatly helping me refine my writing style and scholarship generally. Stephen Perz proved to be an incredible and generous editor, without whose critiques I would not have received funding for this project. He also proved to be a fount of knowledge and a great teacher. Milagros Pena was always willing to share her vast knowledge of social movement dynamics with me despite her packed schedule. Her assistance in this process has been especially gracious and I thank her for getting me to the finish line. Chris McCarty went miles and miles beyond what is expected of an outside member. He allowed me to commandeer large amounts of his time and energy, and became a true mentor. I also want to thank the National Science Foundation’s Law and Social Sciences program for the generosity that made this project possible, and also Brian Mayer for getting the wheel in motion.

Many others have helped me in various ways. Charles Gattone has been incredibly generous, writing letters for me, buying me lunch and being a friend. Barb Zsembik has helped me navigate the bureaucracy with immense patience, care and humor. Sheryl McIntosh is without a doubt the most overworked person in the department but has helped me so generously it is embarrassing. Thanks Sheryl.
Several esteemed scholars outside of UF have given of themselves to someone who had nothing to offer in return. Many thanks to Shannon Bell, Bill Freudenburg, Michael McCann, Chad Montrie, David Pellow, Barbara Ellen Smith, and Richard York.

The greatest part of graduate school has been the friendships. Apologies to all I have failed to mention, but I would especially like to acknowledge the support of my friends: Gina Alvarado, Dionne Banks, Georgia Bianci, Luis Carabollo, Rob Cavazos, Lisa Christiansen, Lawrence Eppard, Lauren Gilbert, Jeanne Holcomb, Steve Jacobs, Ginger Jacobson, Will Jawde, Laura Kowler, Kenzie Latham, Flavia Leite, Katie Nutter, Greg Pavela, Geo Perez, Martha Rosero-Pena, Clare Walsh and Petta-Gay Ybarra. Joe Witt’s help in getting me into the field was invaluable and becoming great friends was a nice bonus. Tom Reynolds provided insightful legal and spiritual advice, all with his undeniable regal air. My chief collaborator, Josh Sbicca, helped me turn conversations into manuscripts, but more importantly gave me someone to ride bikes with late at night.

Of course this project would not have been possible without the gracious participation of the many folks who shared with me their experiences of fighting strip mining. Janet Keating and Bonnie Swinford deserve special recognition for all of their help. Many, many thanks to all of those fighting strip mining in Appalachia; Keep up the good fight.

I would like to thank my parents Bob and Jean for their heartfelt support for the last several years. Thank you to Sophie, Vilah, Asa, and Iris, who provided such wonderful distractions from writing this dissertation. I hope you get to enjoy these beautiful mountains as much as I have. Last, but first in my heart, innumerable thanks to Carin,
the most patient and generous person I know, full of grace and beauty, who sacrificed much to get me here. Many thanks and I love you.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>4</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>10</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>11</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>11</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>14</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>1 INTRODUCTION: COAL, STRIP MINING AND RESISTANCE IN CENTRAL APPALACHIA</td>
<td>16</td>
</tr>
<tr>
<td>Coal in the United States</td>
<td>19</td>
</tr>
<tr>
<td>Strip Mining and Mountaintop Removal</td>
<td>21</td>
</tr>
<tr>
<td>Ecological Impacts of Strip Mining</td>
<td>24</td>
</tr>
<tr>
<td>Social Impacts of Strip Mining</td>
<td>25</td>
</tr>
<tr>
<td>Place and Space: Appalachia?</td>
<td>27</td>
</tr>
<tr>
<td>Networks, Alliances and Collaboration</td>
<td>31</td>
</tr>
<tr>
<td>What Generates Collaboration? What Stifles it?</td>
<td>34</td>
</tr>
<tr>
<td>Chapter Outline</td>
<td>35</td>
</tr>
<tr>
<td>2 A LEGACY OF CONTENTION IN CENTRAL APPALACHIA</td>
<td>41</td>
</tr>
<tr>
<td>The Appropriation of Central Appalachia</td>
<td>42</td>
</tr>
<tr>
<td>New Miners and Life in a Company Town</td>
<td>44</td>
</tr>
<tr>
<td>The Fight to Unionize</td>
<td>47</td>
</tr>
<tr>
<td>The Rise of the Machine</td>
<td>52</td>
</tr>
<tr>
<td>Grassroots Resistance</td>
<td>57</td>
</tr>
<tr>
<td>SMCRA and its Impacts</td>
<td>62</td>
</tr>
<tr>
<td>Breaking the Union</td>
<td>64</td>
</tr>
<tr>
<td>Mountaintop Removal and a Growing Resistance Network</td>
<td>67</td>
</tr>
<tr>
<td>A Legal Challenge: Bragg v. Robertson</td>
<td>69</td>
</tr>
<tr>
<td>Lobbying, Confrontation and Leadership: The Case of Marsh Fork</td>
<td>71</td>
</tr>
<tr>
<td>Elementary School</td>
<td>71</td>
</tr>
<tr>
<td>Tragedy and Direct Action: The Birth of Mountain Justice and the Alliance for Appalachia</td>
<td>73</td>
</tr>
<tr>
<td>Losing Legends and Legal Tumult</td>
<td>75</td>
</tr>
<tr>
<td>Conclusion</td>
<td>77</td>
</tr>
<tr>
<td>3 THEORETICAL CONTEXT</td>
<td>79</td>
</tr>
</tbody>
</table>
### Table of Contents

Understanding Inequality in Appalachia ................................................................. 80  
Environmental Inequality Formation ................................................................. 84  
Environmental Inequality in Central Appalachia .................................................... 85  
  Economic marginalization ..................................................................... 86  
  The Role Played by Race ....................................................................... 87  
  Gender Dynamics in the Region ................................................................. 90  
Fighting Back: Environmental Justice Networks ................................................... 93  
  The Network Advantage ....................................................................... 95  
  Space and Scale in EJ Networks ................................................................. 97  
Explaining Network Structures ........................................................................... 99  
  Resource Mobilization .......................................................................... 101  
  Collective Identity .................................................................................. 103  
  Tactics .................................................................................................... 105  
  Tactics and the Law ............................................................................. 107  

4 METHODS .............................................................................................................. 109  
  Media Network Analysis .......................................................................... 110  
    Sample .................................................................................................. 112  
    Data ....................................................................................................... 113  
    Analysis ................................................................................................. 113  
  Network Analysis of Current Groups ............................................................ 114  
    Sample .................................................................................................. 115  
    Data ....................................................................................................... 116  
    Analysis ................................................................................................. 117  
  Semi-Structured Interviews with Movement Participants .............................. 118  
    Sample .................................................................................................. 119  
    Data ....................................................................................................... 120  
    Analysis ................................................................................................. 121  

5 UNEARTHING A NETWORK OF RESISTANCE THROUGH MEDIA ANALYSIS 122  
  SMCRA and Abeyance? .............................................................................. 123  
  Media Network Evolution .......................................................................... 125  
  Network Measures .................................................................................... 129  
  Conclusion .................................................................................................. 131  

6 CONNECTIONS IN THE NETWORK: RESOURCES AND THE TACTICAL TOOLBOX ........................................................................................................... 136  
  Overall Network Structure .......................................................................... 137  
    Group Level Betweenness Centrality ....................................................... 140  
      Radicals and conservatives ................................................................ 141  
      Issue focus ......................................................................................... 143  
    Organizational age and membership ....................................................... 144  
  Tactics and the Law .................................................................................... 145  
  Litigation .................................................................................................... 146
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lobbying</td>
<td>148</td>
</tr>
<tr>
<td>Direct action</td>
<td>152</td>
</tr>
<tr>
<td>Conclusion</td>
<td>156</td>
</tr>
<tr>
<td><strong>7 INTRAMOVEMENT DYNAMICS: COLLABORATION, CONFLICT AND COMPETITION</strong></td>
<td>175</td>
</tr>
<tr>
<td>Collaboration</td>
<td>176</td>
</tr>
<tr>
<td>Conflict</td>
<td>179</td>
</tr>
<tr>
<td>Competition</td>
<td>181</td>
</tr>
<tr>
<td>Insiders and Outsiders</td>
<td>183</td>
</tr>
<tr>
<td>Big Greens</td>
<td>187</td>
</tr>
<tr>
<td>Tactics</td>
<td>190</td>
</tr>
<tr>
<td>Age</td>
<td>193</td>
</tr>
<tr>
<td>Religion</td>
<td>196</td>
</tr>
<tr>
<td>Race</td>
<td>200</td>
</tr>
<tr>
<td>Conclusion</td>
<td>205</td>
</tr>
<tr>
<td><strong>8 CONCLUSION: A MOMENT OF FLUX</strong></td>
<td>207</td>
</tr>
<tr>
<td>Main Findings and Contributions</td>
<td>208</td>
</tr>
<tr>
<td>Central Appalachian Futures</td>
<td>212</td>
</tr>
<tr>
<td>Future Research</td>
<td>214</td>
</tr>
<tr>
<td><strong>APPENDIX NETWORK QUESTIONNAIRE</strong></td>
<td>216</td>
</tr>
<tr>
<td><strong>LIST OF REFERENCES</strong></td>
<td>220</td>
</tr>
<tr>
<td><strong>BIOGRAPHICAL SKETCH</strong></td>
<td>240</td>
</tr>
<tr>
<td>Table</td>
<td>Title</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------</td>
</tr>
<tr>
<td>5-1</td>
<td>Density and Degree Centralization</td>
</tr>
<tr>
<td>6-1</td>
<td>Density of Tactical Networks</td>
</tr>
<tr>
<td>6-2</td>
<td>Significance of Tactics on Overall Network Structure</td>
</tr>
<tr>
<td>6-3</td>
<td>Betweenness Centrality in the Litigation Network</td>
</tr>
<tr>
<td>6-4</td>
<td>Betweenness Centrality in the Lobbying Network</td>
</tr>
<tr>
<td>6-5</td>
<td>Betweenness Centrality in the Direct Action Network</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1</td>
<td>Leading U.S. Coal Producers by State, 2010</td>
<td>38</td>
</tr>
<tr>
<td>1-2</td>
<td>West Virginia Coal Production, 1983-2011</td>
<td>38</td>
</tr>
<tr>
<td>1-3</td>
<td>Central Appalachian Surface Mine Output in Short Tons</td>
<td>39</td>
</tr>
<tr>
<td>1-4</td>
<td>Appalachia According to the Appalachian Regional Commission (ARC)</td>
<td>40</td>
</tr>
<tr>
<td>3-1</td>
<td>Central Appalachia Poverty Rate by County, 2010</td>
<td>108</td>
</tr>
<tr>
<td>5-1</td>
<td>Central Appalachia Anti-Strip Mining Network, 1994-99</td>
<td>133</td>
</tr>
<tr>
<td>5-2</td>
<td>Central Appalachia Anti-Strip Mining Network, 2000-04</td>
<td>134</td>
</tr>
<tr>
<td>5-3</td>
<td>Central Appalachia Anti-Strip Mining Network, 2005-09</td>
<td>134</td>
</tr>
<tr>
<td>6-1</td>
<td>Overall Current Central Appalachian Anti-Strip Mining Network</td>
<td>159</td>
</tr>
<tr>
<td>6-2</td>
<td>Betweenness Centrality in the Overall Network</td>
<td>160</td>
</tr>
<tr>
<td>6-3</td>
<td>Betweenness Centrality and Radicalness</td>
<td>161</td>
</tr>
<tr>
<td>6-4</td>
<td>Betweenness Centrality and Issue Focus</td>
<td>162</td>
</tr>
<tr>
<td>6-5</td>
<td>Betweenness Centrality and Resources</td>
<td>163</td>
</tr>
<tr>
<td>6-6</td>
<td>Relationship of Litigation and Overall Betweenness Centrality</td>
<td>164</td>
</tr>
<tr>
<td>6-7</td>
<td>Litigation Network</td>
<td>165</td>
</tr>
<tr>
<td>6-8</td>
<td>Litigation Network Tie Strength Greater Than Two</td>
<td>166</td>
</tr>
<tr>
<td>6-9</td>
<td>Relationship of Lobbying and Overall Betweenness Centrality</td>
<td>167</td>
</tr>
<tr>
<td>6-10</td>
<td>Lobbying Network</td>
<td>168</td>
</tr>
<tr>
<td>6-11</td>
<td>Lobbying Network Tie Strength Greater Than Two</td>
<td>169</td>
</tr>
<tr>
<td>6-12</td>
<td>Relationship of Direct Action and Overall Betweenness Centrality</td>
<td>170</td>
</tr>
<tr>
<td>6-13</td>
<td>Direct Action Network</td>
<td>171</td>
</tr>
<tr>
<td>6-14</td>
<td>Direct Action Network Tie Strength Greater Than Two</td>
<td>172</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>AA</td>
<td>Alliance for Appalachia</td>
<td></td>
</tr>
<tr>
<td>ACE</td>
<td>Army Corps of Engineers</td>
<td></td>
</tr>
<tr>
<td>AGSLP</td>
<td>Appalachian Group to Save the Land and People</td>
<td></td>
</tr>
<tr>
<td>AL</td>
<td>Autora Lights</td>
<td></td>
</tr>
<tr>
<td>AOC</td>
<td>Approximate original contour</td>
<td></td>
</tr>
<tr>
<td>ANFO</td>
<td>Ammonium nitrate fuel oil</td>
<td></td>
</tr>
<tr>
<td>AR</td>
<td>Appalachia Rising</td>
<td></td>
</tr>
<tr>
<td>ARC</td>
<td>Appalachian Regional Commission</td>
<td></td>
</tr>
<tr>
<td>BCOA</td>
<td>Bituminous Coal Operators Association</td>
<td></td>
</tr>
<tr>
<td>CM</td>
<td>Christians for the Mountains</td>
<td></td>
</tr>
<tr>
<td>CRMW</td>
<td>Coal River Mountain Watch</td>
<td></td>
</tr>
<tr>
<td>EJ</td>
<td>Environmental justice</td>
<td></td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
<td></td>
</tr>
<tr>
<td>EPC</td>
<td>Environmental Policy Center</td>
<td></td>
</tr>
<tr>
<td>FBM</td>
<td>Friends of Blair Mountain</td>
<td></td>
</tr>
<tr>
<td>KFTC</td>
<td>Kentuckians for the Commonwealth</td>
<td></td>
</tr>
<tr>
<td>KM</td>
<td>Keeper of the Mountain</td>
<td></td>
</tr>
<tr>
<td>LEAF</td>
<td>Lindquist Environmental Appalachian Fellowship</td>
<td></td>
</tr>
<tr>
<td>MJ</td>
<td>Mountain Justice</td>
<td></td>
</tr>
<tr>
<td>MSHA</td>
<td>Mine Safety and Health Administration</td>
<td></td>
</tr>
<tr>
<td>MTR</td>
<td>Mountaintop removal mining</td>
<td></td>
</tr>
<tr>
<td>NIMBY</td>
<td>Not in my backyard</td>
<td></td>
</tr>
<tr>
<td>OSM</td>
<td>Office of Surface Mining</td>
<td></td>
</tr>
<tr>
<td>OVEC</td>
<td>Ohio Valley Environmental Coalition</td>
<td></td>
</tr>
<tr>
<td>RAMPS</td>
<td>Radical Action for Mountain People’s Survival</td>
<td></td>
</tr>
<tr>
<td>RM</td>
<td>Resource mobilization</td>
<td></td>
</tr>
<tr>
<td>SAMS</td>
<td>Southern Appalachian Mountain Stewards</td>
<td></td>
</tr>
<tr>
<td>SMCRA</td>
<td>Surface Mining Control and Reclamation Act of 1977</td>
<td></td>
</tr>
<tr>
<td>SOCM</td>
<td>Statewide Organizing for Community eMpowerment</td>
<td></td>
</tr>
<tr>
<td>UMD</td>
<td>United Mountain Defense</td>
<td></td>
</tr>
<tr>
<td>UMWA</td>
<td>United Mine Workers of America</td>
<td></td>
</tr>
</tbody>
</table>
This dissertation uses the case of strip mining resistance in central Appalachia to shed light on the factors that bring social movement groups together in collaborative relationships, and conversely, the factors that can inhibit such partnerships. These dynamics are an important realm of study because such intergroup relationships influence how change is sought, and in turn, the level of success a movement attains.

I use social network analysis and semi-structured interviews with movement participants to bring these collaborative mechanisms into focus. I begin by documenting the evolution of this network of resistance since the passage of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) to 2012. A major theme emerging from this component of study is the critical impact the law can have on movements, and vice versa. The passage of SMCRA thwarted collaboration and had a general deflating effect on the movement, while amendments to the Clean Air Act in 1990 accelerated the use of mountaintop removal mining (MTR) and catalyzed resistance to the practice. An examination of the current network reveals the importance of tactics in generating collaborative relationships. We see that the different tools groups pull from the “tactical toolbox”, such as litigation, lobbying, and direct action, significantly influence the
propensity of groups to forge alliances within the movement. Finally, the dissertation highlights how certain factors have the potential to stifle collaboration, including: insider/outsider dynamics, intergenerational divides, conflict between the grassroots and national environmental organizations, and religious differences. In general, however, such conflicts are scuttled for the “greater good”, as activists are overwhelmingly pragmatic, realizing the importance of collaboration in their uphill fight for environmental justice in the mountains of Appalachia.
CHAPTER 1
INTRODUCTION: COAL, STRIP MINING AND RESISTANCE IN CENTRAL APPALACHI

In the early hours of August 20, 2004, a half-ton boulder freed by operations at the A & G Coal strip mine in Appalachia, Virginia rolled more than 600 feet before crashing into the bedroom of three year old Jeremy Davidson, killing him instantly. Jeremy Davidson’s death put a human face on the cost of coal extraction in the region and stimulated many in the area to march in protest over the recklessness that caused the tragedy. Other concerned citizens from central Appalachia joined in the protest, reinvigorating the once strong anti-strip mining movement in the region. Following the so-called March on Appalachia, two umbrella organizations emerged to further unite efforts to end strip mining, the Alliance for Appalachia (AA) and Mountain Justice (MJ), which have ever since served as the connective tissue in this network of resistance.

This dissertation examines how those facing environmental inequalities like those in the coalfields of central Appalachia come together in common cause and attempt to level the asymmetries of power they face, and ultimately obtain justice. Why and how social movement groups collaborate is an important realm of study because, put simply, social movements are important. In just the second half of the 20th century, for example, the civil rights, women’s and LGBT movements reordered the existing social fabric, creating a world that would have been largely unimaginable just decades before. The relationships among the groups that composed these movements determined how they sought change, which in turn, directed the trajectory of their efforts and the level of success they would attain.

By pooling resources, garnering media attention, and adding legitimacy to movements, alliances among different social movement groups reduce the limitations of
individual groups, generating “collaborative advantage” (Schlosberg 1999, 131; Perz et al. 2010; Lasker et al. 2001). Such collaboration also generates solidarity, stifling the tendency of groups to focus on the local, immediate and personal, what Raymond Williams (1989) calls “militant particularism”, but instead focus on the wider connections that can unite progressive social movements. Indeed, numerous opportunities to resist exploitation and create societal change are missed because of a failure to see and act upon the commonalities of similar causes and generate broader systemic change.

Many of the earliest environmental justice (EJ) struggles are examples of such militant particularism, for although critically important to the afflicted parties, they were examples of “not in my backyard” (NIMBY) resistance. Many grassroots groups succeeded in preventing an environmental hazard from being placed in their community, but that hazard would often end up being housed in another marginalized community. As such, transcending militant particularism is crucial for developing the solidarity that can lead to broader and more influential movements for change, and collaboration among different social movement groups demands sustained scholarly attention.

Such work is especially critical in the coal bearing regions of central Appalachia because of its long legacy of economic dependence. Indeed, the history of the region provides a striking example of what environmental sociologists call the “treadmill of production.” Allan Schnaiberg (1980) concluded that the combination of increased surplus capital and altered allocation patterns following World War II resulted in new technologies that intensified resource extraction and the production of wastes while simultaneously displacing human labor. Capital’s insatiable need for growth within a
finite world, argued Schnaiberg, results in an externalization process where the costs of production are paid by the environment and society and only a select group of elites benefit. This is surely the case in central Appalachia where the ecological degradation generated by new strip mining technologies developed since WWII have culminated in a devastated ecological and social landscape. Leading scholars in this school of thought point to the potential of social movements to derail this treadmill, but little research has actually examined the network connections necessary for such resistance (Gould et al. 2008). More research exploring the alliances that compose these networks is found in the social movement literature, but more work is needed to fully understand the mechanisms that forge or inhibit these important connections.

This dissertation attempts to contribute to the social movement and environmental sociology literatures by answering the following research questions:

1) How has the network of resistance to strip mining evolved since the passage of the Surface Mining Control and Reclamation Act of 1977 (SMCRA)? What role has the law played in this evolution? What has caused the network to expand?

2) How is the current network structured? What drives collaboration? How do the attributes of groups (their tactics, resources, and cultures) influence the positions they occupy within this network?

3) What are some of the barriers that limit collaboration in this movement? How are they overcome?

To answer these questions, I take a mixed method approach, employing different methods for each of these three sets of questions. For component one, I develop a social network technique to sort through over thirty years of newspaper articles and
document the evolution of the anti-strip mining movement. For component two, I survey current activists, asking questions about their own group and the strength of the relationships between their group and other anti-strip mining groups along several dimensions. Component three is addressed by conducting semi-structured interviews with numerous current and former activists.

In addition to helping us better understand social movement dynamics and add to the academic literature, this project aspires to have broader (if limited) impacts. As Richard Heinberg declares, “The fate of the world’s economy and Earth’s climate depend largely on coal” (2009, 145). As such providing useful data to those fighting for a more sustainable and just future is an important goal of this research. Before looking towards that future, however, a brief look back at the history of coal is necessary, and that is where we now turn.

**Coal in the United States**

Over three hundred million years ago during the Carboniferous Period, dense forests were buried, and with time, heat and intense pressure, transformed into the fossilized strata of carbon rich rock we now call coal. These layers of coal, varying from a few inches to over one hundred feet deep, laid undisturbed for millennia until the usefulness of the rock as a heat source and power generator became realized. Native Americans knew of coal’s existence long before the European settlement, of course, but French Jesuit missionary Father Hennepin is credited with the first written mention of coal in the U.S., noting in his journal the deposits of “cole” along the banks of the Illinois River in 1679 (Watkins 1934, 89). By 1750, surface coalmines began operating in earnest along the James River near Richmond, Virginia with African slaves serving as
“human bulldozers” in the retrieval of the mineral coveted by blacksmiths and artisans (Biggers 2010, NP).

Coal soon proved critical in the economic development of the young nation, delivering the inexpensive fuel that powered the Northeast’s industrial revolution. Coal’s key role in the American economy has continued since those early days of manufacturing, responsible for over half of U.S. electricity generation until very recently. Moreover, and despite centuries of extraction, coal is still relatively abundant, as the Department of Energy explains: “One quarter of the world’s coal reserves are found within the United States, and the energy content of the nation’s coal resources exceeds that of all the world’s known recoverable oil.”

Appalachia has undergone the most extensive mining in the nation, and it is unclear how much coal remains in the region, with projections ranging from twenty to two hundred and fifty years. Heinberg (2009, 13) underlines the notorious inaccuracy of such forecasts, noting:

The first scientific forecast for future British coal supplies, published by Edward Hull in 1864, promised a 900-year abundance. Subsequent estimates stayed above 500 years for about a century. By 1984, the official forecast for British coal was down to 90 years’ supply. As of 2008, Britain’s coal industry, once the world’s largest, is virtually gone.

What is certain is that the most easily accessible reserves were mined long ago and the coal seams mined today are thinner and increasingly difficult to access. Nevertheless, Appalachia is still home to three of the top four coal producing states in the country, West Virginia, Kentucky and Pennsylvania, although Wyoming produces more coal than all of Appalachia combined (Figure 1-1).

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West Virginia has the distinction of extracting more coal from underground mines than any other state in the nation, although this amount has dropped steadily over the last fifteen years (Figure 1-2). Surface, or strip mining, has become the preferred method of extraction for coal companies in the state as well as the rest of central Appalachia. These techniques of extraction are more economically efficient but result in greater environmental degradation and community resistance.

**Strip Mining and Mountaintop Removal**

Strip mining and surface mining are catchall terms for numerous coal extraction methods that involve removing the flora, soil and rock, the so-called “overburden”, that covers coal deposits with explosives and heavy machinery. These methods include auger, highwall, contour, and mountaintop removal mining (MTR) among other types. Strip mining is the oldest type of mining, as easily accessible outcrops of coal drew the attention of early miners. Most 19th century strip mining took place in the flatter fields of the Midwest, especially Illinois, Indiana and Ohio, where horses pulled rudimentary steel scrapers and plows to remove the overburden above coal seams. By the turn of the 20th century, steam engines had replaced horses and by the 1930s “mechanical” strip mining had become more common (Montrie 2003, 19). An Englishman visiting America during this period provides an enlightening glimpse of the esteem many held for these techniques:

One of the most interesting features of mining in the United States to an Englishman is strip mining. The coal is literally stripped from the earth by a huge machine which, though popularly called a ‘shovel,’ looks like a ‘tank’ and like a ‘tank’ rides roughshod over the field, automatically drawing up the coal and tipping it into wagons. (One cannot help wishing that all mining could be carried on in the open air, on the surface) (Watkins 1934, 112).
Coming from the world’s leading coal producer, Watkins must have been well aware of the perils of deep mining, namely cave-ins, explosions, floods, and fires, as well as the harsh conditions and exploitation of children in underground mines.

The use of strip mining techniques accelerated after World War II as many wartime technologies found new purpose in more peaceful stateside pursuits. Massive power shovels, bulldozers, dump trucks and train cars increased the efficiency of mining, simultaneously increasing coal extraction rates and reducing the need for human labor. Harry Caudill’s description of “Big Muskie”, the world’s largest power shovel, or “dragline”, underlines the economies of scale developed in the post war period and the paradigm shift the treadmill of production represented:

Tourists pause daily on the highways to watch as it devours the Ohio landscape. Tall as a 32-story building, it consumes enough electricity to supply a small city. A boom 310 feet long is fitted with a bucket that lifts 325 tons of soil at a gulp, controlled by steel cables five inches in diameter. This behemoth weighs 27 million pounds, and the millions of dollars it cost can be justified only by keeping it busy night and day throughout the year (1971, 23).

The armaments industry developed during WWII also played a key role in the postwar acceleration of strip mining, as munitions now became liberators of Appalachian overburden. While strip mining accounted for only 1.2% of total U.S. coal production in 1921 and 10.7% before the war in 1941, 1972 saw 49% of all coal coming from surface mines (U.S. Bureau of Mines).

The opening of federal coal leases in the western U.S. in the 1970s and 1980s only furthered the shift to strip mining (Nelson 1983, 178). The extensive and more easily accessible western reserves became home to huge surface operations that generated economies of scale, which reduced demand for the costlier, albeit higher quality, Appalachian coal. This development, coupled with the recession of the early
Reagan years and the broader economic shift from manufacturing to service and information, resulted in a severely depressed economy in Appalachia. In the 1980s alone, over sixteen hundred West Virginian mines closed and half of all coal miners lost their jobs (Latimer and Mencken, 2003, 81). With margins increasingly tight, coal operators sought increased efficiency and viewed strip mining as a way to compete with western coal.

The Clean Air Act amendments of 1990 and their limits on sulfur dioxide emissions from burning coal furthered the shift away from underground mining in Appalachia. The amendments left utility companies with two options: they could install expensive retrofits to their plants to reduce these emissions, or they could burn coal with less sulfur. As such, the low sulfur coal deposits of Appalachia became more attractive to utilities, and strip mining, especially MTR, accelerated rapidly at this time. MTR is the most extreme form of surface mining ever practiced. Up to a thousand feet of mountaintop are blasted away with ammonium nitrate fuel oil (ANFO) in order to reveal coal seams. Large earth moving machines then push the overburden into the adjacent valleys, creating "valley fills", and the once mountain/valley topography is transformed into a series of plateaus. With the overburden removed, massive draglines are installed to scrape away the now exposed coal seams, which are then loaded into dump trucks to be hauled to processing plants.²

MTR has become the preferred method of surface extraction for coal operators in the region over the last quarter century, with the amount of MTR-mined acres increasing from roughly 77,000 acres in 1985 to over 1.5 million acres today (Appalachian Voices, 2011).

² A thorough explanation of mountaintop removal and accompanying diagrams is available at EPA 2011, “Mid-Atlantic Mountaintop Mining”: http://www.epa.gov/region3/mtnstop/
Indeed, MTR and strip mining are now virtually synonymous in the region; of the 56 million tons of West Virginia coal extracted from strip mining in 2009, 43 million came from MTR mines (WVOMHST 2010). The ecological impacts of this “strip mining on steroids” are immense, particularly in southern West Virginia, ground zero of central Appalachian strip mining (Figure 1-3).

**Ecological Impacts of Strip Mining**

In their most recent environmental impact assessment, the Environmental Protection Agency (EPA 2010) notes that the last three decades have seen more than five hundred mountaintops removed, over 2,000 acres of woodland deforested and more than 2,000 square miles of headwater streams buried in the region. These ecological impacts are especially significant as the ecosystems of central Appalachia are among the most biologically diverse in the world. The mountains emerged over three hundred million years ago, forming a hospitable environment for many species that live there and there alone. The region served as a refuge for many species during the glaciation of the Pleistocene and the ensuing period of glacier melt, while the limestone underlying the region has resulted in many unusual subterranean environments that nurture myriad rare forms of life. As the World Wildlife Fund notes:

The large variety of landforms, climate, soils, and geology, coupled with a long evolutionary history, has led to one of the most diverse assemblages of plants and animals found in the world's temperate deciduous forests (WWF ND).

Not surprisingly, strip mining has deleteriously affected the creatures living on and near mining sites. Developmental abnormalities are becoming more common in fish living nearby as a result of the elevated levels of heavy metals such as selenium, while the Blackside Dace fish is now endangered, many other species that indicate ecological
health such as salamanders, have dramatically declined in population. The West Virginia Department of Environmental Protection (WVDEP) has found streams below MTR valley fills entirely absent of the order of Ephemeroptera, the Mayfly. In a report condemning the weak stance of his own department, WVDEP biologist Doug Wood explained the significance of this disappearance:

> The loss of an order of insects from a stream is taxonomically equivalent to the loss of all primates (including humans) from a given area. The loss of two insect orders is taxonomically equivalent to killing all primates and all rodents through toxic chemicals. Such adverse ecological impacts are most certainly significant, and they prevent affected streams from meeting their designated aquatic life uses (Wood 2009).

Moreover, these impacts are not to be quickly resolved, as these “significant water quality problems below surface coal mining operations can contaminate surface waters for hundreds of years” (EPA 2010). Despite the immense consequences strip mining has for non-human animals, it is primarily the impacts on humans that have catalyzed resistance.

**Social Impacts of Strip Mining**

Nearby residents of MTR sites countenance water contaminated with heavy metals, landslides and floods, omnipresent dust, coal truck traffic, and blasts that shake homes and ruin wells (Burns 2007). Recent studies have revealed even more serious consequences as those living near MTR sites have higher rates of birth defects and premature death from respiratory, heart and kidney diseases (Ahern et al. 2011). Hendryx and Zullig (2009) found higher rates of cardiovascular disease, angina, and heart attacks for both men and women living near MTR sites, while Hendryx (2011) documented higher mortality and poverty rates in MTR areas.
Although the supporters of coal extraction portray the industry as a creator of good jobs and the backbone of the region’s economy, little empirical evidence exists to support this contention (Bell and York 2010; McGinley 2004). The counties where strip mining takes place are among the poorest in the nation, and because of the highly mechanized nature of the work, very few human laborers are needed on even the largest strip mines. Indeed, even in West Virginia, the state with the highest extraction rates in all of Appalachia, less than 1% of its population is employed by the coal industry (WVOMHST 2010), while a recent study found that the greater a West Virginian county’s dependence on coal, the higher its rates of poverty and unemployment (Perdue and Pavela 2012). Depopulation is yet another negative outcome in the region, as counties with high rates of strip mining are losing population at faster rates than other rural counties that do not mine coal (Escher 2013). This is partly due to the lack of employment opportunities in these areas, but also to the inhospitable climate created by mining operations and the concomitant dust, noise and increased traffic that mining brings to a region.

Despite the immense ecological and social costs of strip mining in central Appalachia, the practice still dominates in much of the region. Moreover, this is despite the more extensive and easily accessible coal reserves in the western U.S., Appalachian coal’s declining desirability in global energy markets, and decreasing profits for extractors. This leads to the question: Why does extreme strip mining continue in central Appalachia? The vagaries of geology obviously play a primary role in the mining of coal there, but the externalities of the strip mining processes used are extreme, and it seems less likely that such outcomes would be permissible in other
mountainous regions of the U.S., such as the Rockies or the Berkshires. As such, a brief contextualization of the region and how it is located in the broader American consciousness is needed to explain this phenomenon.

**Place and Space: Appalachia?**

The term “Appalachia” is derived from the Apalachee tribe of northern Florida who referred to the rolling mountain chain to the north as a “land of gold.” This description, and the mistaken belief that this tribe was somehow connected to the gold possessing tribes of Central America, piqued the interest of gold seeking conquistadors who had failed to find their bounty in southern Florida. Not surprisingly, “gold” held a very different meaning for the tribe than the conquistadors, as abundant game and fresh water, not the ore, represented wealth for the tribe. Nevertheless, European cartographers soon labeled the entire mountain range “Appalachia”, and the name has remained ever since (Davis 2000). This anecdote is instructive, for the region’s name came from the outside and even today most inhabitants of the region do not refer to themselves as Appalachians. More importantly, the name is weighted with much cultural baggage and negative stereotypes.

Until the “Gilded Age” when journalists and folklorists began surveying the land and people, however, the region was not seen as distinct from the rest of America. This post-Civil War period saw the rise of so-called “local color” writings as publishers of magazines and popular novels welcomed work about all the overlooked “little corners” of the U.S. Of these writers, William Wallace Harney and his work, “A Strange Land and a Peculiar People”, had notable impact. Appearing in Lippincott’s Magazine in 1873 (in McNeil 1989, 45-58) the story relayed a sensational tale of the exploits of rural Kentuckians to urban Northeastern readers. Indeed, Henry Shapiro (1978, 4) declared
that “in a real sense it was Harney and the editors of Lippincott’s who ‘discovered’ Appalachia, for they were the first to assert that ‘otherness’ which made of the mountainous portions of eight southern states a discrete region, in but not of America.” In addition to Harney, authors such as John Fox, Jr. and Mary Murfree reinforced many of the stereotypes presented by Harney, cementing Appalachia as a different, exceptional place.

This period of redefinition highlights the competing visions and contradictions of the region that endure to this day. On the one hand, Appalachian inhabitants came to embody the simplicity and decency that those enduring the negative outcomes of industrialization and urbanization sought. Satterwhite (2011, 17) underscores this nostalgia, arguing that by the turn of the 19th century, “Americans considered the countryside the repository of the moral worth of the agrarian Republic.” On the other hand, many saw the otherness of Appalachia and its inhabitants as a problem:

Between 1870 and 1890, it became clear to a number of persons that the existence of a strange land and peculiar people in the southern mountains could not be understood in terms of contemporary conceptions of America as a unified and homogenous national entity… geographic, chronological, or ethnic distance which made such “deviance” seem natural and normal—could not be utilized to explain the “deviance” of white, Ango-Saxon, Protestant, native-born Americans living in the present and within miles of the older centers of American civilization (Shapiro 1978, x).

For these observers, this backward “people” confounded the accepted ideal of what it meant to be white and Anglo-Saxon, complicating the road to a united, white-dominated, post-bellum America, and the “deviance” of these people would later be used as a justification for eugenics in the region. John Fox, Jr.’s exceedingly influential work The Trail of the Lonesome Pine (1908) served to cement the pejorative stereotype of Appalachians as feuding hillbillies, and, according to Satterwhite, “justified industrial
exploitation and affirmed readers’ nationalism, racism, and imperialism” (2011, 21). The clearest example of this exploitation was the treatment of Appalachian miners by the coal industry, which reached a nadir in the early 20th Century at the same time they became essential to the national economy. Meanwhile, missionaries had streamed in to this supposedly “unchurched” region to ply their trades, while social scientists sought empirical data to support the otherness of the region (Shapiro 1978).

By mid-century, regional politicians recognized that the otherness of Appalachia could help alleviate the suffering of the postwar years and embraced “Appalachia exceptionalism” (Eller 2008). In 1960, the Council of Appalachian Governors jointly asked the federal government and President Kennedy for assistance for the mountainous portions of their states which had failed to keep pace with the rest of America in education, income, and health. Soon thereafter photos of poor, shoeless children outside of shacks quickly became engrained in the American consciousness, as Appalachia became the primary target in the War on Poverty. The political plea resulted in the creation of the Appalachian Regional Commission (ARC) in 1963, which created legislation to bring federal dollars to the region, and in 1965 the Appalachian Redevelopment Act was signed into law by President Johnson making ARC a federal agency. Because inclusion in “Appalachia” meant funds, local politicians campaigned to be included in the federal government’s conception of the region, underscoring the social construction of the place. Indeed, this brief history of ARC reinforces the fact that the idea of Appalachia serves certain interests and holds tangible benefits for certain stakeholders. This is especially salient in the current struggles to end strip mining, as
those supporting mining tend to draw a cloak of Appalachian authenticity around themselves while casting those opposing strip mining as outsiders.

ARC’s Appalachia was decidedly far-flung, spanning from northern Mississippi all the way to New York, a range of thirteen states, 420 counties and untold cultural variance (Figure 1-4). Dissatisfaction with this definition has led many to redefine the region, with Williams (2002, 6-8) providing a useful definition of “core Appalachia” composed of West Virginia and the highland counties of Virginia, Kentucky, Tennessee, North Carolina and Georgia. For the purposes of this study, I focus on the parts of core Appalachia home to significant strip mining, thereby limiting the study range to West Virginia, southwestern Virginia, eastern Kentucky, and northeastern Tennessee.

Regardless of spatial demarcations, the idea of Appalachia and its perceived inferiority has resulted in one of the last American places and people safe to openly mock. Representations of ignorant and inbred hillbillies have evolved from Lil’ Abner, Snuffy Smith and the Beverly Hillbillies to current iterations seen in “reality” productions such as “Buckwild” and “The Wonderful Whites of West Virginia”, and in “hillbilly horror” films (Clover 1993). The physical isolation of the region has undoubtedly helped facilitate such demeaning representations, as well as veiling the social and ecological destruction resulting from strip mining. Mine operations are typically carried out far from public view as companies rarely operate mines within sight of major highways. In short, and despite growing media attention, the strip mining of central Appalachia remains an out of sight, out of mind issue in a largely invisible and undervalued region.

Nevertheless, the last decade has seen opposition to the coal industry increase in the region as activists have rallied around the notion of Appalachia and “mobilized
place-related symbols, metaphors, demands, and affinities as countervailing sources of resistance" (Smith and Fisher 2012, 267). Similarly, Doreen Massey contends that every place is a meeting place, "a particular constellation of social relations, meeting and weaving together at a particular locus" (1994, 154). The Appalachia of today is no exception, and those in the strip coal fields are forging connections and drawing together a vibrant constellation of resistance.

**Networks, Alliances and Collaboration**

In 1993, Glen concluded: “the ‘social movement’ that has risen in Appalachia more closely resembles a coalition, a loose alliance, a network of disparate groups, leaders, followers, and tendencies—a movement of movements” (1993, 31). Two decades later, Smith and Fisher echoed this sentiment, noting, “Organizations and activists come and go and financial support is rarely stable; but this loose, informal network persists and, indeed, may be the form that an Appalachian movement has taken (Smith and Fisher 2012, 285). These scholars highlight two important aspects of this social movement that require further discussion. First, they point out that mobilizing the idea of Appalachia has not sufficed to sustain a place-based movement, likely due to the socially constructed nature of the region. Strip mining and mountaintop removal have, however, proven sufficient to forge a more focused, network of resistance in the region. The Alliance for Appalachia is a prime example of efforts to build such place-based solidarity by forging “a regional coalition of 13 groups in five states working to end mountaintop removal coal mining and support the creation of a just, sustainable economy in Appalachia.”

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3 Alliance for Appalachia: http://www.theallianceforappalachia.org/
The second important point these scholars raise is that the cooperative relationships among groups opposing strip-mining in central Appalachia are expressed with numerous terms, including "social movement", "alliance", "coalition", and "network." This lexical muddle echoes the discourse in the social movement literature, where numerous terms are often employed to understand similar collaborative phenomena. For instance, "coalition" and "alliance" are often used interchangeably (see Bystydzienski and Schacht 2001; Beamish and Luebbers 2009), while some suggest slight differences, as evidenced in the work of McCammon and Van Dyke (2010, xiv-xv):

At the most basic level, a coalition can be said to exist any time two or more social movement organizations work together on a common task. Thus, coalitions can range from a simple partnership between just two movement groups to a complex network of many social movement organizations. Coalition members may work together on a single project, or they may form a more long-lasting alliance and collaborate on multiple activities over time.

Gulati and Gargiulo’s (1999, 1440) definition of alliance echoes this temporal distinction, as well as the emphasis on sharing implicit in the term:

Alliances are a novel form of voluntary interorganizational cooperation that involves significant exchange, sharing, or codevelopment and thus results in some form of enduring commitment between the partners.

Gulati and Gargiulo’s definition captures the essence of what I explore in this dissertation, and alliance is the primary term I employ here to convey these interorganizational relationships.

Moreover, this project subscribes to Diani’s (2003b, 304) argument that a social network approach can unite the fractious and disjointed approaches to collective action research. His understanding of social movements as “non-hierarchical network forms of organization” (ibid) is especially useful for this study because the resistance to strip mining is decidedly democratic and influenced by anarchic principles. The organizations
that make up this movement can be viewed as nodes within a central Appalachian network, tied together, or allied by their common goal. In short, I take a social network approach to these relations and attempt to fuse the social movement and social network literatures dealing with collaboration.

Regardless of terminology, scholars have consistently found that the bringing together of groups into a broader network is a critical factor in altering social relations and the course of history (Gamson 1975; McAdam 1982; Morris 1984; Steedly and Foley 1979; Van Dyke 2003; McCammon and Van Dyke 2010). Alliances among groups fighting for civil rights are particularly instructive, as collaboration among southern African-American groups and churches, White northerners, college students and influential institutions like the Highlander Folk Center, broadened the movement spatially and racially, catalyzing a “revolution beyond race” (McAdam 1982, 1986; Morris 1984). Indeed, the social networks created during this struggle created the scaffolding for later struggles for environmental justice. Scholars have found alliances critical in many other social movements as well, including labor (Fantasia and Stephan Norris, 2004), environmental (Pellow 2011, 2007; Lichterman 1995), women’s rights (Whittier 1995; Ferree and Hess 1994), gay rights (Adam 1995), nuclear freeze (Rochon and Meyer 1997), Latina (Pena 2007), and pro-choice (Staggenborg 1986), as well as the more recent “Arab Spring” and Occupy movements. These and other studies have added much to our understandings of these important alliances, but the mechanisms that bring about such collaboration are still unclear, as are the factors that impede such connection.
What Generates Collaboration? What Stifles it?

Most social movement researchers agree that political threats and/or opportunities play important, albeit mixed, roles in collaboration (McAdam 1982; Morris 1984; Meyer 2004; Hathaway and Meyer 1993; Van Dyke 2003; Grossman 2001; Obach 2004). Although the structural perspective of political opportunity theory is helpful, this study is gives more attention to the endogenous factors that generate alliances. Some scholars contend that resources such as money, time, and leadership affect the propensity of an organization to foment these partnerships (McCarthy and Zald 1977; Jenkins 1983; Gamson 1961; Diani 2003a, 1995). Culturally oriented scholars, meanwhile, tend to focus on collective identity and the importance of meshed ideologies in forging alliances (Bell and Delaney 2001; McCammon and Van Dyke 2010; Castells 1997; Taylor and Whittier 1992; Melucci 1989).

These ideas are discussed in more depth later in this work. Sufficed to say here, collaboration is context specific and numerous factors are at play in every situation, while culture and resources undoubtedly play critical roles. I explore the roles they play in the anti-strip mining movement in central Appalachia in this dissertation, but also focus on another component of collaboration that has received less scholarly attention—tactics, specifically their legal dimensions. I contend that the manner in which individual groups engage the law influences network structure, which in turn shapes how the broader social movement seeks change.

The social movement literature has highlighted the importance of building bridges for those seeking positive change. Such work is particularly important in central Appalachia where King Coal has been entrenched for generations and the struggle against this Goliath can seem futile. Working together can help level these asymmetries
of power and is especially critical, for as Pellow points out, “the domination over people is reinforced and made possible by the domination of ecosystems” (2011, 247). Indeed, the destruction of the fragile ecosystems of central Appalachia continue, while human and societal health deteriorates. Freudenburg (1992) calls such economies “addictive” for they create a dependence that is all but impossible to break. To create a sustainable future for Appalachia will require learning lessons the past has to offer, and this is where the Chapter 2 begins.

**Chapter Outline**

Chapter 2 provides a historical contextualization of the critical role coal extraction has played in the political, economic and cultural development of central Appalachia, and how this history has culminated in the current struggle to end strip mining. Focusing primarily on the 20\(^{th}\) century, we witness the rapid rise of coal as the primary economic driver in the first decades, followed by labor’s growing insistence for fair treatment. The fight to unionize is one of the first movements in the region and holds many lessons for today’s activists, but also galvanized the coal industry, informing how they now engage those waging a “War on Coal.”

Chapter 3 grounds this study in the theoretical understandings of social movement studies, environmental justice and Appalachian studies. I begin with a critique of some dominant theories in Appalachian studies, especially the internal colony perspective. I argue that an environmental justice lens is helpful to better understand this case, contending that the economic and racial marginalization of the region have facilitated the disproportionate levels of ecological exploitation central Appalachians face. David Pellow’s concept of *environmental inequality formation* and other case studies of environmental justice networks are especially helpful in accomplishing this task. I
conclude Chapter 3 by reviewing the social movement literature that attempts to explain why social movement groups seek and forge alliances, especially the explanations based on resources and culture, before arguing that tactics are an understudied and important factor that merit examination.

Chapter 4 outlines the various methodological approaches I employ in this study. The first of three studies I carry out in this dissertation is a media analysis of over thirty years of newspapers housed in the LexisNexis database in an attempt to outline how the anti-strip mining network has evolved overtime. The second method is a social network analysis of the current network based on survey responses provided by group representatives. These data reveal the structure of the current network and how group attributes and tactical choices influence this structure. The third and final method used in this study is semi-structured interviews with movement participants with the aim of shedding light on obstacles to collaboration and how these are negotiated.

Chapter 5 outlines how, at least according to the print media, the network of groups opposing strip mining in central Appalachia has evolved since 1980. Perhaps most important is the finding that we find no collaboration evidenced through co-mention in newspaper articles for an entire decade, 1980-1990. This finding suggests a period of abeyance, or dormancy, in the movement following SMCRCA. From 1990 onwards we see a rapidly growing and dense network resisting the rapid growth of MTR. This growth was stimulated by another federal intervention, reinforcing the constitutive relationship between the law and social movements.

Chapter 6 uses social network surveys of group representatives to provide quantitative data on the structure of the anti-strip mining movement. I find a dense
network with no groups isolated before measuring the centrality of individual groups in the network. This analysis yields mixed support for Diani (2003a), whose study of the Italian environmental movement guides Chapter 6. Specifically, I find that resources are not necessarily tied to influence in the overall network, but do play a significant role in structuring the tactical networks. Moreover, we find the movement drawing from a diverse tactical toolbox that catalyzes collaboration to differing degrees, with surprisingly high rates of engagement in litigation, lobbying and direct action.

Chapter 7 uses data collected during semi-structured interviews with movement participants to shed light on their understandings of collaboration in the movement. We explore how conflict and competition can stifle relationships, and address several themes, including insider/outsider dynamics, intergenerational divides, the role of large national environmental groups, and religion. Overall, most respondents highly value partnering with other groups, deeming collaboration exceedingly useful and productive. Most also point out that funding is increasingly scarce, especially following the economic downturn since 2008. Counter to the understandings of resource mobilization theorists, however, activists tended to see this situation stimulating cooperation and sharing rather than pitting groups against one another.

Chapter 8 concludes this work, evaluating my findings, pointing to this work’s limitations and suggesting future paths of research. I also assess the current state of this movement and efforts to construct a post-extraction future in the region.
Figure 1-1. Leading U.S. Coal Producers by State, 2010. Energy Information Administration.

Figure 1-2. West Virginia Coal Production, 1983-2011. Mine Safety and Health Administration.
Figure 1-3. Central Appalachian Surface Mine Output in Short Tons, 2010. Energy Information Administration.
Figure 1-4. Appalachia According to the Appalachian Regional Commission (ARC)
CHAPTER 2
A LEGACY OF CONTENTION IN CENTRAL APPALACHIA

In many ways the current struggle to end strip mining is a direct outgrowth of earlier forms of resistance to the abuses of the coal industry. Chapter 2 aims to place this movement in context by highlighting some of the major developments in the history of coal and contention in central Appalachia. Illustrating how the seeds of today’s efforts were sown long ago underscores the significant disadvantages resistance faces in a region so long dependent on coal, both economically and culturally.

I begin this historical sketch in the late 1800s, when the Industrial Revolution demanded coal and the region’s role as a resource sacrifice zone was cemented. The poor conditions in the mines drove the fight to organize, with the flames burning hottest in the first decades of the 20th century. Indeed, today’s activists emphasize the long legacy of struggle against “King Coal” by wearing red bandanas like those worn by miners fighting to unionize at the Battle of Blair Mountain in 1921. Unlike those heady days when Appalachian coalminers represented the vanguard of the labor movement, the miners of today are partnered with the industry in their efforts to thwart those opposing strip mining.

I trace this monumental shift to the years following World War II when mining rapidly mechanized and employment opportunities dwindled. At this time, resistance shifted from labor to those directly affected by the externalities of stripping, a grassroots effort presaging the environmental justice movement. The struggles of those experiencing firsthand the ravages of unregulated stripping spurred the creation of numerous state level regulations across the region, but with little enforcement the laws failed to limit the ecological and social externalities. By the early 1970s, a growing strip
mining abolition movement had become increasingly vocal and persuasive. The end result of these efforts, the Surface Mining Control and Reclamation Act of 1977 (SMCRA), however, proved disappointing and full of loopholes with even President Carter describing the legislation as “watered down.” Although SMCRA unified standards for reclamation and created the Office of Surface Mining, it also legitimated the practice of MTR. This allowance, coupled with a heightened demand for low sulfur coal following Clean Air Act Amendments of 1990, resulted in a rapid growth in this type of mining in the early 1990s, and in turn, heightened resistance. Today, the movement to end MTR and stripping more generally is growing and increasingly diverse, but the formidable political and economic might of those in the coal industry have successfully fended off challenges to abolish the practice thus far. If the efforts of the earliest activists in the region are any indication, however, it is certain that they will not go quietly into the night.

The Appropriation of Central Appalachia

With the rapid industrialization of the 19th century, the vast resources of Appalachia became highly coveted by regional and global investment firms. Counter to widely held romantic notions of the region, outside investors, rather than small-scale farmers, have long controlled the region, with less than half of all antebellum Appalachians owning land (Dunaway 1996). Those wishing to farm often ventured west to homestead Native American lands with the encouragement of the federal government. Indeed, the expropriation of land and mineral rights in central Appalachia happened relatively quickly, evidenced by non-Appalachians holding title to ninety percent of the coal-rich counties of Mingo, Wayne, and Logan in southern West Virginia, by the dawn of the 20th century (Corbin 1981, 4). Many farmers willingly sold their property to land speculators, for “high birth rates, population growth, and land scarcity
had made subsistence farming increasingly difficult for each new generation, and mountain life was never idyllic" (Montrie 2003, 15). Many Appalachian land holders, however, did not have fair dealings with the so-called “land sharks”, who inevitably held the upper hand in these dealings, as Montrie (2003, 15) explains:

Land titles were obscure, deeds were lost, and records were poor in most mountain counties. Speculators with a better understanding of laws, courts, and the workings of local and state governments used their knowledge and connections to their own advantage.

Landowners typically had scant idea of the worth of their property, and some received as little as fifty cents an acre for their land, sometimes merely a rifle (Gaventa 1980, 53-4). Those disgruntled with their dealings had little legal recourse as local courts often colluded with land speculators in property disputes, facilitating the removal of swindled families from their land (Corbin 1981, 3). Those not willing to sign away their property sometimes received less than subtle treatment, such as being jailed until they posted the title of their land in exchange for bail (Gaventa 1980, 54).

Many other landowners signed contracts, which at the time, appeared to be “free money.” These broad form deeds separated surface and subterranean mineral rights, allowing the buyers to pay an even lower price because the property owner retained rights to the surface. These contracts would later cause significant grief for the progeny of those signing these contracts, for:

broad form deeds often signed over the rights to ‘dump, store, and leave upon said land any and all muck, bone, shale, water, or other refuse,’ to use and pollute water courses in any manner, and to do anything ‘necessary and convenient’ to extract subsurface minerals (Montrie 2003, 66).

As such, broad form mining deeds gave mining companies jurisdiction over inhabited and legally owned land, thereby challenging a central tenet of American private property law. In turn, large numbers of landowners had to witness the legal destruction of their
property as coal operators stripped farms, orchards and fields to reach the fossils below. 

Broad form deeds and the fury they generated proved to galvanize the anti-strip mining movement of the 1950s and 1960s, leading to some of the most explosive confrontations in the battle to stop stripping.

But at the turn of the 20th century, the heartache these deeds would later cause could not be understood. Rather coal and its importance had brought (uneven) development to the region as a railroad network had expanded into the coalfields, thereby significantly reducing the isolation of those in the region. The railroads allowed the easy transport of the formerly unwieldy commodity, thereby transcending the last major hurdle to the unfettered exploitation of the resource (Eller 1982, 128). The railroads could now supply the bustling manufacturing hubs in the Northeast with high-grade coal, and the close of the 19th century saw the U.S. supplant Britain as the world’s leading coal producer (Freese 2003, 137). As coal powered the monumental shift to an industrialized America and most Appalachians had no opportunities to farm, work in the mines became a viable option for men in central Appalachia.

New Miners and Life in a Company Town

Coal’s role as the power pack of the industrial revolution coupled with the lack of privately owned land turned farmers into contracted laborers, thereby revolutionizing social and economic relations within the region. As Eller (1982) points out, virtually all residents of the Cumberland Plateau farmed for a living before industrialization, while less than a third worked the land by 1930. African Americans from the south joined these farmers cum miners in central Appalachian mines as they migrated from the post-

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1 In Kentucky, these deeds were upheld until 1988, when the work of Kentuckians for the Commonwealth (KFTC) and others finally got them deemed illegitimate (Skazos 1993).
bellum south. For instance, virtually zero African Americans mined in 1880, but by 1910 roughly 12,000 did (Montrie 2003, 16). Southern West Virginia became home to the majority of these migrants due in large part to the belief that the area was less racially hostile than other Appalachian areas. This belief holds at least some validity, as West Virginia was the only central or southern Appalachian state that did not disenfranchise African American males at the turn of the 20th century (Lawrence 1983, 181).

Eastern and southern European immigrants also poured into the region and the mines, with Italians and Hungarians constituting the majority of these transplants. Italians typically had little previous mining experience, while coal companies coveted the large numbers of Hungarian immigrants that had mined in their homeland (Lawrence 1983, 187). These groups faced their own distinct challenges, racism, xenophobia and language barriers to name a few, but all miners regardless of race or nationality faced severe exploitation by the coal companies. Outlining the roots of the dominance of the coal industry is worthwhile because it underscores the difficulties those attempting to battle the coal industry and strip mining face to this day.

At this time, the company controlled virtually every element of life for a miner and his family, including where they lived. Mining “towns” arose in isolated regions and company-owned houses were the only option. The housing agreements miners had to accept would be unthinkable today:

Upon moving into a company town, a miner had to live in a company house and sign a housing contract that the courts of West Virginia subsequently ruled created a condition not of landlord and tenant, but of ‘master and servant’ (Corbin 1981, 9).

This status allowed for the company to search and/or seize any miner’s house at any time for any reason. This power helped diffuse efforts to unionize as those with an
organizing bent could be evicted (if not physically assaulted) at any moment. During the Paint Creek-Cabin Creek strike, mine guards used these extraordinary powers to evict miners and their families with no quarter, exhibited in the following episode:

In the town of Banner, the mine guards came to the house of Tony Seviller, whose wife was pregnant. The head of the squadron shouted, ‘Get out!’ Mrs. Seviller, in bed and in labor when ordered out, responded, ‘My God! Can’t you see I am sick; just let me stay here until my baby is born’ The guard leader replied, ‘I don’t give a damn, get out or I’ll shoot you out.’ Mrs. Seviller gave birth to her baby two hours later, in a tent furnished by the UMWA (United Mine Workers of America) (Corbin1981, 10).

Those not summarily evicted had to contend with the uncovered sewers and perpetually burning piles of coal waste. Such conditions today would be identified for what they really were, that is, vivid examples of environmental injustices.

Adding to the exploitation, families had but one choice for their supplies, the company store, the only place that would accept the company issued currency, or “scrip.” These monopolies often charged prices several times higher than what they would cost elsewhere. Indeed, at times coal companies actually lost money mining but turned a profit because of the revenues generated by their stores (Corbin 1981,10). Wage increases meant little as company store prices rose in accordance. Moreover, the store doubled as the post office where a company employee served as the postmaster, often reading mail and confiscating any mail deemed “radical” (Corbin 1981, 32).

Perhaps this egregious treatment would be more justifiable if worker safety had been prioritized within these turn of the century mines. Unfortunately, this was not the case, for as Corbin (1981, 10) notes:

West Virginia’s mine-accident death rate was five times higher than that of any European country. Indeed, during World War I the southern West Virginia coal diggers had a higher proportional death rate than the American Expeditionary Force.
Death loomed over the mines as explosions or falls could happen at any moment, stealing from a miner his family and friends if he himself did not perish. The miners and their families took solace in religion, most often a fundamentalist form that accepted the fleetingness of life while determined to enjoy its fullness. Even here, however, the imprint of the company could be found, as the company closely monitored the messages broadcast by the pastors they paid.

Miners and their families did retain some vestige of power, however, that being simply the power to get up and find work at another mine. Indeed, miners often moved from one camp to the next in search of more respect, better living and working conditions and higher wages. The “gypsy life” of many miners drove the U.S. Immigration Commission to even refer to mining families as a “floating population” (Corbin 1981, 40). This propensity to ramble would prove a hurdle to organizing efforts in the region, but it, along with racial, language and nationality barriers, would be surmounted as central Appalachian miners came together to unionize for a better quality of life.

The Fight to Unionize

The end of the 19th century witnessed a spike in labor insurrection in the Appalachian coalfields. Led by British and Welsh miners well experienced in organizing, an increasingly militant effort to unionize the coalfields and secure a fair weigh system and safer working conditions arose. In 1890, the merger of two formerly competing unions, the National Progressive Miners Union and Knights of Labor, resulted in the creation of the United Mine Workers of America (UMWA). The UMWA founders created “eleven points” or demands, including a salary commensurate with the dangerous conditions in the mine, pay in the form of legal tender and not scrip, the end of child
labor, safer working conditions, a fair weigh system, an eight hour day, and a right to strike. This unification resulted in a much more powerful union and the UMWA quickly organized much of the coal industry in the U.S. and secured an eight hour day in 1898.

The efforts to unionize central Appalachia, however, proceeded less quickly than in other mining areas despite the best efforts of the UMWA. Corbin (1981, 26) contends that the make up of the miners in the region (native mountaineers, southern African Americans and European immigrants) stifled these efforts because of their general lack of union and mining backgrounds. Many of the native mountaineers viewed mining as temporary and planned to return to farming someday, while many did in fact return to their family farms during strikes and downturns (Corbin 1981, 27). Unlike British and Welsh miners, the immigrant miners from southern and eastern Europe had little experience with unionism and had little interest in organized labor. African Americans also had little interest as they found better conditions than those they left in the southern Appalachian coalmines. In addition, miners at this time largely controlled their own schedule, set their own pace and left work when they desired. As such, the UMWA’s insistence on an eight-hour workday did not resonate as an important goal for these miners. Finally, the geographic mobility outlined above also contributed to a general apathy toward labor organization in central Appalachia; rather than attempt to change conditions in one mine, many miners would rather simply leave. All of these inhibiting factors thwarted Britsh miner-led strikes in 1902, and most of these men gave up their unionizing efforts in southern West Virginia and headed to other coalfields (Corbin 1981, 28). Just a decade later, however, the last holdouts to unionize in central Appalachia would engage in the most violent labor conflict in American history.
As conditions in the coal camps and mines failed to improve during the first decade of the 20th century, the union spirit grew. In April 1912, this spirit manifested in a strike by thousands of union and non-union miners in the Paint Creek-Cabin Creek district of southern West Virginia. The miners in the area had negotiated with the major operators in the area to receive the same pay as workers in the surrounding mines (Savage 1990). After the operators refused to raise wages, the UMWA-led strike ensued and other demands, including the recognition of the union, the right to free speech and assembly, and the installment of reform in the coal weighing process, followed. The UMWA finally had its opportunity to properly organize this pocket of non-unionized labor and threw its full support behind the miners and the strike, pledging to lend financial support and sending in its top officials, including Mother Jones to the region (Corbin 1981, 87). The coal operators, meanwhile, decided to use the insurrection as their opportunity to forever break unionization efforts in southern West Virginia, bringing in strikebreakers as well as Baldwin-Felts guards to evict hundreds of miners from their houses.

After several months of deadly fighting between the coal industry's minions and the strikers, West Virginia Governor Glasscock declared martial law and sent in the state militia to put down the strike. The soldiers arrested, court martialed and imprisoned hundreds of miners and organizers without pretense of due process despite a national outcry. As Rankin (1939, 136) notes, Glasscock's actions, "resulted in the most comprehensive discussion concerning the use of martial law and the manner of its exercise that has ever occurred in the history of the United States." With the assistance of newly elected (and more labor friendly) Governor Henry Hatfield, UMWA president
John White again sought to reach a compromise and end the fighting in April 1913. Against the wishes of the striking miners who declared that the UMWA did not speak for them, the two men approached the coal operators with a compromise deal which did not include the primary demands of the miners, namely complete recognition of the union and the removal of the mine-guard system (Corbin 1981, 97). The operators, which had sustained significant financial losses during the strike quickly agreed to the deal. Many disillusioned rank and file miners, however, resumed the strike, citing the failure of the union to fight for their most salient demands. The Governor ordered the still striking miners to return to work within thirty-six hours or face deportation from the state. In addition, he ordered soldiers into the coal fields to escort miners back to work and sent troops to destroy the presses of newspapers urging the miners to remain on strike (Corbin 1981, 98).

These draconian measures aroused the ire of many U.S. senators, who in turn called for an investigation into the actions of the governor and ultimately the coal operators. The investigation revealed outlandish transgressions of common law, and to avoid further inquiry the coal operators soon capitulated to the striking miners’ original demands. It was a seminal victory, finally granting the union a foothold in the last non-union region of central Appalachia, but also leaving a legacy of distrust between mountaineer miners and the UMWA. The costly successes at Paint Creek-Cabin Creek resulted in a highly militant union in the southern West Virginia coalfields.

The coal operators were not ready to capitulate and aimed to quarantine the union contagion. This resistance culminated several years later in the most famous episode of labor violence in the coalfields, the “Matewan Massacre”, which occurred on May 19,
1920. In this small mining town Baldwin-Felts guards attempted to thwart unionizing efforts by evicting organizing miners. Police Chief Sid Hatfield sympathized with the miner's efforts and disallowed the evictions without formal documentation from the state capital, and went so far as to deputize all the male citizens of the town. Soon thereafter the mine-guards killed Hatfield and several others, igniting a powder keg of tension between local officials, the coal company, and miners. Seeking justice, union miners from surrounding areas descended on Matewan and later that summer over 10,000 miners engaged in open warfare with the private armies of the coal companies and local police. This Battle of Blair Mountain lasted five days and took sixteen lives, ending only when the Harding administration ordered the federal army to bomb the miners, marking the first and only time the U.S. has purposively bombed its own citizens (Savage 1990). Indeed, the Battle of Blair Mountain ranks as the largest armed uprising in U.S. history, behind only the Civil War.

The bloody drive to organize coal miners proved largely successful, and the battles and strikes in the southern West Virginia coalfields solidified the power of the UMWA. As demand for Appalachian coal dwindled in the inter-war years, however, the coal industry went bust, the union lost its leverage, and the Great Depression was especially painful in the region. Competition from Midwestern and Northern coal coupled with decreased demand resulted in coal operators cutting production and laying off workers. By 1929, the United States had a surplus of two hundred thousand coal miners, while the workers still employed found their hours dramatically reduced (Hevener 1978, 55). Eller (1982, 239) provides evidence of the gravity of the situation for Appalachians:
The depression decade, therefore, was a period of extreme hardship for most mountaineers. Coal production in the region dropped drastically, and the number of miners employed fell to its lowest point in almost twenty-five years. The average per capita earnings of coal miners declined from $851 in 1923 to $588 in 1929, and to the unbelievably low point of $235 in 1933.

Unlike previous generations, these suffering mining families could not return to the land and a subsistence lifestyle; virtually all land now belonged to outside capitalists. Tragic consequences ensued, as Hevener (1978, 20) notes, “in the first three years of the Depression, malnutrition-induced diseases killed 231 children” in Harlan County, Kentucky. Rather than stifling the struggle for unionization the Great Depression further stimulated the movement, for, to paraphrase one miner, it was better to die fighting for the union than to die of starvation. Indeed, the fight to organize continued during this time in the relatively few Appalachian pockets yet to be unionized. Harlan County, Kentucky proved the most protracted and bitter struggle for recognition, lasting almost a decade and ending only when the national government forced the coal operators to allow the miners to organize (Hevener 1978).

The sacrifices made by the coal miners and their families in the early 20th century resulted in a powerful UMWA, which had organized 92 percent of the nation’s miners by 1933 (Hevener 1978, ix). World War II would, however, deal a significant blow to the power of organized labor, as the further mechanization of the coalfields reduced the value of human labor, undermining the leverage the miners of the early 20th century had paid such a dear price to obtain.

**The Rise of the Machine**

The American military’s immense need for coal to fight World War II made miners coveted and the war effort lifted the spirits of mining families devastated by the Great
Depression. The region was once again catapulted into a boom time, which Harry Caudill (1963, 220-21) artfully captures:

And the creek and hollow mountaineers, and the multitude of one-time miners employed on W.P.A. projects, turned eagerly to their calling… Empty camps filled again and the ghastly, painted houses swarmed with new brigades of ragged irrepressible children.

Indeed, electricity generated from coal combustion proved so vital to war efforts the U.S. government took the unprecedented step of taking control of operations during the war to ensure an uninterrupted flow of the fuel (Couto 1993). Moreover, the U.S. government made labor friendly deals with John L. Lewis and the UMWA, resulting in a strong union, generous wages and high times in the mountains (McGinley 2004).

World War II also marks a significant turning point in the history of central Appalachia as mining techniques became increasingly mechanized at this time, fundamentally changing the relationships between society and nature, humans and their labor. This mechanization took place in both surface and underground operations. On the surface, changes primarily involved the creation of economies of scale as the size of trucks, draglines, bulldozers, and train cars greatly increased, as did the overall acreage of mines. In addition, surplus explosives left over from the war and the desire of explosives manufacturers to maintain a market for their goods resulted in their use as liberators of overburden. These changes happened with great speed, as strip mining production increased by a factor of ten between 1939 and 1943 in West Virginia, for example.

The subterranean technological developments proved every bit as dramatic as those on the surface. The continuous mining machine introduced by the Joy Manufacturing Company automated the mines and virtually eliminated the need for
hand loaders, dramatically reducing the cost per ton of extraction (Thomas 2010, 13). In terms of health outcomes, although the number of mining fatalities decreased following the increased mechanization of the post war period, injury rates increased due to the accelerated work pace and the increased noise of the jobsite (Thomas 2010). The most insidious danger of mechanization in the underground mines, black lung disease (pneumoconiosis), consumed many miners as the dust resulting from the continuous sawing of these machines ruined lungs. Decades passed before the UMWA and the coal operators would address the devastating effects of black lung disease (Smith 1981).

As quickly as it began, however, the boom went bust as the war ended and demand plummeted. Coal operators resumed control of the nationalized mines and unwisely accelerated production, resulting in a further glutted market (McGinley 2004). In addition, domestic coal demand decreased as the railroads shifted to diesel power and large numbers of homeowners transitioned to cleaner burning oil. As Thomas (2010, 12) notes, “the disruption or disappearance of traditional coal markets led to falling coal production, narrower profit margins, and discharge notices for growing numbers of miners as coal operators mechanized to reduce labor costs” (Thomas, 2010, 12). McGinley (2004, 34) highlights the significant consequences for mining families: “In 1948, 117,104 miners were at work in West Virginia. In 1957, only 58,732 miners had jobs, and by 1961 employment of miners had shrunk to only 42,557.” As such, mechanization was first seen as a way to increase production, and then seen as a way to reduce labor costs and survive in an increasingly tight market.
Under the leadership of John L. Lewis, the UMWA understood mechanization to be necessary for the viability of the industry and assumed that displaced miners would be quickly absorbed back into the employment force (Thomas 2010, 22). Moreover, the UMWA deemed the changes inevitable, and sought to secure higher wages for its members who operated these machines. In 1950 the UMWA and major coal operators signed the National Bituminous Coal Wage Agreement, exchanging mechanization and the cost of thousands of jobs for higher wages and a health and pension fund (Thomas 2010, 21). The impact of this agreement can scarcely be overstated as national UMWA membership declined from almost 350,000 members in 1951 to barely 20,000 in 2000 (Burns 2007, 26). The agreement also effectively sounded the death knell for small coal producers unable to compete without the capital outlays necessary to mechanize. Most importantly, the mechanization following WWII completely reversed the antagonistic relationship between labor and industry found in the first half of the 20\textsuperscript{th} century, creating the “labor-capital accord” that we find today. Indeed, these two factions have forged a powerful alliance in their vehement resistance to any efforts to regulate the coal industry and strip mining, fulfilling the predictions of the Frankfurt school and treadmill of production scholars who predicted labor would not act as a revolutionary force, but rather be complicit in the exploitation of the environment and themselves.

Nevertheless, those with jobs in the post-war period were grateful for them, as newly out of work miners and their families had to make difficult decisions. Thousands reluctantly left the mountains in search of work in Detroit, Akron, Cincinnati, Cleveland and other industrial hubs in what became known as the “Great Migration” (Williams 2002). As Rice and Brown (1993, 280) note, “Between 1950 and 1960 the population of
West Virginia declined from 2,005,552 to 1,860,421, a loss in excess of seven percent at a time when nearly every other state gained population. More than seventy percent of the loss occurred in the ten leading mining counties.” Many of these migrants left behind their homes and defaulted on their mortgages, leaving behind their most valuable asset, as well as their family and culture.

Eventually some of these migrants returned to central Appalachia, only to find it in a much different condition than when they left, with wide swaths of the region denuded by unreclaimed strip mines; this despite the existence of strip mining legislation in many states, including West Virginia’s first regulation in 1939. Funding for regulation and enforcement, however, was virtually non-existent and laws went unenforced. Industry’s lack of compliance forced additional legislation in West Virginia in 1945, 1959, 1963 and 1967, with the 1967 law going so far as to provide criminal penalties for operators failing to reclaim mined land (Bailey 1969).

Despite these and other legislative efforts, vast tracts of Appalachia lay devastated by mid-century as operators failed to repair the land to any degree, with most simply abandoning spent mines. Acid drainage from the mines poisoned streams and drinking wells, killing aquatic life and forcing residents to import water at great expense. Eroded mountainsides could no longer absorb rain and floods and landslides posed persistent danger to those living near mine sites. Wildlife saw their habitat disappear while those dependent upon these animals and other and forest resources also suffered. Such unapologetic ecological devastation coupled with disputes over land title boiled over between coal operators and mountain residents in the 1960s, as grassroots resistance bloomed in central Appalachia.
Grassroots Resistance

During the 1960s many central Appalachians saw their property mined against their will under color of law as land title passed through broad form deeds signed by their ancestors. In general, these strippers were within their legal (if not moral) rights, as these contracts separated surface and subterranean rights, giving precedent to those underground. Miners holding these deeds rarely let residents in on their plans ahead of time, and those living on these properties sometimes awoke to find bulldozers clearing their land. Such situations typically resulted in heated exchanges, and one such incident in 1965 proved a seminal moment in the development of an anti-strip mining movement.

In May of that year, strip miners began pushing down trees on the property of Dan Gibson’s stepson who was serving in Vietnam. The eighty one year old Baptist preacher told the strippers to cease and stop trespassing. When they returned the next day, Gibson entrenched himself on the property line with a squirrel rifle and confronted the miners. Police soon came to arrest Gibson who refused to be taken until promised the strippers would not cross onto his stepson’s land (Montrie 2003, 73). After his arrest, Gibson supporters encircled the jail and the charges against him were quickly dropped. The next morning a group, “nearly all of them elderly, some of them women, and a number of them armed, placed themselves at the property line and refused to allow the equipment to pass. And it never did” (ibid). The Gibson episode served to unite local residents facing similar threats, and 125 of them would form one of the first grassroots organizations opposing strip mining, the Appalachian Group to Save the Land and the People (AGSLP).

Other grassroots groups would soon form and follow AGSLP’s lead, resisting broad form deeds and strip mining and culminating in an “environmentalism of common
people” (Montrie 2003, 3). Today such efforts would be labeled a struggle for environmental justice, as most of these participants had never before been politically active and would scarcely consider themselves “activists.” Nevertheless, these newly minted environmentalists demanded stricter enforcement of mining laws and the repeal of broad form deeds, seeking the outright abolition of strip mining for economic, spiritual and aesthetic reasons.

Many quickly became disillusioned seeking change through institutionalized channels, and the 1960s witnessed a spike in militant direct action. Home to some of the most aggressive resistance in the region, eastern Kentucky activists occupied, blockaded, and sabotaged numerous strip mining operations (Bingman 1993). In August 1968, for instance, saboteurs blew up over $750,000 worth of equipment at the Round Mountain Coal Company in Leslie County, Kentucky (Montrie 2003, 1). Outside of Kentucky, other grassroots groups formed at this time, notably West Virginia Highlands Conservancy (WVHC) in 1965, Citizens’ Task Force on Strip mining (CTFSM) in 1967, and Save our Cumberland Mountains (SOCM) in eastern Tennessee in 1972. The work of these and other groups around the region brought increased attention to the damage caused by strip mining and helped place the issue in the national spotlight.

As the ecological costs of strip mining increased and the economic benefits to local communities dwindled, opposition increased and a growing contingent argued that only an outright ban on strip mining would resolve the issue. Some state level politicians agreed, and in 1966 newly elected West Virginia Senator Si Galperin joined Congressman Ken Hechler, the most steadfast opponent of strip mining in central Appalachia, in the fight for abolition. West Virginia Secretary of State John D.
Rockefeller made prohibition of stripping a primary focus of his gubernatorial bid, dismissing claims that abolition would eliminate jobs (Montrie 2003, 116). Not surprisingly, organized labor sided with industry and strongly disagreed with this notion, as UMWA leadership and the West Virginia Labor Federation (AFL-CIO) fought to ensure the continuance of strip mining. Nevertheless, Rockefeller’s stance impelled others to push for outright abolition, including most deep miners who argued that outlawing stripping would result in more deep mines and an increase in overall mining employment.

In response to the efforts of abolitionists a significant counter-movement developed at this time. Composed of over seven hundred strip miners’ wives, the Strip Miners Auxiliary of West Virginia organized around the rhetoric of job preservation. Indeed, the group grew quickly, organizing one of the largest rallies ever seen in the state capital of Charleston on January 20, 1971 (Montrie 2003, 116). Meanwhile, the strip mining abolition bill brought forth by Senator Galpin met a quick end as the Natural Resources Committee voted four to one against recommending the bill to the Senate. Nevertheless, abolitionist candidates won many seats in the 1972 elections, including Ken Hechler’s victory in the West Virginia House of Representatives. Rockefeller, however, did not win his bid for the governorship, defeated handily by Arch Moore. Rockefeller blamed the defeat on his anti-stripping stance, which he soon jettisoned. By the time he became governor in 1977, he had, to the consternation of many, switched sides to become an adamant supporter of stripping.

The defeat of the abolition bill did not stifle movement enthusiasm but rather pushed many grassroots groups to ally with other anti-stripping organizations across
Appalachia. In the fall of 1971, groups including Save our Kentucky, Stop Ohio Stripping, Citizens Against Strip Mining, and the Wise County Environmental Council met and formed the Appalachian Coalition to unite regional efforts for abolishment, developing the first true regional network. As Montrie (2003, 126) notes, “Despite the failure to outlaw stripping…the abolition movement did not collapse in the early 1970s. It regained strength with the development of an organizational structure for a regional movement to enact a national ban.”

The tragic events of February 26, 1972 would provide further proof the coal industry required increased scrutiny. On that morning, a Pittston Coal Company waste dam broke high above Buffalo Creek in Logan County, WV following heavy rains. Over 130 million gallons of toxic black water formed a tidal wave over thirty feet high, engulfing sixteen hamlets, killing 125 people, and making another 4,000 homeless; all of this, despite the dam’s successful inspection only days before its failure (Erickson 1976). The Buffalo Creek disaster thrust coal and strip mining into the national discussion and catalyzed activists to hold a National Conference Against Strip Mining (NCASM) in Middlesboro, Kentucky four months later. The conference broadened the anti-strip mining network as representatives of national environmental organizations came together with local grassroots activists to create a resolution banning strip mining.

The disaster proved inadequate for forging real political change at the national level, however, as Eller (2008, 164) notes:

although the Democratic National Committee later endorsed a general statement opposing strip mining, neither party was willing to accept abolition, and by the end of the summer even the National Coalition Against Strip Mining moved to a position accepting regulation instead of prohibition.
Indeed, while Buffalo Creek had galvanized the movement, the passing of a federal law regulating strip mining would take another five years of congressional deliberation.\(^2\) In the meantime, the mid 1970s saw a continuation of the boom/bust cycle of the coal industry with a short lived boom due to the 1973 oil crisis which reinvigorated interest in coal as a fuel source. Many of the shuttered company towns of Appalachia sprang to life again. As McGinley (2004, 43) notes, this period bore witness to:

> significant numbers of job postings for the first time in decades as electric energy producers shifted from petroleum to a more reliable and less costly product. In West Virginia alone, more than 17,000 new miners were placed on payrolls during the period between 1973 and 1978.\(^3\)

This increased production would only add to the environmental degradation of the state, for even before the boom the sheer acreage of unreclaimed land was immense. Montrie describes the situation in West Virginia:

> By 1971 the state’s strippers had created at least 6,563 linear miles of highwalls, benches, and banks. Altogether they had disturbed 250,000 acres of land, three-quarters of which had less than 75 percent vegetation cover (2003, 114).

> It would take another disaster to provide the proverbial straw to bring forth federal regulation. Intense flooding in April 1977 decimated fourteen counties across four central Appalachian states, ruining 1,700 homes and displacing nearly 25,000 people (Eller 2008, 249). The strip mining of the area had clearly worsened the effects of the

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\(^2\) At the state level even less change occurred immediately following Buffalo Creek. Governor Arch Moore was more concerned about the intense media coverage of the tragedy than preventing another one, making the stunning contention that: “The only real sad part about it [the news coverage] is that the state of West Virginia took a terrible beating which far overshadowed the beating which the individuals that lost their lives took, and I consider this an even greater tragedy than the accident itself” (Nyden 2007, NP). Before leaving office in January 1977, Moore settled a lawsuit against Pittston Coal Company for one million dollars, a fraction of the amount necessary to clean and rebuild the area. In 1990 Moore would plead guilty to five federal felonies including extortion, tax fraud and obstruction of justice and serve two years in prison.

\(^3\) For perspective, the total amount of miners in West Virginia in 2010 was just 20,225 (WVOMHST, a).
inundation as the silt and debris washed down from unreclaimed mine sites, greatly reduced the capacity of streams to drain away the excess water. Governor Carroll of Kentucky had to acknowledge the obvious role strip mining played in the disaster, but also deferred to the coal industry by making the implausible contention that “farming, housing, development and the wind, which scatters soil” also played equal roles in this “act of god” (Eller 2008). Nevertheless, the exaggerated effects of the flooding in strip mining areas and demands for accountability helped push through the first federal law regulating strip mining.

**SMCRA and its Impacts**

Images of denuded landscapes and heartbreaking stories of personal loss due to strip mining had hoisted the issue into the American collective consciousness, and by the early 1970s the need for federal strip mining regulation was clear. The specifics of the intervention, however, remained hotly debated. Abolitionists faced strong opposition as coal operators “relied heavily on their close ties to federal officials and dissuaded senators, representatives, agency bureaucrats, and even presidents from doing anything that would hurt the industry” (Montrie 2003, 156). Contributing to their political influence, the economic downturn of the period highlighted the value of every job and coal operators took the opportunity to “present the debate over strip mining as a mutually exclusive choice between jobs or the environment” (ibid). Further thwarting activist efforts, the energy crisis renewed demand for coal. Indeed, President Ford cited U.S. reliance on foreign energy as the primary justification for his two vetoes of federal strip mining legislation during his time in office.

During this time, large national environmental organizations, so-called “Big Greens”, such as Sierra Club and Environmental Policy Center stepped into the debate.
The influence of these groups quickly became evident, as their large lobbying capabilities and credibility in the eyes of politicians resulted in their commandeering of negotiations over strip mining legislation. Although abolitionists had been but three votes from overriding Ford’s second veto in 1975, the Big Greens prescribed a “realistic” approach to the issue, focusing on strengthening a regulatory bill rather than an outright ban (Hechler 2009).

Most grassroots groups, however, adamantly opposed this approach. Made up of coalfield residents and regional environmental groups, the Appalachian Coalition called the legislation a “blatant travesty” and a “betrayal” contending that the framework outlined, federal guidelines but state level implementation, would result in weak enforcement (Biggers 2010, NP). Moreover, they argued that SMCRA failed to protect property owners and, prophetically, foresaw the dangers of legitimating MTR (Eller 2008, 164). SOCM president J.W. Bradley concluded federal government regulation to be “short-sighted, unrealistic, and a waste of time” (Montrie 2003, 175). Nevertheless, the Big Greens helped push through the legislation which would eventually become SMCRA, a bill that even President Carter described as “watered down” (Montrie 2003, 178). The legislation created the Office of Strip Mining (OSM), an agency within the Department of the Interior to promulgate regulations and oversee compliance and creating a program for regulating active mines and reclaiming abandoned sites. The act also unified the myriad different approaches of individual states under federal guidelines. But most importantly the act legitimated strip mining, thereby deflating strip mining resistance by making the goal of abolition impossible. While large national environmental organizations celebrated SMCRA as an overwhelming success, many
grassroots groups worked to thwart the law. SOCM, for one, attempted to block federal approval of the state’s control program, Tennessee’s Division of Strip Mining, due to their belief it would continue its lax regulation of mines and operators (Montrie 2003, 187).

In addition to creating a divide between the Big Greens and grassroots groups, SMCRA marks a defining moment in the history of strip mining because it contained two key provisions that would prove exceedingly contentious, so contentious they would eventually generate the network of resistance we see today. First, the act required coal operators to return land to its “approximate original contour” (AOC) following strip mining. Second, the legislation allowed an exception for MTR. When SMCRA was signed into law, MTR was not a widely used method of extraction, and its allowance in specific and exceptional situations appeared to be insignificant (Montrie 2003, 198). As MTR became the dominant form of stripping in the years to follow, however, the incongruity of these two provisions would become unmistakably clear: mountains mined in this manner could never be repaired to their approximate original contour.

But at the time of SMCRA’s passage coal operators had not employed MTR as a primary method of extraction. The West Virginia Department of Environmental Protection, for instance, issued only forty-four MTR permits covering less than 10,000 acres during the entire decade of the 1970s (Montrie 2003, 197). With SMCRA’s legitimation of MTR, an ensuing region wide recession, and a costly labor battle, there would be little standing in the way of MTR coming to dominate the region.

**Breaking the Union**

The boom time generated by the energy crisis of the 1970s went bust during the recessionary years of President Reagan’s first term. Simultaneously, U.S. corporations
sought to reduce costs by transferring their operations overseas as the era of Globalization began in earnest. Traditional middle class job opportunities dwindled as manufacturing gave way to information technology and services as the leading means of employment in the United States. Central Appalachia was particularly ill-prepared for these shifts and suffered greatly during the period as the number of mine jobs halved from 1980 to 1990, and over sixteen hundred mines in West Virginia alone shuttered during the decade (Latimer and Mencken, 2003, 81). By 1984, West Virginia led the nation in unemployment, while the surge in federal coal leasing in the West, especially the Powder River Basin, only added to the trauma in the coalfields (Nelson, 1983, 178).

These monumental developments effectively sounded the death knell for organized labor in the region as profit margins tightened throughout the 1980s and coal operators sought cost cutting measures. In addition to further mechanization, busting unions and reducing worker benefits proved to be primary strategies, and A.T. Massey Coal proved to be the most aggressive operator in this regard. (Nyden 2007, NP). The company consolidated their operations in southern West Virginia and aggressively strove to keep the UMWA out of new mines, eradicate them from existing ones, all the while shifting extraction to MTR. Massey began closing union mines and reopening them with non-union labor, often through a subsidiary company. In Sylvester, WV, Massey shuttered a union mine only to reopen it through a subsidiary as the non-union Elk Run Mine. The UMWA attempted to organize the mine, protesting and picketing but to no avail; the non-union mine continued operations unabated.

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4 A.T. Massey Coal became Massey Energy in 2000. I refer to both companies as “Massey.”
Three years later more violent and consequential labor unrest would unfold in the region. On October 1, 1984 the UMWA called a “selective strike” against the Massey subsidiaries that operated with union miners (Nyden 2007, NP). The company refused to sign a new union contract with these subsidiaries and a fifteen-month strike ensued. Don Blankenship, a young middle manager for Massey, seized this moment and made an indelible impression on management with his unflagging efforts to break the strike; just five years later he would culminate his meteoric rise by becoming president of Massey, the first non-family member to hold the position (Schnayerson 2008). From Matewan, WV, Blankenship was well aware of the history of labor strife in the region and made the decision to crush the strike with no quarter: “Massey used barbed wire, German Shepard dogs, armed guards, and video cameras to intimidate miners from entering company property during protests” (Nyden 2007, NP). Moreover, Blankenship hired strikebreakers from eastern Kentucky to continue operations, and eventually some union workers crossed the picket line to join them. Massey proved triumphant as the longest strike in UMWA history ended in failure as Massey refused to sign new union contracts and fired strike leaders. The end of this strike marks a crucial turning point as the Massey labor model took hold throughout the central Appalachian coalfields.5

Labor would make one last, largely futile, stand in the eighties with the 1989 Pittston strike in Wise County, VA. Due to its precarious fiscal situation, Pittston Coal Company broke ties with the Bituminous Coal Operators Association (BCOA) which negotiated compensation with the UMWA, in order to be able to negotiate fewer health

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5 Massey set the anti-union standard; only 170 of the 5,500 workers it employed in 2007 belonged to the UMWA, with most of these union members working in coal processing plants, not the mines (Nyden 2007, NP).
and retirement benefits and to operate twenty four hours a day (Brisbin 2002). Indeed, Pittston sought to eradicate benefits to all miners retiring before 1974. A bitter strike ensued marred by violence from both sides. Union miners even took control of a preparation plant shutting down operations for a week, while a sniper shot and killed a non-union coal truck driver (ibid). After nearly a year the two sides reached agreement whereby Pittston would be allowed to operate nonstop but would also have to give back many of the benefits they sought to erase. In the end both the union and the company paid a dear price for the strike; Pittston’s production dropped greatly during the strike, many miners went into debt, and the UMWA coffers went dry.

Shortly after the Pittston strike ended, amendments to the Clean Air Act in 1990 resulted in yet more upheaval in the coal industry. Limits on sulfur dioxide emissions from burning coal left utility companies with two options: they could install expensive retrofits to their plants to reduce these emissions, or they could burn coal with less sulfur (Faber 1998). These legislative acts made the high sulfur mines of the Midwest much less desirable, evidenced by the shuttering of over one thousand high sulfur mines (Faber 1998, 45). The low sulfur coal deposits of the Western U.S. and Appalachia became more attractive to utilities seeking to avoid updating their plants. The legislation had clear impacts in the region, as West Virginia produced its highest amount of coal ever in 1997, about 180 million tons, with roughly a third coming from MTR operations (WVOMHST, 2010). This surge in strip mining served to reinvigorate the anti-stripping movement, which had grown quiet during the 1980s.

Mountaintop Removal and a Growing Resistance Network

The use of MTR mining accelerated quickly following the passage of the Clean Air Amendments, but the shift has held few benefits for those not tied to the coal industry.
Bell and York (2010, 121) point out that although West Virginia is the leading producer of coal in the region, coal contributed only 7% to the gross state product in 2004, while others suggest that if the hidden costs of coal (such as the remediation of polluted environments and increased health care costs) were internalized, coal would actually be a net loss for coal state economies. Indeed, the West Virginia Center for Budget and Policy concludes:

> While every job and every dollar of revenue generated by the coal industry provides an economic benefit for the state of West Virginia and the counties where the coal is produced, the net impact of the West Virginia coal industry, **when taking all revenues and expenditures into account, amounted to a net cost to the state of $97.5 million in Fiscal Year 2009** (emphasis in original).

Moreover, the shift to MTR dramatically reduced employment opportunities, with only about twenty thousand people out of a population of almost two million receiving paychecks from a coal company in West Virginia today. As such, the Appalachian tradition of benefits being siphoned away while externalities remain lives on.

It took some time for the negative impacts of MTR to be appreciated and organized resistance to coalesce. Indeed, Montrie concludes his extensive history of strip mining resistance by stating: "...there was at one time a significant movement to outlaw stripping, including mountaintop removal. At the close of the twentieth century, however, that movement seemed a part of the distant past" (Montrie 2003, 200)." Although unnoticed by Montrie and the broader American public, many significant developments in this struggle were occurring at the dawn of the millennium. Many regional advocacy groups turned their attention to MTR, while many single-issue groups formed. Moreover, lawsuits filed against the coal industry and environmental protection agencies by some of these groups nearly succeeded in outlawing MTR altogether.
Several charismatic leaders emerged, bringing much needed media attention to the issue, while MTR now serves as something akin to the harp seal for the broader climate movement. A few developments of the last decade and a half demand greater attention because of their great impact for the movement and its direction, and also because they provide useful examples of some of the tactical approaches anti-strip mining groups have employed.

**A Legal Challenge: Bragg v. Robertson**

One of the first significant victories in the fight against MTR came in 1998 when the West Virginia Highlands Conservancy (WVHC) and several citizen plaintiffs sued several regulatory bodies for failing to adequately regulate strip mining. As part of the settlement the EPA, the Office of Surface Mining (OSM), the Army Corps of Engineers (ACE), and the U.S. Fish and Wildlife Service (UFWS) had to conduct a two year study examining the environmental impacts of MTR and propose ways to limit these impacts. More importantly, the settlement forced coal operators wishing to open new MTR mines more than 250 acres in size to get individual permits for valley fills, greatly impeding the permitting process (Myers1998). The coal industry immediately contested the settlement. Not surprisingly, Ben Greene, president of the West Virginia Mining and Reclamation Association, raised the issue of job losses, declaring: "If EPA plays Santa Claus to the environmental movement, they sure dropped coal in the stockings of 400 families in Southern West Virginia" (ibid). The settlement did not include the already proposed expansion of Arch Coal's Dal-Tex mine, which would essentially make the town of Blair, WV a “sacrificial lamb” as valley fills would make the area surrounding the mine uninhabitable (Myers1998).
Following this decision, Charleston lawyer Joe Lovett brought suit against the ACE and the DEP on behalf of Patricia Bragg and other citizens of Blair. The suit contended that the ACE and DEP’s issuing of Nationwide 21 and 26 permits, permits that allowed the dumping of fill into navigable headwaters, violated the Clean Water Act. In addition, the lawsuit contended that the DEP did not conduct adequate environmental impact statements and that the EPA had improperly permitted valley fills. *Bragg v. Robertson* cut to the core of the legality of MTR, for if valley fills became unlawful MTR could no longer be legally practiced. To the surprise of virtually everyone, the Republican appointed U.S. District Judge Charles Haden II ruled in favor of the plaintiffs, a monumental victory for those opposed to MTR. Judge Haden explained his decision in a strikingly rational manner:

When valley fills are permitted in intermittent and perennial streams, they destroy those stream segments. The normal flow and gradient of the stream is now buried under millions of cubic yards of excess spoil waste material, an extremely adverse effect. If there are fish, they cannot migrate. If there is any life form that cannot acclimate to life deep in a rubble pile, it is eliminated. No effect on related environmental values is more adverse than obliteration. Under a valley fill, the water quantity of the stream becomes zero. Because there is no stream, there is no water quality (McGinley 2004, 73).

Framed narrowly, the injunction would only apply to future permits, while previously issued permits would not be affected (McGinley 2004, 281). Nevertheless, *Bragg v. Robertson* was the first successful citizen lawsuit to thwart the practice of MTR, proving litigation to be an effective tactic as several miles of Pigeon Roost Hollow in Blair, West Virginia were saved from erasure.

In 2001, however, the Fourth Circuit Court overturned Haden’s ruling contending that his court did not have jurisdiction to rule on the case. As such, the initial ruling proved only a pyrrhic victory for those of Blair and other communities where MTR was
allowed to continue unabated. The initial victory did, however, bring MTR to the attention of a wider national audience, revealed the irregular nature of MTR permitting, and brought the integrity of the West Virginian courts and environmental protection agencies into question. In addition, the case pushed the EPA to produce its own environmental impact statement on MTR, while providing a template for future challenges to these permitting processes. Since this time, the courts have been a place frequented by strip mining opponents. The mixed success of this tactic is discussed in greater detail later in this dissertation. Another tactic, lobbying, has also proven critical, most clearly witnessed in the struggle over the fate of Marsh Fork Elementary School.

Lobbying, Confrontation and Leadership: The Case of Marsh Fork Elementary School

Formed in 1998 by Raleigh County, WV residents Freda Williams and Randy Sprouse, Coal River Mountain Watch (CRMW) aimed to unite those harmed by MTR and the coal industry more generally. The organization took its name from one of the last un-stripped mountains in heavily mined southern West Virginia. The mountain also served as an important last barrier between many residents and a massive and ever expanding MTR complex.

The first major effort of CRMW, moving Marsh Fork Elementary School, would eventually become a seminal success for the movement. The cause for this struggle dates back to 1985, when the stripping of the Coal River Valley necessitated the creation of the Brushy Fork slurry impoundment to contain the waste that remained after cleaning coal. Eventually the DEP issued Massey Energy a permit to store up to 2.8 billion gallons of coal sludge behind the 385-foot tall dam (Ward, Jr. 2005). A preparation plant and coal silo were soon constructed 400 yards directly above the
Marsh Fork Elementary School. Nearby residents feared these operations would expose the elementary school students to coal dust and chemicals used to clean the coal. In 2003, expansion of an existing MTR mine brought operations closer to the impoundment, further raising concerns that blasting in the area could cause the sludge impoundment to fail and result in another Buffalo Creek-like disaster.

The school and the safety of the 240 students became a focal point for the entire MTR movement (Burns 2007, 42), and CRMW led the charge. The situation climaxed when CRMW members confronted West Virginia Governor Joe Manchin at the state Capitol before being physically removed by state troopers. After receiving no satisfaction following the meeting, a former Massey contractor and the grandfather of a student at Marsh Fork Elementary, Ed Wiley, marched from West Virginia to Washington D.C. to bring more attention to the danger. After continued pressure, the Raleigh County Board of Education along with the Annenberg Foundation would eventually purchase land to build a new school, which is now in operation safely away from mining operations.

Although the efforts of CRMW and other groups to relocate Marsh Fork Elementary School garnered attention in West Virginia and, to a lesser extent, central Appalachia, the issue of MTR had still not entered the wider discourse. As Witt (2011, 155) points out, the media watchdog Project Censored deemed MTR mining and its resistance a top censored story. It would take a tragedy to bring national attention to the human costs of MTR.
Tragedy and Direct Action: The Birth of Mountain Justice and the Alliance for Appalachia

The death of Jeremy Davidson, the three year old crushed by a boulder on August 20, 2004, catalyzed many to take firmer stances against MTR and to demand abolition. Following a public memorial and rally for Jeremy, a subset of activists called for direct action. In the summer of 2005 a new network of activists aligned under the Mountain Justice banner began a summer of training and civil disobedience. Like other radical environmental groups, Mountain Justice (MJ) is decidedly non-hierarchical and democratic with no paid staff or appointed leadership. As such, it is not entirely accurate to call it a group or organization; rather it is a sort of umbrella, a network, even an idea.

With shallow roots in the area, MJ’s emergence marks an important development in the movement because of its prioritization of direct action and its largely non-native population. Many questions over motives and tactics emerged following MJ’s arrival on the scene, especially given that a primary figure behind its genesis, Mike Roselle, cofounded the radical, deep ecologist group Earth First! (EF). EF’s ethos of “No compromise in defense of Mother Earth” has manifested itself in illegal direct actions to prevent logging, the building of dams and other environmental disruptions. As such MJ had to confront claims that they aimed to co-opt the movement, or at least drive it down a more radical path than those native to the region would prefer. Indeed, many MJ actions in its formative years received skepticism from more mainstream, established groups in the region.

Nevertheless, MJ has remained committed to nonviolence and eschewed property destruction, with actions such as treesitting or lockdowns to mining equipment common. 2009 proved to be an especially busy year for MJ, as over ninety protestors were
arrested at twelve events. One of those episodes took place in June 2009 when fourteen activists shutdown the dragline at a Massey mine for several hours after scaling the boom of the crane to hang a sign reading “Stop Mountaintop Removal” (Ward Jr. 2009). Following the arrests, Massey CEO Don Blankenship issued a statement condemning those involved, invoking the common refrain that those opposed to MTR are trouble making outsiders:

When protesters perform dangerous acts such as scaling the boom of a piece of equipment to gain media attention, they not only put themselves at risk, but also put our miners and state troopers in danger. Every West Virginian should be outraged that these people come from outside our state to shut down mines that are legally permitted to operate (ibid).

Blankenship’s rebuke echoed the distrust felt by many in the region, despite the entrenchment of activists in the region for years and their efforts to cultivate relationships with local communities.

Indeed, cognizant of this skepticism many within the movement have not adopted the emphasis on direct action. Employing a different tact, the “Alliance for Appalachia” also formed in the wake of the Jeremy Davidson tragedy with the goal of building solidarity in the region by allying numerous organizations under a common umbrella.

According to their website:

The Alliance for Appalachia is a regional coalition of 13 groups in five states working to end mountaintop removal coal mining and support the creation of a just, sustainable economy in Appalachia. Beginning in the spring of 2006, thirteen organizations from five states in Central Appalachia have worked together to build this alliance. We are pursuing a number of complementary strategies including grassroots organizing, leadership development, strategic communications, alliance building, research, litigation, and more.

As such, the Alliance could be considered as more in line with mainstream environmental organizations, while MJ represents a more radical approach, more in line
with organizations such as Greenpeace. Of course these two differing approaches have often proved complimentary in environmental struggles, exerting pressure in different places and ways through such a division of labor. Many of the divides between these different approaches to end strip mining were transcended by the common ground cultivated by “Appalachia Rising”, a week of protest and lobbying in Washington D.C in late September 2010. The event appears to mark a turning point for the movement, for as an organizer remarked to me, “there was something about the Appalachia Rising banner that brought together many groups that hadn’t ever worked together.” The increased cohesion of the network following Appalachia Rising proved a key development for those fighting strip mining, while the events of early 2011 would bring further change to the movement and its targets.

**Losing Legends and Legal Tumult**

2011 quickly proved to be a year of change for the movement. On December 31, 2010 Don Blankenship, the much maligned target of anti-strip mining activists, retired as CEO of Massey Energy as the company folded into Alpha Natural Resources. Blankenship had come under increasing pressure since the tragedy at Upper Big Branch Mine took the lives of twenty-nine miners. Following the accident the Mine Safety and Health Administration issued Massey 369 citations and assessed it $10.8 million in penalties, the largest fine in MSHA history (MSHA 2011). On January 3, 2011, Judy Bonds, succumbed to cancer; she was 58 years old. In the course of just three days the movement had lost both its spiritual leader and its chief nemesis.

Only ten days later, another significant development occurred when the EPA revoked a water permit necessary for the expansion and operation of West Virginia’s largest MTR mine, the same one in question in the landmark *Bragg v. Robertson* case.
The revoking of the permit issued by the Army Corps of Engineers in 2007 marked only the twelfth time the EPA had used its power under the Clean Water Act to stop a permitted operation (EPA 2011). EPA administrator Peter S. Silva explained the agency’s reasoning: "The proposed Spruce No. 1 Mine would use destructive and unsustainable mining practices that jeopardize the health of Appalachian communities and the clean water on which they depend" (ibid). This marked a major victory for activists because the proposed mine would bury more than “six miles of high-quality streams in Logan County, West Virginia with millions of tons of mining waste from the dynamitizing of more than 2,200 acres of mountains and forestlands” (ibid).

Like in the Bragg case, this victory would also be short lived. On March 23, 2012 U.S. District Judge Amy Berman Jackson restricted the authority of the EPA to withdraw Clean Water Act permits, allowing mining operations to go forward (Ward, Jr. 2012). Allowing the expansion of the Spruce Mine marked a major setback in the legal battle over MTR for activists, while the state and industry applauded the ruling. Governor Tomblin declared:

This is a huge victory for West Virginia and our coal miners. I want to thank Judge Jackson for recognizing that the EPA and the federal government were completely wrong in revoking this permit. I now call upon Lisa Jackson and the EPA to admit that they have gone too far — enough is enough. Issue our permits so that we can put our people back to work and provide the resources that will power America (ibid).

A second development occurring just days later may prove even more consequential for anti-MTR efforts, albeit more indirectly. On March 27, 2012 the EPA issued its proposal for the first Clean Air Act standard for carbon emissions of future power plants (EPA 2012). These standards impose much stricter allowances of CO₂ emissions and force new coal burning plants to capture a large portion of their pollution.
Meeting these standards will be much easier for power plants using cleaner burning natural gas, and coal’s primacy as America’s electricity provider is now in doubt. The President of Duke Energy, one of the largest consumers of coal in the U.S., Jim Roger concludes, “As we look out over the next two decades, we do not plan to build another coal plant” (NPR, 2012). In addition, to these new standards, utilities are also facing tighter restrictions on the disposal of coal ash at their facilities following the catastrophic damage following the failure of the TVA Kingston Fossil Plant’s slurry lagoon in December 2008.6 Taken together these decisions reflect the mixed results of the movement’s efforts as well as the uncertain future of the Appalachian coal industry generally.

Conclusion

From the early fight to unionize to the current fight to stop MTR, coal mining in central Appalachia has generated contention in the region for over a century and a half. Like the boom and bust cycles for which coal is so famous, the movements for justice in the region have ebbed and flowed, with numerous victories but just as many devastating setbacks. The rapid mechanization of the mines following World War II sounded the death knell for the labor movement, erasing the gains wrought from decades of bloody struggle. In turn, the rise of strip mining generated a powerful and passionate grassroots movement for environmental justice that grew throughout the 1960s and 1970s. The passage of the “watered down” SMCRA legislation, however, deflated the abolitionist movement by legitimating strip mining and its most radical form, MTR. Since MTR has become the dominant form of stripping in the last quarter century,

6 The failure of this coal ash disposal cell released of an estimated 5.4 million cubic yards of fly ash into the Emory and Clinch Rivers and surrounding areas.
another iteration of the movement has bloomed in central Appalachia, taking a different form, that of a network of groups with different ideologies and tactics united by their common goal. Chapter 3 contends that understanding why the region has undergone such tumult, such social and ecological degradation, is aided by employing the environmental inequalities and justice lenses. It then uses these lenses to examine this social movement network before reviewing the explanations social movement scholars have provided to explain collaboration.
CHAPTER 3
THEORETICAL CONTEXT

Chapter 3 has three main objectives. First, it reviews some of the ways scholars have explained Appalachia’s inferior status in the U.S. I then argue that the disproportionate burdens faced by those in the coalfields can be best understood though the lens of David Pellow's *environmental inequality formation*. This approach builds on the environmental justice (EJ) literature, contending that people of color and the working classes are more likely to be exposed to unhealthy conditions where they live, work and play, while simultaneously having less access to environmental goods such as green spaces and healthy food. I contend that the economic, racial and gendered aspects of central Appalachia factor heavily in the negative ecological and human health consequences found in the region.

The second main task of Chapter 3 is to highlight the role resistance networks can play in ending environmental injustices. Although individual grassroots EJ groups have found success in many instances, success is generally more common in cases where similarly affected groups work together to bring about desired change. The collaborative advantage created by sharing resources, information and members reduces the limitations of individual groups, and can catalyze social learning and creativity. As such, I highlight the importance of alliances between social movement organizations within the broader EJ movement, giving special attention to those that bridge geographical and identity based differences.

Lastly, I provide an overview of how social movement and social network scholars understand such alliances, including why they form, how they form, and the characteristics of groups more likely to collaborate. Social network scholars contend that
position within a network affects the flows of resources and information within that network, affecting the direction, and ultimately, the outcomes of movement actions. Of particular importance for these scholars are those actors occupying the central, “brokering” positions that hold great influence within a network. Social movement scholars differ in their explanations of why some groups are more likely to engage in alliances and occupy these critical positions within social movement networks. Many scholars emphasize the group’s level of resources as particularly influential, while others point to collective identity as the primary driver of engagement. I review this literature before proposing that social movement tactics also play an important role in forging alliances. I conclude by outlining how this case will shed light on some of these debates. To begin I provide a sketch of the region’s underdevelopment.

**Understanding Inequality in Appalachia**

Since the first travel writers entered the region over two and a half centuries ago, observers of Appalachia have paid great attention to the poverty they found. Indeed, the region has been synonymous with rural depravation since being set apart as “Appalachia.” In general, the blame for this poverty in the presence of great resource wealth fell squarely on the shoulders of those enduring the poverty. This blaming of the victim reached a crescendo in the early 1960s, with the publication of two influential books, Michael Harrington’s *The Other America* (1962/1992), and Harry Caudill’s *Night Comes to the Cumberlands: A Biography of a Depressed Area* (1963). Although well-intentioned and sympathetic, the works of Harrington and Caudill reeked of paternalism and fell victim to stereotypes of Appalachians as fatalistic and indolent. Caudill, a legendary advocate of the region, even went so far as to contend genetic deficiencies played an important role in the depressed state of the region (for a critique see Fisher
1984). These perspectives fit within the “culture of poverty” model developed in the work of Oscar Lewis. Lewis (1966), contended that the inferior cultural and moral, and to a lesser extent, genetic make-up of certain groups accounted for their inability to escape poverty. For Lewis, children learned impulsiveness, laziness and immoral behaviors from their parents, stifling upward mobility and perpetuating an unending cycle of deprivation. Moreover, the poor had accepted their plight and did not fight to escape poverty.

Beginning in the late 1960s, the culture of poverty model came under intense scrutiny from within and outside of Appalachia. Sociologist Helen Lewis led the rebuttal against the culture of poverty model, blaming the coal industry and its colluders for the social ills of the region, not the fatalism or some cultural, moral or genetic deficit of Appalachians. She highlighted the similarities between the Third World and Appalachia, contending the region amounted to an internal colony, one where resources flowed out of the region while poverty remained. Lewis and her colleague Knipe summarized the process thusly:

those being colonized have resources, natural or human, which are useful to the colonizer. If these resources can be harnessed, the technological superiority of the colonizer is further enhanced, thereby increasing the degree of superiority. Thus the resources of the colonized perpetuate the colonization process (1978, 17).

Lewis and other internal colony scholars owed an intellectual debt to the political economics of Andre Gunder Frank (1967) who pointed out that peripheral nations economically enmeshed with core nations did not develop in the ways modernization scholars predicted, but rather were “underdeveloped.” Frank’s ideas influenced many key studies of economic development and dependency in Latin America (Bunker, 1985; Cardoso & Faletto, 1979), and informed Evans’s (1979) notion of the “triple alliance” of
colluding political leaders, multinational corporations, and local elites responsible for underdevelopment. The paradoxical presence of extensive poverty in the presence of great resource wealth became crystallized as the “resource curse.”

The legacy of absentee landowners in the region and the steady stream of state level politicians and judges colluding with the industry lent much credence to the internal colony perspective. Indeed, this way of understanding lives on, captured by the late Judy Bonds who declared bluntly: “We’re a colony here, and the coal companies rule. We can complain all we want, but those complaints are just swept aside in the name of progress and jobs. It's like we're selling our children's feet to buy shoes” (quoted in Schnayerson 2008, 57). Despite the persistence of this view, scholars have criticized the internal colony model as overly simplistic and lacking a nuanced historical perspective. Among the first critics of the perspective, Walls (1978) argued that a key dimension of colonialism missing in the Appalachian case was the lack of racial difference between the colonizer and the colonized. In virtually every other example of “true” colonization darker skin tone served a key role in colonization.

Another criticism levied against the internal colony perspective is that it fails to acknowledge the multiple layers of power within the region. In its more base forms, the model seemed to lump all inhabitants of the region not directly profiting from coal extraction as exploited, while in reality myriad dimensions of power existed. As Evans (1979) made clear, local leaders and business interests, a comprador class, are needed to allow powerful outside corporations to dominate a natural and social resource base. World-systems theorist Wilma Dunaway (1996) provides the historical context to underscore this point, for Appalachia served as a resource bonanza long before the
industrial revolution. The primacy of extraction has fostered a region bereft of sustainable economies, but rather a process of continually shifting extractive industries, whether that be furs, salt, timber, coal, or natural gas.

Similarly, Billings and Blee (2000, 14) point out the failure to acknowledge power at different political and geographic scales within the model, which, “minimized the impact of local state and political development on poverty and economic development by reducing political domination to a corollary of economic exploitation.” Their close examination of the political and economic history of poverty-stricken Clay County, the rare county in eastern Kentucky that did not depend heavily on the coal industry, counters the prevailing notion that the coal industry is primarily responsible for poverty in the region. Billings and Blee contend that market forces, the use of state power, and the culture of the residents all played key roles in facilitating poverty.

Despite its flaws the internal colony perspective provided a powerful rebuttal to the culture of poverty theory and a useful jumping off point for political engagement in the region, especially during the tumultuous 1970s. At this time the perspective grounded the struggle for the recognition of black lung as a disease caused by inhaling coal dust. As hard as it is to believe now, the coal industry and the health establishment still contested this connection although it had been accepted as fact in Britain over a century prior (Smith 1981). Indeed, the battles over the recognition of black lung disease serves as an important precursor to the contestations over responsibility for the significant health impacts to those living near strip mines today. And I argue that the lack of focus on environmental dimensions is one of the greatest weaknesses of the internal colony perspective. The link between ecological degradation, human health deterioration and
poverty in the central Appalachia coalfields is strong and the environmental inequality literature is helpful in understanding strip mining and resistance in the region.

**Environmental Inequality Formation**

Environmental inequalities are the disproportionate environmental burdens that people of color and the working classes carry. These include greater exposure to toxins and polluted environments as well as the externalities associated with resource extraction. More recently the literature on environmental inequalities has broadened to include the fewer environmental “goods” these groups typically can access (Ageyman et al. 2002). These inequalities are not a modern phenomenon and are at least as old as capitalism. Frederick Engels (1968/1845), for instance, documented such exploitation when he cast light on the plight of the English working class over a century and a half ago. Engels decried workers lack of basic needs and their extremely polluted environments, which resulted in deadly outbreaks of cholera and typhoid.

Environmental inequality has clearly persisted since the Industrial Revolution, and many scholars have attempted to understand this phenomenon. Pellow (2000) has offered one of the most erudite explications with his concept of the “environmental inequality formation” (EIF). Pellow argues that environmental inequalities are the outcomes of historical processes which involve multiple stakeholders with varied motives, encouraging scholars to move past simple “victim-perpetrator scenarios.” Like Evans (1979) and other dependency theorists, Pellow contends that development processes do not equally affect all community members, with some local elites benefitting from collusion with outside parties responsible for damaging their environs and health. In addition, he argues that these environmental inequalities need to be addressed via a life cycle approach, from resource extraction to eventual disposal, in
order to reveal the myriad levels of power attached to each stage. Finally, Pellow declares that race and gender must be prioritized in these models to adequately explain disparate levels of environmental quality and access. As such the EIF perspective helps unpack the multiple dimensions of power that have resulted in the disproportionately high level of social and ecological degradation found in central Appalachia, which I begin to do now.

**Environmental Inequality in Central Appalachia**

If one accepts that the environment is where we “live, work, and play” it becomes clear that environmental inequality has long been a fact of life for those living in the coalfields of central Appalachian. Although exceptions did exist, unhygienic conditions prevailed in most coal camps in the first half of the 20th century with open sewers and smoldering slag piles befouling the environment (Eller 2008). In addition to such abuses to physical health, the omnipresent threat of termination and eviction coupled with the omnipresent specter of death in the mines undoubtedly damaged the mental health of coal camp families (Corbin 1981).

In these early days, miners and their families alone faced these threats. Today, however, anyone living near strip mining sites, regardless of their relation to the industry, feels its impacts. Indeed, since very few locals find work in the strip mines, most threats (landslides and floods, water contaminated with heavy metals, omnipresent dust, blasts that shake homes and ruin wells, roads clogged with coal trucks, dramatically decreased property values) are faced by those receiving no financial remuneration from mining (Burns 2007). Moreover, the tragic death of Jeremy Davidson only proves that the dangers associated with blasting can be fatal.
Numerous peer-reviewed studies have documented the negative health outcomes for those living near MTR sites. A study by Ahern, et al. (2011) found higher rates of birth defects and premature death from respiratory, heart and kidney diseases near MTR sites, while Hendryx and Zullig (2009) found higher rates of cardiovascular disease, angina, and heart attacks for both men and women living near MTR sites. In addition to these elevated health risks, little economic gain has flowed from the mining industry. A study by Perdue and Pavela (2012) found that mining counties in West Virginia had higher poverty and unemployment rates than non-mining counties, countering the notion that coal is the “lifeblood” of the region (Bell and York 2010).

It is unlikely that such ecological, social, and economic outcomes would be permissible in other mountainous regions of the U.S regardless of their mineral bounty. So why has such exorbitant destruction taken place in central Appalachia? This question requires an assessment of the specific conditions that facilitate such negative outcomes for coalfield residents. Most environmental inequality research focuses on race and class in their analyses, as people of color and the economically marginalized are much more likely to face burdens than their whiter and wealthier counterparts. Below I briefly outline the economic marginalization of the region before giving greater attention to the understudied roles race and gender play in facilitating environmental inequalities in the region.

**Economic marginalization**

Central Appalachia has long exceeded most other U.S. regions in poverty rates while lagging behind on per capita income measures (Eller 2008). This legacy continues, as the region is still home to above average rates of poverty. Figure 3-1 shows exceptionally high poverty rates in the intense mining counties in eastern
Kentucky and southern West Virginia, where 40% of residents live below the poverty line. Similarly, Hendryx (2011) found higher total poverty and child poverty rates in areas where MTR predominated even higher than areas that mined coal by other means. Moreover, central Appalachians have higher rates of social security and Supplemental Nutrition Assistance Program (SNAP) dependence than most other regions of the nation (U.S. Census 2010).

These data make clear that coal mining has not proved a financial panacea for those in the region. Conversely, the poverty of the region has helped increase the coal industry’s sway, for as jobs have dwindled, those select few residents benefitting financially from mining have become dogged protectors of their jobs. As the environmental inequality literature has made exceedingly clear, the economically marginalized are often easy targets for exploitation. Most studies of such occurrences have focused on the marginalization of minority populations. Much less environmental inequality research has, however, studied cases where the affected community is overwhelmingly white. This study does just that, and below I unpack how race plays a major factor in the environmental inequalities of central Appalachia.

The Role Played by Race

Over the last three decades, most studies have pointed to race as the most salient factor in predicting and explaining environmental inequalities (Bullard et al. 2007; Sze and London 2008). Indeed, the EJ movement is largely inspired by a desire to end “environmental racism” (Chavis and Lee 1987). Environmental inequality scholars have typically taken a dichromatic perspective to race, reducing race to either white or non-white, with few studies focusing on the environmental degradation faced by white communities. Studies centered on white communities tend to emphasize the economic
dimensions of the group and gloss over the racial dimensions of the case. This is problematic because deeming white the default racial identity minimizes the variegation of race generally, and the variegation within the white race specifically (McDermott and Samson 2005). Making whiteness visible and unpacking the hierarchies therein is crucial in environmental inequality research as white privilege plays out differently in different milieus. As McDermott and Samson point out:

meaning is imparted by the particular context in which white actors are located. Poor, gay or otherwise marginalized whites are likely to have a different experience of their privileged racial identity than are others able to see the direct payoff of white skin privilege (2005, 249).

Moreover, the hierarchies within the white race are fluid, evidenced by the relatively recent inclusion of Jewish and Irish peoples into the “white” race. These hierarchies can have serious real world implications, as the sterilization of whites deemed inferior by other whites makes clear (Painter 2010). Eugenicists aimed to clean up the race, ridding it of “these people [who] belong to the shiftless, ignorant and worthless class of anti-social whites of the South” (Zenderland 2001, 149-50). The sterilizations of poor, mainly rural, and often Appalachian whites, was only possible and justifiable in a society where whiteness was not a monolithic, indivisible whole (Painter 2010; McDermott and Samson 2005).

In Appalachia, race is universally overlooked as a research subject because of the overwhelming whiteness of the region; West Virginia, for instance, is 96% white (U.S. Census, 2010). The supposed racial purity of the region and direct lineage to the British Isles of centuries ago, has furthered the widespread misconception that the region is “racially innocent”, spared the horrors of slavery due to its isolation. Dunaway (2003) has, however, thoroughly debunked the myth that Appalachians did not have slaves. In
her extensive history, she reveals that not only did Appalachians own slaves, more often than not they actually treated their slaves worse than those on the larger populations to the south.

The counter stereotype to the racially innocent “pure white” Appalachian, the one critical here, is that of “white trash.” One of the few scholars linking this stereotype to environmental degradation, Rebecca Scott (2010), emphasizes that the exploitation of Appalachians is based not just on class, but also on race. Like the internal colony theorists, she locates the region within the larger structure of America, arguing that outsider perceptions of Appalachians as white trash facilitates, and to some extent, justifies the social and ecological exploitation of the region. Others have even gone as far as to claim that the people of the region are the last safe group to openly demean (Shelby 1999).

Although this argument minimizes the incomparable exploitation faced by people of color in today’s America, it is very true that numerous popular films and television shows reinforce stereotypes of a degenerate and backward people. Perhaps most egregious is the documentary, “The Wild and Wonderful Whites of West Virginia”, which focuses on the notorious White family of Boone County, the county with the most strip mined coal in the state. The trailer for the film declares:

Shoot-outs, robberies, gas-huffing, drug dealing, pill popping, murders, and tap dancing - what do these all have in common? These are just a few of the parts of being a member of the Wild and Wonderful White Family.

Indeed it appears that the quaint notion of the hillbilly has largely been replaced by that of the dangerous “pillbilly”, while other well-trodden stereotypes are trotted out on Saturday Night Live’s “Appalachian ER” and the “Justified” television series. That Appalachians are at the bottom of the American whiteness hierarchy is mostly clearly
seen in the “Hillbilly Horror” genre that originated in the 1972 film *Deliverance*. In these films, Appalachians are inevitably depicted as inbred deranged predators, with cannibalistic tendencies (Clover 1993). Rodger Cunningham sums the function of these stereotypes bluntly:

*In America, every negative stereotype of every group is founded on, and occupies the semiotic space of, the image of the n****r...* With regard to white Appalachians, the structural function of these stereotypes is semiotically to remove from us either whiteness itself or the positive white stereotypes of intelligence, civilization, and genetic strength (Cunningham 2010, 74-5, emphasis in original).

In turn, these notions foster the ecological and social degradation of the region. Indeed, it is hard to imagine mountain ranges inhabited by “normal” white people being flattened for their mineral bounty. Perhaps the only factor less explored than race in studies of environmental inequalities in Central Appalachia is the role of gender, discussed below.

**Gender Dynamics in the Region**

Masculinity, especially the hegemonic masculinity that demands hypermasculine behaviors, is often cited as a primary driver in the acceptance and even encouragement of environmental degradation (Connell 2005; Scott 2010). Indeed, masculinity is largely responsible for the rupture from living within nature, to the conquering of nature, the key component in the shift to our modern and “rational” world (Warren 1997). This shift is explicit in the mines, as the replacement of underground mining, where miners were inside the mountains, to surface mining and the external reconfiguration of the earth, is incalculable. In her ethnography of Appalachian deep miners, Harvey’s (2006) interviewees talk about the closeness they feel to the mountains, how they “listen to the mountain” and “feel the mountain.” Such closeness to nature can serve to feminize men even in a decidedly masculine milieu (Saugeres 2002).
The conflation of technology, domination and masculinity is clear in the central Appalachian strip coalfields where moving mountains is seen as “macho.” Scott provides us rich examples of such hypermasculinity in the region, but points out that these displays of masculinity often conflict with nationally acceptable norms, again setting Appalachians apart. Scott contends these displays of masculinity are:

associated with backwardness. For instance, coal mining masculinity is articulated with traditional gender relations in the family; a coal miner is a provider, but this form of masculinity is frequently portrayed as threatening to or oppressive of women when it is depicted in the national media. Coal mining also indexes physical strength and hardworking masculine bodies, but these images also invoke symbolic racializing discourses of abject labor and excessive closeness to nature (2010, 65).

Within the region, a clear dichotomy is constructed as industry supporters depict those seeking to protect the mountains as feminine. Bell and Braun (2010, 808) offer much insight here, pointing out that underground coal miners are rare in the movement, with just one prominent figure, retired underground miner Chuck Nelson, playing a major role. It is somewhat surprising that underground miners have not stepped forward to more vocally condemn strip mining for it not only endangers their environment but also their livelihoods. This only reinforces the fact that protecting the environment is not compatible with hegemonic masculinity and that the derided “tree hugger” ranks low on the masculinity hierarchy.

The anti-strip mining movement reflects the “gendered divide” of activism seen nationally, as “women generally initiate, lead, and constitute the rank and file of environmental justice activism” (Bell and Braun 2010, 794). Brown and Ferguson (1995, 148-50) further this argument, contending that up to seventy percent of the leadership and membership of EJ organizations are women. Women’s identification as mothers is typically cited as the driver of their activism as they seek to protect their children from
environmental harms, what Naples (1992, 198) calls “activist mothering.” The efforts of Lois Gibbs at Love Canal epitomizes the mother as protector story, for she and other women became active to protect their children from environmental harms.

Some, however, have critiqued this idea of motherhood as the driving force behind activism. Most strident is Sandilands (1999), whose The Good Natured Feminist: Ecofeminism and the Quest for Democracy, argues that myriad reasons exist for women’s environmental activism but are overshadowed by the motherhood trope. Similarly, Epstein (1995, 9) contends that women frame their activism in terms of their familial responsibilities because it is more socially acceptable to do so, adding “moral legitimacy” to their efforts. Nevertheless, the role of mother appears to drive much activism in the region. As current activist Lorelei Scarboro notes, “The majority of Appalachian women that I know were born fighting and protecting” (Quoted in Bell and Braun 2010, 804). One of the most prominent leaders of the movement, Maria Gunnoe, reinforces the point, stating “All I wanted to do was to be a mother…in order for me to be a mother, and in order for me to keep my children safe...I’ve had—it’s not an option—I’ve had to stand up and fight for our rights” (quoted in Bell and Braun 2010, 804).

It is clear that gender plays a critical role in this case, as strip mining and its subsequent impacts are facilitated by hypermasculinity, while resistance is dominated and driven by women. Combined with the economic marginality and supposed racial inferiority of the region’s inhabitants, the negative ecological and social consequences for the central Appalachian coalfields are facilitated and largely justified. Those affected by these environmental inequalities are not sitting idle, however, and many are actively
seeking to end strip mining and redirect ecological and economic policymaking in the region. This resistance is but a part of a broader movement for environmental justice, discussed below.

**Fighting Back: Environmental Justice Networks**

The birth of the EJ movement is often dated to 1982, when the North Carolina government selected a predominately African American community in Warren County to host a toxic waste dump for PCB-laden soil (Bullard et al. 2007). The resulting resistance by the community and its allies brought national attention to the struggle and inspired other communities to fight the environmental racism they faced. Soon after, grassroots efforts broadened to focus on multiple races and all people of the working classes, crystallizing as the “environmental justice” movement (EJ). EJ activists demand distributive justice, or the end of disproportionate exposure to “environmental bads” and inaccessibility to “environmental goods” by people of color and the working classes, while also insisting upon procedural justice, or influence in environmental decision making processes.

Although Warren County is often where the story begins, struggles for environmental justice are not new. As noted above, Frederick Engels documented the dangerous and polluted environs of English workers over one hundred and fifty years ago, but also contended that such conditions were in fact the driver of change:

> The condition of the working-class is the real basis and point of departure of all social movements of the present because it is the highest and most unconcealed pinnacle of the social misery existing in our day (1968, preface).

In the U.S., antecedents can be found in the sanitation movement of the turn of the 20th century, as urban squalor, dangerous work, and unhealthy food plagued poor,
immigrant communities (Lewis 1965). One of the most important leaders in this effort Dr. Alice Hamilton, worked with other Hull House activists to fight for the health and safety of the working classes. The cool reception her work received foreshadowed the struggles future EJ activists would face (Gottlieb 1993, 47).

Many of the grievances of EJ activists in the last decades of the 20th century were born out of the increased industrialization of the United States during WWII, which greatly accelerated resource extraction and the creation of toxic environs. Most importantly, the development of the petrochemical industry marked the beginning of a new era of “Better Living Through Chemistry”, an era where oil refineries and chemical plants became ubiquitous, while the waste from these processes eventually had to find a home (Roberts and Toffolon-Weiss 2001). The contamination of Love Canal, New York from the dumping of industrial waste proved a watershed moment for the environmental movement, as the tragic health consequences for unsuspecting homeowners made the link between ecological and human health undeniable (Gottlieb 1993).

These developments have helped form a movement critical of mainstream environmentalism. By defining “environment” as where we “live, work and play”, activists locate humans within nature, not separate from it as many environmentalists have long contended. As such, the focus on preservation so important to the 1960s and 70s incarnation of the environmental movement is replaced with the search for a “just sustainability” that links social and ecological justice while prioritizing diversity in the movement. Indeed, a major critique EJ scholars and activists have levied against the
Big Greens or the “Big Ten”\textsuperscript{1} was their lack of racial and gender diversity. This dearth resulted in the failure of Big Greens to support groups focusing on environmental health in communities of color and the working classes, while often displaying paternalistic attitude towards these groups (Bullard 1990; 1994).

Most important for this study, is the EJ movement’s rejection of the bureaucratic and hierarchical structure of the mainstream organizations where members are little more than donors. Conversely, EJ groups are organized along a non-hierarchical horizontal axis, a network structure. As Schlosberg notes:

Rather than create large, Washington-based, bureaucratic organizations exemplified by the Big Ten, concerned and active citizens have created a number of grassroots environmental networks. The environmental justice movement has been networking and making connections, creating solidarity out of an understanding and a respect for both similarities and differences (1999, 108).

As such, the networked organizational structure capitalizes on the strengths and experiences of varied individuals and groups. Indeed, the flexible nature of the “movement” reflects the very fact that the term is somewhat misleading; there is not a unifying ideology, frame, identity, or tactic. Rather, the common ground cultivated between groups forms relationships that further mutual goals, goals that are often unobtainable without collaboration.

**The Network Advantage**

Many historically marginalized groups facing daunting odds have benefited from sharing resources, information and members with others, resulting in collaborative advantage to achieve shared goals (Lasker et al. 2001). Schlosberg contends:

\textsuperscript{1} The Big Ten organizations are: Environmental Defense Fund, Environmental Policy Institute, Friends of the Earth, Izaak Walton League, National Audobon Society, National Parks and Conservation Association, Natural Resources Defense Council, National Wildlife Federation, Sierra Club, and Wildnerness Society.
Networking makes for the possibility of the mobilization of resources—both internally, by the sharing of the existing resources of the network, and externally, by linking with other groups or networks who can provide various resources (1999, 131).

Moreover, these relationships can catalyze social learning and creativity, crucial components of network longevity (Perz et al. 2010). The diversity found within EJ networks results in myriad conceptualizations of the environment, thereby tapping diverse identities and ideologies useful for further broadening networks.

Another advantage of the networked structure is the ability to build upon preexisting social groups. For instance, the efforts of residents at Love Canal culminated in the Love Canal Homeowners Association (LCHA). This group, based on preexisting community-based networks, soon evolved into the Citizen’s Clearinghouse for Hazardous Waste, which today supports over 8,000 affected communities around the world (Schlosberg 1999). The resistance emerging out of Warren County in 1982 also made clear how the pre-existing social networks of community and religious leaders stimulated the development of alliances with state and national political leaders, the NAACP, and scholars, which in turn thrust the issue into the national consciousness. In another example, Capek (1993) showed how an African-American community living in a contaminated space used preexisting religious and familial ties to demand relocation from the “Black Love Canal.” Grossman’s (2001) study of land use disputation in rural Wisconsin reveals the fluid nature typical of these EJ networks. In this case, Native Americans and rural White sportsmen had a contentious and even violent relationship resulting from their differing conceptions of, and rights to, natural resources. These groups eventually set aside their differences to forge a network of resistance to this common threat, which ultimately prevented a multinational corporation
from mining the region. Finally and most notable, is the fact that many EJ struggles build upon the scaffolding created during the civil rights struggle (Bullard 2007). These are just a few of the many examples of the importance of networks for achieving success in EJ struggles. They also highlight the predominately local nature of EJ resistance, a dimension that has generated intensity in many contestations, but has, in some cases, also inhibited alliance formation across difference and scale.

**Space and Scale in EJ Networks**

The localized nature of most EJ struggles has exposed the tensions between the dearness of place, “the particular”, and the broader ideals of social justice (Williams 1989). Not surprisingly, most EJ struggles revolve around the protection of the immediate, one’s family, home and “backyard” (Harvey 1996, 19). Localized struggles are place specific despite the fact that the processes at hand are imminently global in scope, linked to the actions of multinational corporations and governing bodies. As such, the interconnectedness of environmental inequalities and the forces that produce them are often lost across scale. With the dramatic change to an undeniably globalized world, however, structures of resistance have also metamorphosed. Schlosberg (1999, 187) puts it this way: “Networking may both mirror the construction of environmental problems by the globalizing economy, and mirror the need to act at numerous political levels as the national state becomes just one site of contestation among many.” Following this directive, an essential question to ponder for EJ scholars is how to unite seemingly disparate (but in fact, closely related) struggles, to “scale up” from Not in My Backyard to “Not in Anyone’s Backyard” (Smith and Fisher 2012, 282). By identifying the connections between local and global struggles and employing a “decentralized networking strategy” such struggles are more capable of succeeding in the current age.
where power is multi layered. If scale is broadened, the interconnectedness of environmental problems is clear, as burdens are directly related to poverty and race regardless of the location; the coal mining in Appalachia that affects a nearby community will contribute to the global warming that will make a sub-Saharan farmer even more vulnerable.

Schlosberg (1999, 120) likens the networked nature of EJ groups to a rhizome, which “connect in a way that is not always visible—they cross borders and reappear in distant places without necessarily showing themselves between.” As such, much of the research exploring EJ networks has focused on the linkages between activists in the global North and those in the global South. A key work in this regard is Pellow’s *Resisting Global Toxics: Transnational Movements for Environmental Justice* (2007), which reveals how the linkage of global and local activists proved critical in winning an international ban on the dumping of toxic waste in developing nations. Keck and Sikkink (1998) also showed the importance of transnational social movement networks contending that one of the greatest advantages of these networks is their ability to link local activists with international actors, thereby bypassing state governments that often attempt to repress these movements. By forging partnerships with those directly affected and resisting environmental injustices, global North activists can defuse claims of imperialism while providing greater material resources and support to those in the global South. Many other examples highlighting the importance of transnational EJ networks abound, including those supporting Brazilian rubber tappers (Keck 1995),

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2 Global North and global South are not geographic markers, but rather social and economic ones. The term refers to those nations and regions marginalized within the global political economy. Others use terms such as “developing world”, “third world”, "periphery" to capture this understanding rather than global South.
those in the Niger Delta afflicted by Shell’s oil extraction (Gedicks 2001), and perhaps most famously, the local/global links created during the Zapatista rebellion in Chiapas, Mexico (Castells 1997).

Making local and global connections reveals the often hidden connections of exploitation faced by marginalized communities, and such alliances are necessary to form counter hegemonic structures. The scale in betwixt the local and the global, the regional, however, has received very little academic attention in comparison. Indeed, the example of anti-strip mining resistance in central Appalachia reveals the interconnections between the local, regional and global scales. By focusing on the regional level, this study aims to contribute to this understudied but crucial scale. Moreover, examining this regional network sheds light on the mechanisms of collaboration and how social movement networks obtain their structure.

Explaining Network Structures

As the previous section highlighted, alliances among EJ groups can help those with scant political and economic clout increase their chances of obtaining redress. These alliances, in turn, make up larger networks of collaborative relations. The position occupied within such a network can significantly affect one’s ability to control information and direct the flow of ideas, which influences the direction of the broader network (Burt 2005; Borgatti and Everett 1999). Granovetter (1973) was among the first to understand social movements in this way and apply social network concepts to studies of collective action. His findings challenged many long standing beliefs by pointing out the importance of so-called weak ties. Put simply, Granovetter found that alliances among less intimate groups were especially important for success, and is therefore a seminal work that directly informs this research. Following Granovetter,
numerous other scholars have examined the structure of collective action networks (Gould 1991; Marwell and Oliver 1993; Heckathorn 1993), with most focusing on the micro level of member recruitment (Oberschall 1973; Tilly 1978; Snow, Zurcher Jr. and Ekland-Olson 1980; Oliver 1984; Kriesi 1988; Opp 1989).

The movement recruitment study conducted by Snow et al. (1980) is largely representative of the findings of this research stream. These authors show that individuals with preexisting ties to movement members are more likely to be recruited, while those recruited are more likely to actually join if they have few other existing social networks. McAdam furthers this line of inquiry in his examination of participation in the 1964 civil rights project “Freedom Summer “(1986). McAdam compared the Freedom Summer applications of students that were accepted to the project and participated and those that were accepted but did not participate. These novel data revealed that the personal attributes of the applicants mattered little with regards to who actually participated, but rather it was their enmeshment in social networks that mattered. For instance, applicants that belonged to more organizations prior to applying and those with strong ties to other applicants were more likely to participate in the project (1986, 73).

Broadening the scope from the individual to the organizational levels of collective action is a more recent development (Rucht 1989; Diani 1995, 2003a; Ansell 2003; Osa 2003; Wiest 2010). As Obach (2004, 300) points out:

The study of social movements largely lacks research that takes organizational behavior as its focus, and research that looks specifically at inter-organizational and inter-movement relations is even more limited.

Most of the studies that have addressed these relations have fallen into three major social movement studies schools of thought. Political opportunity theorists contend that
those with grievances are more likely to join together in a common cause when they countenance pressure from outside sources, or conversely, see a moment ripe for change. This research is grounded in Peter Eisenger’s (1973) seminal work on protests in American cities, finding that cities with the most repressive governments and conversely, the most open, had witnessed the greatest amounts of protest, contradicting the conventional wisdom that protest is more common among closed structures. He sums his major idea thusly: “The manner in which individuals and groups in the political system behave, then, is not simply a function of the resources they command but of the openings, weak spots, barriers, and resources of the political system itself” (1973, 12).

The other primary schools of thought, resource mobilization and collective identity (“new” social movements) pay more attention to the characteristics endogenous to groups rather than the exogenous factors political opportunity theorists prioritize. I provide overviews of these ideas below, while also including discussion of the realm of tactics, which I contend is a useful and understudied component of collaboration.

**Resource Mobilization**

Resource Mobilization (RM) scholars emphasize the importance of resources such as money and meeting space, but also less tangible resources such as leadership, knowledge, time and connections with elites. RM theorists assume that collective action groups are strategic, rational actors engaging in alliances when they deem them beneficial and abstaining from them when they deem them unhelpful. In this vein, scholars have documented fewer alliances when resources are scarce (Staggenborg 1986; Zald and McCarthy, 1987), as groups may be forced to compete for dwindling funding, media attention, and leadership all the while striving to maintain a uniqueness of message and/or tactics to attract resources (Van Dyke 2003).
Diani’s (1995; 2003a) study of the Italian environmental movement is particularly pertinent to this research because he found significant differences in the larger network structure due to several specific characteristics of environmental groups. Specifically, he found large, well-established and more conservative social movement groups more likely to play central roles in this environmental network, acting as net “brokers”, connecting otherwise unconnected actors. He explains these results by contending that larger organizations are more likely to occupy these influential positions because they can hire a professional staff that, presumably, is well-trained, politically savvy and capable of bridging different groups and interests. In addition, larger organizations are typically more visible than their smaller counterparts, making them desirable allies for groups seeking media attention (Zald and McCarthy 1987; Staggenborg 1986; McCarthy and Zald 1977). Larger organizations are also capable of engaging numerous issues at once, increasing the potential range and number of alliances available (Knoke 1990; Obach 2004). The focus on multiple issues is key to alliance engagement, because as Obach (2004, 296) explains, “those organizations that adopt a broader range of issues as their organizational focus are more likely to overlap with others and are therefore more likely to engage in coalition activity.” Finally, most RM scholars agree that established groups are more likely to engage in alliances than newer groups because:

Alliance building depends on factors such as relatively consolidated organizational structure, the spread of information about the organization and its perception by prospective allies as a relevant political actor, its public visibility. This cannot be achieved overnight (Diani 2003a, 108).
Another perspective that examines how and why groups do or do not collaborate focuses less on the material aspects of inter-organizational alliances outlined by RM theorists, instead emphasizing the less tangible meshing of identities.

**Collective Identity**

Movements such as the women’s, environmental and LGBT movements of the later decades of the 20th century forced social movement theorists to reconsider some of their assumptions about movement dynamics. These so-called “new social movements” (NSMs) differed from more traditional class-based movements by targeting the dominant norms, values, and symbols of our post-industrial society (Hunt and Benford 2004, 437). Melucci characterizes these NSMs as permanent and “submerged” networks within everyday life; the personal is political (Melucci 1989, 41). Although the newness of these movements has been questioned (Calhoun 1993), the focus on collective identity raised by NSM scholars is a helpful corrective to economic deterministic models of collective action.3 Friedman and McAdam (1992:157) define collective identity as, “a shorthand designation announcing a status – a set of attitudes, commitments, and rules for behavior– that those who assume the identity can be expected to ascribe to.”

In the social movement literature it is well established that groups with conflicting identities and ideologies seldom work together, even in the presence of abundant

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3 Calhoun (1993, 390-391) accused NSM theorists of improper characterization of the labor movement: “In order to mount their challenge to that ‘old’ social movement, however, these NSM theorists have exaggerated the extent to which it ever was a unified historical actor with a single narrative and a disciplining institutional structure. They have reified and hypostatized the labor movement, setting up the most simplistic Marxist accounts as their straw men” (390-391). A different critique is levied by Pulido (1996), who highlights how “old” and “new” social movements fail to capture the complicated realities of “subaltern movements.” These subaltern movements respond to economic, racial and cultural marginality, and as such are “embedded in material and power struggles, as well as questions of identity and quality of life” (xv).
resources and political allies (Bell and Delaney 2001). Examples of short-term cooperation, for instance between feminists and evangelicals to stop pornography, are the exceptions that prove the rule (Luff 2001). The collective identity literature suggests that the ability to bridge different identities is a key task for forging alliances (Pena 2007; Mayer 2009; Castells 1997). Mayer (2009) focused on coalition building attempts between labor and environmentalists that go deeper than just “marriages of convenience.” He documented the development of a collective identity forged through the shared desire for healthy environments, workplaces, and communities made possible by a “health frame” that provided common ground.

McCammon and Van Dyke’s meta-analysis of the alliance literature revealed that “ideological alignment”, a proxy for collective identity, was one of only two factors sufficient for alliance formation in and of itself (2010, 308). The other sufficient factor, “political threat”, suggests that access to resources may play a less important role in allying organizations than RM theorists contend. On the other hand, the anti-strip mining movement seems to be a contradictory example, bringing people from diverse backgrounds and lifestyles such as self-identified hillbillies, anarchists, evangelicals, academics and celebrities, together in public opposition (Witt 2011). It is less clear, however, the role collective identity plays at the meso (group) level and this study aims to shed light on these identity processes.

One factor that has received virtually no attention in discussions of alliances and networks is the role played by tactics. In this dissertation, I help fill this gap by analyzing this dynamic, which may bridge the RM and collective identity approaches.
**Tactics**

Tilly’s work is seminal to understanding social movement tactics, particularly his notion of *repertoires of contention*, or the non-institutionalized forms of political expression used to assert claims (1978, 30). These tactics can vary widely as Rochon (1998, 1) shows in his review of the protest tactics used by the New Left:

Petitioning, rock throwing, canvassing, letter writing, vigils, sit-ins, freedom rides, lobbying, arson, draft resistance, assault, hair growing, nonviolent civil disobedience, operating a free store, rioting, confrontations with cops, consciousness raising, screaming obscenities, singing, hurling shit, arching raising a clenched fist, bodily assault, tax refusal, guerilla theatre, campaigning, looting, sniping, living theatre, rallies, smoking pot, destroying draft records, blowing up ROTC buildings, court trials, murder, immolation, strikes, and various writing manifestoes and platforms.

Such lists infer that the protest tactics aggrieved parties employ are virtually unbounded. The reality is quite different. Repertoires of contention are place and time specific and culturally grounded; what might be commonplace during one period may be quite foreign during another. These repertoires are limited and routinized, contingent upon what activists know and what they are expected to do. Tilly (1999) even declares that social movements are essentially collections of contentious performances and events, while his historical analyses reveal that modern tactics have evolved from those of the eighteenth and nineteenth centuries (1978). At this time the consolidation of national states, the expansion of roads, development of printing technologies, and the growth of private associations transformed contention and facilitated tactical diffusion.

Tarrow (1998) furthered this idea with his concept of *modularity*, whereby spatially distinct groups could employ similar tactics creating dispersed, but similar movements for change. The traditional repertoire of demanding bread, expressing religious belief, claiming land and mobilizing around death soon gave way to the
modular repertoire of effigies, boycotts, mass petitioning, urban insurrection and barricades (Tarrow 1998). Indeed, these modular repertoires allowed for sustained challenges to authorities, and also marked the beginning of social movement networks. As such, tactical repertoires are flexible, meaning that groups are reflexive and frequently adopt tactics that other groups have found successful (Oberschall 1973). Meyer and Whittier (1994) conclude that SMOs not only influence their targets but also other SMOs resulting in “social movement spillover”, exemplified by the women’s movement influencing the ideology and tactics of the peace movement. Soule (1997) revealed how the indirect network ties of student activists resulting in the employment of a tactic, creating shantytowns, outside of the usual repertoire.

Similarly, Epstein (1991,29) detailed how the Quakers influenced Civil Rights leaders to adopt the nonviolent tactics that proved vital to movement success, noting that “when a mass civil rights movement began to build among southern blacks, with the Montgomery bus boycott of 1956, nonviolent direct action was adopted virtually without debate.” These influences are seen today in the Occupy networks as well as the deep ecology movement where radical democracy and non-hierarchical organization structures are common.

The role tactics play in bringing groups together (or pushing them apart) is still unclear. For instance, Van Dyke (2003) emphasized that when resources are scarce, social movement groups may compete for dwindling funding, media attention, and leadership by employing novel tactics. Such tactics can vary significantly, often defining a group, while also creating schisms within a movement. For instance, environmental groups such as Greenpeace and Earth First! have received much derision (and media
attention) for their often theatrical and illegal actions, while more mainstream groups like the Sierra Club have received criticism for their incremental and legalistic tactics (Shellenberger and Nordhaus 2004). Such differences beg questions such as, do radical action groups collaborate with those working within the legal system?

**Tactics and the Law**

It is now clear that the law can spawn social movements (McAdam 1982), influence how social movements frame grievances (Snow *et al.* 1986; Stone 1989), supply movements with a language (Scheingold 1974), and provide a gauge for success (McCann 1994; Keck and Sikkink 1998). Pressure from social movements can result in the repeal or creation of laws, change how existing laws are interpreted, or even alter how a society defines legality and rights (Scheingold 1974; Andersen 2005; Barclay, Jones and Marshall 2011). Response to unjust laws, or the lack of enforcement of existing laws, can catalyze a movement and forge the alliances that can shift the direction of an entire nation, as the Civil Rights Movement so vividly made clear (McAdam 1982; Morris 1984; Glennon 1991).

Despite the critical role played by the law in social movement dynamics, much is still unclear about the complex relationships between the law and social movements, while the nexus of law, social movements and organizations is even murkier. Indeed, Edelman *et al.* (2010, 654) conclude that scholars have “been attentive…to social movements and organizations, to organizations and law, and to law and social movements—[but] there has been no effort to theorize the relationship among all three of them.” A major component of this dissertation is shedding more light on these understudied legal dynamics, specifically the roles litigation, lobbying and direct action play in fomenting alliances.
To address the roles these variables, as well as those associated with resources and culture, play in forging this network of resistance, I employ three distinct social methodologies, which I detail in Chapter 4.
CHAPTER 4
METHODS

Thus far, this dissertation has attempted to make clear that central Appalachia is home to numerous environmental inequalities associated with the region’s long history as a resource extraction zone and facilitated by its marginalized status within America. At the same time I have underscored that central Appalachians are not a quiescent people, but rather have fought back against the abuses of the coal industry for well over a century. The increasing prevalence of strip mining techniques over the past three decades has only increased the negative social, health, economic and ecological outcomes in the region, while the movement to end strip mining has ebbed and flowed during this period, experiencing many victories but many setbacks. The rest of this dissertation is dedicated to better understanding the social movement dynamics surrounding collaboration within a network by employing this unique case, and in the process filling in numerous gaps in the history of the anti-strip mining movement.

Specifically, this dissertation seeks answers to the following research questions:

1. How has the network of resistance to strip mining evolved since the passage of the Surface Mining Control and Reclamation Act of 1977 (SMCRA)? What role has the law played in this evolution? What has caused the network to expand?

2. How is the current network structured? What drives collaboration? How do the attributes of groups (their tactics, resources, and cultures) influence the positions they occupy within this network?

3. What are some of the barriers that limit collaboration in this movement? How are they overcome?

To answer these questions, I approach this movement as a social network, contending that the position of a “node” (in this case, groups) within a larger structure of relations (the broader movement) is important and influences outcomes. Such a relational approach is not new, and foundational scholars such as Marx, Durkheim and
Simmel employed this meso-level approach; to paraphrase Hegel, one cannot be a slave without a master. Crossley (2011, 16) concurs, noting, “relations are important because they enable and constrain action.” Knox and colleagues put forth a fiercer argument, contending that the analysis of social networks is “probably the most powerful counter to individualistic, rational choice approaches which span the social sciences” (Knox, Savage and Harvey 2006, 118). In sum, social network analysis (SNA) provides a useful toolbox to ascertain how network relations affect the machinations of a movement.

To this end, I develop three research strategies and use both quantitative and qualitative methods. First, I analyze over thirty years of newspaper articles focused on coal and social movement organizations to provide a historical accounting of the network. Next, I use surveys with organizational leaders to map and measure the current state of this network of resistance. The final stage, semi-structured interviews with movement participants, helps me elucidate the meaning behind these network structures and better understand the barriers to collaboration and how (if possible) they are overcome.

**Media Network Analysis**

To better understand the historical structure of the Appalachian anti-strip mining movement network and its evolution I use newspaper articles. This is a long-established method as scholars have used newspaper accounts to explore protest repertoires in 18th and 19th century Britain (Tilly 1978; Tilly and Wood 2003), the civil rights movement (McAdam 1982), protest and political opportunities in American cities (Eisinger 1973), the impact of protest on Vietnam War policy (Burstein and Freudenberg 1978) and in numerous other examples. Indeed, Gamson and Wolfsfield (1993) contend,
“movements and media are interacting systems.” As such, the aim of making “news” justifies this media analysis because the events included in these newspapers are those that mattered to the media, and are therefore very likely to matter to activists (Bearman and Everett 1993, 178; Gans 1979). Moreover, a major benefit of analyzing newspaper accounts is the ability to evaluate change over time.

Using newspaper accounts as data also has limitations. Editorial policies and preferences vary over time and are critical in deciding what is included in newspapers (Franzosi 1987). Tarrow (1998) has shown that “early rising” movements garner more attention than those later in the cycle of contention, while large protests, those that employ novel repertories of action, and those that result in violence and/or arrests are more likely to garner media attention (Snyder and Kelly 1977). For instance, Bearman and Everett (1993, 178) argue that “protests that brought more than 3,000 people to Washington were huge in the time period from 1961 to 1963, marches and rallies which today fail to bring out 30,000 people are considered failures by organizers and media alike.” This claim is important to consider because the events linked with coal typically involve low numbers of participants, therefore not all participating groups may be included in the reporting. Moreover, I am also interested in all forms of collaboration, not just those evidenced at protest events, and less striking occurrences may be underreported. Finally, there is a chance that groups mentioned within an article could be antagonists rather than allies, but by delimiting the search to groups actively opposing strip mining makes this possibility exceedingly small. Despite these limitations my focus on the ties among organizations adds something unique beyond merely the coverage of coal-based opposition.
I follow the tactic employed by Van Dyke’s (2003) study of student protest coalitions from 1930-1990. In her study, Van Dyke analyzed the student newspapers of six colleges that varied in size, prestige, and region for the characteristics of protest events. Importantly, she treated co-participation of groups at an event as an indicator of an alliance, a tie. Using a similar approach, I compile datasets to represent collaboration as a social network and apply social network analytic techniques to understand the evolution of this network over time.

Sample

Using a *whole network* approach I analyzed the interaction among movement groups within a bounded social and geographical space. A whole network approach is useful when all, or almost all, relevant actors within a network can be known and included in the analysis. This type of analysis is especially useful when a roster of actors is easily accessible, and would be an appropriate way to examine the social ties within a high school class or to highlight the relationships among active Senators, for instance.

To create a valid sample in this study I triangulated by using several qualitative sources. These included: (1) reading the histories of Appalachian social movements, (2) discussions with current and former activists, (3) vetting the list with activists and academics, and (4) participant observation at social movement events. These sources resulted in thirty-eight groups dating back to the early 1960s. There is wide agreement that this list of thirty-eight is comprehensive and includes all the groups playing a significant role in the movement since 1960.
Data

I used the LexisNexis Academic database, an archive of most of the world’s major newspapers dating back to 1980, to search for articles that contained each group’s name coupled with the word “coal” (i.e. thirty-eight searches). This process resulted in 2,645 articles that mention at least one group and the word “coal.” Of the thirty-eight groups entered in the search, only twenty-two garnered at least one mention since 1980; that is, not all groups made it into the news. The article title, author(s), newspaper name, word count, page number, and date were then entered into an Excel spreadsheet.

Analysis

As this is a social network study, I am only interested in articles mentioning two or more groups. A program developed using Statistical Analysis System (SAS) prepared the social network data set, with the goal of creating a two-mode network data set where the first mode (the rows) were unduplicated articles and the second mode (the columns) were the twenty two organizations that generated at least one article. Towards that end, the program first eliminated all articles that occurred only once, meaning they did not include mention of more than one group. This resulted in 739 articles listed at least twice, thereby mentioning at least two groups and representing a tie, or in my estimation, evidence of some degree of collaboration.

The program then created the two-mode network where each row contained a unique article and each column indicated (using a ‘1’ or a ‘0’) whether the article mentioned each of the twenty-two remaining groups. I did this for each five-year period since 1980 combining 2010 and 2011 as one period. Although two-mode network data can be analyzed as two-modes (Borgatti and Everett 1999), it is common to transform
the data into \textit{one-mode} data sets where the items in the rows and columns are the same. I took this approach, and using Ucinet, a program for the analysis of network data, I calculated the cross-products of the two mode network for each decade resulting in five one-mode networks representing the ties between the organizations.

Using these data I visualized\footnote{There are many algorithms for visualizing network data. The visualization used here includes a spring embedding algorithm that pulls nodes together that are tied and pushes apart nodes that are not. The resulting visualization optimizes this attraction and repulsion. While the thickness of a line has meaning, the length does not. If a line exists between two nodes they are tied. Longer lines between nodes are due to the fact that while two nodes may be tied, they tend not to be tied to the same other nodes. The spring-embedder does not use the line thickness (valued data) for the visualization.} the networks for each period with dots representing a group while the lines between them represent a tie. The lines are sized by the number of co-mentions between the groups so a thick line indicates that the two were mentioned together more often than those with a thin line. The absence of a line means the two groups were not co-mentioned during the period. The dots not connected to other dots are placed in the upper left corner of the visual and are network \textit{isolates}, meaning they were not co-mentioned with any other group. In addition, I measured the density of these networks and the degree centralization of individual groups. The results from this analysis are reported in Chapter 5.

\textbf{Network Analysis of Current Groups}

The media network analysis provides a longitudinal perspective of this movement from 1980 to 2011. Another social network analysis technique I use maps and quantifies the ties among central Appalachia-based groups as of late 2012. This approach allows me to measure the positions individual groups occupy within the network, and to then correlate these scores with the specific attributes of individual groups. I am also able to
take respondent scores regarding their propensity to engage in certain tactics and create networks based on these measures, shedding light on the influence certain tactics have on alliances. This approach results in a finer grained analysis of the current movement, which compliments the broader focus of the historical media analysis. Like that analysis, constructing the appropriate sample is an important first step.

**Sample**

The first step in mapping this current network of resistance is choosing appropriate groups. Although significant opposition to strip mining has come from individuals and informal bands of concerned citizens over the last thirty years, I did not include them in my sample. This research focuses on organized groups and for inclusion in this network, groups must: (1) have a formal name, (2) be located within central Appalachia (defined in Introduction), (3) focus solely on strip mining, or have strip mining as a primary issue in their agenda, and (4) be currently active.

Identifying relevant groups for this sample was done by: (1) reading the literature on the movement, (2) conducting Internet searches, (3) participant observation at movement events, (4) interviewing activists, and (5) vetting a preliminary list of groups with activists and academics familiar with the movement. This process winnowed the sample to sixteen groups that compose the whole network of which this study is based. Of this sample, one or more representatives of thirteen groups responded to my inquiries, meaning three groups did not speak for themselves in this research. Having missing data in this analysis is not ideal, but the ratio of respondents to non-respondents (13:3) is well within the acceptable confidence interval for SNA (Kossinets 2006), while the responses of other representatives regarding their relationships with unrepresented groups casts light on these ties. Missing data are tolerable in SNA.
because relations with those who do not respond are reported by those who do. In other words, I collected network information about a group even though they did not respond.

Identifying appropriate representatives of these groups is also critical in assuring internal validity, the confidence that what was observed actually happened (Bechhofer and Paterson 2000, 31). Locating individuals with intimate knowledge of their group’s structure, ideology and history is, therefore, essential. Several key informants introduced me to organization leaders, and importantly, assessed their qualifications to speak for their group. I met several other leaders through participation in movement events, and others I met by contacting them via information provided on their webpage. Finally, I asked participants if they deemed themselves appropriate representatives of their group.

Data

After identifying appropriate representatives, I collected data with a questionnaire composed of three sections (Appendix). The first section follows the path set by Diani (2003a) and asks questions regarding the individual characteristics of these groups. Answers to these questions resulted in independent variables 1-5: (IV1) group size, (IV2) group agenda, (IV3) group age, (IV4) radical, and (IV5) religious. In the second section of the questionnaire I addressed tactical issues by asking respondents to use a 0-3 Likert scale to rate the likelihood of their group engaging in specific activities, resulting in independent variables 6-10: (IV6) resource sharing, (IV7) litigation, (IV8) lobbying, (IV9) events unlikely to lead to arrest, and (IV10) direct actions.

The third section of the questionnaire focuses on networking and the development of my dependent variable measure, (DV1) betweenness centrality. Betweenness
centrality is a measure of the extent to which a node lies on the shortest paths (geodesics) between other nodes (alters). Alters that are highly between central are brokers, essentially bridges that connect otherwise unconnected nodes. In this study, betweenness centrality represents a group’s role as a net broker and serves as a proxy for influence within the movement. The role of broker can be critical within a network structure because these actors generally hold disproportionate amounts of social capital and influence (Burt 2005). Brokerage, therefore, is an important object of study because it can significantly influence movement direction, and ultimately, movement outcomes, but it is still unclear why groups are located in these key brokering positions.

I provided respondents a roster of the groups, effectively bounding the whole network, and asked them to rate the strength of the relationship between their group and every other group on a 0-3 Likert scale. Using this “overall” network, I was able to generate betweenness centrality scores for every group. I then asked respondents to rate the likelihood that their group would jointly participate in the above listed activities (resource sharing, litigation etc.) with each other group on a 0-3 Likert scale. This allowed for the creation of separate tactical networks, which could then be analyzed.

Analysis

At this point, I had collected the data necessary to create six different whole networks based on respondent answers to six different tie questions on the survey, namely: (1) Overall network, (2) Resource Sharing network (3) Litigation network (4) Lobbying network (5) Events network and (6) Direct Action network. These responses were entered into six distinct Excel spreadsheets and then, using Ucinet software, were converted into six one-mode datasets. At this point the density of these networks could be measured to shed light on the actions/tactics that resulted in greater or lesser
collaboration within the network. In this analysis density is dichotomized, meaning that the tie strength rankings provided by respondents (0 to 3 Likert scale) are converted to the sheer presence or absence of a tie, meaning no relationship equals 0, and any relationship greater than 0 equals 1. This procedure allows density to be calculated where a score of 1 represents a network where every possible tie exists (every group is tied to every other group) and where a score of 0 represents a network where none of the possible ties exist. These scores can then be ranked and compared to shed light on their respective propensities to stimulate collaboration. Analysis of variance (ANOVA) tests were then used to assess the significance of these actions/tactics on structuring the overall network.

To tease apart the roles specific attributes of individual groups play in structuring these networks, I first measured the betweenness centrality score of each group in the overall network. I then created visualizations relaying the structure of the network with node size related to betweenness centrality score; the higher the score, the larger the node. I created diagrams for IVs(1-5), revealing how group position and attributes were related. I used this same approach to create tactical networks, (litigation, lobbying, and direct action), and was then able to identify the central actors and their characteristics in these networks. The results of this analysis are presented in Chapter 6.

**Semi-Structured Interviews with Movement Participants**

The quantitative methods outlined above tell us much about the evolution and the current structure of the anti-strip mining network. These methods offer less help, however, in explaining how activists view and value these relationships, nor the barriers that may thwart collaboration. Revisiting the qualitative roots of network analysis can
help us better understand the mechanisms that link nodes within this network. Indeed, leading social movement scholar Doug McAdam (2003, 297) has called for a “strategic mix” of quantitative and qualitative approaches within social movement network analysis, while Stoddart and Tindall (2010, 255) make a similar plea with their “call for the increased use of qualitative methods to explore the meaning of these network processes for movement participants.” While quantitative social network analysis is crucial for identifying the relations among actors within this network, incorporating qualitative methods will shed more light on the processes of alliance formation and especially the barriers to collaboration within the anti-strip mining movement. Although I have participated in numerous movement events and spent many hours in the archives of regional libraries, the primary qualitative method I use in this research is face-to-face semi-structured interviews with movement participants.

Sample

As the network structure of EJ movements in general, and this movement in particular, tends away from hierarchical organization (Schlosberg 1999, 126), I sought activists that had insight into the workings of the movement, but did require that they consider themselves “leaders.” Essentially, I sought to speak with currently active participants involved in the movement for several years or more, and secured interviews with respondents in three main ways: 1) meeting them at events and rallies, 2) snowball sampling, and 3) emailing or calling the contact person listed on organizational

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2 A seminal figure here is British anthropologist Radcliffe-Brown. His work on conflict in African tribal society and small British towns sparked interest in examining information flow within communities, while the terms he employed, such as “networks” and “webs”, provided much of the lexicon for the field (Radcliffe-Brown 1940).
websites. In the early stages of my research I was lucky enough to meet two especially helpful “key informants” who introduced me to many people I would eventually interview.

All told, I completed twenty-four interviews, ten men and fourteen women, including members of Alliance for Appalachia, Christians for the Mountains, Friends of Blair Mountain, Keeper of the Mountain, Kentuckians for the Commonwealth, Mountain Justice, Ohio Valley Environmental Coalition, Radical Action for Mountain Peoples’ Survival, Remembering and Reenergizing Neighborhoods, Economies, and Watersheds, Southern Appalachian Mountain Stewards, Statewide Organizing for Community eMpowerment, United Mountain Defense, West Virginia Highlands Conservancy, and Wise Energy for Virginia Coalition. In addition, I interviewed several lawyers not affiliated with specific groups, two activists working with the anti-strip mining struggle on Navajo land, and the former West Virginia Congressman Ken Hechler. The ages of the respondents ranged from twenty-three to ninety-eight, with the majority in their 50s and 60s. Aside from one respondent who was Native American, everyone interviewed was white. Interviewees range from anarchists to evangelicals, from mountain natives to “outsiders”, from those with graduate degrees to high school dropouts.

Data

The face-to-face interviews generally lasted about one hour, but ranged from twenty-five minutes to over two hours. They were semi-structured and I used an interview guide to ensure that major topics of interest were covered in each interview. My primary goal was to stimulate discussions of intra-movement dynamics, with particular attention to better understanding how activists valued these relationships and the cultural elements of alliance formation. I began by asking the respondents open-ended questions regarding how and why they became involved in the movement. Next,
I asked them to describe their organization. I then asked them to interpret the movement generally, its overall strengths and direction, before asking them if they felt collaborating with other groups in the movement was important. They were then asked to comment upon the barriers to collaboration and the degree to which several specific factors impede collaboration. With permission, interviews were digitally recorded and transcribed. Participants were not paid and informed consent was obtained before the commencement of the interview.

**Analysis**

Recorded interviews were transcribed soon after and entered into the qualitative analysis software NVivo 10. NVivo facilitated the organization of these data, allowing for the systematic disassembling and reassembling of data. With the software I was able to create a priori themes, such as race, religion, and insider/outsider dynamics, and to place chunks of transcription into appropriate categories. I followed the general path laid out by Strauss and Corbin (1998) of constantly refining themes and generating more specific “sub-themes.” I was also able to catalog data that referenced resources, culture and tactics, while the categories of conflict and competition soon emerged as primary themes. My goal here was not, however, to count frequencies or quantify the interviews, but rather to parcel out the dimensions of collaboration that the activists deemed important. I sought to locate particularly telling and insightful quotes within these themes, those that captured a common idea, or conversely, offered a counter perspective. The results of this analysis are outlined in Chapter 7.
CHAPTER 5
UNEARTHING A NETWORK OF RESISTANCE THROUGH MEDIA ANALYSIS

The alliances that compose a social movement network are not necessarily static, but rather evolve due to myriad factors, including shifting interpersonal dynamics and changes in social, political and economic contexts. While it is possible to capture a snapshot of intra-movement relationships at a given moment using social network analysis, it is more difficult to reveal how these relationships change over time, especially over relatively long periods. One way to capture these historical processes is to find and interview those intimately involved at the time and attempt to reconstruct the network. This approach has many virtues, but can be limited by the inaccessibility, failing memories and deaths of important actors. The historical approach I employ here is less intimate, but allows for the analysis of records written at the time they occurred, including the measurement and mapping of group relations.

Chapter 5 adds further evidence to the growing body of evidence that law and social movements are truly constitutive. Moreover, I show how the law can significantly affect social movement alliances, an understudied dimension within both social movement and law & society studies. Specifically, this media analysis suggests that the implementation of a law (SMCRA) had a significant deflating effort on the anti-strip mining movement and stifled collaboration. Paradoxically, the law also played a major role in reinvigorating this same movement in later years, as the allowance of MTR within the legislation coupled with amendments to the Clean Air Act of 1990 accelerated the use of MTR in the region and stimulating resistance and ending the movement’s abeyance period.
After the amendments, we see a network that steadily expands and becomes denser through time. Beginning with just a single tie between two groups, the network has evolved into a network of ten groups by 2011. We find several groups, specifically Ohio Valley Environmental Coalition (OVEC), Coal River Mountain Watch (CRMW) and West Virginia Highlands Conservancy (WVHC), maintaining strong ties and forming the core of the network throughout the study period, and a notable blossoming of the network in the 2005-09 period following Jeremy Davidson’s tragic death. As such, these findings imply that the experimental approach employed in Chapter 5 yields much insight into the evolution of this movement and its relationship with the law, and may be of use to those researching group level relations. To begin, I revisit the passage of SMCRA in 1977, which had significant and unseen consequences for the land and people of Appalachia.

**SMCRA and Abeyance?**

With the dawning of the 1970s, it became clear that strip mining needed increased regulation and more uniform standards. As Chapter 2 outlines, debates over the specifics of intervention, most basically whether strip mining should be prohibited or regulated, burned hot. Not surprisingly, those directly affected by strip mining and regional grassroots groups overwhelmingly supported a ban. Although abolitionists had been but three votes from overriding Ford’s second veto in 1975, the Big Greens prescribed a “realistic” approach to the issue, focusing on strengthening a regulatory bill rather than an outright ban. Montrie (2003, 156) contends that these groups ill-served local activists, “convinc[ing] many strip mining opponents with deeper roots in Appalachia to lend their influence and resources to passage of regulatory legislation rather than an abolition bill.” Most grassroots activists adamantly opposed this
intervention and, ironically, fought to prevent federal regulation as forcefully as coal proponents.

In the end, the “watered down” legislation passed, creating a divide between grassroots groups and Big Greens that lingers. A recounting of the history of SMCRA by a current activist makes this wariness clear:

Most of the grassroots groups were abolitionist groups. And then the Big Ten stepped in and screwed everybody over. And, in fact, even to this day, that was a problem when we first started organizing, as a lot of the local community groups did not trust the large environmental groups at all, for good reason. They got shafted, because a lot of the large groups, they want the quick funding things, what they can write to their funders and to their membership and say, 'Look, we've got something now. Look at us; give us more money.' Where the grassroots groups that started it all, they were abolitionists. And they all felt shafted, and to this day still do, many of them.

In addition to creating a divide between national and grassroots groups, SMCRA also marks a defining moment in the history of strip mining because it legitimated strip mining and, for all intents and purposes, made abolition impossible. At this time, many strip mining activists waited to see how the law would be implemented, while others, bitter over the perceived duplicity involved in the bill’s passage left the movement altogether. Indeed, Chad Montrie (2003) concludes his history of the mid-century movement with the passage of SMCRA, contending that this point marks the demise of the once vigorous movement.

Verta Taylor’s work on abeyance is useful to try to understand the impact of SMCRA on the anti-stripping movement. Taylor (1989, 761) defines the concept as “a holding process by which movements sustain themselves in nonreceptive political environments and provide continuity from one stage of mobilization to another.” Her research counters the widely held belief that the American women’s movement died following the success of the suffrage movement in the 1920s only to be reborn in the
Taylor demonstrates that a small group of women remained active and “faithful to the political vision that had originally drawn them into the suffrage movement nearly a half century earlier” (1989, 761-2).

The first key finding of this research suggests that the passage of the law had serious consequences for the movement and that it did enter a period of abeyance. This is suggested by the fact that this media analysis yielded zero co-mentions of groups between the years 1980-89. That not even one newspaper article mentioned more than one group in a decade certainly seems to imply that the movement had dramatically decreased its activity, or at the very least collaborative activity. The following decades, however, would see an increase in strip mining, particularly MTR, and a concomitant increase in grassroots resistance. Beginning slowly in the early 1990s and growing larger and denser through time, a network of resistance would form that defiantly ended the abeyance period of the 1980s.

**Media Network Evolution**

Following this period of abeyance, the network begins to take shape in the period 1990-94 with a single tie between two well-established Appalachian organizations, KFTC and SOCM. We see two other groups, Ohio Valley Environmental Coalition (OVEC) and West Virginia Highlands Conservancy (WVHC), mentioned in articles at this time, but not co-mentioned with other groups. I visualize this by showing them as “isolates” in the upper left corner of the diagram (Figure 5-1).

With roots in the coal-dependent region of eastern Kentucky, KFTC formed in 1981 as the Kentucky Fair Tax Coalition with the goals of ending the abuses of broad-form deeds and forcing coal and land companies to pay tax rates closer to those paid by citizens. At the time, these companies owned large portions of many counties but paid
very low tax rates, resulting in communities with little ability to provide vital services. Formed in 1972, SOCM also arose in opposition to the disproportionately low taxes paid by coal companies, as well as the significant ecological impacts of unregulated strip mining in northeastern Tennessee.

Between 1994 and 1999 we see the true beginnings of an Appalachian-based network as three organizations, WVHC, OVEC, and Coal River Mountain Watch (CRMW) form a triad with KFTC tied just to OVEC (Figure 5-2). In addition, the connection between OVEC and WVHC is strong, symbolized by the thicker line between the two, meaning they were co-mentioned in multiple articles.\(^1\) It is not surprising that OVEC and WVHC are nodes in this first true network as they are among the “early risers” in this movement; WHVC is one of the oldest environmental organizations in the region forming in 1965 while OVEC formed in 1987. This specific time period marks a shift of focus for OVEC, from a broad range of environmental issues facing the region to primarily coal-related issues. Their website notes this shift: “We’ve been at the forefront of this battle since 1997…Through organizing, media outreach and legal challenges we have drastically slowed the spread of mountaintop removal in West Virginia.”

CRMW, on the other hand, had just formed in 1998, meaning it quickly gained media attention and became associated with these older groups. This no doubt due to

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\(^1\) Those unfamiliar with social networks are sometimes confused by network visualizations. It is worth keeping in mind that these visualizations could have emerged in different ways. For example, the organizations could have remained disconnected, or they could have formed separate subgroups that tended to be mentioned together. A different set of organizations may have dominated and that may have involved a different number of players. The story these figures tell is in contrast to these other possibilities.
CRMW’s impassioned efforts to have Marsh Fork Elementary School and its 240 students relocated from below a 2.8 billion gallon coal slurry impoundment. The area had recently seen an expansion of MTR sites and the concomitant explosions made the moving of the school increasingly critical, as every day heightened the risk of a catastrophe slurry flood. The danger to children and the heartfelt tactics of CRMW leaders like Judy Bonds, Bo Webb and Ed Wiley brought much attention to the issue and eventually resulted in the construction of a new school out of harms way.

That the analysis finds well-established, state-wide, multi-issue organizations with large memberships like SOCM, KFTC, and WVHC during the period 1990-99 supports the main assumptions of resource mobilization scholars. CRMW is the sole actor without these characteristics, being new, minimally funded, and focused on a very specific area of southern West Virginia. It is the charismatic leadership of CRMW and also OVEC, that is likely responsible for their central roles. Indeed, Maria Gunnoe and Judy Bonds have filled leadership roles with both groups, and both have won the Goldman Environmental Prize, “the world’s largest prize honoring grassroots environmentalists.” Lifelong residents of the coalfields of West Virginia, Gunnoe and Bonds had never been politically active before being personally affected by MTR. Bonds became the most well known opponent of MTR in the nation, even referred to as “the godmother” of the anti-MTR movement known for her impassioned speeches before her death from cancer in 2011. The importance of charismatic leaders becomes especially clear in a media analysis, where reporters hunting for stories and quotes would often find Gunnoe and Bonds at the center of the bitter battles over MTR in overwhelmingly pro-coal areas. Both endured intense harassment, threats, property damage and even
physical assault. Indeed, leadership is a resource that can scarcely be underestimated, and one of the strongest components of resource mobilization theory.

The dawn of a new millennium sees a slightly expanding network as groups already present in the network, CRMW, KFTC, OVEC, AND WVHC compose a clique (technically a maximally complete sub-graph), with especially strong ties among CRMW, OVEC and WVHC, while SOCM is only tied to OVEC (Figure 5-3). We also see the formation of another group, Keepers of the Mountain (KM), although it is not tied to any other group at this time. KM became the organizational outlet for the activism of Larry Gibson who, after decades away from southern West Virginia, returned home to find his family homestead an island in a massive strip mining complex. Gibson reestablished himself on Kayford Mountain and quickly established himself as an important figure in the movement by providing the rare place to view ongoing MTR operations in addition to his fiery leadership.

Beginning in 2005 we see a dramatic expansion of the network from five to eleven groups (Figure 5-4). Following Jeremy Davidson’s death many groups formed while many existing groups saw the need to more closely collaborate. Mountain Justice Summer and the introduction of Mountain Justice (MJ) as a new organization are critical developments in the anti-MTR media network. MJ quickly assumes a central position within the network, tied to seven other groups. Moreover, the introduction of MJ marks the first “radical” organization, one that explicitly emphasized direct action and civil disobedience, to be included in the analysis. CRMW, OVEC, and WVHC maintain their close ties while SOCM maintains its peripheral nature. This is likely due to the broadening of SOCM’s mission and its de-emphasis of MTR, evidenced by their
rebranding from Save our Cumberland Mountains to Statewide Organizing for Community eMpowerment, in 2008.

Several organizations appear for the first time in the network, including the mountain arts and education-focused Aurora Lights (AL), Christians for the Mountains (CM), two organizations focusing on Virginia, Southern Appalachian Mountain Stewards (SAMS) and Wise Energy for Virginia Coalition (WEVC), and another direct action focused group, United Mountain Defense (UMD). Three other groups are formed at this time but remain isolated, including another Christian group, Lindquist Environmental Appalachian Fellowship (LEAF) and two groups created around specific events, Appalachia Rising (AR) and its large protest event in Washington D.C., and Friends of Blair Mountain (FB), a group with the mission to save Blair Mountain and its labor history from strip mining.

The final diagram consisting of the years 2010-11, reveals a similar network structure, with MJ taking a less central position, but CRMW, OVEC and WVHC still maintaining their strong ties (Figure 5-5). As this display of these diagrams concludes, we now turn to measuring these networks, which underscores the increasing vibrancy and density of the network since 1990.

**Network Measures**

Keeping in mind that there are several ways this network might have evolved, the end result as of 2010-11 appears to be a core-periphery structure, where a mostly connected core is surrounded by loosely connected alters, an ideal structure for diffusing information but not for stimulating innovation because information tends to be controlled (Borgatti and Everett 1999). As measured by the core-periphery procedure in Ucinet, the correlation between the permuted (best-fitting) core and the ideal structure
where core members are tied and peripheral members is .836. This suggests that the organizational membership has evolved to a set of interacting groups, with nine of the fifteen groups in the core and OVEC the most central member. This is not surprising, for OVEC is one of the older groups active in the region, is centered in the state with the most MTR (West Virginia), has greater resources than most other groups, and engages in numerous tactics to end strip mining. *Degree centralization*, is a related measure, capturing the extent to which one or a few key players dominate the network. Degree centralization of 1.0 would look like a star with one organization connected to all other organizations, and none of the rest connected to each other. Like density, we see degree centralization increasing over time with a dramatic increase during the 2005-09 period, before a slight dip in 2010-11 (Table 1). This indicates that there was the potential for the network to become more centralized following the 2005-09 period, but it did not.

Another way to assess the network is to measure its density over time. Density measures the percentage of ties that exist out of all ties that could exist. If density equals 1.0 then the network is completely connected, in this case meaning that every group has been mentioned in an article with every other group. Network measures reveal a network that has become increasingly dense over time following the 1980-89 period where density was 0 (Table 1). We see that across the five time periods collaboration increases greatly in the period 2005-2009 when so many groups become connected following Jeremy Davidson’s death, the ensuing protests, and the launch of Mountain Justice Summer. The density of final time period under examination, .4371,
indicates a relatively dense network where nearly half of all possible connections have been made.

Success, in the form of affecting legislation and public awareness, is often more attainable in highly connected and dense networks, which this network has become over the last thirty years. Some scholars, however, have found the opposite to be true. Chief among these is Granovetter and his renowned study (1973) which highlights the strength of weak ties found in diffuse networks. In this case it is still too early to assess the utility of particular network structures, as the state of coal mining in the region is currently in a state of high flux and appears to be teetering, but it is certain that abolishment has yet to be accomplished. Moreover, this analysis focuses only on the whole network of central Appalachian groups. Future research that takes a different tact, exploring the networks of individual groups for instance, will likely reveal much farther flung and diffuse networks. Several groups are currently working to strengthen their ties with groups fighting strip mining across the nation and the world, in addition to nesting themselves within the broader climate movement. Attempting a similar analysis in another region affected by coal extraction and then bridging this network with the network created here would likely prove enlightening, revealing the hidden evolution of this broader network.

**Conclusion**

The role of the media on public discourse and understandings is critical in our society, and this newspaper analysis unearthed a network of resistance to strip mining in Appalachia and its evolution. I analyzed over thirty years of newspaper articles in search of intergroup collaboration, and perhaps my most striking finding is that I found no collaboration in the first third of my time frame. This suggests to me that SMCRA
brought about a substantial period of abeyance in the movement following the bitter struggle for a strip mining ban. With the growing adoption of MTR in the mid-1990s, however, the number of actors playing a role in this network increased rapidly, resulting in a cohesive and dense network by the last time frame of the analysis.

Like all historical research that use newspapers as data, however, the method employed here has limitations. Most important of these is the simple fact that this analysis depends upon the interpretations of the journalists writing these articles. These journalists may not mention all relevant actors in their stories and contacts with specific organizations may tip the balance of coverage. Indeed, the Chapter 6 will show that one of the isolates in this analysis, Christians for the Mountains, actually has a central role in the current movement. Nevertheless, this method is a useful way of revealing network structure and capturing change over time, which is so difficult to do by other means. Indeed, this experimental approach has yielded much insight into the movement, reinforced the constitutive nature of law and social movements, and will likely be of use to others researching similar questions of group level social change.

This historical analysis has shed less light on the attributes and tactics of individual groups that bring them together and account for their network positions. Chapter 6 broaches these topics in the current movement, and furthers the discussion on law and social movements by exploring the role litigation plays in structuring this social movement. Working within the legal system is but one tactic in the movement “toolbox”, however, and the connective tissue holding this network together is explored next.
Figure 5-1. Central Appalachia Anti-Strip Mining Network, 1990-94

Figure 5-2. Central Appalachia Anti-Strip Mining Network, 1994-99
Figure 5-3. Central Appalachia Anti-Strip Mining Network, 2000-04

Figure 5-4. Central Appalachia Anti-Strip Mining Network, 2005-09
Figure 5-5. Central Appalachia Anti-Strip Mining Network, 2010-11

Table 5-1. Density and Degree Centralization

<table>
<thead>
<tr>
<th>Period</th>
<th>Density</th>
<th>Degree Centralization (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-94</td>
<td>.0095</td>
<td>7.14</td>
</tr>
<tr>
<td>1995-99</td>
<td>.0381</td>
<td>20.33</td>
</tr>
<tr>
<td>2000-04</td>
<td>.0762</td>
<td>24.18</td>
</tr>
<tr>
<td>2005-09</td>
<td>.2286</td>
<td>39.56</td>
</tr>
<tr>
<td>2010-11</td>
<td>.4371</td>
<td>36.26</td>
</tr>
</tbody>
</table>
Chapter 5 outlined the evolution of the anti-strip mining movement in central Appalachia, particularly its expansion following the passage of the Clean Air Act Amendments of 1990 and the concomitant increase of MTR in the region. That analysis ended in 2011, however, and to bring this study up to date and more fully flesh out the movement it is imperative to gather the insights of current activists. Network surveys completed by group representatives help us better understand how currently active groups are networked and to identify the factors that stimulate collaboration. Chapter 6 expands on the central theme of Chapter 5, the importance of the law, by examining how the specific attributes of individual groups, including their legal tactics, influence their location within the network. By correlating network positions and group characteristics we gain some clarity regarding the murky mechanisms of collaboration.

While other studies have examined these mechanisms, very few have attempted to measure relationships using social network techniques. A key exception is Diani’s study of the Italian Green movement (1995; 2003a), which serves as a guiding light for Chapter 6. My findings offer mixed support for those of Diani. For instance, like Diani I found that groups with more resources tend to occupy central, influential positions within the network. Unlike Diani who saw conservative “mainstream” groups inhabiting these positions, however, I found more “radical” groups in these positions. Such divergences, I argue, are due in part to the differences in our samples, as my study focuses on an environmental justice struggle while Diani studied a much broader range of environmental groups. Another major difference is that Diani did not correlate group tactics with network position, which I do here. The results of this portion of the analysis
suggest that both resources and culture play important roles in intragroup collaboration, and that attempts at creating either/or dichotomies to explain alliances is not helpful. I suggest that tactical choices bridge these two camps, for available resources and ideology heavily influence tactical decisions, highlighting the complexity of this dimension of social movement dynamics.

To begin, I use the answers provided by group representatives to reveal the structure of the overall network. Next, I construct networks based on the tactical repertoires of these groups, and then measure the density of these networks to shed light on the degree to which these actions stimulate collaboration. Finally, group attributes are correlated with network position, specifically each group’s betweenness centrality score, to better understand how these characteristics influence the formation of the network.

**Overall Network Structure**

The first and most important network created in this analysis was the “overall” network, derived from compiling respondent rankings of the overall strength of their tie, or relationship, with other anti-strip mining groups on a 0 to 3 scale. The most quickly evident feature of this network is the absence of isolates, that is, every group studied was tied to at least one other group (Figure 6-1). This lack of isolates reflects the relatively dense nature of this network, and to generate a more precise measure of density we dichotomize respondent scores. This procedure converts the tie strength rankings provided by respondents (on a 0 to 3 scale) to the sheer absence or presence of a tie, either 0 or 1, respectively. This allows density to be calculated where a score of 1 represents a network where every possible tie exists (every group is tied to every other group) and where a score of 0 represents a network where none of the
possible ties exist. With this in mind, we find that the overall network is indeed dense, measuring 0.637, meaning roughly two thirds of all possible ties exist. This finding supports the findings of Chapter 5, where we saw the last time period, 2010-11, revealing an increasingly dense network.

After analyzing the density of the overall network, it is possible to determine how network density varies by specific type of collaboration, or stated differently, which type of tactical activity brought the most groups together in common cause. Here we examine five tactical variables that have played prominent roles in other environmental justice movements: 1) litigation, 2) lobbying, 3) direct action, 4) events (not likely to lead to arrest)¹, and 5) resource sharing. Taking the answers respondents provided on the survey regarding the likelihood of their group to engage in these activities with other groups, we find events resulting in the densest network (Table 6-1).

In other words, roughly 55% of all possible ties are present in the events network, meaning participation in such events is very likely to bring groups together. The network created by asking respondents their propensity to share resources with other groups ranked second (0.383), followed by joint participation in lobbying (0.3) and in direct action (0.287). Joint participation in litigation tallied the least dense network of all those measured (0.196). These findings suggest that groups are more likely to join together for low risk and/or cost activities, evidenced by network density nearly inversely related to risks and costs. Clearly, engagement in non-arrestable events is a low risk, low cost way of participating in a movement, as are sharing resources and lobbying. Direct

¹ This is in contradistinction to direct action, which is assumed to have a significantly higher chance of arrest. These distinctions are discussed more fully in the next section. Examples of such events would be rallies and state sanctioned marches.
action and litigation, on the other hand, have much higher risks and/or costs, and consequently have less dense networks and fewer participating groups. The value of these two more involved tactics, however, are clear and have had most significant impacts in fomenting social change (McAdam 1984; Whittier 1995). This suggests that more alliance building in these dimensions within the anti-strip mining movement may be in order.

To assess the significance of these results, I used analysis of variance (ANOVA) techniques to measure the relationships among these independent variables (tactics) and the dependent variable, overall network. This method reveals that four of the five variables examined, joint participation in events, lobbying, resource sharing, and direct action, were associated with variance in the dependent variable (Table 6-2). Stated differently, participation in tactical activities clearly influences the structure of the overall network.

Engagement in events unlikely to lead to arrest yielded the largest and most statistically significant outcome, followed by lobbying, resources, and direct action. Somewhat surprisingly, litigation did not have a statistically significant impact on the structure of the overall network with this measure. Although litigation is an important tool for the movement, this outcome is likely due to the relatively small amount of groups that engage in litigation and the corresponding reduced influence on the overall network.

This analysis tells us much about the propensity of specific tactics to bring groups together in this resistance network. To better understand how this plays out at the group, rather than network level, we must employ a finer grained analysis. One way
to do this is to look closely at the positions occupied by individual groups in the network and correlate their network position with their characteristics. Many interesting findings emerge when this method is undertaken.

**Group Level Betweenness Centrality**

The analysis above reveals that the overall anti-strip mining network is relatively dense, with two thirds of possible ties present and no groups isolated. Moreover, we now have identified some of the major factors responsible for collaboration and the varying degrees to which these tactics bring groups together. We do not know, however, the roles individual groups play in structuring these networks and how the positions they occupy vary with their attributes. Taking the next step and measuring positions of individual groups adds a finer grained perspective, helping us better understand the dynamics of collaboration and the relationship between the attributes of specific groups and their network position. Betweenness centrality, or the propensity of a node to serve as a bridge between two unconnected nodes, is used here as a proxy for influence within the movement.

To answer the question of who occupies the most central positions, I first measured the betweenness of the sixteen groups within the overall network. First, and most surprising, is that Christians for the Mountains (CM) has the highest betweenness score of all groups (Figure 6-2). Collective identity scholars have long contended that groups with specific (and perhaps narrow) ideologies are less likely to serve as bridge builders because they may alienate groups with differing viewpoints (Van Dyke 2003; Castells 1997). The presence of an overtly religious organization at the top of this ranking seems to counter this notion. The sheer geography of this resistance network may be responsible for this contrary outcome, for central Appalachia is a decidedly
religious place with a Christianity-imbued culture. Indeed, Christianity and the stewardship ethic heavily influence the anti-strip mining movement (Witt 2011), while the pragmatism of this movement (discussed more fully in Chapter 7) may also inhibit such ideology from impeding collaboration.

Following CM are SOCM and MJ. This is not surprising as SOCM has a long and influential role in seeking progressive change in central Appalachia, while MJ is something of an umbrella organization that serves as a hub of activity in the movement. What is surprising is that the well-established, large state-wide groups OVEC, KFTC, and WVHC are only moderately central and well behind newer and less well-funded organizations such as UMD and CRMW. This counters the accepted wisdom among resource mobilization scholars that substantial resources are necessary for influence (McCarthy and Zald 1977). Whether this finding is translatable to other movements is unclear, but this result provides at least some countervailing evidence and suggests that context matters when evaluating the role of resources play in collaboration. Indeed, a brief examination of this movement quickly reveals that some of the key contentions in the social movement literature regarding group dynamics cannot be neatly applied here. To further evaluate the role resources play in structuring movement networks and tease apart how context matters, I create several more models based on some of the factors analyzed by Diani (2003a).

**Radicals and conservatives**

In his study, Diani (2003a) found key differences in the network position of groups dependent upon their “radicalness”, with more “conservative” groups tending to occupy influential central locations and more “radical” groups inhabiting peripheral positions. Granted, radical and conservative are somewhat simplistic categories, but the essence
they capture is useful. I followed Diani and asked respondents if they considered their group radical, without defining the term. As such, this is a strictly interpretive measure, one dependent upon the way respondents understand the term. Indeed, one respondent contended that I would be better served to ask whether groups sought transformation, rather than if they considered themselves radical. She relays her thought in an email:

One thing I thought about after we parted was why I consider OVEC to be "radical." We dare to stand up to the industry; we also work at the roots of problems. The word radical means going to the root--and that's a lot of what OVEC is about. By working to help citizens reclaim their power, we are going to the root of the problem of more than a century of domination by the coal industry. We are working towards changing mindsets like "nothing is ever going to change." And the more that I think about it, I wish you had another category--that would be to classify us as an organization of transformation. That is certainly where what we want to be. People in West Virginia really have all they need to have good lives, but they have become too accustomed to looking for a knight on a white horse (not having faith in their own ability) to swoop in and save them.

This articulate argument notwithstanding, I used the term radical on the network survey and ten of the sixteen groups deemed themselves radical, with one group even using the term in their name: Radical Action for Mountain Peoples Survival (RAMPS). This preponderance was somewhat surprising, as some multi-issue statewide groups such as SOCM and OVEC deemed themselves radical, while the religious-based CM did so as well (Figure 6-3). Counter to Diani's contention, self-described radical groups are more likely to occupy key brokering positions and have higher between centrality scores than conservative groups in this network. Indeed, aside from KFTC and SAMS, conservative groups are peripheral here. A possible reason for this outcome is that Diani's study focused on the Italian environmental movement broadly. This study focuses on just one facet of the U.S. environmental movement strictly.
closely linked to the quest for environmental justice rather than more mainstream environmental concerns. As such, and given the EJ movement’s grounding in the civil rights movement and social justice, it is likely that “radicalness” is more common and desirable among those trying to stop strip mining than within the broader movement, which contains decidedly conservative elements such as the Audubon Society or Ducks Unlimited. These findings also suggest that future research in this vein may need clearer differentiation between environmentalism and environmental justice and may benefit from including a radicalness scale. Nevertheless, the main finding here suggests that context matters and provides some counter evidence to the dominance of mainstream organizations. A main feature of these organizations tends to be an inclusion of several issues on their agenda, to which we now turn.

**Issue focus**

Diani (2003a) also found groups that focused on multiple environmental issues tended to be more highly central than those focusing on just one issue. Diani explained that broadly focused groups have the ability to garner funds from a wider array of sources and had a wider universe of members from which to draw. Moreover, groups that focus on more than one issue are less likely to have arisen to resist some localized threat.

Following Diani’s approach, I asked representatives whether ending strip mining was the primary focus of their group or whether they addressed an array of issues. Eight representatives responded that strip mining was the primary or sole issue they tackled, while eight others characterized their groups as involved in multiple issues. Organizations such as SOCM and KFTC fall into this latter category, with their work spanning entire states and ranging from health care to education to jobs to the
environment. Others focus exclusively on environmental issues, but a wide array of environmental issues. For example, Heartwood’s (HW) primary mission is to protect forests, but strip mining falls into their purview because they deem MTR the “final clear-cut.” Again we see much evidence not supporting Diani’s finding that multi-issue organizations are more central, as more strip mining-focused groups are highly central in this network (Figure 6-4).

Indeed, we see five strip mining-focused groups either highly or moderately central, with just two multi-issue groups occupying similar positions. These findings suggest that groups dedicating their time and energy to strip mining hold more influence within the movement. This is intuitive, as these dedicated groups should, for all intents and purposes, wield great influence. What is unclear is how much influence the groups in this study would wield in the broader environmental movement or the environmental justice movement writ large. Again, we see that context matters, and Diani’s contentions regarding resources may be more applicable on a different scale. One additional model is created to shed light on the influence of context, and it is explored below.

**Organizational age and membership**

Diani (2003a) contended that the number of years an organization had existed and the number of members it claimed served as useful proxies for resource level. Moreover, he argued that as these numbers increased, so too did alliances with other groups and influence:

Alliance building depends on factors such as relatively consolidated organizational structure, the spread of information about the organization and its perception by prospective allies as a relevant political actor, its public visibility. This cannot be achieved overnight (Diani 2003a, 108).
On the network surveys, participants provided information regarding the age and the number of members in their group. Analysis of these data proved them to be correlated to such a degree as to make separate analyses redundant, so they are reported as one measure here: resources. Again, the findings here offer only mixed support for Diani’s conclusions (Figure 6-5). For instance, we see that very well established organizations with large memberships such as SOCM and HW are highly central, while equally established and member rich organizations such as KFTC and WVHC are not. Moreover, new groups with a limited number of members such as CM and UMD are in positions that confound Diani’s findings.

The above three models offer little support for Diani’s conclusions but I do not aim to contest the usefulness of his findings in any way. There are good reasons for these divergences. Most important of these is the very different contexts we explored, as we examined different nations and different network scales. As other scholars begin to employ these techniques to similar questions and grow this body of literature, comparative studies will help identify the context specific factors that influence network structures. Even less research has applied these methods to the role tactics play in forging social movement alliances, and I begin this work below.

**Tactics and the Law**

Despite the growing body of research that makes the constitutive relationship between law and social movements clear, the literature exploring this relationship is far from complete (Edelman et al. 2010). A particularly glaring gap is how the choice of specific legal tactics affects the relationships between social movement organizations. In the remainder of Chapter 6 I attempt to shed light on how group interaction with the
legal system, whether through lawsuits, convincing lawmakers to create or repeal laws, or engaging in extralegal actions, influence the structure of this network of resistance.

**Litigation**

Litigation has garnered the environmental movement many legal victories and is responsible for much of the existing environmental protection framework. Many monumental legal victories occurred during the Nixon Administration in the early 1970s, including landmarks such as the Clean Air Act, the Clean Water Act, the National Environmental Policy Act and the Endangered Species Act. More recently, the EJ movement has found litigation a useful tool in numerous cases claiming disproportionate environmental burden, culminating in President Clinton’s landmark decree, “Executive Order on Federal Actions to Address *Environmental Justice* in Minority Populations and Low-Income Populations”, on February 11, 1994.

The anti-strip mining movement has found mixed results in their use of litigation. Many lawsuits have created stricter environmental standards for the industry and made the permitting process more transparent. Like in the landmark *Bragg v. Robertson* case, however, higher courts have often reversed or gutted many of these victories on appeal. Indeed, if Judge Haden’s ruling had stood that the filling of valleys could not be done in compliance with the Clean Water Act, MTR would not be legally possible today.

Litigation has proven more promising during the Obama presidency, as the EPA has made the permitting process for MTR and valley fills increasingly stringent. On April 1, 2010 the head of the EPA, Lisa Jackson stated: “You are talking about either no or very few valley fills that are going to be able to meet [new] standards like this. What the science is telling us is that it would be untrue to say you can have any more than minimal valley fill and not see irreversible damage to stream health” (EPA 2010). In
response, the National Mining Association filed suit to block the administration’s new guidelines, which in turn resulted in the most inclusive counter lawsuit ever filed by anti-strip mining groups, including OVEC, WVHC, KFTC, SAMS, SOCM and the Sierra Club.

In the survey conducted for this Chapter, respondents ranked the likelihood of their group engaging in lawsuits. I then linked these measures with their overall betweenness centrality score. In the diagram below, the gray scale symbolizes a group’s tendency to engage in litigation, with black representing the highest potential and white representing a group that never engages in litigation (Figure 6-6). The most striking result, which we will see echoed in responses to the other tactics examined, is that the vast majority of groups engage in this tactic to some degree. Of the sixteen organizations studied, eight reported a high likelihood to engage in litigation, five reported a moderate likelihood and only three reported that their group never partook in lawsuits. MJ is the only highly central organization in this network that does not focus on litigation to some degree. The other groups that do not engage in lawsuits, RAMPS and SW are peripheral actors.

Because thirteen of the sixteen groups engage in this tactic it is difficult to identify how group attributes are linked to network position. It is helpful to create a litigation network to shed more light on network dynamics (Figure 6-7), while Table 5 provides information on the key brokers in the litigation network. When we remove all ties between groups in this network that are less strong and keep only the groups strongly tied to others in joint participation in lawsuits, we can more clearly see the network’s dominant actors (Figure 6-8).

This winnowing down of information now begins to hold more value, as many of the smaller organizations present in the previous network fall out when these strength of
criteria are included. Figure 6-8 makes clear the significant roles played by larger, statewide organizations with significant resources (OVEC, SOCM, KFTC, WVHC).

These groups wield significant sway in this litigation network, creating a core structure and revealing smaller groups such as RRNEW and SAMS to be peripheral. By breaking the overall network into individual tactical networks and then only retaining the most strongly tied allies, we find more support for Diani’s (2003a) argument regarding the importance of resources. Indeed, we will see that many of the groups in this litigation network also engage heavily in the related realm of lobbying, discussed next.

Lobbying

One of the primary ways environmental social movements seek change is to lobby lawmakers to sponsor, support or oppose certain bills. Like litigation, lobbying has had a decidedly mixed history within the anti-strip mining movement. Again the case of SMCRA is instructive, as the intense lobbying efforts by some Big Green groups, especially the Environmental Policy Center (EPC), pushed the passage of the first federal legislation regulating surface mining. Those seeking abolition, however, felt EPC and other professional lobbying bodies drowned out their more strident demands.

Congressman Ken Hechler of West Virginia, the most passionate anti-strip mining voice in Congress, made his disappointment with EPC and those he believed over-conciliatory to the coal industry clear in a letter addressed to the friends of the Coalition Against Strip Mining in 1976:

Much of my time last year was spent fighting with EPC insisting that my timetable for abolition was “unrealistic”… For once, let’s show the people we represent that we demand the right solution. Don’t let anybody sell you any more lowest common denominators. Keep the pressure on both your congressmen and your lobbying representatives at EPC and Sierra Club, and try to stiffen their backbones a little. Personally, I’m not going to rest
until some environmental lobbyists start telling me I have to strengthen my own position (Hechler Archives, Marshall University, Box 10).

Many in the current movement view Hechler as an inspiration and have followed his lead, demanding much of their lawmakers despite the continued sway of the coal industry. Very recently, a coalition of activists and politicians have reoriented their approach by reframing the issue as one of environmental injustice, emphasizing the human health consequences of strip mining on an exploited people rather than on its ecological or economic impacts. Led by renowned activists such as Maria Gunnoe, Allen Johnson, and Bo Webb, the Appalachian Community Health Emergency Act (ACHE Act, H.R. 526) was sponsored by House Representative John Yarmuth (D-KY).² Yarmuth and colleagues employed a central tenet of environmental justice, the precautionary principle, declaring in a press release: “Mountaintop removal coal mining destroys entire ecosystems and contaminates the water supplies in mining communities, making people sick and jeopardizing their safety.” He goes on, “This legislation will provide families in these communities the answers they need and the protection they deserve. If it can’t be proven that mountaintop removal mining is safe, we shouldn’t allow it to continue³ (emphasis in original). ACHE Act cosponsor Rep. Louise Slaughter, echoed the sentiment, contending:


Every American has a right to live and work in a community free from environmental health risks, and it is our duty to ensure that this right is not infringed upon by industries that consider community health and environmental protection to be less important than their profit margins. There is mounting evidence that people living in communities near mountaintop removal coal mining sites are at an elevated risk for a range of major health problems, and until we can ensure there is no link between the mines and these risks, we should place a moratorium on further mountaintop coal removal activity (ibid).

Maria Gunnoe was more blunt: “Cancer here is as common as the cold. The fact is this is not about who is winning; it is about who is dying from the violent impacts of MTR.”

Given the immense influence of the coal lobby, however, it is not surprising that this call for a moratorium on strip mining failed to gain passage in the House. Nevertheless, the ACHE campaign served to bring activists and organizations together in common cause, while the EJ frame appears to be the new tact lawmakers are using to gain traction in Congress.

In the survey conducted for this Chapter, respondents ranked the likelihood of their group engaging in lobbying. I then linked these measures with their overall betweenness centrality score. In the diagram below, the gray scale symbolizes a group’s tendency to engage in lobbying, with black representing the highest potential and white representing a group that never engages in lobbying (Figure 6-9). When we attempt to examine the role of lobbying in this network we begin to see very similar results to those found in the litigation network. First, we find nine of the sixteen groups highly engaged in lobbying, three moderately involved, and only three that do not engage in any lobbying. Again, high number of groups participating is surprising, while it

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4 Available at Christians for the Mountains webpage: http://www.christiansforthemoountains.org/site/Topics/I...
also makes it difficult to correlate group attributes with lobbying and network structure. One interesting finding is that three highly central actors, SOCM, HW, and CM are heavily engaged in lobbying, while two other highly central actors, MJ and UMD do not. This seems to suggest that propensity to lobby has little influence on overall position within the network.

When we take the next step and construct a litigation network, however, some other significant relationships emerge. Below, Figure 6-10 reveals how this lobbying network is structured, while Table 6 provides information on the key brokers in the network.

Like in the litigation network, we see SOCM again the most central organization in lobbying network. This is not surprising as this statewide group heavily engages in litigation and actively partners with others in sponsoring legislation. Not surprisingly, we see them followed by SAMS, OVEC, and WVHC, other organizations with a strong focus on lobbying. Moreover, these groups (to a lesser extent SAMS) are the same large, well-established, multi issue groups that Diani (2003a) predicted to be the most central players in environmental movements. Perhaps the only surprise in this model is that KFTC, with its well-established lobbying record dating back to its original mission to force the coal industry to pay its fair share of taxes in Kentucky, is not more central.

When we remove all ties between groups that are less strong, SOCM’s influence is even clearer, while we can better understand the character of the lobbying network (Figure 6-11).

Unlike in the litigation network, when weaker ties are dropped we do not see many actors falling out. This suggests that groups that engage in lobbying do so heartily,
establishing strong ties with other groups. In this light, lobbying reveals itself to be an important tactic for forging alliances within the movement. Like the litigation network, we see a core/periphery structure, with the core composed of resource wealthy groups and the periphery made up of newer, less well-funded groups. Again, it appears a minimal level of resources is necessary to engage in these two legal tactics, or to at least play an influential role in these networks. To engage in direct action requires little in the way of financial resources, and assessing the influence of this tactic concludes this analysis.

**Direct action**

Litigation and lobbying are important facets in the tactical repertoire of this social movement, but many activists believe these pathways are dominated by industry and working within institutionalized channels is pointless. Ricki Draper, an activist arrested with four others on May 24, 2012 for locking herself to a coal barge on the Kanawha River, sums this perspective:

> I have broken the law because the legal system is broken. I have broken the law because mountaintop removal is destroying our health, our mountains, and our futures. I have broken the law because the destruction of our landbase, which is our endowment, is illegal (http://action.mountainjustice.org/).

An activist interviewed for this research supports this contention, cogently arguing the necessity of direct action:

> It’s easy to criticize radical groups and they tend to be this lightning rod across all movements where the most radical element is easy to criticize, easy to point a finger at, and say ‘what you’re doing is unacceptable. It is counter-productive or breaking windows, putting folks up in trees is stupid or it’s ineffective’ or whatever. And I think that that discounts a legitimate historical analysis that radical groups have consistently pushed the envelope out and made space for mainstream groups.

The histories of other movements support this contention. The struggle for civil rights is a prime example, wherein Martin Luther King, Jr. and his followers became increasingly
palatable to politicians and the public as more militant actors increased in prominence and power. Such shifts due to direct action are also found in the environmental movement, where the efforts of Earth First!, Earth Liberation Front, and Sea Shepherd have made less volatile groups more welcome at the negotiating table. Similarly, the Lesbian Avengers and other radical feminist groups used confrontational tactics to push lesbian issues to the fore of the national consciousness, helping create the climate for the legislative change we see today.

In the anti-strip mining movement, local grassroots groups have engaged in direct action to stop mining operations for more than half of a century. Rural women and the elderly, atypical radicals, blocked bulldozers with their bodies and sometimes wielded rifles to stop the destruction of the land (Bingman 1993; Montrie 2003). The 21st century version of direct action looks somewhat different, however, often performed by those from outside the region with corporations and regulatory agencies their typical targets. Activists have hung banners from draglines, sat in trees, chained themselves to DEP doors, and occupied Arch Coal’s lobby in St. Louis, but perhaps the most controversial action took place on July 28, 2012 when about fifty protestors walked on to the active Hobet Mine in southern West Virginia. The action organized by RAMPS resulted in violent confrontations with counter protestors, alleged police brutality and twenty arrests, while those arrested faced the exorbitant amount of $25,000 property bail for their trespassing charges. Regardless of the method, the pushing of the envelope is similarly accomplished, and Janet Keating describes how the actions of more radical groups have affected OVEC, the organization of which she is the executive director:

I’ve always believed that change really comes from the edge and from the margin and so you need allies like that. There’s room for everybody in the
work because that extreme helps bring us—it makes OVEC look really reasonable. Starting out we were the radical ones. We would be the ones disrupting coal meetings and this and that and holding little protests and wearing various costumes when Coal was having their events. We were the radicals and we’ve become much more, considered anyway, much more mainstream, much more mainstream [by comparison].

Tax status is a key determinant of whether a group chooses to engage in direct action, as entities filing as tax-exempt 501c3s are not permitted to engage in civil disobedience or overtly political acts. This distinction can have important ramifications as the director of a large group notes:

The real issue about...civil disobedience is agreeing to break the law and you don’t want your organization to have charges of conspiracy filed against you and that could happen. If you’re really being effective, that could happen.

Indeed, those supporting the coal industry often make certain that organizations with 501c3 status do not engage in actions that may run afoul of the tax code, while the personal finances of well known activists are also scrutinized. As such, an organization’s formal stance on direct action and civil disobedience often differs from that held by the individuals that compose the group. Many activists circumvent these tax status complications by engaging in “hat wearing”, whereby they remove their “group member hat” and put on their non-affiliated “concerned citizen hat”, and proceed to engage in potentially extralegal activities. As such, defining the propensity of a group to engage in direct action is problematic, or at least complex, as groups and members may hold different understandings of the boundary between personal involvement in direct action and group position.

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5 This was made clear to me at the 2012 Mountain Justice Fall Camp in Rock Creek, WV when coal industry supporters arrived after dark with bullhorns and roofing tacks (to flatten activists tires). Activists who received pay from local organizations but were supposedly “on the dole” were called out and berated.
In the survey conducted for this Chapter, respondents ranked the likelihood of their
group engaging in direct action. I then linked these measures with their overall
betweenness centrality score. In the diagram below, the gray scale symbolizes a
group’s tendency to engage in direct action, with black representing the highest
potential and white representing a group that never engages in direct action (Figure 6-
12). Like the litigation and lobbying analyses, the most surprising finding here is simply
the large number of participants, with only three of the sixteen groups surveyed
reporting that they never engaged in direct action. We only see one highly central
group, SOCM, not engaging in direct action to some degree. Groups with 501c3 status
classify their groups as very likely or somewhat likely to engage in direct action and
underscore the hat-wearing phenomenon whereby group members do not limit their
personal actions because of group tax status. This is likely a function of the anti-strip
mining movement’s EJ focus and non-hierarchical nature, where seeking change
through non-institutionalized channels is encouraged and reflects the long legacy of
direct action in the fight to end strip mining.

Again, it is somewhat difficult to isolate impactful group characteristics because of
the preponderance of participants. When we examine the direct action network more
closely, however, a strong core of groups emerge (Figure 6-13), while betweenness
centrality scores highlight the influence of specific groups (Table 6-5).

These measures are somewhat surprising, as some of the more openly radical
groups such as RAMPS, MJ and CRMW are not highly central in this analysis, while
KFTC is the most central. Perhaps these findings are not necessarily anomalous, for the
representative for KFTC did relate to me that she was the first person arrested in a
recent March on Washington. When we remove all ties between groups that are less strong, however, the importance of these measures becomes secondary as the character of the direct action network is clearer (Figure 6-14).

Unpacking the direct action network in this way is revealing, as we now see the more radical groups, MJ, RAMPS, and CRMW making up a clique. This may suggest that these groups work together on the activities that more closely meet the definition of “direct action.” Moreover, we see MJ tied to five other groups, underscoring its role in bringing many groups together and its lead role in the training of activists in direct action techniques. Finally, unlike the litigation and lobbying networks, here we see resources less critical in structuring the network, as newer and more radical groups are prominent.

**Conclusion**

The analysis presented in this Chapter tells us much about the current state of the movement and the multiplicity of factors that forge connections among groups. We find a relatively dense overall network of resistance, with roughly two thirds of potential ties between organizations present. When specific aspects of collaboration are measured, we see an inverse relationship between the level of collaboration and costs and risks. Not surprisingly, less risky actions such as sharing resources and participating in non-arrestable events bring more groups together, while activities with higher risks and/or costs such as litigation and direct action result in less dense networks.

At the group level we find mixed support for the conclusions Diani reached in his seminal study of the Italian environmental movement. Like that movement, large, well-established, multi-issue groups (Diani’s proxies for resource wealth) tend to occupy highly central positions in most of the networks studied here. Nevertheless, key exceptions exist; chief among these is that “radical” groups tend to be highly central in
the anti-strip mining movement, whereas Diani found radical groups to be more peripheral. This divergence may be due to the fact that Diani’s study focused on the environmental movement broadly, while this study focused on a specific cause heavily influenced by the more radically informed ideals of environmental justice.

Indeed, the central Appalachia movement is non-hierarchical, grounded in an anti-oppression mindset, and tends toward skepticism of American corporatism. Such principles play out in the ways groups choose to engage the law, an important but understudied dynamic in network studies. The main finding from this portion of the analysis is that groups pull from a tactical “toolbox”, with the majority of groups claiming to engage in litigation, lobbying, and direct action.

Tactics catalyze collaboration in different ways and to differing degrees. Wealthier groups tend to dominate the litigation and lobbying networks, offering support for the importance of resources in collaboration, especially in tactics that require at least a minimal level of capital. In the direct action network, however, these groups play a less prominent role, while the importance of the activist training hub Mountain Justice is made clear by its influential position. In fact, one of the more interesting findings of this Chapter is that the vast majority of group representatives classified their organization as likely to engage in direct action, despite the 501c3 tax status of many of these same groups. This paradox is somewhat explained by the phenomenon of “hat-wearing”, whereby a distinction is made where engagement in extralegal acts is a prerogative of the concerned citizen, not a representative of said group.

These findings shed much light on this movement, but are somewhat limited because few groups engaged in just one of the legal dimensions under study. This fact
limits our ability to correlate specific group attributes and network position. For instance, only three of the groups studied did not engage in lobbying, making it difficult to assess the role group characteristics played in structuring the network. Such spillover from one tactic to another is a reality of social movements, but more precise survey instruments may help offset this limitation. Despite this limitation, the findings of this Chapter have added to the very small literature applying social network analysis to these relationships, offered mixed support for the conclusions of resource mobilization theorists, while highlighting the importance of context. In addition, we see that tactics play an important role in structuring social movement networks and are in need of further research. As such, this Chapter has shed much light on the factors that bring groups together. The factors that impede collaboration in this movement are still hazy and require more attention, however, and it is to these factors we now turn.
Figure 6-1. Overall Current Central Appalachian Anti-Strip Mining Network (Thicker lines=Stronger ties)
Figure 6-2. Betweenness Centrality in the Overall Network
Figure 6-3. Betweenness Centrality and Radicalness (Orange= Radical, Blue=Not Radical)
Figure 6-4. Betweenness Centrality and Issue Focus (Blue=Multiple Issues, Orange=Primary Issue)
Figure 6-5. Betweenness Centrality and Resources (Black=Higher level of Resources, Gray=Moderate Level of Resources, White=Low Level of Resources)
Figure 6-6. Relationship of Litigation and Overall Betweenness Centrality (Black=High Participation in Litigation, Gray=Some Participation in Litigation, White=No Participation in Litigation)
Figure 6-7. Litigation Network (Thicker line=stronger tie)
Figure 6-8. Litigation Network Tie Strength Greater Than Two
Figure 6-9. Relationship of Lobbying and Overall Betweenness Centrality (Black=Heavy Lobbying, Gray=Some Lobbying, White=No Lobbying)
Figure 6-10. Lobbying Network
Figure 6-11. Lobbying Network Tie Strength Greater Than Two
Figure 6-12. Relationship of Direct Action and Overall Betweenness Centrality
(Black=High Levels of Direct Action, Gray=Moderate Levels, White=None)
Figure 6-13. Direct Action Network
Table 6-1. Density of Tactical Networks

<table>
<thead>
<tr>
<th>Network</th>
<th>Density (dichotomized)</th>
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<tr>
<td>Events</td>
<td>0.550</td>
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<tr>
<td>Resource sharing</td>
<td>0.383</td>
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<tr>
<td>Lobbying</td>
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<td>Litigation</td>
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Table 6-2. Significance of Tactics on Overall Network Structure

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<tr>
<th>Independent Variable</th>
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<th>Significance</th>
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<tr>
<td>Events</td>
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<td>0.0004***</td>
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<tr>
<td>Lobbying</td>
<td>8.2371</td>
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<td>Resource sharing</td>
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<tr>
<td>Direct Action</td>
<td>3.2815</td>
<td>0.0408**</td>
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<tr>
<td>Litigation</td>
<td>3.7932</td>
<td>0.1210</td>
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Table 6-3. Betweenness Centrality in the Litigation Network

<table>
<thead>
<tr>
<th>Group Abbreviation</th>
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<tr>
<td>SOCM</td>
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<tr>
<td>WVHC</td>
<td>50.500</td>
</tr>
<tr>
<td>SAMS</td>
<td>14.500</td>
</tr>
<tr>
<td>RRNEW</td>
<td>13.500</td>
</tr>
<tr>
<td>OVEC</td>
<td>7.500</td>
</tr>
<tr>
<td>CRMW</td>
<td>5.500</td>
</tr>
<tr>
<td>FBM</td>
<td>4.500</td>
</tr>
<tr>
<td>KFTC</td>
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</tr>
<tr>
<td><strong>Litigation Network</strong></td>
<td><strong>Freeman Betweenness</strong></td>
</tr>
<tr>
<td><strong>Mean</strong></td>
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<td><strong>Standard Deviation</strong></td>
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Table 6-4. Betweenness Centrality in the Lobbying Network

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<td>LEAF</td>
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<td>CM</td>
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<td>KFTC</td>
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<td>HW</td>
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<td>FBM</td>
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<td><strong>Lobbying Network</strong></td>
<td><strong>Freeman Betweenness</strong></td>
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<td><strong>Mean</strong></td>
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<td><strong>Standard Deviation</strong></td>
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Table 6-5. Betweenness Centrality in the Direct Action Network

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<td>MJ</td>
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<td>HW</td>
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<td>CRMW</td>
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<tr>
<td>RRNEW</td>
<td>0.333</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Direct Action Network</th>
<th>Freeman Betweenness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5.50</td>
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<tr>
<td>Standard Deviation</td>
<td>6.470</td>
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CHAPTER 7
INTRAMOVEMENT DYNAMICS: COLLABORATION, CONFLICT AND COMPETITION

This dissertation has outlined the historical and current structure of the central Appalachian anti-strip mining network. Following a period of decreased activity after the passage of SMCRA, we see a movement that has grown dramatically since MTR became the primary mode of strip mining in the early 1990s. The tactics employed by these groups have played significant roles in forging alliances and structuring the network, while resources and diverse ideologies appear to have mixed and complex impacts on the movement. As such, we now better understand the history of the movement and the factors that stimulate collaboration and alliance building.

Using semi-structured interviews with movement participants, Chapter 7 sheds light on the internal dynamics of the movement, specifically the factors that inhibit collaboration. I entered this stage of research seeking to explore several themes derived from my experience as a participant observer and from the social movement literature, including the dynamics surrounding: insiders/outsiders, tactics, religion, Big Greens and race. Interviews quickly proved these issues salient, while I soon realized that intergenerational divides necessitated increased scrutiny. All of these factors proved important but often in contradictory ways and a key finding of this Chapter is that collaboration and conflict can grow from the same rootstock. For instance, a large number of movement participants are religious, drawing strength and purpose from their faith. Therefore, it is not surprising, that religion proved to be a unifying factor in some cases. At other times, however, the ideological differences between religious and nonreligious activists required nimbleness and sensitivity to avoid antagonizing those holding very different beliefs.
Indeed, conflict among activists, and therefore the groups they represent, is far from uncommon. This seems inevitable as the movement draws passionate and strong-willed individuals with distinct visions of how best to end strip mining. These frictions rarely preclude collaboration, however, and another key finding of this Chapter is that working for the “greater good” typically scuttles strife. This is especially important in the current climate where many funders erroneously deem the fight to end strip mining over. This dwindling pool of resources has not furthered competitive behaviors among the groups like resource mobilizations scholars typically contend, but rather has stimulated increased sharing and solidarity.

As to be expected, 2013 finds a movement where certain dimensions are healthier than others. For instance, activists uniformly agreed that the movement lacks the diversity other justice struggles have proven so important. Nevertheless, the anti-strip mining movement in central Appalachia appears strong and unified by its pragmatic approach, while increasing collaboration and expanding the network is widely acknowledged as a key to success. The balance of Chapter 7 uses the three lenses of collaboration, conflict and competition to explore some of the specific dynamics at play in this struggle.

**Collaboration**

Participants unanimously agreed that collaboration among groups is exceedingly valuable. Just why collaboration is important varied somewhat for those interviewed, but most felt that multiple perspectives and tactics strengthened the entire movement.
Marley Green\(^1\) who works with a wide range of groups highlights why diversity is necessary:

I think it’s definitely important because diversity is strength in natural ecology and social ecology. Diversity is strength...We need a lot of people to win and we’re not going to find all those people that share exactly the same approach and perspective and group affiliation. Especially in the mountains where we’ve got a lot of communities that are diverse and different from each other and not necessarily connected. To win we’re going to need a bunch of different kinds of groups.

Katey Lauer, coordinator of the Alliance for Appalachia, concurs, believing that collaboration motivates activists to connect distinct issues within a broader framework of environmental and social justice:

It [collaboration] does a really good job of combating isolation and sort of contextualizing the work in a bigger picture. It’s not just about this community, or this state, but it helps people make connection to the bigger picture. I think it’s energizing to get to see that so many people in the future that are working on these issues. I think it helps people make connection between issues, understand what’s happening in their community as part of a larger systemic context and not just that’s happening right where they are.

Moreover, large-scale change rarely happens without a critical mass of concerned citizens. Teri Blanton of KFTC emphasizes the power generated by large constituencies in the political arena:

We’re stronger in numbers and we are working on federal legislation and federal rules, so that it’s much better for us as a region to speak with one voice and to be on the same message. If we come together then we’re representing probably 40-50,000 people with all the different organizations together. We are a much more powerful voice when we go to Washington DC, whether to talk to the agencies or the legislative body or the administration.

One of the greatest advantages of forging alliances is the collaborative advantage produced from sharing resources, information and skills, thereby reducing the limitations

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\(^1\) All of the names that are included in this dissertation are those of actual participants with their permission. Some participants did not want their names linked to their comments, and rather than provide them aliases I have simply not identified them to best protect their confidentiality.
of individual groups (Lasker et al. 2001). Allen Johnson of Christians for the Mountains points out the collaborative advantage generated by dividing labor:

> A coalition has to get a message and come together on it, and work together. Once you can do that you've got more clout, more human power, more talent. You can give assignments out, and people can take responsibility for certain roles within their expertise. The overall weight toward public policy change is more significant.

Some interviewees, however, placed caveats on these partnerships, with the primary concern being intramovement paternalism due to differential resource levels:

> As far as different groups, for example, from the Sierra Club level, then the KFTC level, over to the smaller level or more radical level, I do think that collaboration is important. I do also believe, this is the big thing for me, it can't simply be a matter of radical elements having to compromise and then the larger, you know the Big Greens, the large nationwide organizations, [saying] 'well because of my sheer size, you have to compromise and I don't have to.'

Such power dynamics among groups can be problematic, with larger groups supplying resources to smaller groups with "strings attached", a dynamic further explored below. Cognizant of this danger, the Alliance for Appalachia brings together a diverse array of groups and attempts to give them all equal standing regardless of clout.

Organizations are, of course, composed of individuals, and activists generate collaboration by their sheer presence in multiple groups. For instance, Janet Keating is the executive director of OVEC and on the steering committee of Christians for the Mountains, Maria Gunnoe and Judy Bonds have both worked closely with OVEC and CRMW, while Larry Gibson partnered with virtually every anti-MTR organization before his death. Indeed, the anti-strip mining movement is similar to many other environmental justice struggles in that it is composed of a relatively small amount of very active participants. This creates a close-knit community of passionate crusaders but also a somewhat insular milieu where interpersonal conflicts can become magnified.
Conflict

Pellow's (2000) conceptualization of the *environmental inequality formation* argues that within every case of environmental inequality multiple stakeholders are present with competing goals and intentions. This is clear in the differing positions held by a polluting company and a contaminated community, for instance, but also applies to those ostensibly sharing the same “side” in a struggle. The debates surrounding SMCRA are a prime example of a situation where those opposing strip mining held different understandings of the possible; many felt abolition was the only solution, while others believed strengthening regulation the most realistic and useful path. In the current context, anti-stripping stakeholders are also divided on certain issues such as the continuance of deep mining. SAMS, for instance, supports the continuance of deep mining in southwest Virginia, a clear message to the community that they are not attempting to eradicate mining culture and jobs. Other groups take a more strident position, declaring coal’s time has passed and its major role in climate change eliminates any justification for deep mining.

Differences such as these appear to present less of an obstacle than the more intimate, personal conflicts among activists that can sour relations and hamstring cooperation. Interviewees consistently mentioned that the strip mining issue drew passionate people who would inevitably clash at times. An activist summarizes this dynamic:

> You’ve got personalities that are strong. People that start these nonprofits, that are creative, that have the gumption to go through it, are usually strong-willed people with vision. They’ve a lot of passion for justice, but they’re strong egos. I’m not putting that down. You can’t have a weak namby-pamby ego and start an organization. They have those strong egos, and a strong sense of vision of where an organization should go, and how a
cause should be addressed. Well, that lays the potential recipe for friction, for rubbing against one another.

Janet Keating of OVEC concurs:

What I'm saying is that coalition work is not easy because we're human beings with different ideas, and people who are drawn to this work I believe are very strong people anyway; strong people with strong personalities. Some folks have forgotten to leave their egos at the door or their ego is driving the work as opposed to the work coming from here [points to heart]. I think when you lead from [your ego] you get burned out much quicker and you also hit the wall quicker with other people. There's more conflict that's going to come into a room.

Participants agreed, however, that activists generally were capable of transcending the small abuses of interpersonal strife for the "greater good." Katey Lauer's explanation of this aspect is revealing:

I can get in a fight with [another organizer] today, and he's going to be here tomorrow working on this issue. I think there's something to that, I mean I don't think I know the answer about how we can work together effectively, but I guess it answers the question that even if we work ineffectively together, people will stay. I mean there are people that have left, but the people that come to this work, they're really dedicated to it and therefore able to weather a lot and to be able to go through a lot of challenges to stay. I think that's part of it. I think at the end of the day we're all working on the same goal and I think being reminded of that is helpful.

Indeed, it appears that the anti-stripping movement has been successful in overcoming the debilitating strife found in some other cases of passionate politics (Whittier 1995). And while the economic downturn and the drying up of funding streams has made resources increasingly scarce, competition for backing among anti-strip mining groups is limited. Rather, the more salient issue is competition with other environmental causes, especially natural gas and fracking, which has in turn, made anti-stripping groups more reliant on one another for support.
Competition

Resource mobilization scholars emphasize how alliances among groups wane when resources are scarce and groups are compelled to maintain a uniqueness of message and/or tactics to attract funding, media attention and leadership (Staggenborg 1986; Zald and McCarthy, 1987; Van Dyke 2003). Many funding agencies became unstable during the “Great Recession” and support for environmental groups and non-profit organizations became increasingly difficult to secure. The “greater good” ethos found here, however, appears to have limited the intragroup competition RM scholars have documented in other movements. Few of the social movements that RM scholars have studied are environmental justice struggles and this may provide partial explanation why the anti-strip mining movement has seen little splintering during the economic downturn. Put simply, these grassroots groups are, as a CRMW member noted, “always broke”, so the diminishment of funding likely has less impact than for others more accustomed to stability. The spirit of fraternity is strong and groups are often willing to share their own meager assets. The development of the Alliance for Appalachia furthers this cooperation by creating a mechanism to secure and distribute funds for groups that otherwise would be severely unsettled.

The more destabilizing competition is found not within the anti-stripping movement, but rather with other environmental groups. Anti-strip mining groups are becoming the victims of their own success as legal and symbolic victories have resulted in funders shifting towards other issues assuming the MTR struggle is nearly won. Chief among these is another devastating energy extraction process, the hydraulic fracturing or “fracking” method of freeing and capturing natural gas. These techniques allow previously inaccessible or unprofitable gas deposits to be captured but have also
generated significant human and environmental health consequences. Although fracking and MTR are closely related energy problems, funders often move from one "hot" environmental problem to another:

When you have a problem like coal in Appalachia that’s been entrenched and perpetrated for 125 years, you’re not going to change this in 15 years. Fracking is like the shiny new thing over here; “Look at this, let’s go fund that!” and it’s like really?...If anything they should be funding us more and saying, “You know what? You guys are so close, yes! Let’s put you over the top!” But it [funding] is going away.

Another activist concurs, echoing the exasperation this funding shift causes:

I really feel like we’re starting to see foundations move towards fighting fracking and doing clean energy promotion, and funding starting to change for us—there’s frustration about that. It seemed like in 2007, 2008 people were just throwing money at mountain top removal and groups that were fighting mountain top removal.

The impact of the drying up of funds is uncertain. For now, it appears that diminished funding levels have served to bring groups together rather than drive them apart. Allen Johnson outlines the mindset undergirding this sharing:

We as an organization are simply to serve a cause. If we can help, great. If we can’t, we need to step out. It’s not about us. If we get money given to us, then that money isn’t so we can give ourselves raises if we’re paying staff, or benefits, or parties, or live lavishly, or have a corporate jet. Rather, it’s to share, to be generous to other organizations, to help out the cause.

This is not to say competition is not present within the movement, especially competition for human resources. One organizer described how a larger group poached their human resources: "We would develop these active people and then they would grab them and take them all over the country and raise money for [their own organization]." She goes on, however, to explain that she learned to overlook such slights: "On the other hand, I also saw they’re helping to raise awareness about the issue so I got to the point where it isn't worth my energy to argue with them because they do add value." This anecdote
highlights how activists and groups sacrifice for the greater good and thereby limit intramovement strife, as well as revealing the complexity of intramovement dynamics. The lenses of collaboration, conflict and competition are useful to examine the more specific themes activists and social movement scholars have deemed important factors in generating or stifling collaboration. The remainder of the Chapter is dedicated to exploring these dimensions, beginning with questions of authenticity and just whose voice counts.

**Insiders and Outsiders**

Those targeted by social movements often attempt to delegitimize their opposition by employing xenophobic arguments. During the struggle for civil rights, for instance, segregationists forcefully contended the racial climate in the south to be copacetic; the main problem was interloping northerners fomenting trouble (McAdam 1986). Similar arguments are currently used by those supporting MTR, evidenced by placards at pro-coal rallies and in coalfield front yards demanding “tree huggers go home.” The first Mountain Justice Summer in 2005 brought the issue front and center as the presence of Mike Roselle and other activists from outside the region became a rallying point for the “friends of coal.” In an editorial in the Charleston Gazette, an executive for a coal machinery corporation voiced his concern over the impending summer training of outside activists:

West Virginia-based environmental groups - the Ohio Valley Environmental Coalition, Coal River Mountain Watch and perhaps the Highlands Conservancy - appear to be involved in this effort, but to what extent? Will they be able to restrain the more volatile out-of-state contingent and more importantly, should they be held accountable if this effort devolves into property destruction and/or violence? (Lilly 2005).
Fears of violence and property destruction proved unfounded, but the editorial underlined the importance of being native to the region. To paraphrase the Lorax, just who can speak for the mountains? For this editorialist, West Virginia-based environmental organizations could be tainted by those from outside of the region, lose their authenticity as natives, and therefore, their reputable voice. This “us versus them” tactic promulgated by the coal industry has proven effective in keeping large amounts of coalfield residents in opposition to each other despite their similar interests, namely human and environmental health.

Anti-strip mining organizers are cognizant of the power of this strategy and make every effort to prevent insider/outsider divisions within the movement. Natives to the coalfields are prominent at events and give most press release quotes, while significant resources are devoted to developing indigenous leadership. Charismatic leaders from West Virginia such as Larry Gibson, Maria Gunnoe and Judy Bonds have lent authenticity to the arguments against MTR, placing an “insider” (not a “tree hugging”) face on the negative impacts of strip mining. Moreover, organizers provide those entering the region with a primer on what they believe to be the specific mores of the region in order to limit the potential for unintentional antagonisms. As Katey Lauer notes:

Within Mountain Justice there has always been a cultural sensitivity training geared towards, like, 'you’re from New York and you’re coming to live in Appalachia to work? Let’s tell you some cultural things you need to know to at least not offend people, if not be effective at the work that you’re trying to do.'

This training has become especially important as “outsiders” have, albeit infrequently, entered the region and burned bridges with local communities by not listening to the needs of locals and/or conducting an action without community approval. The tensions
generated following the loss of community trust are often enough to preclude future alliance building in that area, and a current organizer (who does not work with OVEC) explains the concern held by those with long-term involvement in the region:

Someone can come here and do an action, or participate in it, be an intern for two months and then leave. The consequences of that work, or energy, or etc., are felt by OVEC who’s been around for 25 years. They have to, just by way of example, have to shoulder whatever the consequences of that are in the communities that they’re working in, I think that creates tension.

I do believe that advocacy groups--I believe that they should be particularly careful when they work with people in the coalfields. I think that they should tread softly because there’s this feeling that if you’ve been doing this alone for some period of time, for years, and nobody came to help and then all of a sudden they want to show up and carry the banner, you’re going, ‘Where were you six or seven years ago?’

This last point is especially important, as natives to strip mining areas that vocally oppose the practice face severe reprisals from their neighbors, reprisals not faced by those living outside the region. Outspoken strip mining opponent Maria Gunnoe, for instance, has received numerous death threats and now lives in a veritable fortress with a trained guard dog, while Larry Gibson endured multiple drive-by shootings and burglaries before his death.

Not fully supporting the coal industry is clearly seen as traitorous by a large portion of central Appalachians and most coalfield natives opposed to strip mining are unwilling to speak out for fear of such reprisals. An activist bold enough to table anti-MTR propaganda at a very conservative festival supports this contention, noting that although she had several unpleasant interactions with those vehemently opposed to her stance, she also received whispers of support from passersby not willing to stop and talk for risk of guilt by association.
As such, multiple levels of “inside” are present in the coalfields, as individuals, especially men, will generally hold an inferior status if opposing the industry, and are even less inside if they are not white or heterosexual (Fisher 2010). Such counter identities are negatively associated with those of outsiders, reinforcing the outsider/bad, insider/good false dichotomy. Indeed, efforts for authenticity and insider status can be counterproductive for opponents of strip mining, stifling collaboration between groups from the region and those made up predominately of those from outside the region, as Smith explains:

Even as regional identity emerges as a potent counter-force [to MTR], its boundary-marking distinction between those who belong to this place and those who do not can also have ominous, albeit unintended, overtones and consequences (2010, 57).

These consequences can range from dissuading the involvement of those from outside the region, to reinforcing cultural stereotypes that divide the movement along class lines. Judy Bonds, an “insider” from strip mining ground zero in southern West Virginia, dismissed the insider/outsider dichotomy by framing the issue in universalist terms:

I do live here... there are people that don’t live here that are here because the coal being mined here is being burned in power plants that are making their kids sick. This is America. The coal that is being shipped out of here opens up the fact that people from other places that are being poisoned can come here and protest. This is everybody's mountains. This is everybody’s air. This is everybody’s water. It doesn’t just belong to the people that live here.

This understanding echoes Raymond Williams’s contention that a failure to make broader connections because of militant particularism, the dogged defense of the immediate, stymies broader societal change. Similarly, Satterwhite (2010) argues that the Appalachian resistance formed over the last few decades is one based on defense, and that the next step is the creation of a “project identity”, one where social actors
“build a new identity that redefines their position in society and, by so doing, seek the transformation of overall social structure.” The support that groups with long histories in the region give to newer “outside” groups helps begin this transition, dismissing militant particularism and invalidating the necessity of insider status to care about the environmental and human health of a place. The support of large national environmental organizations (“Big Greens”) can provide in this effort is important, but many of the insider/outsider dynamics explored here make such alliances challenging.

**Big Greens**

Piven and Cloward (1977) point out the danger of larger, more bureaucratic organizations diffusing or sidetracking a popular movement. These scholars argue these bodies can deflate the passion of those seeking change by steering this energy into institutionalized channels, erasing the real emotive power such collective actors hold. Similarly, NeJaime (2011) concludes that working for legislative change can help movements further their goals by garnering elite support, but like Piven and Cloward, find such support may serve to co-opt a movement. Such divergence was clearly seen in the debates surrounding SMCRA, resulting in significant trauma and a deep distrust of Big Greens for many activists.

In general, relations have improved over time. A handful of Big Greens, including the Sierra Club, National Resource Defense Council, and Rainforest Action Network, have played key roles in supporting (rather than directing) the work of grassroots groups in the current movement. The financial and legal support provided by these organizations has proved critical in many legal victories and dramatically slowed the MTR permitting process. Compared to many other national environmental campaigns, however, the Big Greens are less active in the anti-MTR movement. Most activists I
interviewed were well aware of this mixed history and many still held reservations about their role in the movement. This is particularly true for radical activists, who held much more skepticism than did representatives of more mainstream groups. A radical activist describes the relationship bluntly:

So you can kind of be cynical about it and say, how do we [a radical group] co-opt and work with them [the Big Greens] enough to get, basically get their money, get their resources?

Another radical activist outlines his understanding of the dilemma facing these national organizations, as well as their typical, survival-driven response:

Big Greens are in this curious role where they need to subsist. They need to fundraise, they need to write press releases, they need to maintain this gigantic, hulking, administrative structure that’s not flexible, not nimble, has a board of directors and a fundraising, a development team that tells them they have to keep doing the stuff in a certain way, and they’re going to choose campaigns and tactics based on survival. They cherry pick the best cases that they can write press releases and fundraise around.

He goes on:

I don’t mean to villainize them or anything, but I think when you get into a structure as large as Sierra Club, you have corporate fiduciary responsibilities, as a board of directors, as a professional staff, that make it exceptionally difficult to do non-completely approved things. That’s when you send out Internet petitions on Change.org or whatever, because to push that power structure too, too much—what you don’t need is the treasury investigating your financial activities. You don’t need IRS investigating your 990 [tax form].

The larger, statewide groups tended to have more favorable opinions of, and stronger ties to, the Big Greens. In many cases they have made tangible differences in the regulation of strip mining by providing critical legal and scientific expertise. Cindy Rank of WVHC finds the support invaluable:

We would never have been able to do what we have done in terms of litigation if we didn’t have the financial and legal support of first, Public Justice then Earth Justice and now Sierra Club. All of whom have put a lot of money towards hiring those experts. There are scientific people outside
of West Virginia who can look at some of the details and the impacts in a much more effective way. So without that I don’t know that we would nearly have been as successful or have been able to provide sound basis for a lot more of what developed after that. It costs hundreds of thousands of dollars to get people who can do the research and then come and spend days waiting in line and writing reports and all of that after the fact.

The Sierra Club has taken the lead on this issue among the Big Greens, seeing extraction as part of their larger climate strategy and directly linking MTR to their campaign to prevent the building of any new coal fired power plants. Indeed, Sierra Club is the only national group in the Alliance for Appalachia (through its environmental justice component) and has influenced the approach of some grassroots groups, as a member of SAMS notes:

I wouldn’t say that big groups call the shots but they do influence the strategy. Sierra Club thinks and believes that one strong strategy for winning on this issue is combining a strong well-funded legal team with on-the-ground citizen enforcement and water testing. They also think that combining organizing with water testing is crucial to long-term success and also short-term success. Just having somebody that’s an organizer and not just a scientist on the ground is important I think... Would SAMS be pursuing that strategy without that money? Potentially, but it would look different.

This statement reinforces the broader, legal/scientific approach implemented by most Big Greens, but the Sierra Club has recently entered into uncharted waters. On February 17, 2013 Sierra Club members protested climate inaction in Washington D.C., which resulted in arrests. Although Sierra Club members have engaged in such actions before, never in its 120-year history had the Sierra Club board of directors officially sanctioned civil disobedience. This coupled with the hiring of a new executive director who formerly headed the Rainforest Action Network, seems to signal a shift in the organization’s strategy, and perhaps the beginning of new relationships with more radical, grassroots groups.
The other main factor warming relations between the grassroots and Big Greens is the positive relations developed by individuals involved that serve as brokers, building bridges between groups. These individuals have the respect of distinct groups of people and bring divergent identities into accord. For instance, Mayer (2009) highlights the importance of activists that can bridge the labor and environmental divide, cultivating common ground by emphasizing worker safety and health. Rather than spanning very different groups, the bridge builders in this study are bridging identities between the grassroots and large non-profit worlds. Marley Green is one such example, a young activist that has worked closely with a radical group (Mountain Justice), a more moderate group (SAMS), and is now a paid Sierra Club Environmental Justice organizer, helping foster communication and trust between these diverse bodies. Another bridge builder is, Bill Price, an “insider” from southern West Virginia who organizes for Sierra Club but also has credibility with the more radical elements of the movement, speaking frequently at Mountain Justice events and being arrested at protest events.

Bridge builders like Marley and Bill highlight how critical individuals are in bettering relationships between the grassroots and national organizations. Their positions also highlight the different strategies that groups hold, which sometimes can lead to conflict between and within groups. Indeed, differences of opinion over how best to end strip mining in central Appalachia is probably the biggest obstacle to a more unified and connected social movement.

**Tactics**

In Chapter 6 I showed how complimentary tactical repertories could stimulate collaboration among groups. In this section, I highlight how tactics can result in
contention within a social movement, with most of the debate revolving around the appropriate role of direct action. Direct action and civil disobedience serve to “push the envelope”, creating a larger space of credulity for less radical groups, as a radical activist artfully explains:

We like to let the far radical sides of movements do the dirty work. We like to let them dig the trenches, right, and do all the shit work, and the nasty, hard, scary, dangerous stuff, and then at the end, the Big Greens, the Sierra Clubs, the Defenders of Wildlife, the NAACP, the mainstream groups like to, at the end of it, say ‘Oh hey, look, we won. We succeeded. Yes us.’ And we pat ourselves on the back, and it’s kind of like, wait, wait. You’re being like a Civil War general. You’ve got a lot of dead troops—they’re down there on the battlefield.

Although direct action groups rarely get the credit for the important role they play in forging social change, they also tend to be a locus of tension within movements. In central Appalachia, the stridency of direct action groups has at times generated tension within the movement, with some groups “jumping scale” by not obtaining the support of local constituents before acting (Smith and Fisher 2012, 273). As an activist notes, “Between groups that are doing CD [civil disobedience] and groups that aren’t—at points the tension between those two sentiments has blown up into interpersonal conflict or group conflict.”

Some of this conflict has involved Mountain Justice, with members acknowledging they have made missteps, but also contending that they have been misunderstood and stigmatized by the broader movement at times. Active in the early days of MJ, Phleglar and colleagues provide an insightful analysis of these early tensions:

MJ activists experienced significant hurdles working effectively with organizations that have different ideological approaches to community organizing. In the beginning, MJ activists repeatedly reached out to several long-standing organizations in the coalfields in the hopes of developing partnerships and alliances, but were confronted with harsh criticism of the MJ movement. Many established organizations were wary of MJ’s ties to
EarthFirst!, with that group’s motto of ‘no compromise in the defense of mother earth.’ Some perceived MJ to threaten the long-term efforts of grassroots organizations to build large constituencies and maintain political credibility in the conservative coalfIELDS (Phleglar et al. 2012).

The fear that radical activists can undermine the efforts of other groups working in coal communities is still very real eight years after the first Mountain Justice Summer. A member of a mainstream group outlines the situation for those building capital in the coalfields:

I think the most important thing when you’re working with a community is following the direction of the community. If a group wants to come in and work in the community then they have to respect the community and the wishes of the community. The community has to be the leader. That’s where the breakdown happens sometimes and it’s because those radicals and the people from here and there and everywhere, they can go back home. The people that live in the community have to live there.

This statement emphasizes that the insider/outsider dynamics discussed earlier are especially salient with regards to tactics. In addition to the fear that radical activists might inadvertently sabotage their work, others go further to question the very utility of these actions:

I think some of it [direct action] is kind of silly in a way. You don’t need to—I don’t mean it to be mean, but you don’t need to swing over a river or buy hamburgers for coal truck drivers that you’ve stopped. Some of it is just—it just seems like it doesn’t have a real purpose.

Indeed, it appears that the usefulness of direct action is the most divisive issue for many movement participants, one that often cannot be surmounted. While most argue for an “all of the above” tactical toolbox, which the social movement literature also deems vital (McCammon and Van Dyke 2010), some believe direct action to be rude, unnecessarily confrontational, counterproductive or just plain “silly.” One movement participant contended that direct action precludes other tactics, declaring, “you can’t break the law and use it at the same time.” That this was an older participant is not to be dismissed,
for it appears that tactical divide falls roughly along generational lines with older
movement participants more skeptical of work falling outside of institutionalized
pathways.

Age

Having activists from a wide range of ages is typically seen as a sign of strength
for social movements. Experienced activists can be energized by the zeal of youthful
participants and benefit from their technological savvy, while older activists can share
the lessons of the past and inform decision-making (Castells 2009). Moreover, counter
movements are less able to marginalize a movement as merely the whims of impulsive
youth with more aged individuals involved.

On the other hand, a diversity of ages within groups can complicate matters of
leadership, control and overall direction. Whittier’s (1995) study of the women’s
movement holds many important lessons for those examining the generational
dimensions of social movement alliances. “Second wave” and “third wave” feminists
typically varied dramatically in their ideology and how they identified themselves. In
some instances, those newer to the movement underwent a sort of hazing, as an
activist recounts:

We were referred to as the baby feminists for a time, and I really hated that.
I really wanted to be accepted simply as a feminist, WAC [Women’s Action
Collective] member, and for people not to just see me as this young person
…but there was a little bit of, I guess you’d call it maternalism (1995, 70).

By the late 1970s, the growing dominance of radical feminists and their oft-strident
lesbian identity and aggressive tactics antagonized many older, heterosexual activists,
resulting in an increasingly homogenous and, some contend, fringe movement (Whittier
1995, 72).
In this study, I also found key differences related to age, especially regarding tactics and the pushing of the envelope. This is not to say older activists are always conservative, for many endorse and participate in civil disobedience. Ninety eight year old Ken Hechler, for instance, has partaken in numerous acts of civil disobedience during his 80s and 90s, even being attacked by counter-protestors at the March on Blair Mountain in 2011. Ken Hechler is, however, the exception. Through participant observation and interviews it became clear that two primary age groups dominate the movement; young activists in and around their twenties and participants near or past retirement age. The young group breaks roughly into two categories. The first are currently in college or recently graduated, often exposed to the issue through campus organizers, an environmental studies course or by attending a Mountain Justice spring or fall break camp. The other subset is composed of radicals heavily influenced by anarchist ideals, deep ecologists whose lives are centered on stopping environmental destruction. Living communally or traveling with scant resources, these activists tend to engage in direct action and take an anti-capitalist stance.

The other observed age group is composed primarily of the middle aged, those in their fifties and sixties. This group can also be roughly divided. One subset is composed primarily of those from outside of the coalfields who actively participated in other environmental and/or social justice movements of the 1970s and 1980s. The other is made up of those directly impacted by strip mining, most who had not previously been politically engaged before being pulled into the struggle by mining’s direct impact upon their lives. Less representation is found in between these two age groups. This gap is not altogether surprising as scholars have documented the transition many young
activists undergo whereby they choose to devote their energies to career and/or family building, or simply become “burned out” (Collins 2001).

This generational divide is carried over to the organizational level, with established groups tending to have older members and the newer groups tending to be composed of younger participants. For instance, the oldest organization in this study, the West Virginia Highlands Conservancy founded in 1967, is composed mainly of “gray beards” as Cindy Rank notes. Rank, who has been involved with the Conservancy for over thirty years explains why they have failed to attract younger members:

I think that a lot has to do with the fact that younger people really want to do stuff, want to be out there. So RAMPS and any of the actions that are taking place now are far more attractive to the younger generations that are out there…Doing something that feels like it’s actually happening.

The desire to do something immediately tangible rather than work with lawyers, test water or petition politicians, plays a major role in this intergenerational divide in intergroup collaboration. A middle-aged activist from a well-established group concurs, pointing out that such differences often stifle collaboration:

There has been a situation where we’re going, ‘Oh, that group is just too far out for us.’ We respect that some groups are made up of younger people who have more extreme ways of doing things and some of us are mostly a lot of older people and will probably never climb a tree again as long as we live. Don’t ask us.

She goes on to explain that the differing timeframes within which these generations operate is critical:

Across the board in environmental action there is segregation. Part of that is because younger people have different ways of doing things. They’re more focused on ‘This is what we need to do. We need six committees to do it. Everybody go out and do it and we'll all come together and we'll have it done.’ Older people like to meet and meet and meet and talk and talk and talk. The older people think the younger people … they don’t think enough, they’re not sure what's going on so they feel like they're losing control. For the younger people they think the older people are just too dang slow.
Achieving a respectful generational balance is necessary to encourage more successful partnerships between groups, but is challenging. An organizer reinforces the notion that the young and not so young bring different and potentially complimentary aspects to the table, noting:

What you find is that a lot of the groups, like Mountain Justice or Climate Ground Zero or Ramps are more youth-focused than 50-year-old organizations that have been doing community organizing forever, that are going to have very experienced people who have a lot of wisdom, so figuring out how to navigate intergenerational work so that there’s space at the table for the voice of youth who maybe are really bold and passionate and have some radical ideas about the work that they want to do but making space at the table so that the people with the experience and the wisdom can inform the work that they’re doing.

Nevertheless, it appears that intergenerational differences are inevitable to a certain extent, especially with an issue as emotionally charged as strip mining. As Whittier (1995) explains, generational differences can strengthen a movement or create contention, and this movement epitomizes this mixed promise. Such contradictions are also evident within another arena of great passion: religion.

**Religion**

Long before social movements were known as such, religion drove societal change (Tarrow 1998). In the U.S. for instance, religious conviction catalyzed the abolitionist, suffragist and temperance movements (Young 2002). More recently, the civil rights movement made clear the power of religion in movements, grounding the struggle in African-American churches and providing the power of conviction to persevere state sanctioned terror. This movement also highlights the fact that religion is critical at both the personal and organizational level, as religion fortified individual activists, while religious groups and churches provided the resources necessary to wage the battle. Moreover, the prominence of religious conviction added legitimacy and
moral weight to the arguments of activists, bringing into sharp focus the righteousness of their cause.

In the struggle to end strip mining, religion has also proved important at both the group and personal levels. Most Appalachians are mainline Christians, and not surprisingly, many anti-stripping activists are as well. These activists tend to see themselves as stewards of God’s creation and protection of nature as a Christian duty (Witt 2011). Ken Hechler grounds his fifty year fight against strip mining in just such a stewardship ethic:

This is a strictly religious issue. God has put us on this earth as stewards of the earth for future generations, not to stand idly by and watch it get destroyed. That’s a violation of God's word...That has always kept me sustained in my efforts and to realize that many, many sacrifices down through the years have been made from a sad day when Jesus died on the cross. There has had to be sacrifice in order to achieve ultimate victories.

Like Hechler, Allen Johnson, the founder of Christians for the Mountains, feels a religious obligation to protect Creation:

I’m a Christian who—let me say it this way. I’m not an environmentalist who happens to go to church. I’m an environmentalist, that’s OK, but that’s not my main rationale or reason. I’m a Christian who, because of my faith, implies justice for all that live upon this earth, according to God’s created order; which means human beings need to be responsible, but also be cared for if they’re vulnerable, or if they’re in marginalized situations, and that all God’s creatures ... the animals, plants, water, air, soil ... all the ecosystem, is part of God’s creation order. It is to be nurtured and protected and appreciated. I think that’s where I come from.

Johnson’s declaration highlights an important distinction between religious people who oppose strip mining and anti-strip mining activists who happen to be religious, reflecting the differing locus of values that drive their involvement. Johnson’s declaration also reveals the difficulty in pigeonholing participants as he followed the above statement by
locating humans within nature while contending that humanity has a special responsibility

There’s the aspect of covenant, which means God has given us a special role and privilege and responsibility. That responsibility also goes to all the future generations. We have responsibility there, too—we aren’t outside creation, therefore we, in sort of a patrimonial way, we’re there to protect creation. We are part of creation. We have a priestly role to mediate creation to God, and God mediates creation through us. I think creation, nurturing it, I think we can have, and God has given us, a proactive, positive role. In other words, we can and sometimes do enhance creation. We can bring it to its full potential.

Such a view complicates the stewardship ethic significantly because Johnson does not hold humans separate from nature but does give us special powers to “enhance creation.”

Moreover, the passionate efforts of Hechler and Johnson are examples of values and actions reinforcing each other, exceptions to the oft tenuous linkage between the two (Peterson 2009). In Appalachia, and the U.S. more generally, many Christian denominations have supposedly “greened” (McCammack 2007), but associated changes have not occurred on the ground. Hechler and Johnson’s values have translated to arrest and public declarations, actions more in line with the second stream of religion Witt identifies in the movement, what Taylor (2010) calls “dark green” religion.

Dark green religion rejects anthropocentrism, glorifying nature for its intrinsic worth rather than its use value for humans. It is associated with ecofeminism, deep ecology and indigenous beliefs and, not surprisingly, is more commonly seen within the radical portions of the movement. Tricia Shapiro worked closely with Mountain Justice and explains its dark green component:

MJS [Mountain Justice Summer] participants generally share a sense that humans are part of a larger natural community to which they have
responsibilities, and a sense that it’s wrong to plunder nature and leave it a wasteland…most MJSers who have any sense of spirituality at all perceive it as connected with or activated by contact with nature. Most are at least somewhat familiar and comfortable with the precepts of Deep Ecology. A few of MJS’s religious Deep Ecology believers see themselves as worshipping Gaia, or pursuing forms of paganism; most incorporate Deep Ecology into Christian or other religious beliefs and practices. By and large, MJS does pretty well with avoiding religious disagreements (Shapiro 2010, 31-32).

This last point is exceedingly important, as religious differences have proven significant obstacles in other movements (Fuentes and Frank 1989). It appears that serious conflict over incongruent notions of faith is not a significant problem in the anti-stripping movement, as activists are well aware that such differences can be a source of friction.

In turn, activists of faith aim for sensitivity:

There are some people who are very agnostic and they have a hard time working with people of faith. I think that people of faith have to be very sensitive to the fact that not everyone is comfortable with their faith…We need to be sensitive to the fact that people, all people, think differently and people of faith may do things differently. We just need to work on the environment issues, which is really mountaintop removal specifically.

Indeed, personal motivations and beliefs are, by and large, subsumed at the organizational level, as activists find motivation and strength through their faith but religion does not appear to play an especially salient role in stimulating or inhibiting collaboration. As Chapter 6 showed, Christians for the Mountains plays a central role in the network, working with lawmakers, radical groups and mainstream organizations. Nevertheless, interviews have suggested that the group’s religious focus is not important. Rather, it is the passion and charisma of its leader that is critical in allying it with other groups.

Perhaps most importantly, religion-based opposition to strip mining adds moral weight to the arguments of the movement. Having the support of religious individuals
and groups is especially important in a region that has a long history of religious conviction, as Janet Keating explains:

> I think the [faith community] have added a real benefit to our work because in the Bible Belt, where we are, it’s hard for the powers that be to marginalize us as extremists when you have people of faith stepping up.

As such, the promise and place of religion in this network of resistance is mixed. Witt (2011, 256) captures these dynamics:

> Religion holds a somewhat ambiguous place in resistance to mountaintop removal. Some say it is the driving force behind their work, while others cite absolutely no religious beliefs at all (though their commitment to fighting mountaintop removal shows that they nonetheless value Appalachian ecosystems). In still other instances, religious values are used in support of mountaintop removal mining. For these reasons, scholars must be aware of their representations.

Such ambiguity is also present in the role played by race in this movement, which we turn to next.

**Race**

Transcending racial lines has proven a great strength in many collective action struggles (McAdam 1982; Grossman 2001). A broad base of support scuttles identity politics and delegitimizing efforts at marginalization. The mainstream environmental movement has been late to this understanding, staying quiet on issues of race and inequality until relatively recently. The critiques levied by environmental justice activists forced mainstream groups to reevaluate their missions. Subsequently, the environmental movement is now more diverse, increasing the possibility of forging alliances with health and labor activists (Obach 2004).

The anti-strip mining movement, however, does not exhibit racial diversity and is overwhelmingly made up of white activists. That central Appalachia is a predominately
white region is typically used to justify the dearth of non-whites in the movement. An older activist underscores these regional demographics:

   My mother, until she moved in with my brother and his wife in Culpeper [northern Virginia], never really had had a chance to know someone who was black. It was amazing to her (and this was when she was in her seventies, eighties) that these people weren’t all so much different from her.

Nevertheless, the predominance of white people in the region does not make it “raceless.” Smith (2002) shows how an historical analysis is needed to adequately explain the critical role race has played in the formation of the region. Most obviously, Native Americans called the region home for thousands of years prior to their forced removal, while significant numbers of African Americans have called the place home for generations. Indeed, the supposed “racial innocence” of the region is fallacious, while supposed racial purity of Scots-Irish mountaineers is clearly questionable (Dunaway 2003).

Due to this widespread view of the region as raceless, research exploring race in central Appalachia is limited, while that which examines the role race plays in bringing groups together in the region is almost non existent. Much of this attention is given to understanding race relations among miners in in the beginning of the 20th century. This is well justified, as the fight for unionization was a critical moment where labor solidarity helped span racial divides and resulted in numerous labor and safety victories for miners of all races (Corbin 1981). Another, notable example is the work of the Highlander Folk School (HFS) in northeastern Tennessee. Myles Horton, a white man with a humble background, founded the school after searching for a solution to the

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2 For example, West Virginia is 96% white according to the 2010 U.S. Census.
problems of mountain people in the 1930s. He eventually deemed education the key to alleviating poverty in the region, and contrary to the popular sentiment of the time, he believed that education should be integrated. HFS proved a key resource for the burgeoning civil rights movement, bringing together black leadership, providing a visible and successful model of a future integrated society, and developing a mass education program later to be used by the Southern Christian Leadership Conference (Morris 1984, 141).

More recent examples exist and the key point is that interracial alliances are not unheard of in central Appalachia, having factored heavily in successful campaigns such as those for labor and civil rights. The anti-stripping movement, therefore, seems an ideal candidate for racial diversification and its distinct whiteness is viewed as a distinct liability. A young activist emphasizes the importance of diversity and contends that racism within the movement and its funders is a major inhibiting factor to collaboration:

I don’t think that we’re very good at busting our white bubble. We know it’s important, we know that being a more racially diverse movement will make us stronger and it is necessary to winning in the long-term. There are definite exceptions, there are definitely places where work is being done I think. Straight up, there are bunch of overt racisms in some of the folks that work around here. Then there are plenty of covert racisms that happen in the non-profit world. I think that those two racisms help keep us pretty white. It sucks.

This understanding was atypical, however, as respondents did not pinpoint the racist beliefs of individuals as a major roadblock to greater inclusion. Rather, activists tended to see institutional racism as the greater barrier for non-white participation. This structural form of racism reduces opportunities for people of color to succeed, and many activists saw these disadvantages as the primary factor that impeded participation. In essence, many participants hold the pre-environmental justice movement belief that
existing societal conditions preclude people of color from being environmentalists because they are simply consumed with survival:

African-Americans in the United States have so many life and death issues they have to face on a daily basis and discrimination that they face daily, that asking them to get involved in this more nebulous issue is asking a lot.

Another activist echoes this sentiment:

We don’t ask them [African Americans] to work on our issues. We try to support the work that they want to do because, my God, you know being a person of color is—you’ve got some work cut out for you there.

These statements also reveal that most interviewees interpreted questions of race as questions of white-black dynamics. Native American or Latino groups and individuals rarely garnered mention until I specifically asked about these relations. Such relations are increasingly important, however, as some activists attempt to diversify the movement by working with other groups fighting strip mining. Bridging the distance with the Dine (Navajo) living near Black Mesa in the four corners region is a major goal, for instance. Ken Hechler and others began drawing parallels between the exploitation of Black Mesa and central Appalachia over forty years ago, but fears of a shifting burden stifled a close partnership. An activist who works with both Dine and Appalachian activists notes the fear held by many in Black Mesa, “if we end coal mining in Appalachia, it puts more pressure on demand for Black Mesa coal, and vice versa.”

The shifting of environmental burdens from one marginalized place to is what Pellow (2007, 146) calls the “hyperspatiality of risk”, and is a significant roadblock to a unified and broad anti-strip mining movement. Militant particularism has created schisms, rather than unification, against a common threat. As another activist contends, “within Appalachia, organizers pride themselves on not being NIMBY (Not In My Backyard), but only regionally. NIMBY can mean regionally. Philosophically they don’t realize they are
NIMBY. The Navajo think this is painfully NIMBY.” In other words, Appalachian activists are not cognizant of the perverse outcomes that can come from the defense of their place. Trust appears to be building, however, most clearly evidenced by Appalachian and Black Mesa activists joining Midwesterners in a protest at Arch Coal’s headquarters in St. Louis on January 2013.

Connections spanning racial and ethnic lines have also begun on the international scale. Most notably, KFTC has begun working and sharing with those affected by the world’s largest surface coal mine in La Guajira, Colombia. Those living near the mine, primarily indigenous peoples and Afro-Colombians, are marginalized populations in Colombia, and their property rights have been repeatedly disregarded. Indeed, in 2000 the multinational consortium running the mine forcibly moved the indigenous Tabaco community and bulldozed their village (Chomsky et al. 2007). The efforts of another bridge builder, Patty Taquino, a native of Colombia and a member of KFTC, has helped make the connections between the two struggles, highlighting that the exploiters of eastern Kentucky and Colombia are both multinational energy corporations aided by corruption and poverty. These new relationships and engagement with Colombian representatives has born fruit, changing the perspectives of many collaborators. As a KFTC member notes, “Our exchanges with the Colombians have encouraged us to think about our situation in terms of human rights. There are organizations we had never thought about working with, who we now see as potential allies” (Chomsky and Montrie 2012, 263).

As of 2013, the anti-strip mining movement lacks the diversity many deem a necessary component for success. One path to becoming more diverse is through a
deeper engagement with the greater climate movement. It is increasingly clear that African Americans and Latinos are the groups that will face (and are currently facing) the most severe impacts of climate change in the U.S., and linking coal, climate change and race is a promising avenue for greater collaboration. Perhaps the most effective way to build a more diverse movement is to follow the words of the Sierra Club’s Bill Price, who contends, “increasing the diversity of our personal networks will lead to a more diverse social movement.” Such an approach would require a personal reevaluation of race relations and result in a more racially inclusive movement.

**Conclusion**

The central Appalachian anti-strip mining movement is one of complex internal dynamics. Activists agree that collaboration is valuable and a critical element to success, but some factors have worked to stifle effective partnerships. One especially salient factor is conflicting ideas over the tactics most suitable to obtain change, which are often grounded in generational differences. Questions of authenticity, whether between “insiders” and “outsiders”, or grassroots and Big Greens, have also sprung up at times, resulting in some of the more significant upheavals in the movement.

Despite these challenges, the movement is generally a space of mutual support. Religious differences tend not to prevent collaboration, while entrenched Appalachian groups have generally accepted the help of those from outside the region, ameliorating earlier tensions. Indeed, activists realize they need each other to level the significant asymmetries of power they face, and the “greater good” trumps minor insults. Katey Lauer outlines this dynamic succinctly:

> I think that the issue is so big and the political climate locally and nationally is so stacked against us that if we don’t have—I think either explicitly or implicitly—that if we don’t have each other we are in trouble.

205
Major efforts at diversifying the movement are underway as bridges with marginalized groups countenancing strip mining are being built, transcending geographic boundaries and growing the network. As such, and with few exceptions, the desire to abolish strip mining has generated a pragmatic movement forging alliances in the fight for environmental justice in central Appalachia.
CHAPTER 8
CONCLUSION: A MOMENT OF FLUX

Nine years after the death of three-year old Jeremy Davidson in Appalachia, Virginia, the anti-strip mining movement obtained a monumental victory in his former backyard. On May 7, 2013 the Virginia Department of Mines, Minerals & Energy denied a permit to surface mine Ison Rock Ridge, the mountain overlooking the small town. A & G Coal Corporation, the company liable in Davidson’s death, applied for the permit more than six years ago and have faced resistance from activists every step of the way.

The Sierra Club outlined the importance of the victory in a press release:

The Ison Rock Ridge mine would have obliterated approximately 1,300 acres of steep, forested, mountainous terrain near the town of Appalachia, Virginia - one of the very few, if not the only, remaining mountain ridges in Wise County that hasn't yet been destroyed by the coal industry. The mine would have buried about 14,000 linear feet of streams with more than 11 million cubic yards of rock and dirt in nine valley fills. Sediment ponds would've discharged pollutants to various streams, including Callahan Creek – an “impaired” waterway – and Looney Creek – a proposed “impaired” waterway. Worst of all, the mining would've inflicted severe and unconscionable harm on surrounding communities with all its associated blasting, truck traffic, dust and water pollution.

Davidson’s death and this recent ruling are defining moments in the latest chapter of the central Appalachia strip mining story. Davidson’s tragic death catalyzed resistance and helped forge alliances among previously unconnected groups. The seeds of collaboration planted at the March on Appalachia have born fruit in this and other victories for the movement, highlighting the importance of networked resistance. In this example, national and regional groups partnered with local groups, deploying multiple methods to prevent the mining of Ison Ridge, testing water, protesting, lobbying and litigating; the proverbial tactical toolbox this dissertation has found so important.
As this study concludes, however, it is unclear how the story will ultimately end; battlefield victories like the one at Ison Ridge mount, but the war is far from won. Meanwhile, many funding agencies are prematurely diverting their resources to other environmental concerns as strip mining continues day and night across the region. To close this dissertation, I provide an assessment of central Appalachia and its potential futures, before pointing out the limitations of this study and avenues for future research. First, I recap my findings and suggest how the dynamics witnessed in this movement speak to social change more broadly.

**Main Findings and Contributions**

The legacy of resistance to the coal industry in central Appalachia dates back well over a century and a half. Miners resisted the oppressive conditions of the mines and company towns and demanded the right to organize, eventually developing into the vanguard of the American labor movement. With the acceleration of strip mining, miners became increasingly expendable while the ecological destruction of the region became increasingly intolerable. At this point, around the middle of the twentieth century, it was not miners that rose up to resist the degradation of the region, but rather an “environmentalism of common people.” This early environmental justice struggle forged a movement to forever end strip mining, growing as strip mining became more prevalent in the 1960s. The externalities of the practice became impossible to ignore, and in 1977 the first federal strip mining legislation, SMCRA, became law.

The first major finding of this dissertation is that the anti-strip mining movement entered a period of abeyance following SMCRA as many disheartened abolitionists left the movement, while those that remained typically shifted focus to local level enforcement. My network analysis of media coverage suggests that this dormant period
lasted roughly until the early 1990s, when another federal intervention, namely the amendments to the Clean Air Act, incentivized utilities to burn the low sulfur coal of central Appalachia. As the use of MTR increased following this development, we see a concomitant increase in the number of groups in this resistance network. In short, this portion of the research illustrated the evolution of the movement over the last three decades while emphasizing the significant influence law can have on social movement alliances. The analysis also contributed a new methodological approach other network researchers may find helpful.

Following this historical analysis I shifted my attention to the current movement, and survey responses of group representatives brought this network into focus. I found the network to be relatively dense, with two out of every three possible ties existing and no groups isolated. When specific aspects of collaboration were examined, I found an inverse relationship between the level of collaboration and the costs and/or risks of specific actions. For instance, the direct action network was less dense and had fewer participants than networks forged by sharing resources or participating in less risky events.

To shed more light on these findings I narrowed focus to the group level and correlated the specific attributes of individual groups with the positions they occupy in the overall network of resistance. I based this part of the study on Diani’s (2003a, 1995) research of the Italian environmental movement. Diani is one of a few scholars to apply social network analysis to a social movement, and the results of my examination offer mixed support for his conclusions. Similar to Diani, I found that large, well-established, multi-issue groups (Diani’s proxies for resource wealth) tended to occupy highly central
positions in the network. Counter to Diani, however, I also found self-described “radical” groups highly central in the movement. Moreover, I found ideologically specific groups such as Christians for the Mountains occupying some influential positions, countering the argument of identity scholars who argue that a meshing of ideologies is critical for collaboration.

I also created networks based on the tactical collaboration in the realms of litigation, lobbying and direct action. I was surprised to find most groups participating heavily in each of these ways, with each tactic catalyzing collaboration in different ways and to differing degrees. Groups with greater resources tended to dominate the litigation and lobbying networks, but played less significant roles in the direct action network. An interesting component of direct action revealed here is the concept of “hat-wearing”, whereby the actions of individuals are made distinct from those of an organization; group members take off their “member” hat and put on their non-affiliated “concerned citizen” hat. This protects a group from repercussions, especially those related to tax exempt status, when its members engage in unlawful acts.

In sum, this portion of the research finds that the importance of resources in collaboration is context specific, shared cultures and ideologies are not always necessary for collaboration, and that the movement draws from a diverse, but complimentary, tactical toolbox.

My last component of research sought to shed light on the factors that inhibit collaboration. Semi-structured interviews with activists revealed a movement of complex internal dynamics with many factors capable of driving groups apart. Chief among these is simply a fundamental difference over how best to obtain the goal of ending strip
mining. Again the use of direct action emerged as a major theme as some respondents discussed how actions in the past, conducted without prior community approval, have served to divide rather than unite opposition. Such flashpoints have served to reinforce insider/outsider tensions, but most activists agreed that lessons have been learned and this problem has largely dissipated. Related to direct action and community engagement, generational divides emerged as a point of tension at times. Some, primarily older activists questioned the utility of “sitting in trees”, although many older activists believe extralegal tactics to be extremely useful. We also see some lingering distrust of Big Greens by grassroots groups, but these relationships appear to be on the mend. Finally, these interviews revealed that special effort is given to preventing religious differences from generating division, while activists are working hard to diversify the movement racially and geographically.

The activists I interviewed overwhelmingly agreed that collaboration is valuable and a critical element to success. In fact, a key finding of this Chapter is that counter to the claims of many resource mobilization scholars, the increasing scarcity of funding has brought groups together rather than generating greater competition. Indeed, this study has captured a moment in time where collaboration is highly valued among activists, one where the common goal of abolition prevents frays from becoming ruptures. If anything, movement participants are pragmatic, and welcome any person or group that can help them achieve their goal of eradicating strip mining. Whether they will obtain their ultimate goal is unclear, however, and the future of central Appalachia is anything but certain.
Central Appalachian Futures

The coal industry in central Appalachia is in flux. Coal operators are seeing shrinking returns as costs rise and markets shift towards other energy sources. Is this just another oscillation in the boom/bust cycle for which the region and resource are known? Only time will tell, but it is certain that the easily accessible supplies of the rock are long gone and competition from natural gas and western coal are increasing. Patriot Coal, the third largest producer of MTR coal, for instance, filed for bankruptcy in July 2012. In their filing the company agreed to cease all MTR, a contingency directly linked to the pressure the anti-strip mining movement has generated against the industry.

Strip mining resistance has folded a key economic component into their argument against MTR: the physical destruction of the landscape precludes most other development options. One option for post-mined lands favored by many local politicians is the creation of prisons, which they argue will provide jobs and bring revenue to the region. These supporters have stimulated a prison boom in central Appalachian over the last two decades, with six federal prisons built in the region since 1992, while Virginia alone erected six state prisons between 1995 and 2000 (Department of Justice website). The economic boon promised by politicians and developers has not materialized for most of these communities, however, as Blaine Phillips, McGreary County, Kentucky judge-executive notes:

Of the 300 and something employees that work at the prison, I don’t think we have over 25 or 30 local people that are working there. And the others, they don’t even live here. They drive from Pulaski County and Whitley County; they don’t choose to live here. It was not what they were telling us at first (Davis 2012).

Rather than economic salvation, most of these new prison communities are seeing little remuneration and a strong correlation between prison employment and addiction,
depression and domestic abuse. As such, it is clear the prison industrial complex is a less than ideal contributor to regional development.

Another economic path currently being pursued in the coalfields is the extraction of another non-renewable energy resource, natural gas. Much of central and northern Appalachia is home to both fuels, while the technological developments of horizontal drilling and hydraulic fracturing have made viable many deposits previously believed out of reach. The externalities of these developments are increasingly clear, however, with many of those living above the gas rich Marcellus Shale formation countenancing contaminated water, polluted air from gas flaring, and negative health effects. Moreover, and perhaps not surprisingly, many citizens are not seeing the large royalties promised them.¹

These brief examples underscore the challenge of transitioning to a post-coal economy when the path forward is littered with ecologically and socially destructive turns. Many in the region are advocating reducing scale and creating more self-sufficient, local communities revolving around renewable energy, sustainable agriculture, and traditional culture and crafts. For instance, many residents in the Coal River Valley of southern West Virginia are pushing for wind energy to replace stripping, while local food co-ops, community supported agriculture and farmers markets are becoming entrenched in the region. Traditional Appalachian music and artisanal crafts

¹ A 2010 case in Pennsylvania, *Kilmer v. Elexco Land Services Inc.*, resulted in the state Supreme Court allowing companies to use their own definition of “royalty” since Pennsylvania law does not define the term. In response, some natural gas companies now deduct the cost of transporting the fuel from royalty payments. Some landowners have received checks for $0. See for instance: http://stateimpact.npr.org/pennsylvania/2013/06/27/senate-panel-examines-complaints-of-underpaid-gas-royalties/
are increasingly sought out by the American mainstream, and bringing together demand and supply in these arenas will be valuable for mountain development.

The likelihood that these small scale enterprises can provide adequate sustenance for whole communities is, however, questionable, and such alternative economic models are only just now unfolding. What is certain is that creativity will be required to envision a central Appalachia free from the corporate influence and resource dependence that has dominated the region for generations. Developing sustainable pathways will be the critical task for those that seek to ameliorate the social, economic, and ecological poverty that currently plagues the region.

**Future Research**

The findings of this dissertation shed much light on the central Appalachian anti-strip mining movement, but opportunities to draw broader conclusions are limited by the dearth of studies approaching organizational-level dynamics in a similar manner. Future research that applies social network analysis to diverse movements and regions will better allow scholars to tease apart the mechanisms of collaboration as contexts vary. In short, How does collaboration vary across diverse legal and political milieus? Studies that address this question will provide insight into the exogenous factors of collaboration, thereby complimenting the primarily endogenous focus of this study.

Just as multinational corporations seek the "spatial fix" of capitalism by finding new export markets to unload their coal reserves (Harvey 2006), strip mining resistance does not end when one leaves the central Appalachian coalfields. Indeed, central Appalachia is but a node within the global energy and climate movement networks, albeit a very important one. The near term energy developments in the region will have major economic, ecological and social impacts on the global scale. Likewise, the
resistance examined here is tied to other environmental justice networks around the
globe, including those burdened by coal extraction in Alaska, Black Mesa, India and
Australia, but also those countenancing other forms of resource extraction. Many
activists in this movement are involved in efforts to stop the Keystone XL pipeline and
the further exploitation of the Canadian Tar Sands for instance, while others are
influential in the global climate change network 350.org. Expanding the analysis across
scales and resources will help fill a major gap of knowledge within environmental
sociology, social movements, and social network studies.

Like the planet, the anti-strip mining movement in central Appalachia is in a state
of flux. This dissertation has relayed a snapshot of this volatile time, one that is full of
hope, but also foreboding. The canary in the coalmine is an apt metaphor for this case,
as the ultimate outcomes for this network of resistance, and central Appalachia more
generally, will likely indicate the future of our energy, and therefore, planetary future. As
George Orwell noted, “those that erase the past, control the future.” Those struggling to
stop the erasure of these ancient mountains believe this too, and are seeking a future
where the earth and its inhabitants are more than just commodities to be exploited.
APPENDIX

NETWORK QUESTIONNAIRE

Network Survey

Part 1
1) Name:

2) Age:

3) Place of Residence:

4) Group Name:

5) Your Position within group (include title if applicable):

6) When was the group formed?:

7) About how many members does the group have?:

8) Does the group focus on issues other than strip coal mining?:

9) If so, please list.

_____________________________________________________________________

10) Is abolition of strip mining the primary goal of this organization?

11) Does your group support the continuance of underground mining?
    Explain if desired.

12) Does your organization use justice or rights language to explain the problem?

Part 2

On the next three questions please provide an answer on 0-3 scale, with Very Likely= 3,
Somewhat Likely=2, Somewhat Unlikely=1, Never=0.

13) How likely is your organization to be involved in lawsuits related to strip mining?
    ______

14) How likely is your organization to engage in legislative lobbying related to strip
    mining? ______
15) How likely is your organization to engage in direct action related to strip mining?

16) Please circle any of the following descriptive words that you feel fit your group:
inclusive religious radical direct action conservative militant reformist

Part 3

Overall Movement Network (Column 1)

Below is a list of groups opposed to strip mining in Appalachia.

I would like you to rate your perception of the strength of the overall relationship between your group and each of the other groups listed on a scale of 0-3, with:

0= No relationship
1= Work on similar issues but rarely coordinate or share resources.
2= Occasionally work together and share resources.
3= Closely linked, work together and share resources frequently

Collaborative Aspects (Columns 2-6)

Now I would like you to rate how likely it is for your group to jointly participate in the following activities with other groups on the following scale:

0= Never.
1= Rarely.
2= Occasionally.
3= Frequently
<table>
<thead>
<tr>
<th>Name</th>
<th>Overall</th>
<th>Share financial resources</th>
<th>Engage in legislative lobbying</th>
<th>Co-participate at events and marches etc.</th>
<th>Engage in direct action</th>
<th>Pursue litigation</th>
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<td>Christians for the Mountains</td>
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<td>Coal River Mountain Watch</td>
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<td>Friends of Blair Mountain</td>
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<td>Lindquist Environmental Appalachian Fellowship</td>
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<td>Mountain Justice</td>
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<td>Ohio Valley Environmental Coalition</td>
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<td>RReNEW Collective</td>
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<td>Southern Appalachia Mountain Stewards</td>
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<td>RAMPS</td>
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<td>SouthWings</td>
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<td>SOCM</td>
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<td>United Mountain Defense</td>
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<td>West Virginia Highlands Conservancy</td>
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<tr>
<td>Wise Energy for Va. Coalition</td>
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Part 4
Please list any other Appalachian-based organizations that you collaborate with not listed above and rank them on the 0-3 overall scale.

______________________________________________________________________

______________________________________________________________________

______________________________________________________________________

______________________________________________________________________


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BIOGRAPHICAL SKETCH

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