FROM “OUT OF SERVICE” TO PUBLIC PURPOSE: USING INTERNATIONAL HERITAGE DOCUMENTS TO SUPPORT A LINK BETWEEN HISTORIC PRESERVATION AND BROWNFIELD REDEVELOPMENT

by

LINDSAY G. JOHNSON

(Under the direction of Wayde Brown)

ABSTRACT

The purpose of this thesis is to demonstrate the existence of a link between historic preservation and brownfield redevelopment. A selection of policy frameworks and case studies are discussed in order to provide support for the proposed link. Based on analyses of frameworks and case studies, a set of guidelines are developed as a suggested methodology for preserving the historic and visual characteristics of brownfield sites while simultaneously reintegrating them back into communities. The guidelines are then applied to a site where no redevelopment activity has taken place. Recommendations for further exploration into the link between historic preservation and brownfield redevelopment follow in the conclusion.

INDEX WORDS: brownfields; historic preservation; redevelopment; reclamation; U.S. Environmental Protection Agency; *Declaration of Amsterdam; Secretary of the Interior Standards for Rehabilitation; ICOMOS Washington Charter of 1987; Nizhny Tagil Charter; TICCIH;* Ironbridge Gorge; West Allis, Wisconsin; Fayetteville, North Carolina; Americus, Georgia

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CHAPTER 1

INTRODUCTION

Historic preservation has been incorporated into various city-planning strategies in the United States in order to preserve a city's distinct historic character and preserve endangered elements of its built environment.[1] Using historic preservation in city planning strategies has been generally effective in planning for growth and managing change in areas with easily identifiable, definitive historic characteristics such as those found in residential neighborhoods, downtown business districts, and commercial corridors. Furthermore, incorporating historic preservation in regional planning strategies has also yielded economic benefits from heritage tourism.[2] The proper stewardship of historic and cultural resources has enabled many communities to capitalize on their natural scenic areas, downtown centers, and historic assets.

Through the use of various historic preservation tools, such as local district ordinances, tax credit rehabilitation projects, and National Register designations, many urban and rural areas have preserved their most important resources and promoted awareness of historic places. However, historic preservation has done little to explicitly encompass the management of sites that have been rendered functionless yet still possess historic value distinct from that of individual historic homes or buildings. Contaminated sites, typically referred to as brownfields,

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[1] For example, the State of Georgia requires a historic preservation component to be included in cities' comprehensive plan documents. The historic preservation component enables cities to identify "character areas", which aids in planning for future development while preserving and maintaining existing historic or cultural resources that shape local identities.

[2] Norman Tyler, *Historic Preservation* (W.W. Norton & Company: New York, 2000), 171, 215.

are all too often ignored because the remediation process requires intense planning and oversight. The purpose of this thesis is to examine the potential overlap between historic preservation and brownfield redevelopment and identify areas where each may mutually benefit the other. The reluctance or inability of communities to effectively address brownfields have generally resulted in the closure of buildings in close proximity to the brownfield site, loss of historic resources related to the site, or exposure of the populace to harmful, irreversible effects of environmental contamination.[3]

Since the last half of the twentieth century, society as a whole has become more concerned with protecting the environment. It makes sense for historic preservation to be viewed as an approach to problems created by urban sprawl and urban decay. These problems may include loss of productive farmland to uncontrolled development, shortages of quality affordable housing, as well as abandoned, contaminated industrial sites. While tools exist to remedy some of these problems, there is no clearly defined agent to guide the appropriate stewardship of brownfield sites. As the principles of historic preservation are evolving beyond the preservation of old buildings, they have emerged as a viable approach to addressing the needs of derelict sites rich in often overlooked industrial heritage. Many cities across the country have at their disposal design guidelines, preservation ordinances, and conservation easements to guide the growth of their communities' most valued historical areas. However, there is no set of standards currently in place for reclaiming a brownfield site as there are for rehabilitating historic buildings and restoring a sense of place. Therefore, the history of these

[3] Laura Brachman, "Turning Brownfields into Community Assets: Barriers to Redevelopment," in *Recycling the City: The Use and Reuse of Urban Land,* eds. Rosalind Greenstein and Yesim Sungu-Eryilmaz (Lincoln Institute of Land Policy: Cambridge, 2004), 68.

sites remains buried, the visual characteristics fade and decay, the site itself erodes into an eyesore, and its importance to the community is lost.

Need / Necessity

Given that there are an estimated 500,000 brownfield sites in the United States, the redevelopment of these sites should be considered vitally important to quality of life, the health of the landscape, and future principle planning objectives.[4] Despite this staggering number, the idea of brownfield redevelopment has not yet been wholly embraced. It has been viewed more for associated problems and complications instead of its possibilities. As a result, the concept of brownfield redevelopment has been slow to elicit interest from communities. The idea of building anew on contaminated land has been regarded as unappealing, even to communities seeking to improve their image through revitalization. As a result, new development projects continue to rapidly consume pristine land through newly constructed buildings, roads, and related infrastructure, under the guise of revitalization.[5]

When brownfield redevelopment is viewed as a complement to historic preservation, its benefits emerge more clearly. Rather than an obstacle to revitalization, a brownfield can become an opportunity for creative development that is tied to the preservation of the community's industrial or manufacturing history. Like historic preservation, it becomes a planning tool that aides in accomplishing responsible natural, cultural, and historic resource

[4] The United States Environmental Protection Agency. Available from Internet, www.epa.gov. Accessed January 2008.

[5] Andres Duany, Elizabeth Plater-Zyberk, and Jeff Speck, *Suburban Nation: the Rise of Sprawl and the Decline of the American Dream* (North Point Press: New York, 2000), 144

management[6] as well as sustainable growth. Additionally, the character defining features of brownfield sites, such as rail lines, warehouses, types of equipment, or large scale buildings can be recognized and preserved rather than left to continually waste away and cause further harmful effects.

Historic preservation began in the United States as a grass roots effort to save the home of George Washington, and has evolved from an interest in saving old buildings to encompass a wider range of problems and issues, such as community attitudes, land use management, and historic legacies.[7] Similarly, brownfield redevelopment has the ability to expand and address more than merely the removal of pollutants from contaminated sites to confront the aforementioned diverse set of issues.[8] Because these areas of concern are matters of community betterment, both historic preservation and brownfield development become linked within the process of planning for a community's future.

Overview

Historic preservation has a considerably longer history in European countries than in the United States. However, contemporary attitudes and challenges have begun to exert a profound influence upon the practice of historic preservation in the United States. American preservationists now have opportunities to explore the application of historic preservation

[6] In the context of this thesis, the term "cultural resource management" is used in reference to strategies for maintaining and preserving objects, structures, landscapes, buildings, and sites that have natural, historic, and / or cultural values.
[7] Tyler, 11-15.
[8] Sue McNeil and Deborah Lange, "Engineering urban brownfield development", in *Manufactured Sites: Rethinking the Post-Industrial Landscape,* ed. Niall Kirkwood (New York: Spon Press, 2001), 61.

more broadly, in contexts such as city planning, sustainability[9], and management of cultural resources. Given Europe's long history of stewardship of its ancient historic and cultural resources, preservationists working in the United States would be remiss if they overlooked some of the guiding principles created, enacted, and practiced by European authorities.

A relevant document for American preservationists is the *Declaration of Amsterdam*. Though introduced by the Council of Europe in 1975, its principles are still useful in considering the far-reaching potential of historic preservation as it relates and could be applied to brownfield sites. To support this, the *Declaration of Amsterdam* warns communities about "building the future at the expense of the past", and recommends that concepts of historic preservation and heritage conservation be incorporated with town planning strategies.[10] Additionally, the *Declaration of Amsterdam* recommends the preservation of "old areas" that form a community's identity and character. The *Declaration of Amsterdam* does not limit the definition of 'old' to describing conventional resources, such as monumental historic buildings, elegantly crafted houses, gardens and landscapes designed by masters, and priceless cultural artifacts. Instead, the basis for interpreting the broad inclusion of historic resources can be derived by one of the *Declaration of Amsterdam*'s key arguments:

> "The conservation of these architectural complexes can only be conceived in a wide perspective, embracing all buildings of cultural value, from the greatest to the humblest - not forgetting those of our own day together with their

[9] The US EPA most accurately defines the term 'sustainability' for the purpose of this thesis as "meeting the needs of the present without compromising the ability of future generations to meet their own needs". Available from Internet, www.epa.gov/sustainability. Accessed January 2009.

[10] Council of Europe, *Declaration of Amsterdam, Congress on the European Architectural Heritage,* 1975. Available from Internet, http://www.icomos.org/docs/amsterdam.html. Accessed September 2008.

surroundings. This overall protection will complement the piecemeal protection of individual and isolated monuments and sites."

With the *Declaration of Amsterdam*, the Council of Europe advocates the preservation of areas found within towns and villages that possess historic and cultural worth, treating them as irreplaceable environments that tell a story about a certain place, and encourages the consideration of such historic areas when planning for modern development. Most importantly, the *Declaration of Amsterdam* introduces the concept of 'integrated conservation' as a holistic approach to addressing both town planning strategies and responsible heritage resource management.[11] [12]

In addition to the *Declaration of Amsterdam*, three other documents are discussed that lend support to integrated conservation. These include: *The Secretary of the Interior Standards for Preservation Planning, the Charter for the Conservation of Historic Towns and Urban Areas (ICOMOS Washington Charter of 1987),* and the *Nizhny Tagil Charter for the Industrial Heritage.* In order to examine the link between historic preservation and brownfield redevelopment, this thesis relies on the principles of integrated conservation, as outlined in the *Declaration of Amsterdam,* as well as the main ideas of the supporting documents. While this selection of documents certainly addresses the preservation of conventional resources, it also functions as a set of policy frameworks that are applicable to resources that fit the definition of a brownfield site, even those that are not characteristic of industrial history.

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[11] Andrew Powter and Susan Ross, "Integrating Environmental and Cultural Sustainability for Heritage Properties", *APT Bulletin*, 6 (January 2005): 6

[12] Integrated Conservation, as used in the *Declaration of Amsterdam,* has been defined as "a systemized method of managing historic heritage that considers the possible elements involved, such as cultural, social, and economic values. In Natalia Miranda Vieira, "The Applicability of the *Declaration of Amsterdam* in Brazil: Case Studies of Bairro Do Recife, Pelourinho, and Praia Granda", City & Time, 3 (2007): 83

While these documents and charters do not explicitly use the term "brownfield" in reference to the types of areas they identify, most of the spaces and "old areas" discussed can be conceptualized as brownfields and categorized also as valuable historic resources. The United States EPA specifically describes brownfield sites as "abandoned industrial and commercial sites whose potential, perceived, or actual contamination impedes redevelopment of the site".[13] In comparison, the *Declaration of Amsterdam* explains the need to preserve all areas "from the greatest to the humblest" and to devise planning strategies that seek to preserve all elements of what the *Declaration of Amsterdam* describes as the "traditional environment".[14]

In order to determine the ways in which brownfield sites can factor into a community's historic landscape, it is important to consider the range and category of properties to which the term 'brownfield sites' can apply, since they can range from large steel mills to neighborhood dry cleaner operations. Though typically associated with inner-city urban areas and former industrial sites, brownfield sites are found in a range of locales and settings independent of size, density, and geography.[15] Many rural areas contain brownfield sites with large-scale agricultural processing operations as well as small industries that are cloistered between expanses of farmland and railroads. Figures 1.1 and 1.2.[16] These examples typify the range of brownfield sites addressed by this thesis; this thesis does not address sites that warrant listing on the U.S. Environmental Protection Agency's National Priority List (NPL). NPL sites often have

[13] EPA Definition of brownfields. Available from Internet, http://epa.gov/brownfields. Accessed January 2008.
[14] *Declaration of Amsterdam,* 1975.
[15] Christopher De Sousa, "The Greening of Brownfields in American Cities", *Journal of Environmental Planning and Management,* 47 (July 2004): 580.
[16] Photos taken by author unless otherwise noted.

Figure 1.1. DeSoto, Sumter County, Georgia.

Figure 1.2. Unknown irrigation tank. DeSoto, Sumter County, Georgia.

to be completely destroyed because of their levels of toxicity. Typically, remediation of these sites is addressed by federal government agencies because remediation is too cumbersome for local municipalities.

During their active operations, many brownfield sites may have served as catalysts for the development, growth, and vitality of their communities.[17] Thus, brownfield sites can reflect a range of important historical patterns within a community's history, with the power to tell stories about industry, farming activities, and other aspects of local or regional historical economies. In the United States, historic preservation has not generally focused on abandoned industrial sites or derelict land with decaying structures. However, the *Declaration of Amsterdam* indicates that the concepts of historic preservation and brownfield redevelopment are connected. These endeavors share goals related to city and town planning, community betterment, and responsible management of historic resources.

Literature Research

In terms of academic writing, brownfield development has received little, if any, attention in the United States. Much of the published research on brownfield redevelopment and remediation of contaminated land focuses on the complicated nature of the reclamation process, such as the legal and financial complexities, liability issues, and ramifications if remediation is not correctly executed. Most of the literature research for this thesis consists of EPA bulletins, notes and presentations from conferences or symposia, some technical writing, and urban policy studies and reports. These writings provide only a surface level glimpse of the value of cultural heritage and history found at brownfield sites.

The numerous facets of brownfield development encourage thoughtful and extensive analyses that draw upon themes of history, design, sustainability, and public welfare—all of which suggest that brownfield redevelopment is a more creative process that concerns the restoration of the elements of culture and history that people have collectively lost, rather than just cleaning up a site in need of attention. In the case of brownfields, demolition should not be the first choice in a series of solutions. Unlike decaying buildings and structures, these sites are incapable of disappearing.

CHAPTER 2

POLICY FRAMEWORKS

The first section of this chapter provides an in-depth analysis of the *Declaration of Amsterdam* as the standard for accomplishing integrated conservation. The principles are then analyzed to demonstrate the possibility for relationships between historic preservation and brownfield redevelopment. The second section describes the approaches taken to manage cultural resources in the United States. This section addresses American accomplishments in the development of historic preservation policies as well as recognizes necessary new directions for the consideration of brownfields as resources that should require more attention from preservationists. The third and final section looks at other documents from two non-governmental organizations, the International Council of Monuments and Sites (ICOMOS) and The International Committee for the Conservation of the Industrial Heritage (TICCIH), which acts as an advisory body to ICOMOS. It is relevant to point out that TICCIH focuses specifically on the preservation of industrial heritage.[18]

The Declaration of Amsterdam

In 1975, the Council of Europe introduced the *Declaration of Amsterdam* to the Congress of Amsterdam. The Council of Europe is a multi-national organization that was established in 1949 with the mission of promoting democratic ideals, human rights, and cultural

[18] The International Committee for the Conservation of the Industrial Heritage. Available from Internet, http://www.mnactec.cat/ticcih/organisation.htm. Accessed February 2009.

identity and diversity throughout the world.[19] The reasons for issuing the *Declaration of Amsterdam* was two-fold, as it commemorated 1975 as the year of European Architectural Heritage and called attention to the irreplaceable nature of all of Europe's cultural treasures, ranging from monuments to buildings to general sites of interest within communities.[20] Along with celebrating cultural and architectural heritage, the *Declaration of Amsterdam* also called attention to specific types of factors that posed threats to cultural integrity, such as poor planning, failure to effectively manage traffic patterns, and general lack of concern for preserving older areas contained within larger environments.

The *Declaration of Amsterdam* established a set of principles and recommendations for the identification and evaluation of various types of historic and cultural resources, including works of architecture, historic environments, and natural and man-made landscapes. Most importantly, the *Declaration of Amsterdam* offers guidance for the planning and implementation of the long-term preservation and management strategies to effectively maintain these resources.

The Principles of 'Integrated Conservation'

The *Declaration of Amsterdam* offers a straightforward discussion of integrated conservation, organized into two sections.[21] The first section is comprised of a set of detailed principles for achieving a set of goals; the second provides specific recommendations for implementation. Together these factors underscore the focus of the *Declaration of*

[19] Council of Europe. Available from Internet, www.coe.int/T/e/Com/about_coe. Accessed February 2009.
[20] *European Charter of the Architectural Heritage*. Available from Internet, www.icomos.org/docs/euroch_e.html. Accessed February 2009.
[21] To reiterate, Viera (2007) offers the most accurate definition of integrated conservation: a systemized method of managing historic heritage that considers the possible elements involved, such as cultural, social, and economic values.

Amsterdam's principles. The following paragraph provides an analysis of all eleven of the *Declaration of Amsterdam's* principles, beginning with the first[22]:

1. "Apart from its priceless cultural value, Europe's architectural heritage gives to her peoples the consciousness of their common history and common future. Its preservation is, therefore, a matter of vital importance."

In support of this principle, the *Declaration of Amsterdam* states the importance of preserving and protecting the resources that form a "traditional environment". The traditional environment is described in the *Declaration of Amsterdam* as being reflective of a community's sense of identity, providing a visual, tangible record of a community's heritage.[23] Additionally, it continually makes reference to the "architectural complexes" that form parts of a community's traditional environment, describing anything from "old quarters of cities and towns [to] historic parks and gardens".[24] According to the *Declaration of Amsterdam*, preservation efforts, as part of integrated conservation, should strive to maintain these areas and improve their historic character as a continuous part of the built environment. These areas should not be misconstrued as eyesores or outdated places within townscapes or cityscapes, but rather as places whose contexts or 'traditional environments' warrant preservation. Preservation of whole architectural complexes within traditional environments is recommended over the piecemeal preservation of singular historic buildings.[25]

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[22] Principles with themes too similar to be discussed separately are discussed together, as noted in the text.
[23] *Declaration of Amsterdam*, 1975.
[24] Ibid.
[25] Ibid.

Furthermore, the *Declaration of Amsterdam* gives particular emphasis to the belief that all aspects of a community's heritage are worth preserving, "from the greatest to the humblest".[26] Based on this description, historic brownfield sites can be included as a type of "architectural complex", especially if original buildings, machinery, or structures remain standing onsite. Historic brownfields would then serve as one piece of a community's larger, varied fabric of land uses and built forms. They are evidence of the patterns and developments of industry and innovation that defined a community or perhaps a region. Even without architectural resources, brownfields are capable of yielding important, often irreplaceable, information about a community's industrial past.

2. "The architectural heritage includes not only individual buildings of exceptional quality and their surroundings, but also all areas of towns and villages of historic or cultural interest."[27]

To support this principle, the *Declaration of Amsterdam* recommends that "historical [sic] continuity must be preserved in the environment" in order for citizens to maintain a sense of identity.[28] Visual characteristics, especially those with historic or cultural value, are essential in the maintenance of a community's unique identity. Therefore, preserving visual characteristics are key in protecting areas identified as having 'historic or cultural interest'. For example, jurisdictions with local historic preservation ordinances can enforce design review to ensure the

[26] Ibid.
[27] Ibid.
[28] Ibid.

preservation of important visual characteristics. Design guidelines can be employed as a reference for guiding changes to historic buildings.[29]

Despite their toxic nature, brownfield sites are places of intrigue because they are capable of telling stories often specific to the communities or regions in which they are located. Brownfields can evoke curiosity through the artifacts of decay left behind, from abandoned railroad tracks to warehouses that once formed parts of larger industrial complexes.[30] Figures 2.1 and 2.2. Their compelling visual characteristics entice exploration, since brownfields are typically the last vestiges of a community's earliest history. It is often the value of visual characteristics of brownfield sites that strengthen their ability to recall elements of the community's past.

3. "Since these treasures are the joint possession of all the peoples of Europe, they have a joint responsibility to protect them against the growing dangers with which they are threatened – neglect and decay, deliberate demolition, incongruous new construction and excessive traffic."

To support this principle, the *Declaration of Amsterdam* suggests that conservation and preservation activities should be broadly executed, community-wide efforts, and not limited to the final word of the local governing body. As stated explicitly by King in *Landscapes Under Pressure* (2001), "preservation is put into law because it is construed to be in the public

[29] Tyler, 146.
[30] Kevin Lynch, *Wasting Away* (Sierra Club Books: San Francisco, 1990), 124, 126.

Figure 2.1. Abandoned agricultural operations. Leslie, Sumter County, Georgia.

Figure 2.2. Railroad tracks. Leslie, Sumter County, Georgia.

interest."[31] The *Declaration of Amsterdam* describes historic and cultural resources as "treasures", independent of any presupposed value.[32] These types of resources simultaneously belong to the past and to the future. However, since they also exist in the present, it is necessary that members of the community act as good stewards to ensure that the physical manifestations of their heritage are preserved for future generations. According to the *Declaration of Amsterdam*, citizens have the responsibility to recommend the range and scope of resources that should be preserved.[33] Moreover, the local government has the responsibility of ensuring that citizens are allowed to participate when decisions made by the government affect the future of the community's places of heritage—from the most humble to the most elaborate.[34]

Additionally, the community, the local governments, and planning authorities should make themselves aware of places that are in danger of losing original, authentic historic characteristics to the threats of potentially intrusive development and factors influencing blight.[35] From old warehouses and dilapidated commercial buildings to farmlands with century-old histories of agricultural production, resources that contribute to a community's sense of place and identity should be protected.

Despite their levels of contamination and associations with blight, brownfield sites are opportunities to promote revitalization. As long as they remain vacant and underused,

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[31] Ludomir R. Lozny, ed., *Landscapes Under Pressure: Theory and Practice of Cultural Heritage Research and Preservation,* "Cultural Heritage Preservation and the Legal System With Specific Reference to Landscapes", by Thomas F. King (New York: Springer, 2006), 241
[32] *Declaration of Amsterdam*, 1975.
[33] Ibid.
[34] King, in Lozny, 241-242.
[35] *Declaration of Amsterdam*, 1975.

brownfields can negatively impact adjacent historic neighborhoods or commercial areas, propagate trends of decline, and further contaminate soil and groundwater. Because brownfield sites have been shaped by former uses and functions, they typically offer site-specific benefits, such as location to major transportation networks, existing infrastructure, and larger lot sizes. Other desirable benefits, such as proximity to metropolitan areas or bodies of water, may also lend appeal to a brownfield site and make it more enticing for redevelopment than unused, pristine green space.[36] Furthermore, decisions about the use of brownfield sites should ensure that future redevelopment initiatives will not rob a brownfield site of its historic legacy and undermine its existing, intrinsic character. Demolishing historic warehouses or clearing sites without first examining its archaeological potential would result in the loss of historic visual characteristics and run counter to principles of integrated conservation as considered in the *Declaration of Amsterdam*. By protecting the historic elements and visual characteristics of brownfields, redevelopment projects can be used to enable the rediscovery of a community's history.

4. "Architectural conservation must be considered, not as a marginal issue, but as a major objective of town and country planning."

The *Declaration of Amsterdam* has stressed that conservation and historic preservation cannot afford to be a "secondary consideration or one requiring action here and there".[37] Often, both historic preservation and conservation are misconstrued as luxuries. They become secondary to other priorities of city and town planning, such as transportation, social issues,

[36] Jennifer Vey, *Restoring Prosperity – The State Role in Revitalizing America's Older Industrial Cities* (Washington D.C.: The Brookings Institution Metropolitan Policy Program, 2007), 4.
[37] *Declaration of Amsterdam*, 1975.

business and industry development, and zoning and land use. While these are all important to the effective long-term operation of a community, according to the *Declaration of Amsterdam*, the preservation of natural, historic, and cultural resources must be weighted with equal importance.[38] It is these types of resources that retain local populations, attract visitors, and contribute invaluable appeal to a place, yielding the economic benefits of heritage tourism and differentiating a community from its neighbors.[39]

This principle is applicable to historic brownfields because they offer unique opportunities for communities to promote aspects of their local industrial heritage. This can be accomplished through various approaches. According to reports from the United States Environmental Protection Agency, numerous communities have utilized their brownfield sites to create niches for heritage tourism.[40] For example, the abundance of steel mills in Bethlehem, Pennsylvania, made it an appropriate location for the National Museum of Industrial History, set to open in 2010.[41] Figure 2.3.[42] This museum is located in the rehabilitated historic Bethlehem Steel Lehigh Plant, and it is the first museum to debut as part of the Smithsonian Institution's Affiliation Program.[43] Most of the museum collection will be housed in the plant's electric shop, built in 1913.[44]

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[38] Ibid; Vey, 35.
[39] Donovan Rypkema, "The Economics of Historic Preservation", 77-88.
[40] United States Environmental Protection Agency, "Brownfields Metamorphosis—From Abandoned Properties to Cultural Celebrations". Available from Internet, http://www.epa.gov/swerosps/bf/pdf/ss_cult.pdf. Accessed July 2008.
[41] Olanoff, Lynn, "National Museum of Industrial History on its way in Bethlehem" . Available from Internet, http://www.lehighvalleylive.com/bethlehem/index.ssf/2008/07/national_museum_of_industrial.html. Accessed March 2009.
[42] National Museum of Industrial History. Available from Internet, http://www.nmih.org. Accessed April 2009.
[43] "Brownfields Metamorphosis", Accessed July 2008.
[44] Olanoff, Accessed March 2009.

Figure 2.3. Site of National Museum of Industrial History.

However, industrial museums may not be a practical redevelopment strategy for all brownfield sites. Additionally, industrial museums may not belong in every community, but they do exemplify how a brownfield site can be reclaimed to meet the needs of a community and recapture elements of community history. For example, the city of Worcester, Massachusetts, partnered with the Central Massachusetts Economic Development Authority, the Blackstone River Valley National Heritage Corridor Commission, Preservation Worcester, and Worcester History Museum to reclaim the Quinsigamond Wire Works building.[45] The site itself had been used for wire production during the 1840s, but the original buildings had been destroyed by fire.[46] A new facility was constructed in 1865, and named "Quinsigamond Wire

[45] United States Environmental Protection Agency, "In Worcester, Working Together to Restore Former Industrial Land for Public Use". Available from Internet, http://www.epa.gov/brownfields/pdf/ss_cmeda.pdf. Accessed March 2009

[46] Washburn, p. 152.

Works"[47]. Redevelopment efforts began in 1999 for the site to serve travelers as a Welcome Center. Additionally, the welcome center supplied historical information about the city's early factories and connection to the Industrial Revolution.[48]

The examples of reclaimed sites in both Pennsylvania and Massachusetts show how a community's brownfield site may actually become the engine for further research into the community's broader industrial history and supplement related planning activities. The *Declaration of Amsterdam* states that "planners should recognize that not all areas are the same and that they should therefore be dealt with according to their individual characteristics." Because the nature of brownfield sites encompasses a range of issues, including hazardous materials, archaeological resources, and property ownership, this statement from the *Declaration of Amsterdam* reflects the importance of expert, in-depth investigations into a community's brownfield sites, beyond simply the characteristics visible on the ground. Investigations of brownfield sites should seek to answer questions that provide specific information about the site's relationship to the local community and any other broader associations. What kinds of processes took place there? What did the industry contribute to the community? Why did the industry choose that specific location? Obtaining this information through archaeological investigations or in some cases through communication with former employees or other personal connections to the site will assist with endeavors to reclaim the site. Answers to these questions may enable the community to have a new

[47] Ibid., p. 147
[48] Ibid.

appreciation for the site and its place within the community's history and a goal for reuse in a community's future development plans.

5. "Local authorities, with whom most of the important planning decisions rest, have a special responsibility for the protection of the architectural heritage and should assist one another by the exchange of ideas and information."

To support this principle, the *Declaration of Amsterdam* indicates that individual characteristics are capable of lending "aesthetic and cultural values…that should lead to the adoption of specific aims and planning rules for old architectural complexes."[49] Local governments must implement policies that protect historic resources, according to the *Declaration*. Furthermore, local governing bodies also need reliable, factual information to justify their decisions and adopt the most effective policies. This principle calls attention to the importance of communication between three key parties: governing authorities, local citizens, and planning professionals. With the widespread availability of Internet technology, these entities have access to an exhaustive range of resources specifically related to preservation and conservation. Organizations such as the National Parks Service, the National Trust for Historic Preservation, the Sierra Club, and other such related entities function as clearinghouses of information for communities.

Collaboration among these and other stakeholders is essential in the planning and management of significant resources at local, state, and national levels. The *Declaration of Amsterdam* explicitly states that, "a permanent dialogue between conservationists and those

[49] *Declaration of Amsterdam*, 1975.

responsible for planning is indispensable."[50] These collaborations may focus on identifying and preserving obvious, easily recognizable types of resources. However, the exchange of information between local authorities, planners, and citizens should also focus on the identification of other places and spaces of interest. Preservation efforts should extend beyond that of the built environment to include other resources that possess historic value and symbolize a unique community identity. Brownfield sites are examples of such resources, as they are more widely recognized for the problems caused by their contamination and receive virtually no attention for the historic and cultural values of the resources that may be associated with them. Given the current emphasis on sustainability and adaptive reuse of historic buildings, municipal leaders have an appropriate climate to encourage the reuse of brownfield land. The *Declaration of Amsterdam* encourages re-evaluation and documentation of all types of previously used spaces, whether part of the built environment or natural landscape, as this may direct new types of development more harmonious with the existing historic environment. Examining the historic and cultural values of brownfields and re-framing them as industrial landscapes can provide new opportunities for redevelopment.

6. "The rehabilitation of old areas should be conceived and carried out in such a way as to ensure that, where possible, this does not necessitate as major change in the social composition of the residents, all sections of society should share in the benefits of restoration financed by public funds."

[50] Ibid.

"Old areas", as described in the *Declaration of Amsterdam*, carry a connotation different from that of conventional American "historic districts". "Old areas" in the international context of the *Declaration of Amsterdam* can describe abandoned quarries or manufacturing sites as well as a traditional historic district with elegant high style buildings and dwellings. Despite apparent differences in physical appearance, however, both can be considered historic resources that contain important heritage and historic value. The *Declaration of Amsterdam* addresses the importance of preserving heritage from the most humble to the most grand, and brownfield sites are excellent examples of these types of "old areas" that remain relevant to a community's past, present, and future identity.[51] Additionally, abandoned tools, machinery, or equipment remaining onsite can contribute visual spectacles that elicit curiosity. Brownfields are characteristic of old areas worth preserving because they contain features that are often distinct from other parts of a community.

The changes that occur, for better or worse, within historic environments or "old areas" often reflect the effectiveness of legal tools that support historic preservation activities. A well-maintained residential district may indicate a successful, well-written ordinance and active preservation commission; conversely, a commercial area with broken windows, vacant buildings, and empty streets suggests an ineffective ordinance and inactive preservation commission. However, the effects of historic preservation activity on existing social relationships may not be as simply visible. For example, when implemented irresponsibly, without regard for existing social balances, historic preservation has been seen as an agent of

[51] Ibid.

gentrification.[52] As properties are improved in historic districts, rents tend to go up, and only a select percentage of the populace can afford residence there.[53] Community residents with low incomes typically are displaced, either by climbing property values or strict provisions of the local preservation ordinance. The *Declaration of Amsterdam* pointedly discusses the importance of considering existing "social factors" in regards to developing successful integrated conservation policies.

The Declaration states that local governments or "public authorities" should step in to prevent typical market trends that lead to gentrification.[54] These intervention measures should encourage rather than deter future restoration and rehabilitation projects by providing owners with grant money to cover repairs, capping rents at a certain level, and promoting housing allowances. Additionally, these measures should encourage diversity within historic areas, rather than create environments where not all are welcome. These types of measures have twofold success in accomplishing principles of integrated conservation. Not only are buildings, districts, and other types of historic resources maintained and preserved as parts of the larger cityscape or townscape, but also the various groups of people that lend cultural diversity to individual historic areas have a greater chance of remaining in their neighborhoods or having greater freedom of choice in deciding where to live.

7. "The legislative and administrative measures required should be strengthened and made more effective in all countries."

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[52] Tyler, 211.
[53] Rypkema, The Economics of Historic Preservation.
[54] *Declaration of Amsterdam*, 1975.

8. "To help meet the cost of restoration, adaptation, and maintenance of buildings and areas of architectural or historic interest, adequate financial assistance should be made available to local authorities and financial support and fiscal relief should likewise be made available to private owners."

These principles are discussed together because of their joint emphasis on the legal responsibilities of local governments in relation to conservation goals. Preservation of historic resources through legal means requires substantial investments of time, energy, and money. While local or regional governing authorities may conduct such efforts, it is necessary for members of the community to have a sense of ownership over their local historic resources. Having a sense of ownership is essential to successful long-term stewardship and encourages investment within the community. Without community members and government officials actively working together, the laws that support historic preservation activity risk becoming meaningless to future generations.

As stated with the discussion of the principle focused on maintaining existing social balances of population, the *Declaration of Amsterdam* explicitly states that, "a policy of conservation also means the integration of the architectural heritage into social life". Basically, this means that everyone in the community, regardless of social status or profession, should have the opportunity to use and interact with the buildings and structures that comprise local identity and heritage. Moreover, historic buildings and structures that have been abandoned should be reclaimed for new uses. The *Declaration of Amsterdam* discusses the importance of "usability" of a resource and weights it equally with its historic value and role in community

heritage. The *Declaration of Amsterdam* promotes the practicalities of preserving historic structures through the concept of adaptive reuse by indicating that, "historic buildings can be given new functions which correspond to the needs of contemporary life."[55] Approaches like this allow for a community to grow and prosper without sacrificing unique collections of buildings.

The discussion of adaptive reuse of historic properties inevitably leads to a discussion of the relationship between financial incentives and historic preservation activities, specifically related to buildings. In the United States, tax laws were amended under the Tax Reform Act of 1976. This change was an attempt to make amends with decisions of 1960s and 1970s urban renewal by discontinuing tax deductions for demolition of historic buildings.[56] The 1978 Tax Act established the Rehabilitation Investment Tax Credit (RITC), which provided a ten percent tax credit for expenditures on the rehabilitation of old buildings to be reused as income-producing facilities.[57] A 1981 amendment under the Economic Recovery Tax Act boosted the ten percent credit up to a twenty-five percent credit.[58] While this program was successful in the preservation of a range of historic buildings, it lacked consistent oversight, in terms of the range of buildings being rehabilitated, the tendency of appraisers to overvalue easements, and the failure of owners to pay recapture taxes if they sold the buildings before the terms allowed.[59] This was corrected with the passage of the 1986 Tax Act, which established more stringent parameters for tax credit rehabilitation projects. Only National Park Service "Certified Historic

[55] *Declaration of Amsterdam*, 1975.
[56] Tyler, 192.
[57] Ibid.
[58] Ibid, 193.
[59] Ibid, 194

Structures" were eligible for a twenty percent tax credit; a ten percent tax credit could be claimed for the rehabilitation of non-historic structures built before 1936.[60] Under these changes, only property owners or "long terms lessees" were eligible to claim the credits, not investors.[61]

Brownfield sites, as vacant, contaminated spaces within communities, are poised for opportunities similar to those offered by abandoned historic buildings, such as those located in a downtown commercial district. However, a history of complicated legislation has worked against the promotion of brownfields as viable options for reuse in both rural and urban areas. The Comprehensive Environmental Response, Compensation, and Liability Act (CERLCA), enacted in 1980, was the first federal law to target brownfields.[62] This law created the National Priority List, which recorded the most contaminated brownfield sites in the nation. Also known as the Superfund program, CERCLA utilized taxes from petroleum and chemical industries to finance cleanup of sites listed on the NPL where the parties responsible for contamination could not be located.[63]

Because CERCLA was met with criticism from the very beginning, amendments periodically have been made to relieve burdens on potential buyers of brownfield properties, since they would be liable for the costs associated with remediation. This has resulted in many new developments on previously unused greenfield sites.[64] According to the United States Environmental Protection Agency, changes in legislation since the initial establishment of

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[60] Ibid, 194
[61] Ibid.
[62] United States Environmental Protection Agency. Available from Internet, http://www.epa.gov/superfund/20years/20yrtl.pdf. Accessed January 2009.
[63] Ibid.
[64] National Governors Association, *New Mission for Brownfields,* 7.

Superfund in 1980 have significantly lessened the burden of liability issues and responsibilities when it comes to brownfield remediation. Since at least 1995, the Environmental Protection Agency has been able to sponsor a range of financial incentives for brownfield redevelopment projects, including pilot studies, grants, and revolving loans to aid in assessments and cleanups. Additionally, the 2001 Small Business Liability Relief and Brownfields Revitalization Act freed up funding sources at state and tribal levels and clarified the provisions of CERCLA.[65] However, these changes have had only a moderate impact on the staggering number of documented brownfields belonging on the NPL. Statistics through April 2009 have accounted for the clean up of only 332 NPL sites; however, 1,264 still remain on the list, and another 67 sites have been added.[66]

Apart from the measures taken by the federal government to promote brownfield redevelopment, state governments have formulated their own strategies for managing brownfields, and they have been doing so over the past twenty-five years, according to the National Governor's Association.[67] The intent of state driven initiatives is to promote brownfield redevelopment as ways to achieve the broader goals of growth.[68] If redefined as being integral parts of a historic environment, "old areas" or even "architectural complexes", would brownfield sites be viewed less with skepticism and more with confidence? Could they be promoted as cultural assets? Developing financial incentives, especially at the local and state levels of government, that combine historic preservation activities with brownfield

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[65] United States Environmental Protection Agency. Laws and Statutes. Available from Internet, http://www.epa.gov/brownfields/gdc.htm. Accessed March 2009.
[66] United States Environmental Protection Agency. Available from Internet, http://www.epa.gov/superfund/sites/query/queryhtm/npltotal.htm. Accessed April 2009.
[67] National Governor's Association, *New Mission for Brownfields.*
[68] Ibid

redevelopment strategies may provide a way for communities to reclaim brownfields as irreplaceable places of local history.

9. "The architectural heritage will survive only if it is appreciated by the public and in particular by the younger generation. Educational programmes for all ages should, therefore, give increased attention to this subject."
10. "Encouragement should be given to independent organizations – international, national, and local – which help to awake public interest."

These two principles are underscored by the common theme of education, particularly the idea that citizens glean the greatest understanding of heritage and history from both tangible and intangible historic elements that characterize their environment. Moreover, these principles also reflect the necessity of heritage education across all levels of society, from youth to the elderly, local to national governing bodies, professionals to laypersons. The *Declaration of Amsterdam* recognizes that the protection and conservation of heritage resources requires interest from younger generations, as they will be making decisions related to these issues in the future. Because of this fact, an appreciation for history and the work of preserving elements of built heritage must be cultivated now, in the present. By articulating areas within the conservation discipline, such as planning, advocacy, and construction, and keeping them competitive as careers, the community can ensure that its resources will remain properly managed. Involving community members in the upkeep of historic structures must carry equal weight with the development of policy initiatives and implementation measures.

Preservationists must continually educate themselves about the benefits of conservation and historic preservation in order to effectively educate the people and communities they serve. They must be able to demonstrate the main ideas expressed in the *Declaration of Amsterdam*: that utilizing conservation and historic preservation directed planning strategies facilitates the maintenance of local character in cities and towns and, as a result, encourages the long-term protection of that character. Moreover, the Declaration suggests that preservation-directed planning should seek to recover and re-introduce spaces that have slipped from collective memory and present-day function—places that were part of an older urban fabric that no longer dominates.[69] By virtue of this idea, the Declaration acknowledges the importance of dynamic spatial relationships between use, society, and place that give communities their distinct identities.[70] Brownfield sites factor into these spatial relationships much in the same way as historic buildings, despite the fact that they lack the same kind of glamour and quaintness synonymous with downtown commercial areas or abandoned farmsteads. Brownfield sites have histories that not only form parts of the built environment, but also the power to evoke a sense of nostalgia for those with an appreciation for industrial heritage or those whose families spent their lives toiling in a community's earliest factories. The concept of 'integrated conservation' gives brownfield sites a place within the related philosophies of historic preservation and conservation.

[69] *Declaration of Amsterdam*, 1975.
[70] Ibid.

11. "Since the new buildings of today will be the heritage of tomorrow, every effort must be made to ensure that contemporary architecture is of a high quality."

The last principle underlies one of the *Declaration of Amsterdam*'s strongest messages: "refrain from building the future at the expense of the past".[71] The *Declaration of Amsterdam* suggests that adopting policy measures based on the principles of integrated conservation promotes a higher reverence for the existing historic built environment, allowing the quality of the historic environment to influence future plans related to construction, design, and configuration. This includes evaluating and understanding the successes as well as the mistakes of the past. For example, the urban renewal efforts of the 1960s in the United States resulted in the loss of some of the greatest architectural legacies of the 19th and early 20th centuries. These legacies were not limited to singular buildings; they extended to larger networks of historic neighborhoods and commercial areas.[72] During this time, many buildings were cleared and historic precedents were erased, in order to create a blank slate on which to build anew.[73] This resulted not only in the loss of building stock, but also in the removal of community identity which is strongly tied to the places where people live, work, and socialize.[74]

The *Declaration of Amsterdam* implies that preservation and conservation activities, when executed correctly, cannot be only for a certain people but for all. Communities should preserve their historic areas to tell the stories of everyone, not a select few. If communities maintain this perspective in the development of their preservation policies, then all places with

[71] Ibid.
[72] Jacobs, 270-272.
[73] Ibid.
[74] Ibid.

potential for yielding important historic information or important cultural values should be identified. According to the *Declaration of Amsterdam*, preservation efforts should concern the beautiful conventional historic areas as well as the less attractive, less easily defined areas. Brownfields have a place in preservation dialogue because they are a type of historic resource.

American Tools

The United States has taken numerous strides in government legislation to protect physical manifestations of its heritage, from natural areas to the built environment. The National Park Service was created in 1916 to manage the country's most scenic areas too large to be cared for privately.[75] Movements to preserve historic resources began at the local level as early as 1931 with the passage of the first local historic preservation ordinance in Charleston, South Carolina.[76] Similar local ordinances followed respectively in the late 1930s and 1940s.[77] In 1935, Congress passed the National Historic Sites Act, designed to establish policy for the preservation of nationally-significant historic resources for public use.[78] The National Trust for Historic Preservation, which began pre World War II as the National Council for Historic Sites and Buildings, was established in 1949 to join federal preservation efforts of the National Park Service with private sector efforts.[79]

However, the first national policy enacted to preserve, designate, and protect historic resources occurred in 1966 with the passage of the National Historic Preservation Act.[80] It created the National Register of Historic Places, which established specific criteria for assessing

[75] Tyler, 57.
[76] Ibid, 39, 59.
[77] Ibid, 40.
[78] Ibid, 58.
[79] Ibid, 42.
[80] Ibid, 212.

the value of historic resources, from buildings to landscapes to archaeological sites, according to their age, integrity, and level of significance. These criteria have remained unchanged for nearly 45 years.

Preservationists working in the United States have typically relied on the criteria of the National Register to guide them in determining the significance of a historic resource. This has been useful in saving and managing some of America's most valuable and irreplaceable heritage assets. In terms of planning initiatives and management strategies for historic resources at the local level, preservationists have relied on the *Secretary of the Interior's Standards for Preservation Planning* as a guide for such activities. These standards organize basic preservation planning activities such as the identification, evaluation, registration, and treatment of historic properties into planning guidelines.[81] The standards focus on the necessity of establishing a historic context for the resource in question, using the historic context to develop goals and priorities, and incorporating the outcomes of the preservation planning process into a broader comprehensive planning process.[82]

According to the *Standards for Preservation Planning,* preservation planning should strive to provide the most detailed set of recommendations for management of a community's historic and cultural resources. Addressing the irreplaceable nature of historic properties, preventing or mitigating any potentially harmful actions to historic resources, performing research, and defining relationships between resources and the communities in which they are located exemplify the types of recommendations suggested by the *Standards for Preservation*

[81] The Secretary of the Interior's Standards and Guidelines for Preservation Planning. *National Park Service, Archaeology and Historic Preservation*. (Federal Register: Washington, D.C., 1983).
[82] Ibid.

Planning. Though both the National Register criteria and the *Standards for Preservation Planning* are invaluable, they are limited in the scope of guidance that they can provide for managing historic resources, such as brownfields, that comprise large portions of communities but lack significance recognized by the National Register.

In this respect, the guidance provided by the *Declaration of Amsterdam* is most relevant, as its discussion of integrated conservation is more applicable to the overlap between historic preservation and brownfield redevelopment. Since the protection of historic resources begins at the local level, communities must make their own decisions regarding the fate of their locally significant historic resources, including their brownfield sites. Quite often, communities with little or no direction as to how those resources should be evaluated or managed are in danger of losing a significant portion of their original identities, most of which are inextricably linked to historic resources facing threats of development pressure.

As notions of heritage and culture have broadened, the applicability of historic preservation has become more far-reaching. For example, historic preservation has become a useful tool for solving challenges related to economic development by promoting the value of a community's local historic assets. This is reflected in the creation of local historic districts, establishment of scenic by-ways, and showcase of local festivals and events. The *Declaration of Amsterdam* has taken concepts related to historic preservation and linked them more broadly to issues of sustainability, city planning, environmental quality, conservation, and cultural heritage, all of which address community betterment. Because the *Declaration of Amsterdam* has established the necessity of linking these concepts to the practice of historic preservation, it is important for preservationists and other planning authorities in the U.S. to seek out similar

documents that have set solid, lasting precedents elsewhere in the world. It is the intersection of these types of issues that comprise integrated conservation and makes historic preservation so applicable to the concept of brownfield redevelopment.

No direct framework or set of standards exists in the United States to assess the "usability" of a resource to accomplish the goals of integrated conservation as expressed in the *Declaration of Amsterdam*. Currently, the only national government entity that addresses the redevelopment of brownfield sites is the United States Environmental Protection Agency. However, as previously iterated, it addresses only the most significantly distressed brownfield properties by including them on its National Priority List (NPL), as previously discussed in this chapter.[83] The NPL is the only systematic inventory of brownfield sites managed by the EPA, and it only addresses sites that are of national concern because their degree of contamination.[84] The EPA does not evaluate these sites in terms of their cultural history, relationship to the community, or types of resources remaining on site.

Supplementary Documents

In order to minimize the loss of historic characteristics in historic urban areas "both large and small", the International Council on Monuments and Sites (ICOMOS) created the *Charter for the Conservation of Historic Towns and Urban Areas,* also known as the *ICOMOS Washington Charter of 1987.*[85] ICOMOS considered these areas, including "cities, towns, and historic centers and quarters" to reflect "expression(s) of the diversity of societies throughout

[83] Michael R. Greenberg, Henry Mayer, Karen Lowrie, and Judith Shaw, "Industrial Decline and the Opportunities and Challenges of Brownfield Redevelopment", *Community Investments,* (Summer 2008): 8-9.
[84] Ibid, 9.
[85] International Congress on Monuments and Sites, C*harter for the Conservation of Historic Towns and Urban Areas* (also known as the *Washington Charter of 1987)*. Available from Internet, http://www.international.icomos.org/charters/towns_e.pdf. Accessed February 2009.

history".[86] Furthermore, ICOMOS recognized that these areas were at risk of being lost to rapid development patterns that generally proliferate in industrialized societies.[87]

The *ICOMOS Washington Charter of 1987* is divided into three sections: Preamble and Definitions, Principles and Objectives, and Methods and Instruments.[88] The first section echoes the *Declaration of Amsterdam*, identifying potential for threats to historic areas found in the larger context of towns and cities. However, the *ICOMOS Washington Charter of 1987* goes a step further by Its consideration of these urban areas as "historical documents", both natural and man-made, which possess cultural values "however modest in scale" that "constitute the memory of mankind".[89] The *ICOMOS Washington Charter of 1987* considers qualities of design, such as lot size, street composition, rhythm of buildings and open spaces, relationship between natural and man-made settings, and function of towns and cities to be integral features that warrant preservation because they lend "material and spiritual" characteristics to historic places and enable people to read the history of that respective area.[90]

The second section outlines a specific set of principles and objectives for conserving areas of historical importance, including the pace of community life in these areas, in order to harmoniously blend them with new, contemporary development.[91] This section shares many commonalities with the *Secretary for the Interiors Standards for Preservation Planning,* as it addresses creating historic contexts of older areas in the face of new, infill development. However, the remaining principles outlined by the *ICOMOS Washington Charter of 1987* more

[86] Ibid.
[87] Ibid.
[88] Ibid.
[89] Ibid.
[90] Ibid.
[91] Ibid.

closely recall those found in the *Declaration of Amsterdam.* The *ICOMOS Washington Charter of 1987* connects with the *Declaration of Amsterdam* on a number of levels related to integrated conservation—specifically, the ability of integrated conservation strategies to positively affect the environment. In terms of shaping the future of the environment, the *ICOMOS Washington Charter of 1987* envisions conservation as a dominant planning tool, supports galvanizing community members to participate in conservation and preservation activities, encourages clear identification of shared cultural values of historic areas and systemized methods for evaluating historic areas, and finally, considers preservation as a mandatory goal of planning authorities.

The third section is comprised of a list of methods and instruments for implementing the document's suggested principles. Most of these also overlap with the recommendations found in the *Declaration of Amsterdam,* specifically the inclusion of a multidisciplinary conservation plan that specifically encompasses "archaeology, history, architecture, technique, sociology, and economics".[92] According to the *ICOMOS Washington Charter of 1987,* effective planning strategies for the conservation of historic environments should assess the historical and cultural significance of buildings, rather than solely the dollar value.[93] Specifically, a strong management plan should identify the buildings that cannot afford to be lost, as well as buildings that may be expendable. To support decisions of this nature, the *ICOMOS Washington Charter of 1987* indicates that "before any intervention, existing conditions in the area should be thoroughly documented."[94]

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[92] Ibid.
[93] ICOMOS *Washington Charter, 1987.*
[94] Ibid.

Several other methods and instruments discussed by the *ICOMOS Washington Charter of 1987* generally coincide with the *Declaration of Amsterdam*. The *ICOMOS Washington Charter of 1987* stresses that "new functions and activities should be compatible with the historic town or urban area" and that public service facilities must carefully adapt installation of their services to ensure that historic character is maintained.[95] The issue of housing quality as an issue of conservation also appears in the *ICOMOS Washington Charter of 1987.* Specifically, the document indicates that "the improvement of housing" should be one of the most important goals of conservation. The *ICOMOS Washington Charter of 1987,* much like the *Declaration of Amsterdam,* addresses the need for conservation and preservation policies to espouse an educational perspective. The *ICOMOS Washington Charter of 1987* indicates that, in order to cultivate a strong community-wide conservation ethic, "a general information programme should be set up for all residents, beginning with children of school age".[96] In order to create a community most efficiently equipped to deal with the responsibilities of maintaining historic environments and resources, the *ICOMOS Washington Charter of 1987* recommends that "specialized training should be provided for all those professions concerned with conservation."[97]

The discussion of the *ICOMOS Washington Charter of 1987* is strongly applicable to the consideration of integrated conservation as a link between historic preservation and brownfield development. The document positions historic areas as living "documents" that have implications for how individuals might read the history of their community through the built or

[95] Ibid.
[96] Ibid
[97] Ibid.

natural environments. Similarly, brownfields have the capability to tell stories about the history of industry within a community, the relationship of industry to other land uses or patterns, or the functions or purposes the site has endured over time.[98] While this document strongly supports the tenants discussed in the *Declaration of Amsterdam,* it also offers a look into additional outcomes that should result from plans based on integrated conservation principles.

The *Nizhny Tagil Charter* was introduced in 2003 by the International Committee for the Conservation of the Industrial Heritage, known as TICCIH, to define the concept of industrial heritage and communicate its values to society worldwide. TICCIH was established in 1973 as the advisory body to ICOMOS on sites of industrial heritage.[99] Seven diverse facets of industrial heritage are outlined in the *Nizhny Tagil Charter*, specifically TICCIH's definition of industrial heritage, the identification of the values of industrial heritage, an ordered list for identifying, recording, and researching sites of industrial heritage, the importance of legal protection, the necessity of maintenance and conservation of industrial heritage, the importance of education and proper apprenticeship, and approaches to presenting and interpreting industrial heritage sites within communities.

In terms of defining the concept of industrial heritage, the *Nizhny Tagil Charter* states that it "consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value."[100] The document lists the following items as being indicative of industry warranting study through industrial archaeology:

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[98] Ibid.
[99] The International Committee for the Conservation of Industrial Heritage (TICCIH). Available from Internet, http://www.mnactec.cat/ticcih/organisation.htm. Accessed January 2009.
[100] *Nizhny Tagil Charter*, 2003.

> "…buildings and machinery, workshops, mills and factories, mines and sites for processing and refining, warehouses and stores, places where energy is generated, transmitted and used, transport and all its infrastructure, as well as places used for social activities related to industry such as housing, religious worship or education."[101]

Rather than break the history of industrial heritage up into multiple periods of significance, the *Nizhny Tagil Charter* considers the "historical period of interest" from the mid eighteenth century to the modern innovations and contributions of the present day.[102] While the Industrial Revolution may typically be the most accessible era of industrial history, the *Nizhny Tagil Charter* underscores the importance studying all elements of progress that have been made since the eighteenth century.

The *Nizhny Tagil Charter* focuses on the values of industrial heritage and its profound impact on shaping societal memory, delving into the more theoretical and intangible aspects of industrial heritage. This is something that the *Declaration of Amsterdam* does not explicitly do. Because industrial sites have the potential to yield valuable archaeological information, the *Nizhny Tagil Charter* promotes studying industrial sites, wherever they are found in the world and regardless of age, in order to learn more about the types of technologies that have shaped society, molded the psyches of those who worked at the site, forged a distinct way of understanding places and geographies, and continue to have an influence on technology today. Furthermore, the *Nizhny Tagil Charter* suggests that the "architecture, design, and planning" of

[101] Ibid.
[102] Ibid.

industrial sites has value and relevance for today because it enabled success for the site in the past. In addition to this, the *Nizhny Tagil Charter* discusses the threats to the surroundings of industrial sites and the pressing need to preserve their surroundings and any evidence that remains of their historic activities and processes as "record[s] to the lives of ordinary men and women" and as a result "provide an important, authentic sense of identity".[103]

In describing research methodology for industrial sites, the *Nizhny Tagil Charter* bears resemblance to the methodology of research described in the *Secretary of the Interior's Standards for Preservation Planning.* However, the methodology described in the *Nizhny Tagil Charter* is developed specifically for addressing industrial sites. The document states the importance of identifying what needs to be preserved and the necessity of protecting it from further decay.[104] The importance of identifying industrial resource typologies and creating a publicly accessible database for sites of industrial heritage in the community is specifically noted in this section.[105] Moreover, the document underscores the importance of recording an industrial site while it is still in operation, if at all possible, but no interventions or demolition should occur at the site until all investigation has taken place and all historical information about the site has been recorded.[106] In another deviation from the *Secretary of the Interior's Standards for Preservation Planning*, the *Nizhny Tagil Charter* goes a step further by specifically including the importance of interviewing people and documenting their memories of the site and its relationship to the greater community, as these are often invaluable, irreplaceable

[103] Ibid., Section 2.i-iv.
[104] Ibid., Section 3.i
[105] Ibid.
[106] Ibid., Section 3.iii.

sources for information.[107] In terms of research, the *Nizhny Tagil Charter* indicates that archaeology is necessary to fully understand the history of an industrial site, and it should adhere to the same standards as the archaeological undertakings of sites related to other periods of history.[108] The results yielded from the archaeological research compounded with other site research will enable the most important and representative elements of the site to be protected through legal means.

The *Nizhny Tagil Charter* brings up a valuable point not clearly expressed in the other frameworks, in terms of documentation:

> "The criteria for assessing industrial buildings should be defined and published so as to achieve general public acceptance of rational and consistent standards. On the basis of appropriate research, these criteria should be used to identify the most important surviving landscapes, settlements, sites, typologies, buildings, structures, machines and processes."[109]

Standards for investigating sites of interest related to industrial history must be established. Following an established, practiced procedure for studying the site's resources will ensure the integrity of the resources and lead to the development of a better plan for preservation.

In terms of legal protection, the *Nizhny Tagil Charter* states that, "the industrial heritage should be seen as an integral part of the cultural heritage in general."[110] Basically, this means that any remnants left that identify the site as a place of industrial heritage, including those subterranean resources, should be offered some measure of safeguard under the law,

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[107] Ibid., Section 3.iii.
[108] Ibid., Section 3.iv.
[109] Ibid., Section 3.vi.
[110] Ibid., Section 4.i.

especially the law of the local community. Adaptive reuse of the site should take into account the historic nature of the site and preserve the historic fabric and other visual characteristics of the site in redevelopment plans.[111] The *Nizhny Tagil Charter* profoundly echoes the *Declaration of Amsterdam* in this section, as it states that, "Programmes for the conservation of the industrial heritage should be integrated into policies for economic development and into regional and national planning."[112] Additionally, the document further supports the *Declaration of Amsterdam* in its statement that "the survival of industrial buildings…should be encouraged by appropriate legal controls, technical advice, tax incentives and grants".[113]

The *Nizhny Tagil Charter* sets forth several strategies for maintenance and conservation of industrial heritage sites. This section is highly relevant because it addresses the reuse of industrial sites for entirely new uses. It also recommends that if at possible, original machinery and equipment should not be dismantled or removed from that site, and that ideally, these materials should be kept in situ.[114] The *Nizhny Tagil Charter* maintains the importance of preserving the site's functional integrity, which is best communicated through the preservation of objects and machinery.[115] The *Nizhny Tagil Charter* specifically says that "New uses should respect the significant material and maintain original patterns of circulation and activity, and should be compatible as much as possible with the original or principal use. An area that interprets the former use is recommended."[116]

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[111] Ibid.
[112] Ibid.
[113] Ibid.
[114] Ibid., Section 5.i-iii.
[115] Ibid., Section 5.i.
[116] Ibid., Section 5.iv.

This section of the *Nizhny Tagil Charter* also goes into detail in describing the relationship to the reuse of industrials sites to the promotion of sustainable development. According to the document, the reuse of industrial sites and preservation of the industrial character provides psychological stability and implies a sense of continuity to areas that have begun to decay as well as those that have immediately ceased operations, a similar idea found in the *Declaration of Amsterdam*.[117] Additionally, the *Nizhny Tagil Charter* also recommends, much like the *Secretary of the Interior Standards,* that any changes to the site should be reversible.[118] The *Nizhny Tagil Charter* acknowledges that industrial sites have their own type of patina, which is "integral to the integrity and interest of the site".[119]

In terms of education and apprenticeship, the *Nizhny Tagil Charter* also follows the same tenants outlined in the *Declaration of Amsterdam.* Both documents indicate the need to promote the technical skills of conservation at all levels of learning, but the *Nizhny Tagil Charter* specifically targets the promotion of industrial heritage:

> "Specialist professional training in the methodological, theoretical and historical aspects of industrial heritage should be taught at technical and university levels.[120] Specific educational material about the industrial past and its heritage should be produced by and for students at primary and secondary level.[121]"

[117] Ibid., Section 5.v.
[118] Ibid.
[119] Ibid., Section 5.vi.
[120] Ibid.
[121] Ibid.

The *Nizhny Tagil Charter* also discusses the need to maintain industrial heritage as an interest and priority to the greater public and the values it holds for the community.[122] Promoting industrial heritage to the community is vital to galvanization support for conservation endeavors. The *Nizhny Tagil Charter* suggests utilizing local media outlets, securing access to sites, and developing them as tourism opportunities.[123] As described by Price in "Interpreting Industrial Heritage", approaches to interpretation are either "top-down", as executed by official, often governmental or corporate entities, or they are "from the bottom up", originating from the community members or grass roots organizations.[124] These recommendations enhance those found in the *Declaration of Amsterdam*, which specify that "the architectural heritage will survive only if it is appreciated by the public and in particular the younger generation".[125]

The concept of integrated conservation, as set forth in the *Declaration of Amsterdam*, emerges as a framework that informs a relationship between historic preservation and brownfield redevelopment. This relationship is demonstrated by the overlap of historic preservation and brownfield redevelopment on a number of areas related to community betterment. Preservationists have key roles to play in addressing the link between brownfield redevelopment and historic preservation. Reclaiming a brownfield site not only makes the site possible for reuse, but it also revives an area whose original identity had been lost or obscured by contamination. By directing attention of the local governments and citizens to the historic

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[122] Ibid., Section 7.i.
[123] Ibid., Section 7.ii.
[124] Jon Price, "Interpreting Industrial Heritage," in *Heritage Interpretation*. Alison Hems and Marion Blockley, eds., p. 111-112. Oxon: Routledge.
[125] *Declaration of Amsterdam,* 1975.

components of brownfields, preservationists connect the concept of brownfield redevelopment to the bigger picture of community improvement. Connecting historic preservation and brownfield redevelopment communicates the importance of local heritage values, local historic resources, and the need for sustainable solutions to local development challenges.

The case studies in the following chapter outline different approaches to brownfield development. England's Ironbridge Gorge, the birthplace of the modern Industrial Revolution, is included as the most exemplary site that employs the concept of integrated conservation as outlined by the *Declaration of Amsterdam*. Other sites discussed are located in the United States: West Allis, Wisconsin, and Fayetteville, North Carolina. These sites have been analyzed for their approaches to brownfield redevelopment, specifically how closely their approaches resembled the principles for integrated conservation. The lessons learned from Ironbridge Gorge, West Allis, and Fayetteville will then be applied to a brownfield site where no conservation measures have been employed: the Perry Brothers Oil Company, in Americus, Georgia.

CHAPTER 3

CASE STUDIES

The case studies in this chapter demonstrate the range of brownfield sites that preservationists may encounter within their communities. All three were reclaimed and redeveloped through measures that allowed for their reintegration into larger community settings. The redevelopment of Ironbridge Gorge exemplifies the concept of integrated conservation as applied to historic industrial landscape. Its global historic value, especially in the realm of industrial heritage, warranted listing as a UNESCO World Heritage Site as early as 1986. The site in West Allis, Wisconsin, formerly the Allis-Chalmers Corporation, was an industry with a century-old history of iron and metal works. The redevelopment used the site's existing resources for inspiration. The last case study is found in Fayetteville, North Carolina. Reclaiming a brownfield site in the downtown area aided in the development Fayetteville's citywide revitalization plan. The approaches taken to redeveloping the brownfields in each case study will be discussed with reference to the policy frameworks outlined in Chapter 2.

The Ironbridge Gorge – United Kingdom

The Ironbridge Gorge is located in the west of England, near the Welch border and includes the rural villages of Coalbrookdale and Telford.[126] Geographically, the site is situated in Shropshire County and also includes the Severn Valley and smaller river valleys extending

[126] United Nations Educational, Scientific, and Cultural Organization. Available from Internet, http://whc.unesco.org/en/list/371. Accessed December 2008

northward. Other villages within the Ironbridge Gorge, such as Jackfield and Coalport, have their own extensive histories as centers for tile making and china production, respectively, within the Severn Valley. Overall, the site occupies about 6 square miles.[127] Figure 3.1.[128]

Figure 3.1. Map of England and Shropshire County.

The Industrial Revolution began in the region during the eighteenth century following Abraham Darby's 1709 experimentation with making coke and smelting iron in Coalbrookdale.[129] This innovation, along with Coalbrookedale's location on the Severn River, positioned it to be the earliest center of modern industry and facilitated transmission of techniques all over the world. The region of Shropshire manufactured "the first iron wheels,

[127] The Ironbridge Gorge Museum Trust. Available from Internet, http://www.ironbridge.org.uk/about_us/ironbridge_gorge_museum_trust. Accessed December 2008.
[128] Image from Shropshire Tourism, with author's edits. Available from Internet, http://www.visitsv.co.uk/images/panel_front_map.jpg. Accessed April 2009.
[129] Barrie Trinder, "Industrial Conservation and Industrial History: Reflections on the Ironbridge Gorge Museum," *History Workshop,* no.2 (Autumn 1976) : 171, 172.

rails, boat, aqueduct and steam locomotive, as well as early steam cylinders."[130] In 1779, the site's iconic architectural feature, the Iron Bridge, was constructed across the Severn River. See figure 3.2.[131] This structure expressed the industrial might of the region and soon came to symbolize the Industrial Revolution.[132]

Figure 3.2. The Iron Bridge.

Ironbridge Gorge has remained an active community of over 3,500 individuals in the mid-twentieth century, and many of its resources had been relatively unchanged in its two hundred fifty year history.[133] The local population had decreased, but most of the region's historic resources were intact and unaltered.[134] Because the Ironbridge Gorge region slipped into a period of decline after 1870, its buildings and industrial artifacts faced virtually no

[130] Blockley, 107
[131] Image from The Robinson Library. Available from Internet, http://www.robinsonlibrary.com/technology/mining/metallurgy/graphics/darby2.jpg. Accessed January 2009.
[132] Blockely, 107.
[133] Blockely, 109
[134] Blockley, 108.

development pressure and no risk of being torn down and replaced.[135] While not at risk of being demolished, many industrial artifacts and resources in Ironbridge Gorge were slowly being overtaken by vegetation and eroded by the elements.[136]

In 1967, residents of the area organized the Ironbridge Gorge Museum Trust as the first effort to conserve the industrial sites and individual artifacts. The goals were to protect the sites, promote the heritage of the Industrial Revolution, and establish educational museums throughout the region.[137] Ironbridge Gorge Museum opened to the public in 1971.[138] A total of ten museums were eventually developed within the Gorge, with most of them interpreting the different industrial technologies that originated in their individual locations. The museums showcase the historical importance of those technologies and connect them with impacts on modern society. The map in figure 3.3 shows the location of these museums as they wind throughout the area.[139] The attractions at each museum are based largely on the industrial artifacts and buildings that survive in situ, forming the context of the location.

In 1986, the Ironbridge Gorge received global recognition, as it was listed as a UNESCO World Heritage Site. This listing was based on several criteria of significance, as developed by UNESCO.[140] Coalbrookdale served as an in situ example of the creative ingenuity of industrial

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[135] Trinder, 172.
[136] Blockley, 108
[137] The Ironbridge Gorge Museum Trust. Available from Internet, www.ironbridge.org.uk. Accessed December 2008.
[138] Trinder, 172, 173.
[139] Image from Coalport Station Holidays. Available from Internet, http://www.coalportstation.com/images/gorge_map.jpg. Accessed April 2009.
[140] Ironbridge Gorge fulfilled the following basic criteria for listing as a World Heritage Site, as set forth by UNESCO: (i) to represent a masterpiece of human creative genius; (ii) to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design; (iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history; and

pioneer Abraham Darby, and more extensively, to mankind.[141] The blast furnaces found in villages throughout the gorge exemplify the techniques that developed and evolved, from

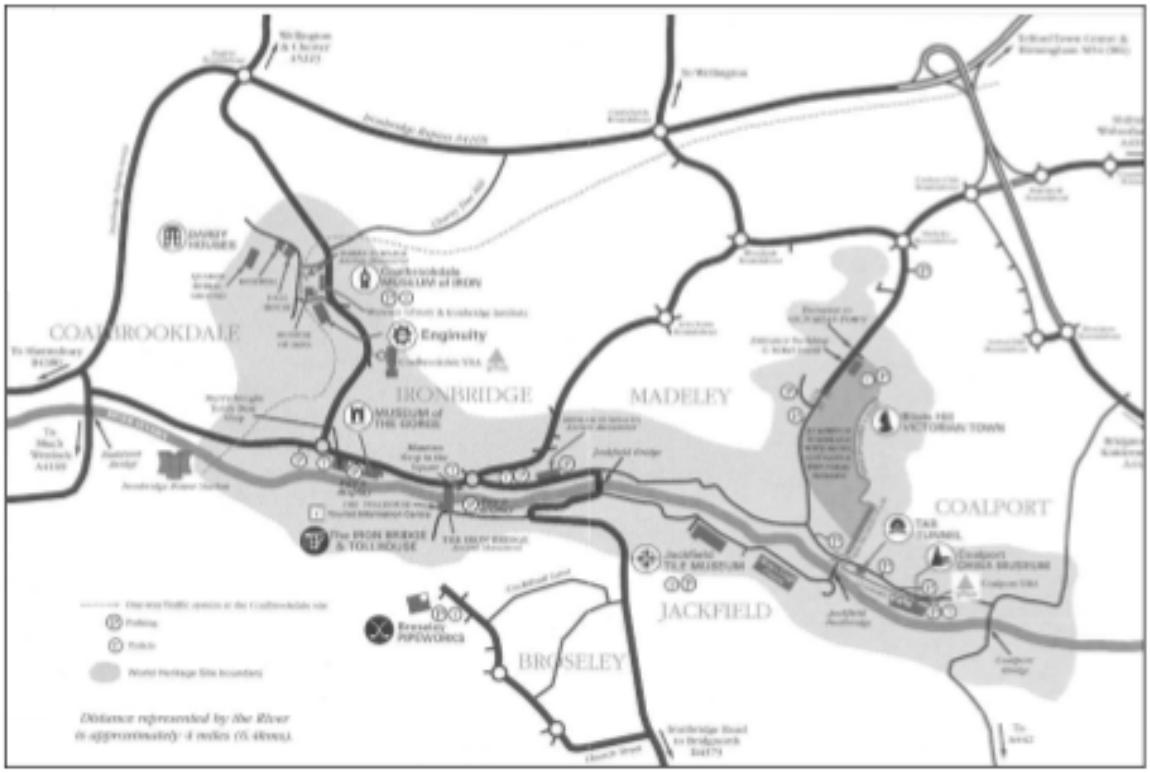

Figure 3.3. Museum / interpretative sites throughout Ironbridge Gorge.

rudimentary to sophisticated.[142] Collectively, the nearly six mile site represents the lives of its workers and "the development of an industrial region".[143] The monumental Iron Bridge itself serves as the icon of the activity in the gorge and the Revolution.[144] To maintain status as a World Heritage Site, the Ironbridge Gorge Museum Trust was responsible for developing a long-

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(vi) to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. From the UNESCO World Heritage website. Accessed March 2009 at http://whc.unesco.org/en/criteria/.

[141] UNSECO, World Heritage Listing. Available from Internet, http://whc.unesco.org/en/list/371. Accessed January 2009.

[142] Ibid.

[143] Ibid.

[144] Ibid.

range management plan. The themes contained within the plan possess many similarities to the themes of 'integrated conservation' as outlined in the *Declaration of Amsterdam*. Specifically, these include conducting surveys of buildings and monuments within the Gorge, creating inventories of derelict sites, and developing plans for restoration and repair of older, damaged sites.[145]

Analysis

The redevelopment of Ironbridge Gorge exemplifies many of the principles of integrated conservation outlined in the *Declaration of Amsterdam*, as discussed in Chapter Two. Not only were preservation efforts successful enough to protect three hundred years of history from being lost at a place that essentially fits the U.S. Environmental Protection Agency's definition of a brownfield site, but also these efforts influenced the promotion of industrial heritage sites in other areas of the world and inspired the creation of other policies and organizations to advise on the identification, preservation, and conservation of industrial sites. Despite the fact that the *Declaration of Amsterdam* followed the attempts at preserving industrial history at Ironbridge Gorge by about ten years, the work undertaken at the Gorge illustrates the most solid understanding and implementation of the principles of integrated conservation.

One of the most important principles of integrated conservation involves looking at the holistic nature of the site as it fits in with its surroundings, from cityscape to landscape. The cultural and historic interest of the Ironbridge Gorge does not rest solely with individual warehouses, blast furnaces, and other structures found in situ. Likewise, the significance and

[145] Ironbridge Gorge Management Plan, Section 3, Current Management of the World Heritage site. Available from Internet, http://www.telford.gov.uk/NR/rdonlyres/E0A65C55-FE1B-4441-A1B5-D1F817C2FD8D/0/IGWHSManagementPlansection3.pdf. Accessed February 2009.

architectural beauty of the Iron Bridge itself does not completely illustrate the history of the industrial activities in the Gorge. The historical and cultural significance of the Gorge encompasses the entire historic landscape of the Severn Valley, where the major activities of the Industrial Revolution occurred. The innovative industrial practices and technologies explored during the eighteenth century were greater than the merely the sums of their parts.[146] The history of the area is best communicated by and understood through the entirety of the landscape, rather than one or two warehouses and blast furnaces sporadically preserved without their respective landscape contexts. Because of this, conservation of the area, aside from just piecemeal resources and buildings is imperative.

The activity at Ironbridge Gorge has been successful in fulfilling the aspects of integrated conservation related to education. Both the reclamation and interpretation endeavors have proven that brownfield sites possess worth as places that can be studied and analyzed to glean important historic values. In further support of this, the UNSECO World Heritage description of significance for Ironbridge Gorge states:

> "[Ironbridge Gorge] provides a fascinating summary of the development of an industrial region in modern times. Mine centers, transformation industries, manufacturing plants, workers' quarters, and transport networks are sufficiently well preserved to make up a coherent ensemble whose educational potential is considerable."

[146] The Ironbridge Institute. Available from Internet, www.ironbridge.bham.ac.uk. Accessed January 2009.

The Ironbridge Gorge Museum Trust established a partnership with the University of Birmingham in the United Kingdom to create the Ironbridge Institute, a higher learning program offering Masters level degrees in Heritage Management, Historic Environment Conservation, and Museums Management.[147] In 2001, the Museum Trust began a collaborative archaeological field school with Wilfred Laurier University, located in Canada. This program, known as CHART (Coalbrookdale Historical Archaeology Research and Training Program) focuses on the exploration of archaeological sites in Coalbrookdale, the Industrial Revolution's point of origin.[148] Methods used in site investigation include "field surveys, geophysical surveys, building recording, and excavation", most of which has been conducted near the famous historic Darby Furnace, one of the oldest in the region.[149] The CHART program led to the development of another intensive study focusing exclusively on the landscape of upper Coalbrookdale.[150] This too became a collaborative endeavor from researchers at University of Bristol, University of Birmingham, University of Coventry, and staff from the Museum Trust.[151]

The rehabilitation of the Gorge's "old areas" has resulted in the preservation of a local identity for its community of nearly 4,000 people. Members of the community are able to live among the villages much as their predecessors did since the days of the Industrial Revolution without being displaced by patterns of intrusive modern development or gentrification. The "old areas" were renewed with the dual purposes of preserving the oldest traces of modern industrial heritage and educating both locals and global travelers. Additionally, the action of

[147] Ibid.
[148] Ibid.
[149] Ibid.
[150] Ibid.
[151] Ibid.

private citizens of the Ironbridge Gorge was responsible for incorporating the Museum Trust and making the site a priority for its home country; the success of the Ironbridge Gorge is largely attributed to the involvement of the local community.[152] Its inclusion on the UNESCO World Heritage List merits both the site's perpetual protection and its significance to patterns of world history.

The efforts undertaken in Ironbridge Gorge have not been in isolation. Other historic industrial sites began revitalization in various parts of Europe, though not necessarily following the open air museum approach. For example, the Ruhr Valley, located in Germany, is another of the world's oldest industrial areas.[153] According to RESCUE Europe, the Ruhr Valley encompasses eleven large cities, as well as several major transportation highways.[154] The brownfield sites throughout this region signify the places of early coal and steel production that made the Valley so prosperous.[155] While the area became an industrial giant, the growth that accompanied was disjointed, poorly planned, and unprepared for both industrial decline and the advent of a new economy. The most heavily used industrial sites throughout the region have begun integrating their industrial heritage with the modern landscape. Sites with historic architecture, usable infrastructure, and intact examples of industrial technology have been adapted for recreational or commercial use.[156]

The Zollverein Site located in Essen is significant both for its extensive coal mining history and its architectural complex reflective of the Modern Movement, as seen in figures

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[152] Trinder, 172.
[153] RESCUE Europe, Regeneration of European Sites in Cities and Urban Environments. Available from Internet, http://www.rescue-europe.com/html/germany.html. Accessed March 2009.
[154] Ibid.
[155] Ibid.
[156] Ibid.

3.4[157] and 3.5[158]. It was added to the UNESCO World Heritage List in 2001.[159] The success in listing the Zollverein Site is an anomaly for the Ruhr Valley region in Germany. The regionch has a population of about 5.4 million individuals, has no unification or boundaries other than its geography, which is only culturally defined by the stretch of industrial sites.[160] Essen is shown in Figure 3.6[161]. Because the Ruhr Valley lacks a legal regional administrative body, regionally based planning initiatives for the Valley are difficult to accomplish.

Blaenavon, located in Wales, United Kingdom, has taken great strides in preserving its industrial heritage. Figure 3.7. The site had become one of Wales' most impoverished areas since the decline of industry in the early twentieth century.[162] Its boundaries were defined and it was added to the UNESCO World Heritage List in 2000 because of its association with early coal mining techniques. Despite the vastness of the region, only a small concentration within the larger landscape has been identified as having "special architectural or historic interest". A partnership of local town councils overlapping the site's boundaries acts in a stewardship capacity to ensure that the integrity of Blaenavon's heritage is protected.

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[157] Zollverein UNESCO World Heritage Site. Available from Internet, http://whc.unesco.org/uploads/sites/gallery/medium/site_0975_0001.jpg. Accessed March 2009.
[158] Tour Service Ruhr. Available from Internet at http://www.tourserviceruhr.de/media/Bild3_Kokerei_Zollverein.jpg. Accessed April 2009.
[159] UNESCO World Heritage Site. Available from Internet, http://whc.unesco.org/en/list/975. Internet; accessed January 2009.
[160] RESCUE Europe. Available from Internet, http://www.rescue-europe.com/html/germany.html.
[161] Image, available from http://ukumillion.com/wordpress/archives/428. Accessed March, 2009.
[162] Available from Internet, http://www.world-heritage-blaenavon.org.uk/whs-info/whs_info_first.htm

Figure 3.4. Zollverein site, Essen, Ruhr Valley, Germany.

Figure 3.5. View of Zollverein site, Essen, Ruhr Valley, Germany.

Figure 3.6. Map of Essen, Germany.

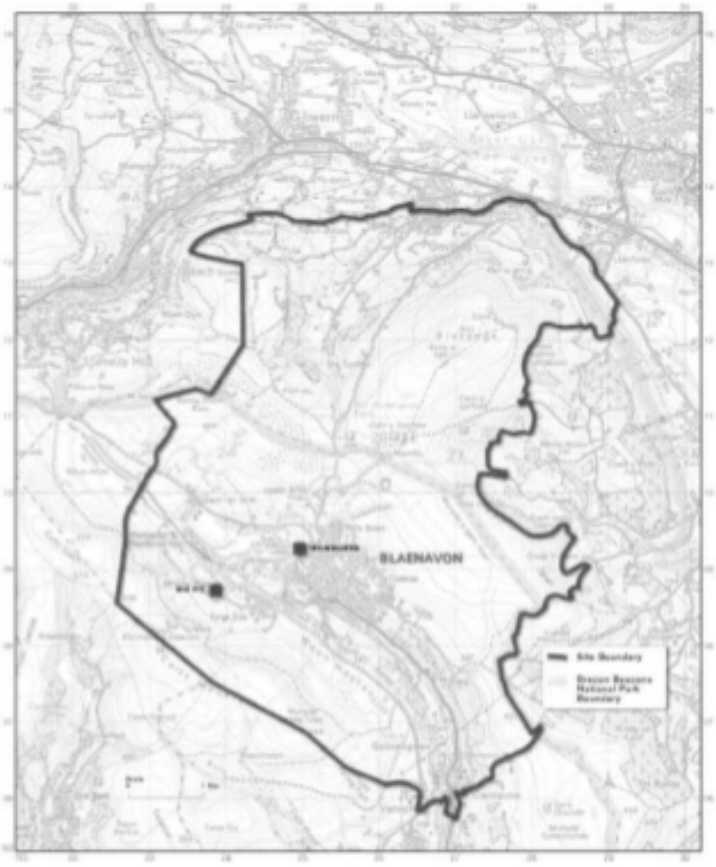

Figure 3.7. Map of Blaenavon.

The Ironbridge Gorge, Zollverein Site, and Blaenavon share the commonality of being industrial heritage sites with listings as UNESCO World Heritage Sites. In order for a site to be included on the World Heritage List, the creation of a 'Management Plan' is necessary. An adopted Management Plan has several important purposes: it signifies that the most significant historic and cultural values of the site had been clearly identified, it shows that these values have global historic and cultural associations and meanings, and it demonstrates that collaboration between community members, local governing bodies, and private entities have been involved in initiating the process and continuing it long term.

Allis Chalmers Site—West Allis, Wisconsin

West Allis is located in southeast Wisconsin, only seven miles from Milwaukee, a major Rust Belt city.[163] See the map in figure 3.8.[164] The area was settled in the early nineteenth century as Honey Creek, and it consisted of a few modest dwellings, a couple of churches, a log school, and a blacksmith shop.[165] In 1887 it appeared on plat records as North Greenfield after the Chicago Northwest Railway built tracks there to connect with Madison, the state capital.

As the community grew, the Wisconsin Agricultural Society began hosting the state fair in North Greenfield. The village saw more progress as a result of this annual event, and it boomed with the construction of facilities for residential, transportation, and industrial use.[166]

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[163] "Rust Belt" is a term given to the region encompassing portion of both the Northeast and Midwest areas of the United States with cities whose economies relied heavily on industry and manufacturing operations during the nineteenth and twentieth centuries.
[164] Map obtained from Coalfields of the Appalachian Mountains website. Available from Internet, www.coalcampusa.com/rustbelt/rustbelt.jpg. Accessed January 2009.
[165] Stuart Wilke (1992) and Devan Gracyalny (2005), West Allis Historical Society. Available from Internet, www.westallishistory.org. Accessed January 2009.
[166] Ibid.

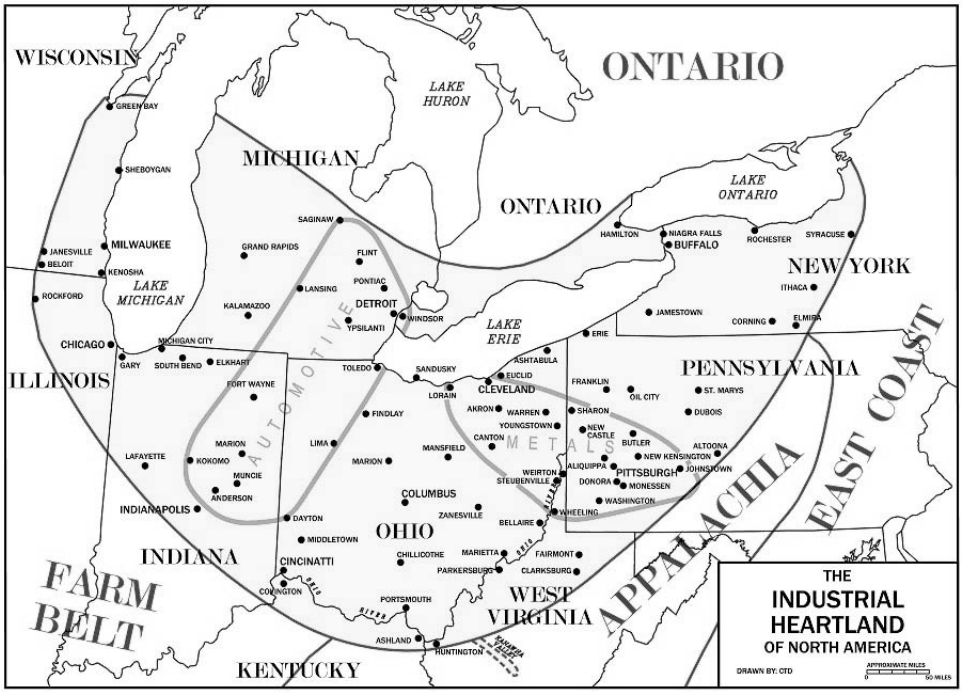

Figure 3.8. Map of American Rustbelt, states and cities.

History records 1900 as the year of unparalleled growth for North Greenfield. A citizen with family ties to the original Honey Creek settlers sold the Edward P. Allis Company, from Milwaukee, a large tract of land for a new industrial facility. The location was valuable because of its proximity to two railroad lines, the Milwaukee Road and Chicago Northwestern. Soon after, other factories were built in North Greenfield, and numerous houses were constructed near the facilities as a result of the industrial upsurge. The city was officially incorporated as West Allis in 1902, and despite its small size of only four square miles, it remained an industrial powerhouse attracting workers throughout the first half of the twentieth century.

The Allis-Chalmers Company inevitably shaped the destiny of this small pastoral village in Wisconsin. However, the lineage of the Allis-Chalmers industrial legacy originated in the 1860s in New York before migrating to Milwaukee and finally to West Allis. Edward P. Allis of

New York purchased the failing firm Deckard and Seville in 1861 and then the Bay State Iron Manufacturing Company in 1869.[167] This purchase was supplemented with Allis's subsequent purchase of Fraser and Chalmers Company, manufacturers of rock-crushing machinery. The new Edward P. Allis Company specialized in iron-making, including the casting of iron pumps and pipes for steam engines.[168] A later merge with Dickson Manufacturing Company resulted in the name Allis-Chalmers Incorporated. After the move to West Allis, Allis-Chalmers Corporation began making what would become the company's signature product—agricultural machinery. At its peak in operations during World War II, the Allis-Chalmers site in West Allis employed at least 45,000 individuals.[169] At its largest, the site spread over 157 acres.[170] Unfortunately, general industrial economic downturn, accompanied by poor management and unsuccessful mergers, contributed to the closure of the Allis-Chalmers site in 1987.[171] Because the site was used primarily for chemically-intensive processes such as blasting and smelting, the grounds and buildings of Allis-Chalmers Incorporated had become contaminated over their nearly one hundred year history. In its entirety, the site satisfied the definition and criteria for being categorized as a brownfield. Developers began investigating the site in the early 1990s to assess potential for its redevelopment, since the site had played such a pivotal role in the formation of West Allis's identity as an industrial hub. They devised a suitable development plan for an office park by reusing extant materials that had been part of the site's original

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[167] C.H Wendel and Andrew Moreland, *Allis-Chalmers Tractors: History of Advance Rumely, Monarch Crawlers, and Allis-Chalmers Tractors and Implements* (Minneapolis: MBI, 1992), 9-10.
[168] Ibid, 9-10.
[169] Yesterday's Tractor. Online. Available from Internet, http://www.ytmag.com/cgi-bin/ntracz.pl?m=ac. Accessed September 2008.
[170] Gould, Whitney. "A Rust Belt Relic is Reborn." Milwaukee Journal Sentinel Online 6 November 2005. Available from Internet, http://www.jsonline.com/news/metro/nov05/368617.asp. Accessed September 2008.
[171] Ibid.

identity. Instead of razing three historic fabrication shop buildings, built in the early twentieth century, the developers rehabilitated them and incorporated them into the new larger office complex.[172]

Historically, many of the buildings in the Allis-Chalmers complex received quantities of natural light through skylights and light wells. These types of features were configured in the new building envelopes and restored, to ensure that the new offices received abundant sunlight.[173] Rather than purchase and install a ready-made skyway, the developers harvested the crane left over from Allis-Chalmers Inc's period of operation. It was refurbished and painted with the original "banana-yellow" color and reassembled to impart an element of authentic character to a portion of the new office complex.[174] Figure 3.9 and 3.10.

Apart from the architecture that was preserved and reused, less conventional historic features were preserved as well, such as structural steel beams, clerestory skylights, and an old mechanical crane. Figures 3.11 and 3.12.[175] The developers recognized these as being essential to the site's original identity. As with the fabrication shops, they were reintroduced in the redevelopment of the site. Historic steel columns, beams, roof trusses, and pulley systems were found through the site. These were incorporated into the new construction and left exposed, indicative of the site's industrial character.[176]

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[172] Ibid.
[173] Ibid.
[174] Ibid.
[175] Gould, 2005.
[176] Ibid.

Figure 3.9. Historic photo of clerestory lights and cranes.

Figure 3.10. Present day photo of cranes reused as walkways.

Figure 3.11. Historic photo of interior spaces.

Figure 3.12. Present day photo of revitalized interior spaces.

Analysis

Several key principles of integrated conservation can be observed at work in the redevelopment of the Allis-Chalmers brownfield site. Various characteristics of West Allis, such as its origin as an industrial community and its proximity to the larger urban center of Milwaukee, typify it as an 'old industrial city' in need of revitalization.[177] The Allis-Chalmers site possesses intact features with historic and cultural values that lend a sense of place to West Allis. Preserving the historic characteristics of the city is largely dependent on identifying its former industrial spaces and preserving their visual integrity.

In terms of historic and cultural values, the resources worth preserving at the Allis-Chalmers site extended beyond architectural heritage to include resources that signaled a specific industrial heritage. Allis-Chalmers Corporation was known throughout the U.S. during the early to mid twentieth century for the production of agricultural equipment, and the brand "Allis-Chalmers" became synonymous with quality and durability.[178] While no tractors remained on-site for the developers to preserve, the next solution was to preserve as much original fabric as possible and integrate it with newly constructed buildings. The developers looked to the resources left onsite that were capable of telling a story about the place. Instead of replacing everything and building completely anew from the ground up, the historic values of the Allis-Chalmers plant were referenced in the construction of the new office facility. The historic buildings were preserved, and the new buildings recalled the configuration of the historic Allis-Chalmers complex. This resulted in a successful relationship with the older

[177] Vey, 4.
[178] Yesterday's Tractor.

surroundings, including the streetscape and nearby residential areas, as promoted in the *Declaration of Amsterdam*.

In terms of the *Declaration of Amsterdam*'s emphasis on recovering old areas within towns and cities, the Allis-Chalmers brownfield was among the oldest sites in West Allis. Typically, such "old areas" including early industrial sites share characteristics with other old industrial Rust Belt cities.[179] Pedestrian-friendly residential neighborhoods, orthogonal street patterns, and accessible public transportation were amenities implemented to serve the needs of the workforce and effectively transition workers from home to work, as well as to other areas in the larger parts of the city.[180] The industries and factories that once occupied the brownfield sites shaped the development of a network among its workforce. These networks and patterns have historic value in their own right, as they supply a community with a feeling of connectedness.

West Allis successfully galvanized its local community to bring attention to the Allis-Chalmers site. The local city government, private developers, and state department of natural resources were instrumental in the reclamation of the Allis-Chalmers brownfield. According to Vey, local governments are charged with the responsibility of supporting revitalization efforts of communities located in America's oldest industrial cities.[181]

Airborne and Special Operations Museum -- Fayetteville, North Carolina

Located outside of the typical Rust Belt region, the city of Fayetteville, North Carolina, nonetheless faced its own set of brownfield redevelopment challenges. Like many other

[179] Vey, 34.
[180] Ibid, 4.
[181] Ibid, 5.

American cities comparable in size, Fayetteville began to develop beyond its historic downtown during the mid 1970s.[182] Growth patterns rapidly began to extend beyond downtown and into the suburbs. Blight accompanied these patterns of growth, leaving empty structures and sites in the downtown and in a ring along its peripheries.[183] Fayetteville once had a vibrant downtown area in the early twentieth century that was now in danger of being erased. With new development being directed towards the sprawling suburbs, locals and tourists alike had less reason to visit Fayetteville's downtown, as the city's character became more generic.

A particularly depressed segment of downtown Fayetteville along Hay Street consisted of a stretch of 36 buildings in various stages of disrepair near the city's main North-South Amtrak line.[184] These dilapidated buildings had served various uses over the past 50 years, but they had become an eyesore, contributing to the blight that deterred people and businesses from moving into the downtown area. Such former uses included the office of the local newspaper, an assortment of bars and nightclubs, various small-scale commercial retail ventures, filling stations, and homeless shelters.[185] Figures 3.13[186] and 3.14 show the location of the site on Hay Street in downtown Fayetteville. Figure 3.15 is the completed facility[187].

While the historical importance associated with those buildings may have eroded, the site provided a prime location for a large-scale development. Two military facilities in Fayetteville, Fort Bragg and Pope Air Force Base, had discussed with the Fayetteville Chamber

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[182] "Brownfields Metamorphosis… "
[183] Ibid.
[184] U.S. Conference of Mayors. (2003-2004). A Compendium of Case Studies, 9-10.
[185] Ibid.
[186] Image available from Internet, http://graphics8.nytimes.com/images/2008/11/16/us/16baby_map.jpg. Accessed March 2009.
[187] Image available from Internet, http://www.visitfayettevillenc.com/assets/Image/group-tours-images/america%27s-past-time-for-ladies/asom.jpg. Accessed September 2008.

of Commerce the creation of a museum dedicated to Airborne and Special Operations Units. This conversation happened in the 1980s, and Congress appropriated nearly $4 million for the facility in 1992.

Figure 3.13. Fayetteville, North Carolina.

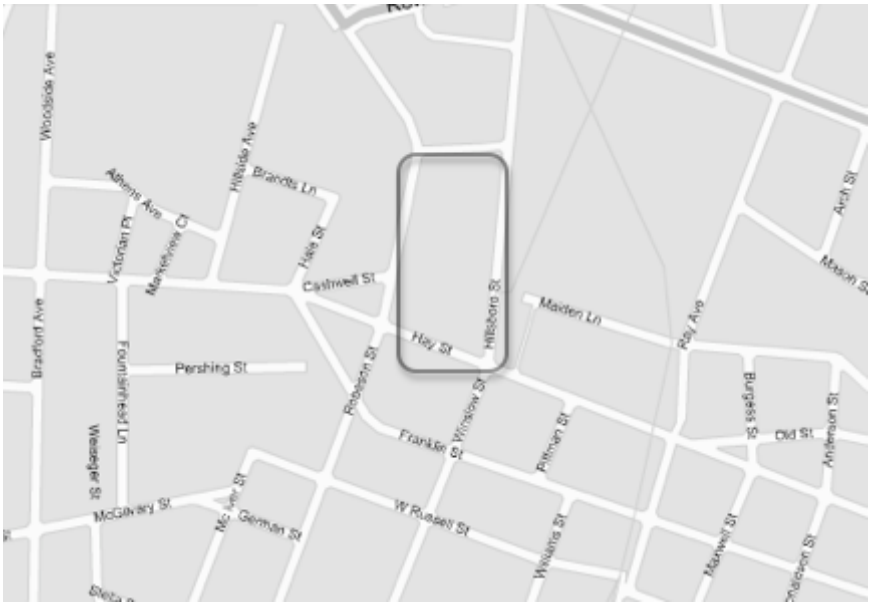

Figure 3.14. Brownfield site in Fayetteville, North Carolina.

Figure 3.15. Completed ASOM facility

A foundation for the museum was established to administer the funds. The city of Fayetteville approached the foundation, and the decision was made to locate the facility downtown, on the site of the dilapidated and contaminated buildings lining Hay Street. A 1997 pilot study from the U.S. Environmental Protection Agency's Brownfields program revealed that 25 out of the 36 buildings accounted for nearly 3,000 cubic yards of asbestos containing materials imbedded in structural components such as floors, ceilings, roofs, and walls.[188] Additionally, four underground storage tanks, two commercial diesel fuel tanks, and small heating oil tanks were found. Following the investigation and assessment, the museum foundation contributed $500,000 for the remediation to ensure that the site met environmental standards for redevelopment.[189] The Airborne and Special Operations Museum (ASOM) opened in 2000. Its success spurred revitalization projects in other parts of downtown

[188] U.S. Conference of Mayors, 9-10.
[189] Ibid.

Fayetteville and acted as the catalyst for the city's downtown renaissance plan.[190] Figures 3.16 and 3.17 show the site immediately after being cleared and then post construction of the ASOM facility.[191]

Analysis

Downtown Fayetteville's cultural scene benefited from the redevelopment of a site that at first glance contained obstacles. It is logical to infer that the historic downtown core survived the trends of suburban growth because of the impact of one massive project. However, some of the approaches taken in this redevelopment project run counter to the principles of integrated conservation. This case study exemplifies the least desired outcome of the three case studies analyzed in this thesis. Rather than preserve a place of cultural interest in downtown, the redevelopment of the brownfield site in Fayetteville created a place of interest that had not previously existed and met a recreational need within the community. The buildings that had existed on the site apparently had no articulated historic function within the city, as they housed an array of businesses. In comparison, the museum capitalized on a regional cultural theme related to military history of the nearby bases, rather than affiliations with the historic downtown. A new use without any historic precedent was introduced to the site. While this redevelopment project did result in the reuse of an older area of Fayetteville, the stories and values of the original site were lost.

[190] Ibid.
[191] Photos provided by Craig Hampton, City of Fayetteville, North Carolina.

Figure 3.16. Hay Street brownfield site, prior to redevelopment.

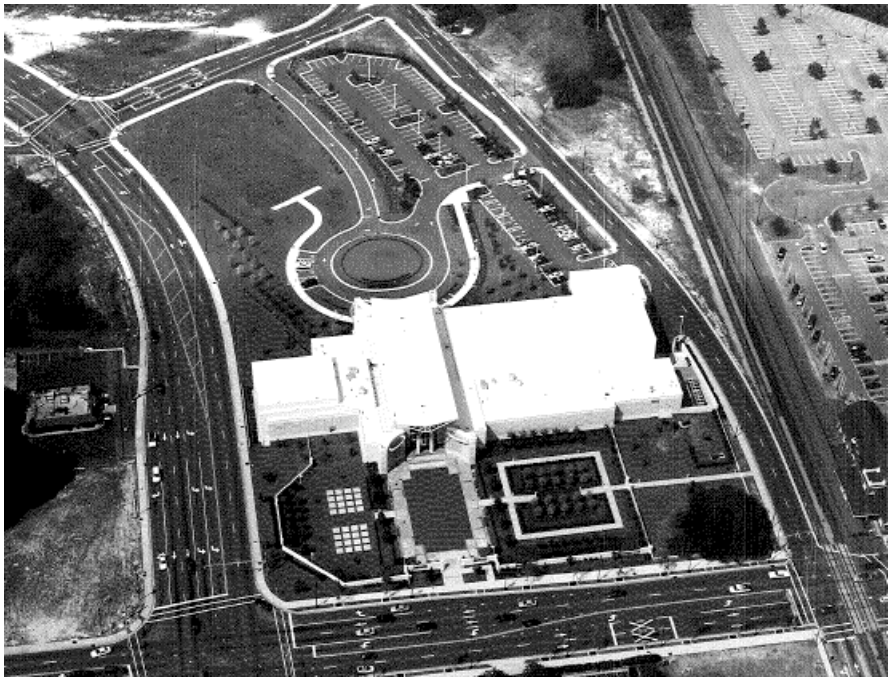

Figure 3.17. Hay Street brownfield site, after revitalization.

The ASOM project serves as an example of how the Fayetteville city government, its local citizens and downtown stakeholders, and U.S. Environmental Protection Agency were instrumental forces in using a brownfield site to capture themes of local history and reshape the Hay Street corridor. Because the community was concerned about losing the historic character of their entire downtown, the response to this concern resulted not only in the creation of a new museum, but also in a city-wide 'Renaissance Plan' for revitalizing downtown. Cooperation and partnership between the local government and the people made such the plan and continued growth possible.

All of these case studies illustrate important points for linking brownfield revitalization with historic preservation, especially as a planning tool. The revitalization of Ironbridge Gorge has re-introduced the Industrial Revolution to people all over the world, allowing them to connect with the origins of industry through the exploration of the museums and the artifacts that remain in situ throughout the Gorge. These industrial resources have been used to their full extent for the purposes of education, economic development, and tourism while at the same time protecting a living, working community from losing irreplaceable treasures of world heritage. The success of the Ironbridge Model is demonstrated through similar efforts attempted at preserving industrial sites in Blaenavon, located in Wales, and in Germany's Ruhr Valley with the Zollverein site. The reclamation of the Allis-Chalmers site in West Allis, Wisconsin, represents an ideal model for old industrial cities located in the United States that seek a practical approach for managing their brownfield sites and preserving important visual characteristics. Though the buildings at the Fayetteville brownfield site were demolished and the site's stories were lost in the construction of a new museum, the city should be

commended for seizing the opportunity to utilize elements of shared regional military history to anchor its revitalization of downtown. While the Fayetteville case study may fall short of fulfilling the principles of integrated conservation on some levels, the redevelopment of the brownfield site in Fayetteville demonstrates the type of public-private partnership involvement necessary to start the revitalization of old areas and carry the momentum forward to achieve city-wide revitalization efforts by reusing brownfields.

CHAPTER 4

LESSONS LEARNED

The concept of 'integrated conservation', as considered in Chapter 2, was used to assess the three case studies presented in this thesis. To identify the extent to which the brownfield projects achieved the principles of integrated conservation and therefore supported a viable relationship with historic preservation, the analyses focused primarily on four key areas: the roles that each of the brownfields played within their own communities, their potential for redevelopment, the types of resources remaining onsite, and the outcomes of the redevelopment. These analyses recognized the presence of contamination at each brownfield site, but this was not emphasized as a barrier to the process of reclaiming brownfield sites in general. Instead, emphasis was given to the historic values and cultural significance of each site, since these are most often overlooked.

Several lessons resulted from the analysis of the case studies that point towards basic ideas of integrated conservation.

- Brownfields can have cultural and historical value
- Brownfields are typically located in older areas of communities
- Brownfields can be places of interest and curiosity within communities
- Brownfields can have the potential to yield information about the past history of communities
- Brownfields offer opportunities for reclaiming pre-developed vacant land

- Brownfields often have buildings, structures, or other types of physical features that lend character and propagate a sense of place
- Brownfields may be limited in redevelopment potential, depending on their contamination levels

These basic lessons can be formulated into a set of guidelines for brownfield sites where no redevelopment activity has occurred. The proposed guidelines can apply to any site regardless of its cultural context or geography. They each draw support from the policy frameworks discussed in Chapter 2 and incorporate the scope of lessons learned through the analysis of the case studies. Ultimately, the guidelines treat brownfield sites as historic resources, and therefore, their purpose is to protect their range of valuable characteristics and features. Based on the *Declaration of Amsterdam, the United States Secretary of the Interior Standards for Preservation Planning, the TICCIH Nizhny Tagil Charter for the Industrial Heritage,* and *the ICOMOS 1987 Washington Charter,* the following set of guidelines are suggested to support a link brownfield redevelopment and historic preservation. Ideally, following these guidelines will enable integrated conservation in the redevelopment process.

1 Establish a Historic Context for the brownfield site.

All of the policy frameworks discussed in Chapter 2 address the need for historic resources—in this case, sites—to be understood in terms of their cultural, historic, and archaeological values. This understanding is necessary to ensure proper management and prevent the loss of irreplaceable historic material. The *Secretary of the Interior Standards for Preservation*

Planning specifically use the term "historic context".[192] Organizing information about the brownfield's history, its architectural works, its archaeological values, and its function within the local community will assist with the creation of a historic context for the brownfield.[193] According to the *Washington Charter of 1987*, establishing a historic context involves an examination of the "material and spiritual elements" of the site or historic area and making sure that those are preserved.[194] Such elements may include urban patterns and relationships created by buildings and streetscapes, appearance of buildings and structures, functions that the area or site has assumed, and relationships between the site and its larger setting. Understanding the brownfield site in terms of its own extant resources, defining the brownfield's relationship to its resources and its surroundings, and identifying the brownfield's cultural themes will shape a historic context that guides the redevelopment of the site.

2 Document the brownfield site.

Efforts should be made on the part of preservation and conservation professionals or members of the community to produce documentation for the resources found at brownfield sites such as structures, machinery, buildings, and other items that lend a sense of place to the site. Each policy framework in Chapter 2 articulates the importance of documentation at historic sites. Brownfield sites, since they generally possess historic value, should receive similar treatment. In particular, the *Nizhny Tagil Charter for the Industrial Heritage* identifies methods for the documentation of industrial sites. According to the *Nizhny Tagil Charter,* documentation should be executed in order to prevent their historic and archaeological

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[192] *Secretary of the Interior Standards for Preservation Planning*
[193] Ibid.
[194] *ICOMOS Washington Charter*, 1987.

resources from being compromised.[195] Specific methods may include writing physical descriptions, making detailed drawings, and taking high quality photographs and video.

Documentation is a necessary step for creating a historic context, as it involves creating a record of the site. In addition to looking at what remains on site, documentation should also include gathering oral history in the absence of written history and identifying the relationship of nearby buildings and structures to the brownfield site. Not only does the availability of such information build a stronger historic context for the brownfield, but also the record can provide detailed information of the site in the event that any resources are razed before proper planning occurs. Furthermore, documentation is essential in order to guide reclamation projects that respect a brownfield site's historic and cultural values, as well as to ensure that the authenticity of the site is maintained in the face of new development. To preserve the most accurate history of brownfield sites, documentation should be started before operations cease.

3 Utilize brownfields to tell stories of the site and communicate the history and heritage of the community.

Based on the policy frameworks and case studies, the goal of a brownfield redevelopment project should be not only to create a usable space in the community, but also to retell stories of the site that have been lost or made less apparent with the passage of time. These stories may range from the role played by the industry in shaping the community to the very products made and manufactured onsite. In terms of historic preservation, the concept of authenticity is important in determining how the site should be used.

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[195] *Nizhny Tagil Charter,* 2003.

The *Declaration of Amsterdam*'s emphasis on using integrated conservation to maintain social balances within the built environment is relevant here with the idea that brownfields, like historic buildings and historic districts, have stories to share. Additionally, the *Nizhny Tagil Charter, the Standards for Preservation Planning,* and *the Washington Charter of 1987* all make reference to the need of preserving these stories for future generations. The *Nizhny Tagil Charter* specifically states that "The industrial heritage is of social values as part of the record of the lives of ordinary men and women, and as such it provides an important sense of identity. It is of technological and scientific value in the history of manufacturing, engineering, construction, and it may have considerable aesthetic value for the quality of its architecture, design, or planning."[196] In order to identify and clearly voice the range of stories associated with a brownfield site, those with the most knowledge about the local community should be involved.

The stories may recount the brownfield's role in shaping the community, the significance of its surviving resources, or specialized functions and technologies. Extant visual resources such as equipment, machinery, and other structures or buildings are often the most powerful in the interpretation of the site's stories. They should be preserved to the fullest extent and incorporated into any redevelopment processes that take place on site. Measures such as these can preserve the site's history throughout the redevelopment process.

[196] *Nizhny Tagil Charter, 2003*

4 Ensure that brownfield redevelopment projects are compatible with the surrounding environment.

The *Declaration of Amsterdam* underscores the importance of preserving continuity and integrity of historic fabric, from the very modest to the most grand, as each contributes to the preservation of a community's identity. Policies that attempt to achieve integrated conservation advise that new uses and new structures in older, historic areas should be compatible and complement existing character and setting. According to the ICOMOS *Washington Charter of 1987*, features as specific as lot size and spatial layouts should be maintained; however, the Charter also says that contemporary construction should not be discouraged as it can enhance the area being revitalized.[197]

Similar to new construction in locally protected historic districts, brownfield redevelopment projects should respect the scale of the existing character, as the brownfield itself may contribute a distinct character or sense of place to its surrounding environs. Development that attempts to erase the "grittiness" or industrial character will undoubtedly interfere with the authentic character of the brownfield's context. Such development may eventually erase the diversity of spaces within the greater community, as well as the stories about the site that may have been told through the redevelopment process.

5 Encourage public participation, dialogue, and action between the local government, the community, property owners, and planning authorities to manage brownfields.

The final guideline addresses the involvement of stakeholders and the role that they should play in the stewardship of historic areas, including the identification of values for

[197] *ICOMOS Washington Charter, 1987*

brownfield sites. Stakeholder involvement is an integral part of the redevelopment process, as it entails the defining of values, which enable the site's stories to be more clearly connected to both the site itself and the greater community or region. This gives all players involved the opportunity to explore the intangible values of the brownfield site and integrate those values into a cohesive plan for redevelopment. All of the policy frameworks discussed in Chapter 2 converge at this phase in planning for the site's future, and they carry the same theme of the main idea of the *Declaration of Amsterdam*: "We should not build the future at the expense of the past."[198]

The human element is inseparable from brownfield sites. People take inactive spaces, impart meaning, value, and functionality to them, and transform them into places.[199] Furthermore, people ultimately decide the fate of those places either by maintaining them or abandoning them. For these reasons, communities have a responsibility for being good stewards of the things and places they value, if the subsequent generations are to have a complete picture of the community's history and heritage. This also supports the *Declaration of Amsterdam's* assertion that existing social balances between individuals and their environments should not be erased or shifted.[200] Additionally, the *Declaration of Amsterdam* primarily discusses the need for communities to have a sense of ownership of their resources and traditional environments and to communicate that to the younger generations within the community.[201]

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[198] *Declaration of Amsterdam, 1975*
[199] Lonzy, 22.
[200] *Declaration of Amsterdam,* 1975.
[201] Ibid.

However, along with this responsibility, communities also need to know *how* to be good stewards of their resources. When brownfield sites are publicly owned or the proper owner cannot be identified, it bodes well for the local government to organize and collaborate. Members of the community, the local governing bodies, and planning and preservation and conservation professions are essential to collaborations targeting brownfield redevelopment. Conducting a design charrette streamlines the community involvement component, as it is a process that identifies key stakeholders, utilizes the expertise of planning professionals, and results in design solutions ultimately derived from the local community.[202] Furthermore, a design charrette relies on the historical context and documentation to tell the stories of the brownfield site, and it may emerge as the most effective tool for unifying the varied opinions and voices of the local community.

[202] National Charrette Institute. Available from Internet, http://www.charretteinstitute.org/projects/community-planning.html. Accessed April 2009.

CHAPTER 5

APPLICATION OF PROPOSED GUIDELINES

Chapter 5 focuses on the application of guidelines suggested in Chapter 4 to a brownfield site located in Americus, Georgia. Figure 5.1. Americus is a small rural community of about 16,545 individuals, located in the south central region of the state, near the Flint River in Sumter County.[203] With a small population and an economy based primarily in agriculture, Americus shares few physical characteristics with places of early industrial technology, factory-laden Rust Belt cities, or cities with dense urban populations. However, Americus is considered in this thesis for several reasons. It is a fairly vibrant micropolitan center in one of the state's poorest regions, it has a strong historic preservation ethic, and most importantly, it also has a small number of industrial sites that have created places of interest in the community.

The site chosen for analysis in this thesis is the Perry Brothers Oil Company, located near the Americus Historic District.[204] The site is situated on Furlow Street and Elm Street, near the Seaboard Coastline Railroad. Figure 5.2.[205] The site covers approximately one acre, and the Sumter County Tax Assessor classifies its neighborhood listing as "Historic II". Currently, there are six buildings on site—one non-historic metal warehouse that serves as the main office, one

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[203] Population statistic from U.S. Census, available from Internet, http://factfinder.census.gov/servlet/SAFFPopulation?_event=Search&_name=Americus&_state=04000US13&_county=Americus&_cityTown=Americus&_zip=&_sse=on&_lang=en&pctxt=fph. Accessed February 2009.

[204] The local Americus Historic District overlays the boundaries of the National Register Historic District. Given the small size of the community, the historic district includes the historic downtown commercial area, as well as the Victorian residential neighborhoods, where Perry Brothers Oil Company is located.

[205] Sumter County Tax Assesor Records. Available from Internet, http://qpublic3.qpublic.net/cgi-bin/ga_sumter_alsearch.cgi. Accessed March 2009.

non-historic metal shed, two historic warehouses comprised of wood and metal[206], and two metal Quonset Huts used for miscellaneous storage purposes. Figures 5.3—5.7. Additionally, storage tanks are present throughout the site. Four older tanks nearest to the railroad line appear to be abandoned. They are sequestered behind one of the Quonset huts and are visible from homes nearest to the railroad, including houses located within the historic district. An agglomeration of tanks and drums presently in use is located at the corner of Furlow Street and Elm Avenue. Elm Avenue is the main north-south thoroughfare for foot and motor traffic in the residential historic district, as it bisects the newly rehabilitated Rees Park and Rees Park School.

Though the original site on Furlow Street in Americus is currently in use, a new facility has been constructed to meet the company's needs for growth. The new location is eight miles away, along Georgia Highway 280, a major local thoroughfare. The Perry Brothers have already begun transitioning their business from the original Americus location to the new location, with plans to cease operations at the original location in the immediate future, as early as Spring 2010.

Figure 5.1. Americus, Georgia.

[206] Sumter County tax records indicated that these were constructed in 1945 and 1960, respectively. Ibid.

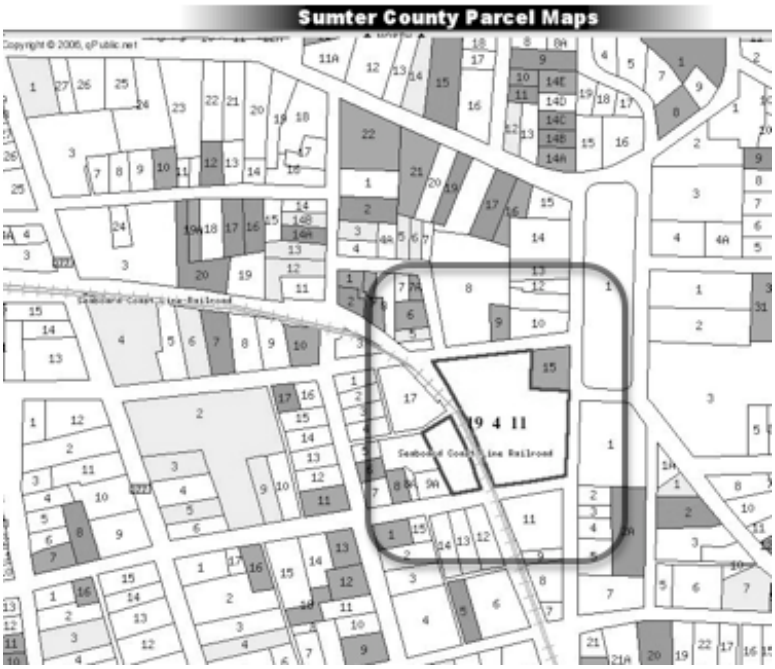

Figure 5.2. Map of site, included in black rectangle.

Figure 5.3. Quonset huts on the Perry Brothers Oil Company site.

Figure 5.4. Quonset hut with shed addition, view of railroad tracks.

Figure 5.5. Tanks and concrete pallets, view of site.

Figure 5.6. Grain silos, west side of site.

Figure 5.7. Wood and metal shed along railroad tracks, west side of site.

Establish a Historic Context for the brownfield site.

Generally, printed historical information about the Perry Brothers Oil Company site is limited, as is the case with most industrial sites in Americus. This is in sharp contrast to the availability of information on the city's iconic Victorian Era architectural works found in and around the downtown core, most of which are found in neighborhoods clustered around the site. Because so few concrete dates about the site's construction exist, information about the Perry Brothers site and the King Cotton Mill must be obtained from direct communication with business owners Bill and Steve Perry.

The Perry Brothers Site belongs to several different eras of Americus and Sumter County history. When considering the three changes of use of the site over its lifetime, the site appears to belong to more than one historical context. However, the site has been shaped and influenced by the larger patterns of change and advancement of Americus' local commercial business economy. According to local sources, the initial development of the site as a milling operation during the 1920s. Research into 1940s and 1950s editions of the Americus-Times Recorder, the local newspaper of Americus and Sumter County, revealed the prevalence of various small-scale oil businesses throughout the city, compared to the few that existed during the 1930s.[207] This may have been one of many strategies to boost job opportunities for those returning home from the war. In the context of post World War II, the site thrived as an oil business under the larger parent company, Standard Oil.

According to the Perry family, the site occupied by the Perry Brothers Oil Company was originally established as the King Milling Company, a business of buying, processing, selling, and

[207] Americus Times-Recorder, newspaper advertisements, editions 1943-1955.

storing peanuts, grains, and corn, as well as cleaning seeds, in the early 1920s. Multiple warehouses were present on the property, in figure 5.8. Additionally, the grain silos present in figure 5.9 were part of the King Milling Company operations. The tornado that struck Americus in 2007 destroyed most of these warehouses, which had been used as storage facilities by the Perry Brothers. However, six grain silos still stand, most of them used as storage buildings.

Figure 5.8. Aerial photograph, partial view of Perry Brothers Oil Company site.

Figure 5.9. Grain silos, located to the west side of the site obscured by vegetation

With the advent of oil pipelines in Americus in the 1960s, diesel trucks replaced railroads as the primary mode of moving freight. The King Milling Company closed for good in 1962 after going bankrupt.[208]

The Perry family started their business in 1957 in Ellaville, Georgia, located north of Americus. In 1977, the Perry family opened an office in Americus and expanded their service area. They chose to locate their business at the site of the old King Milling Company operations. Additionally, Lott Brothers Oil and Halsted Oil companies, both of which had served as commission agents for the Standard Oil Company, which later became Chevron, had

[208] Americus City Telephone Directory, Southern Bell Telephone and Telegraph Company, 1962 (no mention of King Milling Co. after 1961).

operated a small portion of the property.[209] When the Perry Brothers' business opened in the 1970s, it was a marketer and distributor for Chevron products rather than a commission agent. As a commercial vendor, the company has sold oil products for farm, industrial, and automotive purposes. In addition to oil, the Company also sells tires for passenger trucks, commercial trucks, farming equipment, and all-terrain vehicles.

Document the brownfield site.

The Perry Brothers site in Americus contains a range of resources worth documenting, all of which contribute to its identity and speak to its historic context. Resources such as the underused oil storage tanks, Quonset huts[210], and dilapidated grain silos lend a gritty industrial feel to the area unmatched elsewhere in the city. Given that the site is currently in operation, documentation should include the operation and activities that occur onsite before operations on the site cease completely. For example, Perry Brothers maintains the storage of oil in tanks onsite and the company truck fleet carries it to local businesses. Photographs and maps of these locations are necessary for documentation of the site. Steve and Bill Perry have indicated that Georgia Environmental Protection Division laws will require the removal and proper disposal of the oil storage tanks, despite the visual quality and character they lend to the site. Figure 5.9. For this reason, the site should be documented in its present condition before the tanks are removed. A new aerial photo is recommended, along with individual photos of the

[209] Bill and Steve Perry, interview by the author, 18 June 2009. Owners of Perry Brothers Oil Company, Americus, Georgia.

[210] Quonset huts were mass-produced during World War II as temporary shelters that could be quickly assembled and disassembled as necessary. They have incited fascination because many of them continue to be utilized for a variety of operations, from businesses to houses to restaurants. From "Quonset: Metal Living for a Modern Age". According to the Sumter County parcel map and tax record, the Quonsets at Perry Brothers Oil Company were built in 1945.

existing buildings, footprints, and even concrete pallets. These observations may be key evidence in future writings about the site's history from its origin to the present day.

Figure 5.10. Oil tanks currently in use, to be removed when business closes.

Ensure that brownfield redevelopment projects are compatible with surrounding environs.

Various qualities define the immediate environs of the Perry Brothers Oil Company. Given the site's location within the boundaries of a local historic district, its unique, gritty visual character in the midst of a neighborhood dominated by Victorian architecture, and its place in the history of Americus's commercial development, a redevelopment plan for the Perry Brothers Oil Company site should complement the immediate visual character of the site and the context of the neighborhood in which it is located. To maintain harmony and balance with the larger context of the residential area, redevelopment plans should also acknowledge the existing character of the historic neighborhood. Specifically, the size of buildings and houses,

the density of buildings and houses, street and sidewalk patterns, and land uses. Additionally, the historic footprints and building configurations that characterize the site itself should be preserved to the fullest extent possible. For example, while the grain silos, once part of the King Milling Company operations, are manmade and metal, they have acquired their own patina, as mentioned in the *Nizhny Tagil Charter*, and they seem to blend in with their natural surroundings. They impart visual interest as indicators of the site's historic use as a milling company, almost forcing the observer to ask questions. The Quonset huts elicit the same type of visual effect, as relics of World War II-era construction. Because they are found so rarely in general, the Quonset Huts amplify visual interest in the Perry Brothers site. Efforts should be made to preserve these resources.

Surrounding structures and land uses are slightly mixed. The rehabilitated Rees Park School and Park now operates as the Americus-Sumter Chamber of Commerce and Payroll Authority. Figure 5.11. Vacant land behind the Rees Park School was redeveloped into a basketball court for neighborhood use. Figure 5.12. Apart from Perry Brother's extant resources, the layout of the site and its relationship to the adjacent neighborhoods should be included in the documentation, through the means of mapping and GIS.

The historic homes near the Perry Brothers site vary in condition. The grand homes clustered around Rees Park have retained many of their historic features and high style aesthetic. Figures 5.13 through 5.17. However, the small, modest ones closest to the brownfield site were built originally as houses for those who worked on and around the railroad, according to Steve and Bill Perry. These houses have an important role to play in telling the story of the site and its impact on the surrounding residential areas. Figures 5.18

through 5.25. Many of them, while good examples of Southern vernacular architectural styles, have fallen into disrepair and their integrity has been compromised. Instead, they have become indicators of blight and disinvestment.

Figure 5.11. Rees Park School, built c. 1912 and rehabilitated in 2008.

Figure 5.12. Basketball courts behind Rees Park School building.

Figure 5.13. House at Rees Park.

Figure 5.14. House at Rees Park.

Figure 5.15. House at Rees Park.

Figure 5.16. House at Rees Park.

Figure 5.17. Example of housing stock nearest to Perry Brothers site.

Figure 5.18. Example of housing stock nearest to Perry Brothers site.

Figure 5.19. Example of housing stock nearest to Perry Brothers site

Figure 5.20. Example of housing stock nearest to Perry Brothers site.

Figure 5.21. Example of housing stock nearest to Perry Brothers site.

Figure 5.22. Example of housing stock nearest to Perry Brothers site.

Figure 5.23. Example of housing stock nearest to Perry Brothers site.

Figure 5.24. Example of housing stock nearest to Perry Brothers site.

Figure 5.25. Example of housing stock nearest to Perry Brothers site.

By identifying features of the neighborhood, like surrounding buildings types, age of buildings and houses, prevalence of sidewalks and pedestrian facilities, and other visual characteristics, incompatible uses, features, and designs can be avoided, much in the same way design guidelines can influence the development of new construction within a historic district. In evaluating the immediate environs of the Perry Brothers site, one can easily see that there are practically no new, contemporary examples of construction. The streets form a loose grid around the railroad tracks, people are encouraged to explore the area on foot by using the narrow streets, and the housing stock is consistently folk vernacular or High Style Victorian. The density of structures in the neighborhood ranges from medium to high, and the street patterns engender connectivity with neighborhoods on the other side of the tracks. Future uses and designs for this site would ideally consider preserving these features.

Utilize brownfields to tell stories of the site and communicate the history and heritage of the community.

Redeveloping the Perry Brothers Oil Company site will present the community with an opportunity to reflect on and promote the heritage of one of Americus's few industrial sites. This guideline is strongly applicable to the Perry Brothers site because virtually no written history of the site exists. Additionally, histories of the King Milling Company and surrounding businesses near the railroad are non-existent, except through searches in early city directories and newspaper advertisements. Because the heritage of this site and the businesses that it has sustained is in danger of disappearing, there is much work to be done to promote the value of industrial sites to the community and uncover the stories of the site. Industrial sites like the

Perry Brother site are pages in Americus and Sumter County history, specifically related to the development of commercial businesses and the local economy.

For example, Americus may choose to use the site for the construction of a museum that interprets railroad history and early industrial and commercial business that sprang up around the railroads in Sumter County, or possibly extend that interpretation to include all of South Georgia. However, not all communities can feasibly support such an undertaking, and in most cases, such as facility may be unnecessary or unthinkable. In many cases, industrial heritage museums aim to educate, but they run the risk of generalizing the specific history of the site to encompass all types of industry, whether or not that industry has any precedent in the community. However, the Perry Brother's brownfield site, as one of the few local industrial sites in Americus, may be an appropriate venue for a local industrial history museum.

In deciding the fate for the Perry Brothers Oil Company site, a complete clearing of the site should be avoided, as supported most strongly by the *Nizhny Tagil Charter*. However, if any structures or facilities are exacerbating the contamination of soil or groundwater beyond a reasonable use, they should be documented before being removed. Otherwise, the extant resources can provide inspiration to developers, as with the Allis-Chalmers site case study. New development that follows principles of integrated conservation should reuse the Quonset huts rather than demolish them. Both the old and new oil storage tanks resemble sculptural assemblages; these could be part of the new development project's image or logo, or simply left in place as a type of "memorial" to the past industrial uses of Perry Brothers Oil Company. Provided that they cause no harm to the site, these tanks should remain in situ and creatively reused.

Encourage public participation, dialogue, and action from local government, community, and planning authorities to manage brownfields.

The Americus community has traditionally espoused a historic preservation ethic in planning for the city's future. Many of Americus's historic resources have been preserved as a result of the community's dedication to protecting them under a local historic preservation ordinance. The success of preservation in Americus is visible both in the downtown and in the residential neighborhoods. The Perry Brothers Oil Company site is located in the historic residential area, in close proximity to some of Americus's oldest homes. Given the site's location in this type of setting, action must be taken quickly to plan for its future use. Failure to carefully plan for the treatment of the site can potentially result in negative impacts on the adjacent neighborhoods—key resources for defining Americus' sense of place.

A charrette process for the redevelopment of the Perry Brothers Oil Company site may provide a way to align the property owners with the community, its local officials, and its planners to collaborate on a vision for the site's reuse. Ideally, the vision should reflect the site's historic context, its extant, character-defining resources, its relationship to the surrounding environment, and its ability to tell a story that contributes to the identity of the community. Following these steps will form the strongest basis for planning a reclamation project that will contribute to the community's long-term goals for their city. As discussed in Chapter 4, charrettes are an effective way to facilitate planning processes between professionals, the local citizenry, and local officials. Typically, charrette sessions of this nature focus on retaining features and elements that contribute to an area's sense of place.

Application of Guidelines

The concluding paragraphs of this chapter offer a potential redevelopment concept that would be appropriate for the Perry Brothers Oil Company Site; this is an example of what may emerge from a charrette workshop. This concept reflects the guidelines proposed in Chapter 4 and the philosophy of the frameworks discussed in Chapter 2. Overall, the site presents an opportunity for a redevelopment project that explores and interprets the historic themes and visual characteristics of the site, the site's relationship to the neighborhood, and even its connection to the social relationships that have been forged over time in the area. Because the site was originally at the center of many small-scale businesses related to the railroad and its operations, its historic context and role in the commercial development of Americus should direct the redevelopment plan.

The presence of the Seaboard Coastline Railroad was the impetus for the area near the Perry Brothers site becoming a hub of activity. A 1912 Sanborn map indicated that businesses such as the Cannon Cabinet shop, the W.H. Sawyer & Sons machine shop, and Schneider Marble Company were present, for example.[211] Figures 5.26 and 5.27. Most of the businesses had platforms that enabled them to efficiently load and unload freight. When the King Milling Company was established on the Perry Brothers site in the 1920s, it too was able to take advantage of the opportunities offered by being in close proximity to the railroad.

[211] Sanborn Fire Insurance Maps for Georgia Towns and Cities. Available from http://dlg.galileo.usg.edu/sanborn/CityCounty/Americus1912/Sheet24.html. Accessed November 2009.

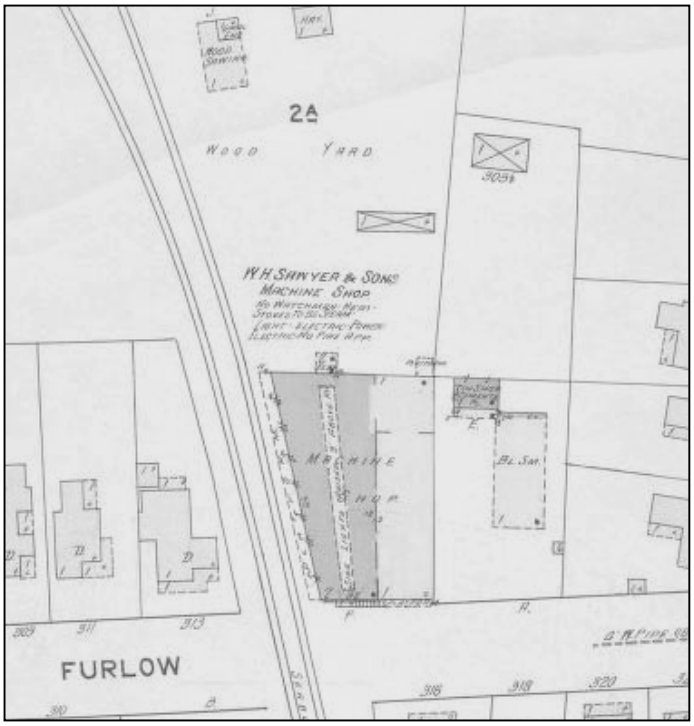

Figure 5.26. 1912 Sanborn map, Americus, Georgia

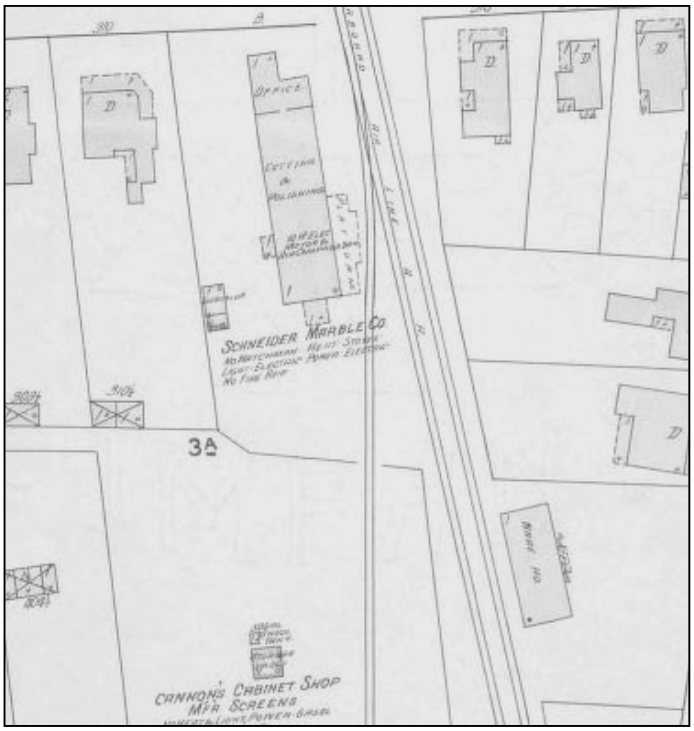

Figure 5.27. 1912 Sanborn map, Americus, Georgia

Examples shown here of a redevelopment plan for the Perry Brothers site reintroduces these same types of concentrated spaces of activity, with various types of locally owned and operated businesses and services available to the community as in the prosperous days of the railroad. Figure 5.28.

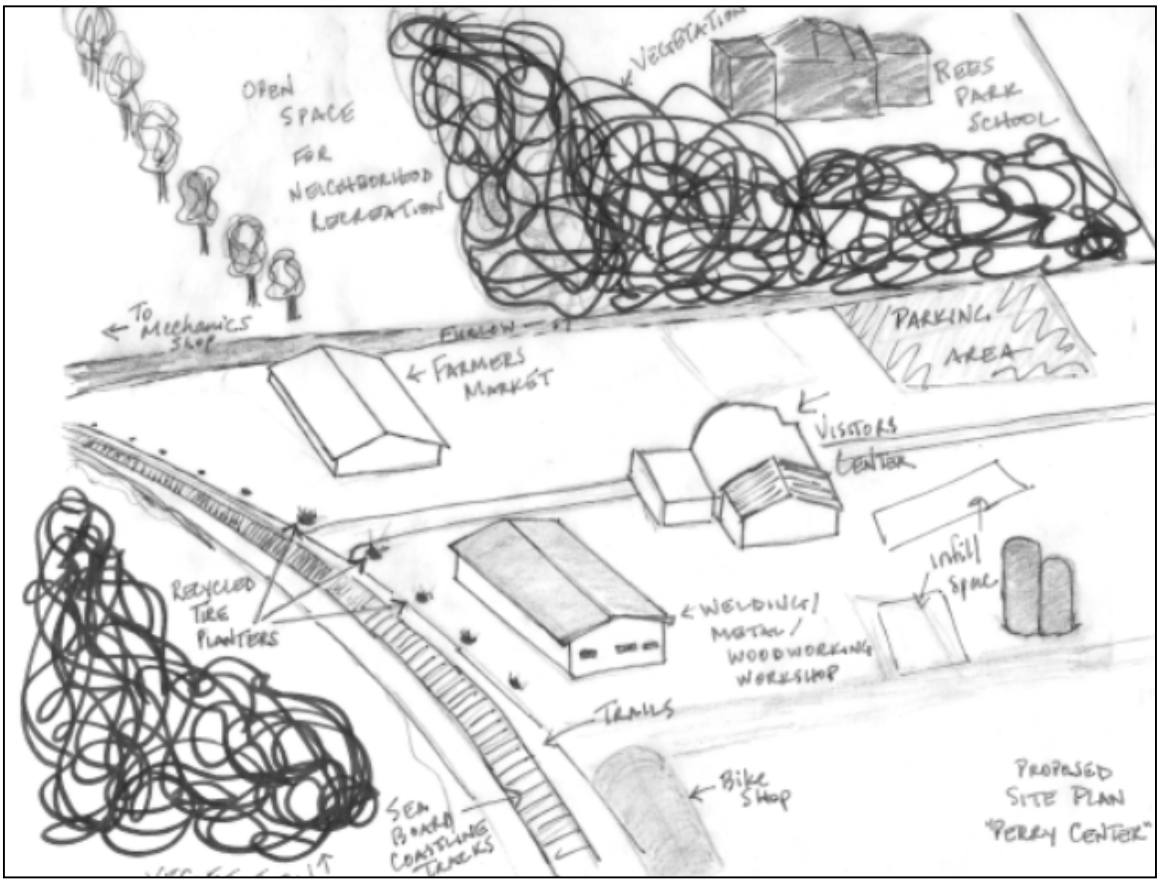

Figure 5.28. Sketch of proposed site plan.

Additionally, the Perry Brothers site, much like the city of Americus itself, is tied to the theme of transportation. Not only do railroad tracks run through the middle of the site, but beginning with the operation of Standard Oil in the 1950s and Perry Brothers in the 1970s, the site itself became linked with the business of facilitating mobility. Similarly, transportation played a key role in the development of the city of Americus. Railroads enabled the city to prosper and grow during the nineteenth century; they still function as a way to bring people into the city by way of the tourist passenger train, the SAM Shortline.

The presence of railroad tracks at the Perry Brothers site offers an opportunity to restore the historical theme of transportation and adapt the site for pedestrian use. The tracks provide a strong basis for planning a trail system or greenway, one that would not only take users through the site but also through the city. Additionally, one of the buildings found onsite and shown in the site plan sketch in Figure 5.28 could be rehabilitated as a trailhead-visitors center facility. Installing pedestrian trails would also take a step forward in creating a space that mediates the social dynamics that exist in the area. The historic housing stock represents two very different groups of people living in the area. Those north and east of the railroad tracks appear to be wealthy, while those living south and west of the site appear more modest. Uniting these groups through mutually shared activities such as recreation and fitness by way of creating a trail system is an example of how the site can be reclaimed for all members of Americus' population. Figure 5.29.

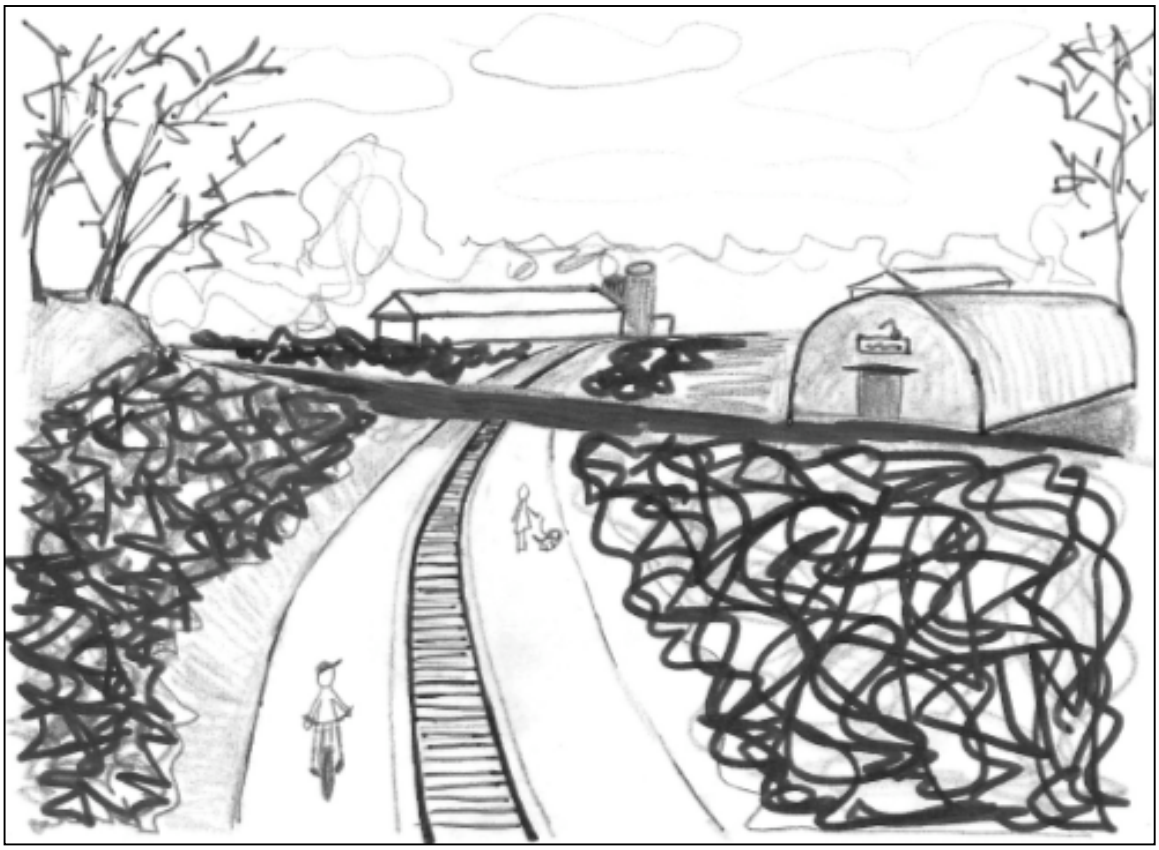

Figure 5.29. Bicycle / pedestrian paths following the railroad tracks.

New uses for the buildings at the Perry Brothers site should primarily be local businesses. However, they should also somehow be related to transportation or other historical themes proven to have been present at one time. For example, the Quonset huts would be ideal locations for bike repair shops or garages for mechanics. Figures 5.30 and 5.31. Both of these uses relate to themes of transportation, even if they pertain to modern uses. Additionally, the presence of a bicycle shop may encourage cyclists to use the trails more frequently.

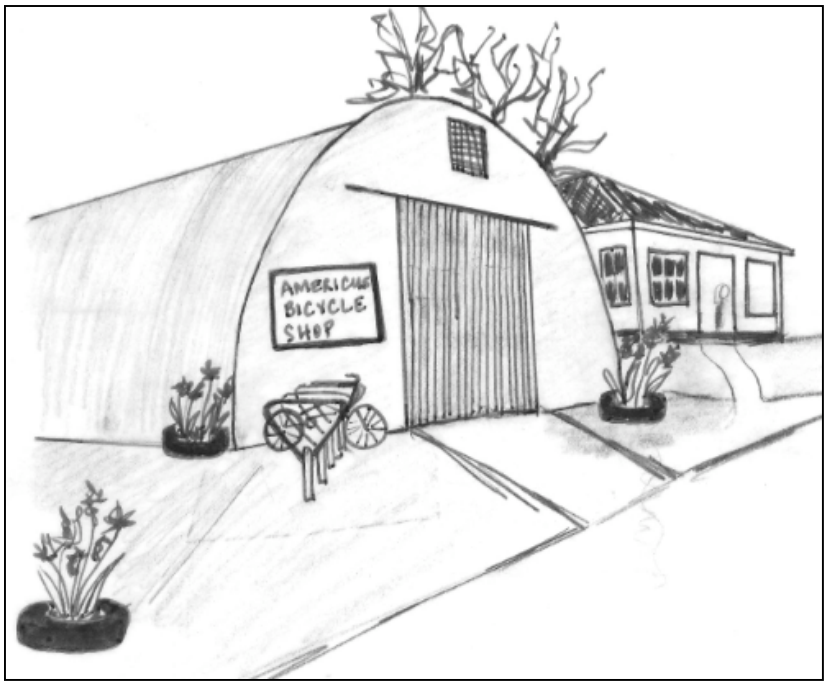

Figure 5.30. Reuse of Quonset hut as a bicycle shop.

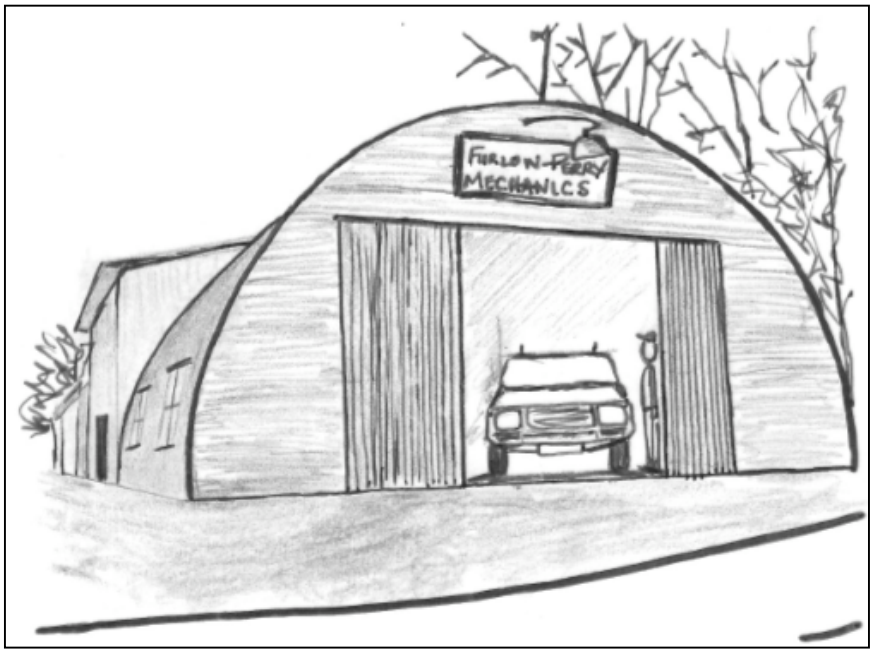

Figure 5.31. Reuse of Quonset hut as a mechanic's garage.

Transportation and industry are not the only historical themes tied to the site's historic context. Because the site's earliest history concerned agriculture by way of the King Milling Company, it would be appropriate to incorporate a farmer's market venue into the site. Figure 5.32. Any of the buildings found on site could be retrofitted and reused to house an indoor venue for local merchants and their produce. Additionally, there is sufficient space outside for fruit stands and signage. The proposed trails would aid in bringing pedestrians and cyclists to the farmers market as well.

Figure 5.32. Sketch of Farmer's Market

CHAPTER 6

CONCLUSION

The opening paragraph of Chapter One evoked the mental image of a decaying cityscape. For a number of cities in industrialized and post-industrialized nations, this is a common reality, both in the United States and abroad. The transition from industry-based economies to information-based economies can partly explain the disappearance of large numbers of industrial jobs and the displacement or disappearance of communities whose heritage was rooted firmly in traditions of industry.[212] As a result, sites with century-long histories have been abandoned, and their legacies have begun to surface in the form of contaminated land, influencing pattern of blight within communities.

On a formal policy level in the United States, brownfields have typically fallen outside the attention of historic preservation policies and initiatives, despite the numerous areas of overlap. Frameworks such as the National Register of Historic Places, the National Trust for Historic Preservation, and the National Park Service have addressed the management and protection of historic and natural resources with national-level significance. Local governments have enacted local historic preservation ordinances long before they had enabling legislation to do so, in order to protect definitive historical characteristics. While many types of industrial sites may qualify as historic landscapes and contain relevant cultural values, the term "brownfield" is not explicitly used in any of the referenced American preservation frameworks,

[212] Vey, 63.

including the *Secretary of the Interior Standards for Preservation Planning*, which are a useful reference for federal, state, and particularly local preservation planning endeavors. However, none have not yet readily taken into account the irreplaceable historic and cultural elements of brownfield sites. Instead, the U.S. EPA has been the authority responsible for establishing treatment procedures for brownfields and managing their environmental consequences.

The overlap of historic preservation and brownfield redevelopment provides exciting opportunities for community revitalization. This indicates that collectively, the U.S. has not readily acknowledged brownfield redevelopment as a viable method of preserving traditional environments and the continuity of historic fabric. Local governments typically have relied on state or federal entities to handle brownfield redevelopment, but in actuality, only the most severely contaminated sites--those on the National Priority List--are the priority of the federal government.[213]

Policies that have emerged from international collaborations, such as through the Council of Europe, ICOMOS, and TICCIH, address the link between brownfield redevelopment and the practice of historic preservation more effectively. The question of where and how the two approaches overlap is most effectively framed when considered in the context of documents such as the *Declaration of Amsterdam, Secretary of the Interior Standards for Preservation Planning* the *Washington Charter of 1987,* and the *Nizhny Tagil Charter for the Industrial Heritage*. All of these documents, specifically the *Declaration of Amsterdam,* support the concept of integrated conservation as a way to weave together both historic and

[213] Greenberg, et al, 10.

contemporary built fabric and preserve important cultural resources, including places like brownfield sites.

Based on the analysis of existing policy frameworks, completed brownfield redevelopment projects, and a proposed case study with strong potential for redevelopment, the concept of integrated conservation emerges as the most well-founded method for combining historic preservation and brownfield redevelopment into one holistic approach, in order to restore empty spaces in communities, capitalize on the range of cultural values present, and recreate places of life and vitality. Synthesizing the most relevant principles from these documents and developing them into a set of guidelines for brownfield redevelopment is a major first step for linking brownfields with preservation. In addition to this set of guidelines, at least three other measures should be in place to implement the integrated conservation approach.

To initiate the process of integrated conservation for brownfield redevelopment and historic preservation, change must first come at the local level as a collective effort, much like the process of designating a local historic district. It requires that planning authorities, preservation professionals, and local governing bodies work together with local citizens and begin identifying the oldest areas of their communities. To bring brownfield sites about as an area of responsibility for historic preservation, at least three other activities are recommended for furthering the link between historic preservation and brownfield redevelopment. They are as follows: creation of an inventory of local brownfield sites, inclusion of brownfield redevelopment in a community's comprehensive plan, and development of financial incentives for reusing brownfield sites.

Before taking on brownfield redevelopment projects, communities need to know where their brownfield sites are located. As with historic buildings, this information must be obtained through reconnaissance survey. Creating an inventory of local brownfield sites based on visual surveys is a necessary step for implementing integrated conservation. Ideally, the inventory would include quantitative data, such as the total number of brownfield sites within a community, their respective sizes, their physical addresses, their geographic coordinates as measured by GPS, and the date that the site was originally developed. Additionally, qualitative, descriptive data should be included as well, such as the types of structures remaining onsite, the composition of the surrounding environment, and the previous use of the site. Having a database of information about local brownfield sites will assist in the development of typologies and classifications for them at the local level. The creation and maintenance of a local inventory can assist in the development of a brownfield's site historic context, if no printed information or oral history can be obtained.

The basic purpose of any community's comprehensive plan is to identify the issues and opportunities present within the community, identify existing land use patterns, and develop a long-term vision for the community. This vision should incorporate the community's desires—specifically what it wants to see in ten to twenty years. Having a comprehensive plan enables the planning professionals involved to guide the community toward decisions that coincide with the overall vision. Part of the comprehensive plan should address future directions for historic resources and natural resources. Brownfields, specifically their potential for redevelopment, should be considered with historic and natural resources. Based on information in the recommended inventory, the citizens, planning professionals, and local

governing officials should be able to create a vision and long-term goal for the redevelopment of the local brownfield sites as they would with their historic buildings and other heritage areas.

Finally, a future direction for furthering the link between brownfield redevelopment and historic preservation is the development of local financial incentives to encourage redevelopment projects that directly involve a brownfield site's historic and cultural values. These incentives should compliment those in place for brownfields documented as major concerns for state or federal agencies, including sites that are eligible for federal assistance under CERCLA. Property tax freezes for the owners or redevelopment tax credits for eager, interested developers may be feasible for local governments, especially if brownfield redevelopment is listed as a priority under the community's comprehensive plan. In order to qualify for the incentives, the local governing bodies may require brownfield redevelopment projects to first cycle through the design charrette process. Additionally, they may want to ensure that the brownfield proposed for redevelopment has first met the guidelines proposed in Chapter 4.

It can safely be said that communities across the United States are still figuring out how to make historic preservation work for their own needs, whether their historic resources are numerous or few. Communities may compensate their lack of historic homes or rows of commercial buildings with the potential offered by their vacant brownfield sites. The idea of linking together historic preservation and brownfield redevelopment practices is supported by integrated conservation, a concept supported by multiple policy frameworks from the U.S. and abroad. By utilizing this approach, communities can gradually fill their empty brownfield spaces with new development sensitive to local history and heritage.

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