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ARCHIVES AND HISTORIC BUILDINGS:

A PERFECT MATCH OR A DISASTER WAITING TO HAPPEN?

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ARCHIVES AND HISTORIC BUILDINGS:

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DEDICATION

To my dad, Sam Davis, the motivating force behind the whole thing. Thanks for always knowing I could do this.

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ABSTRACT

The reuse of buildings and adaptation of an existing structure to a new purpose is not uncommon. A warehouse is converted to trendy loft apartments, a former school becomes offices for school administrators, a church becomes a theater; these are all fairly common reuses of existing buildings. While the idea of adaptive reuse seems simple, the decision to adapt a building to a new use that is far different from the original intended use can be quite complex. If the new use design has specific architectural requirements, a number of factors can influence the adaptive reuse of the building. Buildings to house archives have very specific architectural requirements and needs but in many communities, archives are housed in historic buildings adapted for this purpose. How does a community make the decision to reuse a historic building as an archival building? How does an archival facility differ from other adaptive reuse projects? Are certain building types better suited for reuse as an archive? What organizational structures best support an effective adaptive reuse of a historic building as an archive? What role does an archive in a historic building play in its communities? By examining case studies of communities that have dealt with issue of adaptive reuse of historic buildings for archives, we can hopefully answer these questions and set forth a discussion of best practices to guide future projects.

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CHAPTER I

INTRODUCTION AND HISTORIOGRAPHY

Historic preservation, museum studies, and archival studies developed as different professional practices in the first half of the twentieth-century. Nevertheless, by the century's end, they were commonly linked as different components of the public history movement that encouraged the teaching and understanding of history through physical evidence such as artifacts, buildings, or documents. The push to save and preserve the past has been reflected in public history's focus on not only the preservation of such resources, but, public access to and professional accountability for those resources. Both historic preservation and archives are part of the overarching "heritage industry" that can include monuments and memorials, museums, historical fiction, and other historical undertakings. Archives would seem to belong in historic buildings, since the records they preserve tell stories that are reflected in or associated with the built environment. Archival materials, artifacts, and the built environment serve as a visible link to the past which validates who we are as a culture and who we wish to be.[1] Yet despite this deep connection of shared purpose, historic

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[1] Max Page, *Giving Preservation a History: Histories of Historic Preservation in the United States* (London: Routledge, 2004), 14.

preservationists and archivists often work independently of each other and, at times, at cross purposes.

In their 2009 Society of American Archivists' (SAA) approved handbook, titled *Archival and Special Collections Facilities,* Michele F. Pacifico and Thomas P. Wilsted assert, "The archival facility is the common denominator in the preservation of archival and special collections. Without appropriate facilities and building systems, it is impossible to meet the building's first priority - collection preservation."[2] Pacifico and Wilsted, as well as many other archivists in the field, prefer new construction designed and built solely as an archival facility. Throughout the United States, however, restored historic and or repurposed historic buildings house archives. New facilities are too expensive for many communities to sustain. Other archives are historically attached to other institutions such as universities, historical societies, or corporations and must use existing buildings owned by the institution. Still other archives are so strongly associated with some other heritage organization that they share space with an existing museum or heritage organization office. These institutional relationships lead many archives to remodel or renovate an existing building to meet the needs of the archive.[3]

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[2] Michele F. Pacifico, Thomas Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers* (Chicago: Society of American Archivists, 2009), 2.

[3] Thomas Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities* (Chicago: Society of American Archivists, 2007), 101.

Given the importance placed on designing of purpose-built archival facilities and the very specific restrictions and requirements on space in an archive, archivists have not focused a great deal of professional literature on the adaptive reuse of historic buildings for archival facilities. Scholarly articles in the archival field regarding adaptive reuse and archival buildings are rather limited and dated. Two of the best examples are limited to case studies or "this is what we did" articles about the adaption and renovation of existing buildings. Jay Haymond's "Adaptive Reuse of Old Buildings for Archives" from 1982 examines the Utah State Historical Society renovation and reuse of a former railroad depot and the challenges faced. Shirley Spragge's "Old Wine in Old Bottles: Renovating an Old Building for an Archive" examines the renovation of a 19th century residential home to house the archives of the Anglican Diocese in Ontario, Canada in the late 1980s. While Haymond's article mentions the specific challenges of renovating a historic building for archival facilitates, neither address issues of respecting the historic character of the buildings.[4] Other works published in recent years do discuss renovation and historic buildings as an option for archival facilities, but the focus remains on new, purpose-built construction. In *Planning New and Remodeled Archival Facilities*, Thomas Wilsted briefly touches on the use of historic buildings for archives. In

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[4] Jay Haymond, "Adaptive Reuse of Old Buildings for Archives," *American Archivist* 45, no. 1 (January 1, 1982): 10–18; Shirley C. Spragge, "Old Wine in Old Bottles: Renovating an Old Building for an Archives," in *The Archival Imagination: Essays in Honour of Hugh A. Taylor*, by Barbara Lazenby Craig (Ottawa: Association of Canadian Archivists, 1992), 212–226.

the chapter dedicated to the renovation of existing facilities for archives, Wilsted includes a case study of a successful renovation of a historic building and a few paragraphs of discussion regarding the difficulties of adapting a historic building to serve as an archive.[5] A number of works have been published in the historic preservation realm that discuss specific types of adaptive reuse, from schools and churches to gas stations and big box retail outlets, however the specific structural requirements of archives and libraries are not fully explored and are often relegated to a footnote in the discussion.[6]

The reuse of historic buildings for archival facilities can present both fields with unique challenges and opportunities. Historic buildings and structures can represent a tangible form of historical evidence in much same the way documents and artifacts can. The community's relationship with the historic building can create or reinforce the relationship between the archives and its patrons. Additionally, historic buildings are typically located in areas or neighborhoods where public infrastructure already exists. Therefore, the existing water and sewer lines, as well as, streets, curbs, and possible

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[5] Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 107–110.

[6] Lynda Schneekloth, *Changing Places: Remaking Institutional Buildings* (Fredonia N.Y.: White Pine Press, 1992); Julia Christensen, *Big Box Reuse* (Cambridge, Mass.: MIT Press, 2008); Robert Simons, *New Uses for Religious Buildings & Schools* (Washington D.C.; Lancaster: Urban Land Institute; Gazelle [distributor], 2010); National Trust for Historic Preservation in the United States and Diane Cohen, *Strategies for the Stewardship and Active Use of Older and Historic Religious Properties* (Washington D.C.: National Trust for Historic Preservation, 1996); Virginia Croft, *Recycled as Restaurants: Case Studies in Adaptive Reuse* (New York: Whitney Library of Design, 1991).

parking can be reused in addition to the building. Public transportation to the property is also commonly available. Other tangible benefits of adaptive reuse of historic buildings include possible federal, state, and local tax incentives, reduced cost of materials to rehabilitate the existing structure, and in some cases, increased job production.[7]

Despite the positives, adaptive reuse of historic buildings for archival facilities should not be a decision lightly made. Both archivists and historic preservationists involved in the project should make every effort to address both the advantages and disadvantages that may arise during the project and understand that issues not initially planned for nor considered could arise to challenge the project as well. Since the ability of the archive to serve its purpose is directly linked to how well its "home" functions as an archival space, it is vital to consider the specific needs during rehabilitation. At the same time, such structural changes needed to allow the building to function as an archival facility should not be so extreme as to change the historic characteristics of the building or to remove the architectural authenticity, which would result in a loss of historic character.[8] A successful adaptive reuse of a historic building requires a strong understanding of the needs of archival facilities and the methods and motivations of

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[7] Diane Barthel, *Historic Preservation Collective Memory and Historical Identity* (New Brunswick N.J.: Rutgers University Press, 1996), 8; Norman Tyler, Ted Ligibel, and Ilene R. Tyler, *Historic Preservation: An Introduction to Its History, Principles, and Practice*, Amazon Kindle ed. (New York: W.W. Norton & Co., 2009), 210, 212–13.

[8] William Murtagh, *Keeping Time: The History and Theory of Preservation in America*, 3rd ed. (Hoboken N.J.: John Wiley, 2006), 126.

historic preservationists. In order to meet both of these objectives, an understanding of historic preservation and adaptive reuse as well as knowledge of archival practices should be considered. Chapter two will provide a deeper examination of archival literature and the role of the archival facility in the preservation process and clarify the fundamental requirements of the design of archival facilities for preservation. Before the needs of an archival facility are addressed, we must first understand how historic preservation developed as a profession and how adaptive reuse has become a vital tool in the preservation of historic buildings.

Shifting Philosophies of Historic Preservation in America

Historic preservation in America evolved out of a drive to protect and preserve those buildings that were deeply connected to a heroic American past. Patriotic efforts to save the homes and birthplaces of the great men of the nation were fed by the fear that the loss of these historic structures could lead to a loss of that shared history. The push to save the Philadelphia State House and Mount Vernon in the years before the American Civil War demonstrates both the commitment to saving buildings associated with important historic events or individuals while also laying the foundation for preservation work in the United States. In both cases, private citizens identified a building that was considered by the community to be important and made efforts to save the structures. In the case of Mount Vernon, a private organization was created not only to save the former home of George Washington, but also to create a house

museum to allow for public access. The Mount Vernon Ladies' Association of the Union served as an early model for organizations to save landmarks associated with historic individuals and helped shape trends of preservation for decades.

Because of the Association's success, other similar groups arose to save important homes and buildings and set the tone for historic preservation efforts in the United States. These efforts were marked by strong support by private individuals, the reliance on the efforts of women in the organization of the group, and the involvement of non-professional historians in the day-to-day preservation activities, as well as the over-arching goal of saving individual buildings and landmarks.[9] In fact, the impact of the Mount Vernon Ladies' Association was so great that historian Andrew Hurley generalized the focus of this era of preservation as follows, "Anyplace that George Washington slept, ate, or burped became a structure worth saving during the late nineteenth and early twentieth centuries."[10] While preservationists did save buildings that had nothing to do with George Washington during this era, the focus remained on individual buildings associated with specific historic events or individuals.

Nostalgia and a resistance to change may have influenced early preservation efforts; however, to these preservationists, "old buildings embody history."[11] By

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[9] Tyler, Ligibel, and Tyler, *Historic Preservation: An Introduction*, 30.

[10] Andrew Hurley, *Beyond Preservation: Using Public History to Revitalize Inner Cities*, Amazon Kindle Edition (Philadelphia: Temple University Press, 2010), 15.

[11] Stewart Brand, *How Buildings Learn: What Happens After They're Built* (New York: Viking, 1994), 90.

viewing buildings as essential artifacts of the nation's history, early preservationists promoted the idea of the historic building as an essential connection to the past just as important as written documentation. Historic buildings and structures could provide insight into the lives of individuals and understanding of society at a different level than documentary evidence. Its advocates also stressed that historic preservation had a social value in that by using buildings and structures to establish and articulate values of a time and place one could re-enforce a sense of being American. Historic preservation became more than the simple act of the saving of old buildings, it became focused on the protection of the collective memory of a nation.[12]

Local and National Government Involvement

The practice of preserving historic homes by private purchase and conversion into museums was an extremely expensive method of preservation. In most cases, because of the house-by-house focus of this process, it would be difficult to use this method to preserve entire neighborhoods or districts. Without the funding of wealthy individuals, like John D. Rockefeller and Henry Ford, many neighborhoods and towns were unable to implement expensive historic preservation methods like those in Williamsburg and Deerfield. Instead, without a patron to back historic preservation

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[12] Murtagh, *Keeping Time*, 81, 66; Melinda J. Milligan, "Buildings as History: The Place of Collective Memory in the Study of Historic Preservation," *Symbolic Interaction* 30, no. 1 (February 1, 2007): 106.

efforts, neighborhoods faced the wrecking ball in extreme cases or more commonly suffered the ravages of time and neglect.[13]

In Charleston, South Carolina, an alternative method of preservation that focused on saving the neighborhood as a whole developed with the creation of local historic districts for preservation purposes. Faced with the threat of oil companies seeking to demolish aging homes and antique collectors vying for antebellum grillwork and paneling from historic mansions, the residents of historic Charleston sought a way to defend the cornerstone of their civic identity.[14] After seven years of study, investigation, and professional consultation, the City of Charleston, in 1931, adopted a zoning ordinance that sought to protect and preserve historic buildings. The creation of the Old and Historic Charleston District and Board of Architectural Review gave the local community not only final say over architectural changes but also established a method of historic preservation that did not rely solely on the pocketbooks and motivations of private individuals. While the Board did not completely democratize the historic preservation process, it did go a long way toward setting a precedent of community involvement in the preservation of historic properties.[15]

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[13] Page, *Giving Preservation a History*, 293.

[14] Hurley, *Beyond Preservation*, 17.

[15] Page, *Giving Preservation a History*, 202; Stephanie E. Yuhl, *A Golden Haze of Memory: The Making Of Historic Charleston* (Chapel Hill: University of North Carolina Press, 2005).

The combination of empowering local officials to regulate protection of historic buildings with the shift away from the singular focus on the historic house museum opened up the historic preservation movement to a new way of thinking. Buildings of less than national significance were now considered worthy of preservation, and those buildings that were not directly associated with a historic individual could also escape the wrecking ball. Additionally, the face of the preservation movement changed. No longer controlled by the wealthy, informed amateur, the historic preservation movement was instead driven by trained professionals who focused their efforts on planning and protection of entire districts rather than individual house museums. As cities across the country began to follow Charleston's lead with the creation of historic districts, preservationists focused less on historic house museums and more on those buildings of local importance worthy of preservation as well.[16]

As local governments in Charleston, New Orleans, and Santa Fe were creating historic districts, the federal government stepped up involvement in the preservation movement. Beginning with the creation of the Historic American Buildings Survey (HABS) in 1933 and the Historic Sites Act of 1935, the federal government began to not only evaluate and inventory buildings of national historic or architectural significance,

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[16] Murtagh, *Keeping Time*, 46, 61.

but to set forth policies that "recognized the documentary value of buildings and sites which often combined patriotic, associative, and aesthetic content."[17]

With the creation of the National Trust for Historic Preservation in 1949, the federal government set in motion the merging of the public sector preservation efforts with the private sector's activities. The federal government designed the National Trust to combine management of selected properties of national significance with education and advocacy on historic preservation issues.[18] With a combination of Congressional authority and private funding via grants from philanthropic organizations, the National Trust maintained an identity as a "separate but government-allied organization" that would allow for resolving of controversial issues and give the authority of the federal government to its statements and positions about the changing needs of the preservation movement.[19]

In the years following World War II, the nation's goals turned away from preservation and towards a policy of urban renewal. Under the impression that historic urban centers were outdated and only demolition and new construction could revitalize cities, local governments throughout the country razed and replaced many historic neighborhoods and urban centers. With the perspective that clearing these "blighted" and outdated urban areas would draw investment into cities, entire neighborhoods

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[17] Ibid. 60.

[18] Hurley, *Beyond Preservation*, 35.

[19] Murtagh, *Keeping Time*, 44.

were destroyed under federal policies in the years between 1949 and 1967, losing more than 383,000 residential units and displacing more than 600,000 people from their homes.[20] In response to this wholesale destruction of neighborhoods and homes within the urban core, residents and planners began to realize that the policy of urban renewal was counterproductive and was, in fact, adding to the economic and residential abandonment of America's cities. In their book, *Historic Preservation: An Introduction to Its History, Principles, and Practice,* urban planners and historic preservationists Ted Ligibel, Norman Tyler, and Ilene R. Tyler point to Jane Jacobs and her influential book *The Death and Life of Great American Cities* from 1961 as the impetus to change the understanding of urban redevelopment. Instead of seeing the historic buildings and neighborhoods of American cities as old, outdated, and in need of removal, Jacobs pointed out that historic buildings were a vital part of the community, providing an "intrinsic value in the existing fabric of the city." Older buildings provided an alternative to the subdivisions of suburbia and allowed citizens to develop a distinct identity directly related to the historic nature of the buildings.[21]

Jacobs' work heralded a major shift in the public's attitude towards urban renewal and development. As a reflection of this change in attitude, the federal government enacted the National Historic Preservation Act (NHPA) in 1966. This major

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[20] Hurley, *Beyond Preservation*, 25; Tyler, Ligibel, and Tyler, *Historic Preservation: An Introduction*, 45.

[21] Tyler, Ligibel, and Tyler, *Historic Preservation: An Introduction*, 37; Hurley, *Beyond Preservation*, 36.

piece of preservation legislation established the National Register of Historic Places, State Preservation Offices, and the Advisory Council on Historic Preservation. NHPA had a profound impact upon the practice of historic preservation; among those was the creation of the National Register, which allowed for increased government involvement in protection of historic buildings through linking of local historic resources and federal funding. Additionally the National Register standards as they were created opened the door for a new way of thinking about what was worthy of preservation, including terms like "culture" and "historic places" and allowing for a broader understanding of historical significance.[22] The creation of the National Register of Historic Places as administered by the Secretary of the Interior recorded those sites, districts, structures, buildings, or objects that were to be deemed of significant importance in American history, architecture, culture, archeology, or engineering. In creating the National Register, the 1966 Act tasked the Secretary of the Interior and the National Park Service with not only finding and designating such properties appropriate for the National Register, but also to ascertain possible threats to the property and provide recommendations for appropriate actions to protect the property.[23]

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[22] Robert Stipe, *A Richer Heritage: Historic Preservation in the Twenty-First Century*, Amazon Kindle Edition (Chapel Hill: University of North Carolina Press, 2003), 119, 62, 47.

[23] United States, *National Historic Preservation Act of 1966, as amended., 16 USC*, 2002, 3–5.

A listing on the National Register can provide several benefits for a property: listings serve to identify historically significant buildings, encourage preservation by supporting local preservation activities, allow for review of historic sites affected by new development, provide for reviews of federally funded projects that may affect historic properties and encourage the rehabilitation of historic properties by making historic property owners eligible for federal grants and tax incentives.[24] However, a listing is neither a guarantee of preservation nor a promise of protection for the historic property. In order to preserve and protect the property, owners and community members must find a way to adapt buildings for new and changing needs and allow the buildings to contribute to the economic and cultural success of the community.

To further the federal government's ability to protect historically significant property, the Act also included Section 106, which requires any federal agency or independent agency receiving federal funding to take into account the impact that any undertaking might have on properties and sites included in or eligible for the National Register. This means agencies must evaluate how the project will affect historic properties that are on the National Register or are eligible for the Register.[25] Before Section 106, preservationists had no legal recourse or path to voice concerns about damage or destruction of historic properties. Provided the project is under federal control or funding, however, allows preservation concerns to be addressed. Although it

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[24] Tyler, Ligibel, and Tyler, *Historic Preservation: An Introduction*, 41.

[25] United States, *National Historic Preservation Act of 1966, as amended.*, 19.

does not have the authority to stop construction or destruction of a property, it does provide a framework for examining the possible negative impact on a historic property.[26] With the passage of NHPA and its included Section 106, the federal government began to recognize sites of local and state importance and, most importantly, made these sites eligible for federal grants for planning, preservation, and acquisition. The 1966 Act and Section 106 effectively tied local historic resources to federal funding and shifted the focus of the preservation profession from solely nationally important sites and structures to a more locally focused preservation strategy.[27]

Section 106 of the National Historic Preservation Act has become an essential element of the preservation process. By requiring all federally funded or licensed projects that could affect any site, building, object, district or structure on the National Register to undergo a review under Section 106 by the Advisory Council, this legislation gave preservationists a legal voice at the federal level. Additionally, Section 106 created a direct relationship between the Advisory Council and the Secretary of the Interior.[28] Since properties were required to be reviewed by the Advisory Council when federal funding was on the line, merely declaring properties were historic based on ephemeral

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[26] Tyler, Ligibel, and Tyler, *Historic Preservation: An Introduction*, 53; Murtagh, *Keeping Time*, 69.

[27] Murtagh, *Keeping Time*, 68; Hurley, *Beyond Preservation*, 24–28; Stipe, *Richer Heritage*, 119.

[28] Murtagh, *Keeping Time*, 69.

values was not sufficient. In order to fairly assess properties' historical significance, historic preservation professionals needed a set of standards to apply to structures under review. As a result, the Secretary of Interior's office staff developed a set of standards to define the major elements of historic preservation and to serve as guidelines for acceptable adaptive reuse. The Secretary of Interior's Standards for the Treatment of Historic Properties not only defined the vocabulary of the historic preservation profession, but they also laid out the level of adaptation and intervention that is appropriate for adaptive reuse of historic buildings.[29]

Adaptive Reuse as a Preservation Strategy

The idea of reusing a building is not a new and unique idea. Throughout human history, old buildings have been tweaked, modified, and remodeled to suit the changing needs of their owners and users. Those that choose to repurpose or reuse a building typically often do not do so out of some initiative to preserve a notable historic building or maintain some connection with the past, rather, these buildings are reused because they were available, and reuse was cheaper or more feasible than tearing it down and building a new purpose-built structure. Even now, American cities are dotted with these repurposed buildings. Pizza Huts and Taco Bells become retail outlets or other restaurants, Wal-Marts and other big-box stores become churches, community centers,

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[29] Ibid. 126; Aylin Orbasli, *Architectural Conservation: Principles and Practice* (Malden, MA: Blackwell Science, 2008), 194.

and even indoor raceways and remain in the public eye essentially unchanged except for purpose. There are even websites dedicated to images of these former fast food buildings in their new lives.[30] However repurposing is not adaptive reuse. Buildings both historic and contemporary can be and are reused all the time with little thought to preservation, but it is the conscious attention to preservation of the historic character of the building that separates adaptive reuse from mere repurposing.

Within the framework of the Secretary of Interior Standards for the Treatment of Historic Properties, adaptive reuse is acceptable as long as the changes made to the building have minimal impact on the building's historic character, distinctive materials, features, spaces, and spatial relationships.[31] This means that significant changes to historic properties that obliterate the important architectural and historic features of the building are not recommended. Legislation passed in the years following the NHPA has encouraged adaptive reuse through tax incentives and benefits; however, these benefits are often dependent on approval by local, state, or federal agencies following the Secretary of Interior Standards. These standards help define adaptive reuse in a

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[30] Christensen, *Big Box Reuse*; "Used to be a Pizza Hut", n.d., http://usedtobeapizzahut.blogspot.com/ (accessed August 31, 2011); "Not Fooling Anybody: Home", n.d., http://www.mentalfloss.com/blogs/archives/29307 (accessed August 31, 2011).

[31] United States. and Kay Weeks, *The Secretary of the Interior's Standards for the Treatment of Historic Properties: With Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* (Washington D.C.: U.S. Department of the Interior National Park Service Cultural Resource Stewardship and Partnerships Heritage Preservation Services, 1995), http://www.nps.gov/hps/tps/standguide/ (accessed October 27, 2011).

way that is sensitive to the needs of historic preservation and differentiate these projects from simple repurposing.

Adaptive Reuse and Archival Facilities

Archival facilities, as a result of a variety of factors, are often housed in historic or repurposed buildings despite specific and unique needs of the archive. The archival profession, while agreeing that the building housing archival materials is a major factor in the archives' ability to serve the public, has produced very little discussion on adaptive reuse of historic buildings for archives. The historic preservation profession has discussed the difficulties of adaptive reuse as applied to specific building types or based on use, but no discussion has centered specifically on archival facilities. Because of the shared heritage and focus of both professions, the link between historic preservation and archives seems logical and simple to make; however, in many instances where a historic building is reused as an archival facility that connection has not been discussed. Case studies of such buildings should be developed in order to better understand how this connection can be made or improved during an adaptive reuse. Adapted buildings across the country house archives, and by examining those facilities we can better understand how these buildings best serve their communities, how the type of owning organization can affect the process, and how standards by both professions affects the adaptation and the ultimate success of the archives.

A variety of building types, institutional, cultural, and governmental, can be examined to determine if certain building types are easier to adapt. Additionally, the possibly restrictive elements of adaptive reuse should be examined by comparing case studies in historic districts to those that are in buildings in a less regulated environment. Some archival facilities are housed in buildings that may not be historic, but still involve the same steps as a historic adaptive reuse. Some reuses seem easy on the surface; the conversion of a library to an archive could involve very few changes. However, it may demonstrate how complex the adaptation of a building for use as an archive could be.

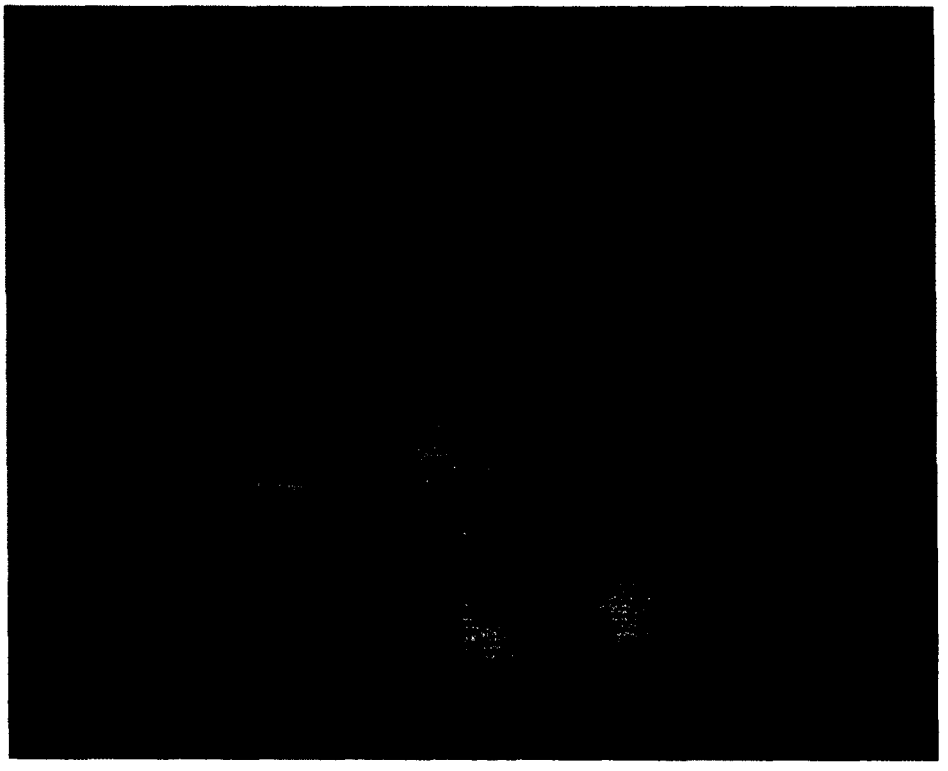

Figure 3. Missouri History Museum Library and Research Center, St. Louis, Missouri.

Each of the case studies was chosen because it exemplified a specific aspect of the interrelation of archival facilities and historic preservation. The Missouri History Museum Library and Research Center in St. Louis, Missouri, was the former home of the United Hebrew Congregation and was built in 1927. The Library and Research Center, located in the Wydown-Forsyth Historic District, serves as an archive for both the Missouri History Museum and for the local community. The Missouri History Society arose out of a groundswell in the local historic preservation movement and decades later, the rehabilitation of the former synagogue is a prime example of adaptive reuse as a path to preservation. While a great deal of planning and collaboration between the archivists and the architects went into the reuse, the challenge of using space not designed for archival needs, specifically the sanctuary space in the center dome, was a factor in the success or failure of the facility. Additionally, the renovations have been completed for a decade and some of the challenges faced at the time may no longer be applicable. Conversely, some solutions that were ideal in the early 1990s may no longer be the exemplary solution in the second decade of the new millennium. Additionally, being in a nationally recognized historic district may present some consideration for rehabilitation that would not occur elsewhere.

Figure 4. Todd Hall, Middle Tennessee State University, Murfreesboro, Tennessee

The Albert Gore Sr. Research Center at Middle Tennessee State University, in Murfreesboro, Tennessee, is currently housed in Todd Hall, the former university library. Renovated in 2005 to house the Art Department, faculty offices, and the Gore Research Center, this case is exemplary of a number of factors in the consideration of adaptive reuse for archival facilities. The similar purposes and building requirements of a library and archive might lend themselves to a very smooth and simple rehabilitation; however, the shared purpose of archive, faculty offices, and classrooms does present a number of challenges. The Gore Research Center is also an example of adaptive reuse born out of need and an institutional culture of reuse.

Figure 5. Butte-Silver Bow Public Archive, Butte, Montana.

The Butte-Silver Bow Public Archives in Butte, Montana was in its previous life a fire department station. Like the Missouri History Museum archive, it is located in a nationally and locally recognized historic district and utilizes a purpose-built annex. However, the path to this solution is quite different from the St. Louis case study. In Butte, historic preservation and adaptive reuse are a way to preserve the built environment and provide an economic future for the town. As a former fire station, there were a number of structural and rehabilitation challenges to be overcome, as well as challenges faced by the location. Due to Montana's extremely hard winters, the building needed to be modernized in regards to snow loads and new fire safety regulations. Like the Gore Research Center in Tennessee, Butte-Silver Bow Public Archives has been rehabilitated in the last decade, therefore a comparison of how or if

rehabilitation techniques have changed from previous decades to current practices could result.

Examination of archival records and documentation of the buildings in the case studies as well personal interviews with archivists and staff members yields an understanding of how the process of adaptive reuse occurred in each case. Insights gained from planning meetings, architectural drawings and comparisons to both the Secretary of Interior's Standards and the standards developed by the SAA should reveal best practices in adaptive reuse for archival facilities and help build a greater understanding of how historic preservationists and archivists can work together to promote and preserve both the built environment and documentary evidence.

CHAPTER II

ARCHIVAL LITERATURE AND ARCHIVAL FACILITIES

Both archivists and historic preservationists are concerned with preserving material culture, buildings, and archival materials. However, each profession understands the word "preservation" in slightly different ways. When examining the archival literature regarding archival facilities and buildings, it becomes apparent that although historic preservation and the archival profession share similar roots, the day-to-day practice of the professions and their separate vocabulary can differ significantly, especially when it comes to the word preservation. In order to fully grasp the implications of adaptive reuse and historic preservation for archival facilities, we must first examine the archival literature to understand how archivists talk about preservation and archival facilities. According to the 1974 article "A Basic Glossary for Archivists, Manuscript Curators, and Records Managers" in *American Archivist,* preservation is "(1) The basic responsibility to provide adequate facilities for the protection, care, and maintenance of archives, records, and manuscripts. (2) Specific measures, individual and collective, undertaken for the repair, maintenance,

restoration, or protection of documents."[1] In this sense, archivists define preservation as both a goal and a set of procedures and processes created to fulfill that goal. In the field of historic preservation, preservation is also a goal and process; however, the focus of these efforts is primarily the preservation of buildings, structures, or property. Preservation, as perceived by the archival world, is concerned with the preservation of archival materials whereas the historic preservation profession applies the word to the built environment.[2]

That archivists are concerned with the preservation of documents and historic preservationists are concerned with preserving the built environment seems logical; however, confusion can arise when their concerns overlap. The professional who moves between fields or works on a specific project involving both building and archival preservation could face some confusion about what kind of preservation is being discussed at a given moment. Particularly when the discussion turns to building design for preservation, the type of thing being preserved needs to be made clear. It can be easy for the historic preservation profession to assume that when archivists speak of preservation that they are speaking of the preservation of buildings. Instead, the archival field is more concerned with using building to create an environment

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[1] Frank Evans et al., "A Basic Glossary for Archivists, Manuscript Curators, and Records Managers," *American Archivist* 37, no. 3 (July 1, 1974): 427.

[2] James Fitch, *Historic Preservation: Curatorial Management of the Built World* (New York: McGraw-Hill, 1982), 46; Tyler, Ligibel, and Tyler, *Historic Preservation: An Introduction*, 171.

sympathetic to the preservation of archival materials. This difference in understanding causes difficulties in planning. That does not mean that the two understandings of the word are mutually exclusive. In many ways, the measures taken to preserve documents, photos, and artifacts create an environment that is beneficial to the preservation of buildings. In addition, the measures taken to protect and preserve a historic building can go far to create the sympathetic environment that is essential in preserving archival materials.

However, some measures taken to protect and preserve archival materials may be difficult to balance with the measures needed to preserve and protect a historic building. This tension can also lead to confusion when conducting research on where historic preservation of buildings and preservation of archival materials intersect. Both the archival profession and the historic preservation profession need to be aware of these two similar but divergent understandings of preservation and be prepared to adapt to allow the two to work together.

Creating a Sympathetic Environment

The preservation of archival materials, documents, photos, and other cultural artifacts requires a specific type of environment. In her seminal work, *Preserving Archives and Manuscripts*, archivist Mary Lynn Ritzenthaler points out that all materials in an archive are made up of wide range of organic materials, all of which are deteriorating at varying rates. While the eventual decay of these materials is inevitable,

a "sympathetic environment" can slow the deterioration of archival collections.[3] The creation of a sympathetic environment is the primary function of an archival facility. There is no environment that will completely halt deterioration, but the best buildings for archives are those that do as much as possible to stave off the inevitable.

Whether in a building designed and built as an archival facility or in a repurposed building modified to meet the needs of the archive, preservation of archival materials begins with the building that houses them. As archivist Ted Ling points out, a tin shed can provide some shelter for archival records and documents; however, this is not enough to create a preservation-minded environment. The facility should protect the documents and records from theft, fire, vandalism, and misuse in addition to providing protection from environmental factors such as light, humidity, and temperature fluctuations. In addition to protection, the archive must be able to provide access to records for the public and staff as well as space for processing of new records and growth of the archive. Because of these requirements, many archivists identify the archival building as the essential component of a successful preservation program.[4]

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[3] Mary Lynn Ritzenthaler, *Preserving Archives and Manuscripts* (Chicago: Society of American Archivists, 1993), 45.

[4] Ted Ling, "Silver Linings: Purpose Built Repositories–the Last 25 Years," *Archives and Manuscripts* 22, no. 2 (November 1994): 362–63; Brenda Banks, "Review of Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers, Edited by Michele F. Pacifico and Thomas P. Wilsted," *American Archivist* 73, no. no. 2 (Fall/Winter 2010): 701; Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 1.

Despite the overwhelming agreement of archivists that archival facilities are the foundation, so to speak, of preservation of archival holdings, there is a lack of coherent research into archival facilities and standards. Archivists in the United States write a great deal about their profession, how to develop and maintain archives, how to process records, how to preserve archival materials, and how to address the social and cultural obligations of archives. However, the discussion of the buildings that house all these functions has been limited. This lack of research is in part due to the relatively slow development of specially designed archival facilities in the United States and partially due to the lack of coherent standards for such structures from an official professional board.[5] In his 1964 article "Archival Buildings - Programming and Planning," Victor Gondos remarked, "the most perplexing problem is that in archival design (unlike that of libraries and schools) few tested, compiled, and generally accepted standards exist."[6] Gondos was one of the few early twentieth-century American archivists writing about archival facilities and standards. In the late 1940s, he published one of the first articles detailing the current state of American archival architecture. The article appeared in the *Bulletin of the American Institute of Architects* rather than an archival publication. Gondos combined his training as an architect and an archivist to work for the National

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[5] Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, vii; Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 3.

[6] Victor Gondos, "Archival Buildings - Programming and Planning," *American Archivist* 27, no. 4 (October 1964): 14.

Archives for more than a quarter of a century and step into the forefront of research into archival buildings.[7] Throughout the twentieth-century, attention to archival facility standards was intermittent and although Gondos advocated for a coherent standard and a national push for purpose-built, stand-alone archival facilities, only in the latter portion of the century did this come to fruition. Scholarly writings on the subject of archival buildings were, for the better part of the twentieth-century, focused on case studies and "how we did it" type articles. With the exception of work by Gondos, the cupboard of archival facility standards stood quite bare.

Part of the issue with creating standards for archival facilities is the great number of different types of archives and the different types of buildings that house archives. Noted library conservationist Paul Banks discussed the issue of standards in his chapter "Environment and Building Design" in *Preservation: Issues and Planning,* finding that standards that are too rigid will most likely be ignored and standards that are too loose are likely to be pushed beyond optimum conditions. Therefore, the challenge is to create standards for archival preservation and conservation that are flexible enough to meet the needs of a variety of different kinds of archives but that retain enough bite to urge compliance. Specifically, Banks says, "Conditions that are appropriate for a modern building constructed for a specific purpose may be quite

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[7] Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 4.

inappropriate in a historical society housed in an adapted private residence."[8] Standards need to state a specific range of acceptability while being flexible enough to accommodate climate, technical, and economic situations. Without flexible standards, the likelihood of non-compliance increases and it is better for an archival facility to try to meet a few standards than not to attempt to meet any.

The Society for American Archivists has sought to remedy this lack of professional standards for archival facilities with the publication of two works in recent years. Both *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers* edited by Michele F. Pacifico and Thomas Wilsted and *Planning New and Remodeled Archival Facilities* by Thomas Wilsted address the issues of standards of practice in designing and renovating archival facilities. In her review of Wilsted and Pacifico's book, Brenda Banks points out that the most difficult task, other than finding funding, is locating all of the best practices, guidelines, and standards needed during planning for renovations and new construction of archival facilities.[9] Both books seek to remedy this by providing convenient and easy to understand guidelines in one location. Wilsted's *Planning New and Remodeled Archival Facilities* provides an in-depth and intensive discussion of the choices involved in

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[8] Paul N. Banks, "Environment and Building Design," in *Preservation: issues and planning*, ed. Paul N. Banks and Roberta Pilette (ALA Editions, 2000), 120.

[9] Banks, "Review of Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers, Edited by Michele F. Pacifico and Thomas P. Wilsted," 701.

archival facility design as well as providing guidance on the best practices for working with an architect and planning the process. The work covers issues such as site selection, the process of working with an architect and contractors, issues of security and fire protection, and even equipment selection and daily management of an archival facility. Wilsted also provides case studies to point out the abstract concepts in practice.

In *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers,* Wilsted, along with co-editor with Michele F. Pacifico, brings together a collection of essays to create one of the more in-depth set of guidelines and best practices for archival facilities. Pacifico, in addition to working as a consultant archivist, was the National Archives and Records Administration (NARA) archivist team member involved in the planning and construction of the new National Archives building in College Park, Maryland.[10] Each chapter focuses on a specific aspect of facility design, construction, or management and includes value terms that weight the recommendations. By differentiating between actions that *must, should, may,* and are *not recommended*, the guidelines provide the archivist with the necessary flexibility in the design and implementation of the archival facility.

Because archives can have such a wide range of materials and require such special environments and security measures but are often in a perpetual state of

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[10] Rick Blondo, "Review of Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers, Edited by Michele F. Pacifico and Thomas P. Wilsted.," *American Archivist* 73, no. 2 (Fall/Winter 2010): 704.

underfunding, facility designs, need to balance the needs of the standards with the available money to complete the project. By ranking certain elements of the standards based on importance, Pacifico and Wilsted have created a set of standards that can be applied to a wide variety of archival facilities and budgets.[11] Prior to the adoption of these guidelines by the Society of American Archivists, archival professionals involved in a discussion with architects, contractors and administrators could only point to a loosely gathered collection of suggestions for archival facilities. By having an official set of guidelines, archivists are better equipped to negotiate the best possible outcome in construction or renovation of an archival facility.[12]

Archives and Historic Buildings

Despite this recent attention to archival facilities, archival scholarship only lightly covers the issue of adaptive reuse versus purpose-built facilities. Much of the literature focuses on the creation of purpose-built archival facilities and ignores the realities of most archives throughout the country. Although remodeling is mentioned in the title of Thomas Wilsted's book, the implication is that most using his guidelines will be focused

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[11] Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 2–4; Banks, "Review of Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers, Edited by Michele F. Pacifico and Thomas P. Wilsted," 702.

[12] Banks, "Review of Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers, Edited by Michele F. Pacifico and Thomas P. Wilsted," 702.

on a purpose-built facility. Throughout America, a large number of archives are housed in buildings that were not initially built for that purpose. In addition, a number of historic buildings house archival facilities. Archival literature that mentions reused buildings often offers suggestions that are not compatible to adaptive reuse of historic buildings. From suggestions to install drop ceilings to hide electrical and HVAC systems, to replacing historic windows with modern aluminum windows, these articles fail to recognize that renovating and reusing a historic building as an archive involves more than just some simple cosmetic gestures at "historic-ness" and facadism.[13]

Wilsted features a chapter on building renovation for archival use that, while extremely informative, falls short of providing the necessary understanding of adaptive reuse of a building, historic or otherwise, for archival purposes. The chapter goes as far as to suggest that when adapting historic buildings the only significant concern is if the building is in a historic district or on the National Register, and then, that the preservation of interior features is far less important than the exterior features. Wilsted also lists fifty-seven archives that have been renovated or are new construction since 1990 in his appendix. Of those fifty-seven, twenty-five are listed as renovations, and seven of the renovated archives are in historic buildings. Little attention is paid to the difference between a renovation of a modern building versus the challenges of

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[13] Phyllis Thomas, "Finding Space: Adaptive Reuse," *Library Journal* 107, no. 21 (December 1, 1982): 2230–34; Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*; Spragge, "Old Wine in Old Bottles: Renovating an Old Building for an Archives."

renovating and rehabilitating a historic building. Additionally, some of the archives housed in renovated historic buildings are actually renovations of historic archival buildings. For example, the Franklin D. Roosevelt Presidential Library was completed in 1940 and designed as a library and archive. The renovations that occurred in 2010 preserve the historic nature of the archive while bringing the facility up to modern standards for long-term preservation of archival materials. As a renovation rather than an adaptive reuse, the Franklin D. Roosevelt Presidential Library does not illuminate the challenges of an adaptive reuse of an historic building for archival purposes. It can provide valuable information for archives facing renovation, but it sheds little light on adaptive reuse. Its inclusion in the list of renovated archives is somewhat misleading and not a real representation of archives in adapted historic buildings. Wilsted's list is far from comprehensive and there are a number of renovations and new construction of archives completed in the last twenty years that were not included.[14]

Although *Archival and Special Collections Facilities* has no chapter dedicated to a discussion of adaptive reuse of buildings for archival purposes, a number of the chapters address adaptive reuse. The authors pay special attention to historic districts and zoning issues in the chapter on building site selection, specifically the implications of

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[14] Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 155–162; "Franklin D. Roosevelt Presidential Library and Museum - History of the FDR Library", n.d., http://www.fdrlibrary.marist.edu/library/archchron.html (accessed November 21, 2011). (accessed November 21, 2011)

Section 106 of the National Historic Preservation Act. They suggest that even if the property is not federally held or benefiting from federal funds, state and local historic districts can have requirements for the building that could significantly affect renovations, adaptations, or alterations. Wilsted and Pacifico also mention in other chapters problems that might be faced when renovating a historic building. From issues with HVAC to security, each chapter touches on how the use of historic buildings can affect the standards but the authors do not pay close attention to the specific issues that could arise during rehabilitation.[15]

While purpose-built archival facilities receive the majority of the press and attention, a number of archives in the United States are housed in historic buildings or buildings that have been adapted from another use. Although repurposing of historic buildings for archives is not as common in the United States as it is in Europe, it does occur with frequency, particularly in the case of small local and state archives or those associated with local history societies. Despite the commonality of historic buildings housing archival facilities, it seems to be the consensus among archival scholars that purpose-built facilities are the best-case scenario and this is reflected in the writings about archival facilities.

> Let me say at the outset that as much as I believe that adaptive reuse of old buildings must be a feature of institutional planning in America, the reuse of

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[15] Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 13.

> older structures for housing archives and manuscript collections presents challenges that tax the intellect and patience of those wishing to do so.[16]
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> Finding a building that meets all these requirements will be impossible unless the building was designed initially for archival purposes.[17]
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> Against these arguments, it can always be argued that, with rare exceptions, buildings erected for purposes other than the preservation of archives only lend themselves to the necessary functional adaptation with difficulty and imperfectly.[18]
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> It is not an easy task to find a building which has - or could have even after a costly refurbishment - a sound structure, with appropriate floor loadings, suitable air-conditioning and one which is located in a good site.[19]

Despite the expert testimony, there are some decided advantages to using historic buildings as archives. Victor Gondos and the scholars who followed his lead have pointed out that location of an archival facility can go a long way towards determining its success or failure as an archive. An archive should not only be near the agencies it serves but also near the cultural institutions that use its resources.[20] In many cities, this would place the archive in the center of the urban downtown or in a historic district. If the archive was not initially planned and built with this location in mind, the only option for location might be in a historic building. For example, the Archive of the

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[16] Haymond, "Adaptive Reuse of Old Buildings for Archives," 12.

[17] Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 107.

[18] Michel Duchein, *Archive Buildings and Equipment*, 2nd rev. and enl. ed. /. (München ;;London: Saur, 1988), 19.

[19] Ling, "Silver Linings: Purpose Built Repositories–the Last 25 Years," 366.

[20] Gondos, "Archival Buildings - Programming and Planning," 467.

Anglican Diocese in Ontario is housed in a historic home that is near both St. George's Cathedral and the Diocese offices. When, in the 1980s, the archive was considering relocating or renovating the historic building, one of the prime motivators for renovation was the central location of the building and the proximity to the "Mother Church."[21]

In addition to convenient location near the population the archive is designed to serve, historic buildings often have connections to the neighborhoods in which they are located that promote a sense of connection and a shared sense of well-being. Old buildings can physically represent a connection to the past that is not as easily established with new construction. The historic building that houses an archive can be seen as compatible with the archive's image and purpose and can provide a stronger link to the cultural heritage of the community. It makes a great deal of sense for a local historical society archive to be housed in a historic building in a noted historic district. This visible and tangible link to the past can help users fully grasp the purposes the building and archive serve.[22]

To the often cash-strapped archive, an even more enticing reason to use a historic building is the possibility of lowered costs per square foot for renovations and a

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[21] Spragge, "Old Wine in Old Bottles: Renovating an Old Building for an Archives," 220.

[22] Thomas, "Finding Space," 2230; Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 101; Duchein, *Archive Buildings and Equipment*, 19.

shorter planning and construction time. A number of studies and scholarly research have been done in the last few decades examining the impact of adaptive reuse on sustainability and more environmentally conscious building standards. While state and local tax credits for historic properties have been on the decline in recent years, public institutions can still qualify for some tax credits and abatements that offset renovation costs. In addition to lower construction costs, archives with a relationship to a larger institution may be able to reuse buildings already owned by that institution with a minimal investment. This is often the case on university and college campuses and with government agencies. If the building must be purchased, an existing historic building may be priced within the range of the archive.[23]

Sympathetic Environment: Temperature and Relative Humidity

An archival facility, purpose-built or adaptive reuse, should serve to create Ritzenthaler's "sympathetic environment" for archival materials. To ensure this, a building must protect the collection from damage caused by environmental elements such as light, humidity, and temperature. The building should also provide a secure environment that prevents theft and damage to the collection from fire and natural disasters while still allowing access to the collection and enough room for processing of new materials and other daily operational activities. In many cases, the historic building

[23] Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 101; Haymond, "Adaptive Reuse of Old Buildings for Archives," 11–12.

is not readily equipped to meet these requirements. Buildings designed and constructed before modern heating, ventilation, and air conditioning (HVAC) systems became standard practice are difficult to adapt and are often not as energy efficient as modern buildings. As a result, maintaining constant temperatures and relative humidity are more of a challenge.[24]

Climate control within the building is essential to preserving the variety of records and artifacts housed in an archive. Despite the charming old saying that temperatures that are good for people are good for paper, cooler temperatures are ideal for any space housing archival materials. Warmer temperatures encourage chemical reactions that lead to degradation. Every ten degree increase in temperature cuts the useful life of paper in half while every ten degree decrease in temperature prolongs the life of paper by the same.[25] As a result, the facility's interior climate should remain as cool and dry as possible and should be as resistant to fluctuation as possible. Temperatures as low as 50 degrees Fahrenheit (10 degrees Celsius) are recommended for long term storage of paper records.[26] Since this temperature could be uncomfortable for staff and patrons to remain in for extended periods, it is recommended that long-term storage of archival documents be separate from

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[24] Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 110.

[25] Ritzenthaler, *Preserving Archives and Manuscripts*, 46.

[26] Ibid. 52; Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 32–33.

processing and reading areas. This allows the records to remain at optimal temperature for as long as possible, only exposing them to higher temperatures while they are briefly in use, in addition to providing additional security measures. Keeping this in mind, the temperatures of public areas such as reading rooms and staff areas should still be relatively cool temperature. Pacifico and Wilsted recommend a maximum temperature of 75 degrees Fahrenheit (23.9 degrees Celsius) for any area where records could be present.[27]

Relative humidity (RH) is the "amount of water vapor in the air at a specific temperature expressed as a percentage of the temperature."[28] The warmer air can hold a greater amount of water vapor and this, like higher temperatures, encourages chemical reactions as well as the growth of mold and mildew. However, a too low RH can lead to brittleness, shrinkage, and warping of paper, photographic, and bound materials. Additionally, fluctuations in RH and temperature can be extremely damaging to materials, causing expansion and contraction in response to the changing moisture level.[29] As with temperature, Pacifico and Wilsted have a suggested range of relative humidity for different kinds of storage. For long-term storage, the suggestion is 30

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[27] Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 33.

[28] Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 168.

[29] Ritzenthaler, *Preserving Archives and Manuscripts*, 46.

percent relative humidity; for limited access and mixed use, the suggestion is between 30 to 60 percent relative humidity.[30]

Related to humidity and temperature is the issue of permeance, or the way water vapor moves through and into the building envelope. Water vapor and heat will try to move from higher vapor pressure areas to lower vapor pressure areas, and since most building materials are porous to one extent or another, this movement can be significant. The installation of vapor barriers is often a suggestion, but this can be problematic for historic buildings that are not designed with vapor barriers in mind.[31] Improperly installed vapor barriers and insulation can do irreversible damage to the exterior envelope of the historic building; trapped moisture can promote mold growth and mildew. In addition to extensive mold and mildew growth, improperly installed vapor barriers can "allow trapped condensation to wet the insulation and sheathing boards, corrode metal elements such as wiring cables and metal anchors, and blister paint finishes."[32]

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[30] Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 32–33.

[31] Banks, "Environment and Building Design," 126.

[32] United States and Sharon Park, *Holding the line : controlling unwanted moisture in historic buildings* ([Washington DC]: U.S. Dept. of the Interior National Park Service Cultural Resources Heritage Preservation Services, 1996), http://www.nps.gov/hps/tps/briefs/brief39.htm (accessed November 21, 2011). (accessed November 21, 2011)

Maintaining temperature and relative humidity with minimal fluctuations is vital for the preservation of archival materials. In many situations, this may require multiple separate HVAC systems for specific areas of the collection. If the archive shares space with another institution, independent control of the HVAC system may be difficult. Pacifico and Wilsted suggest computer-based HVAC control systems to provide the optimal management of relative humidity, temperature, and air quality. This system can be an extremely expensive element of the facility, but one that is necessary for creating the appropriate environment for archival materials. In addition to appropriate HVAC controls, it is vital that the archival staff have a separate and independent method of verifying temperature and humidity that does not rely on the HVAC system. In the event of HVAC system failure, staff should be able to determine actual temperature and humidity without relying on the failed system.[33]

Sympathetic Environment: Lighting

Exposure to light and radiant energy is another major factor in the breakdown of archival materials. Light speeds up the oxidation process in paper, leaches color from photographs, and heats materials, leading to increased brittleness and yellowing. Both visible light and invisible or ultraviolet (UV) light are damaging to archival materials, and

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[33] Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 43.

the chemical reactions caused by light exposure can continue after the material is removed from the light source.[34] As a result, windows, which allow in large amounts of natural light, are not recommended for archival storage areas and lighting in storage and processing areas should be limited to tungsten, florescent, or LED lighting to minimize damage. In the stacks and storage areas, lighting levels should be as low as possible while still allowing for reading of labels and navigation. In reading areas, lighting levels can be higher than in storage and processing areas, but light, both natural and artificial, should be as reduced as possible. In fact, some preservation and conservation scholars question the need for windows at all. Since windows not only allow in damaging light but also allow for heating and humidity fluctuations, they are inherently contrary to the creation of a sympathetic environment for archival materials and offer opportunities for security breaches as well. While it is impractical to suggest complete removal of visible and UV light radiation, limiting the intensity of exposure and the duration of exposure is necessary to reduce damage and prolong the life of archival materials.[35]

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[34] Ibid. 78; Ritzenthaler, *Preserving Archives and Manuscripts*, 47–48; Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 79.

[35] Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 77–78; Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 80; Banks, "Environment and Building Design," 118, 126.

Collection Protection as Preservation

Temperature, humidity, and light are not the only factors in the deterioration or loss of archival materials. Fire, natural disasters, and theft are significant issues as well. Unlike the slow process of environmental damage, fire and natural disasters can result in immediate and dramatic losses. The speed at which fire can destroy the highly combustible paper and photographic materials that often make up an archival collection can be a significant threat. Fires in archival facilities have damaged or destroyed a number of archival collections throughout the United States. Fires in 1800 and 1801 destroyed a large number of records held by the United States Treasury and War Department, and fires in 1836 and 1877 in the United States Patent Office were a primary motivator in the movement to establish a national archive. Damage by fire has not been limited to the nineteenth century; in the 1920s fire and the ensuing water damage destroyed the majority of the 1890 census that were stored in Commerce Building in Washington, D.C. Decades later, a devastating fire in the St. Louis National Personnel Records Center broke out in 1973, destroying more than ninety percent of the records. In 2000, a NARA employee set fire to the National Archives' Suitland Records Center, while the damage was minimal; the impact of a fire set by an employee was great. Archives had typically been concerned with damage and harm coming from outside threats, but in the case of the Suitland fire, the discovery of the threat within

involved creating procedures and disaster plans that could account for this eventuality.[36]

The building can be a very important element in fire safety and prevention. Along with fire-resistant materials, the construction and interior plan of the building can affect fire safety. The number of windows and doors should be limited to reduce the amount of fire-feeding oxygen and walls, partitions and doors should be built to withstand the spread of fire is recommended in addition to following local, state, and federal fire codes. Additionally, installation of fire detection and suppression systems add further protection from fire and fire damage. The stacks or storage area should be constructed of masonry to provide the highest level of fire protection, stack doors should be fire rated doors with automatic closing devices to prevent the spread of fire throughout the stacks, and stack walls should be free from conduits where necessary to prevent the spread of fire and smoke from room to room. Smoke dampers installed in HVAC ducts provide a way to contain smoke and fire in isolated areas and prevent additional damage.[37]

Fire detection and suppression systems are essential to the safety of an archival facility and can have a variety of implementations. Smoke detection is required for the

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[36] Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 84.

[37] Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 47–48; Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 85–86.

entire facility and should be highly sensitive. Thermal detection can be substituted in cold storage areas where freezing can occur. Once the fire is detected, alarms should be both audible and visible throughout the facility and should register at a central alarm monitoring station. Fire suppression systems should be both manual and automatic in nature, with portable fire extinguishers available to all floor areas and an automatic fire suppression system to act as a backup. Pacifico and Wilsted discuss three types of fire suppression and the damage caused by possible fire should be balanced by the potential water damage as a result of sprinklers. Both sprinklers and water mist systems can result in water damage to the archival collection and must be individually zoned for each stack with appropriate shut off valves in case of malfunction. Gas alternatives to sprinkler systems are a valid option, but often the high cost of installation and maintenance are prohibitive to archival facilities. Of the gas suppression systems available, none have been documented to damage archival materials, but some, like halon and halon alternatives, are damaging to the global environment and others, like carbon dioxide, can create an environment that is deadly to humans. If halon systems are used, additional warning systems to protect against harm to humans. As a result of the financial and practical restrictions, gas fire suppression systems involve a great deal of planning for use in an archival facility.[38]

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[38] Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 89–90; Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 53–55.

One of the greatest risks to an archival collection is the threat of vandalism or theft. In addition to concerns about theft and vandalism of materials, many archives are government facilities are, in the decades following the terrorist attack of September 11, 2001, considered "soft" targets for terrorism. Presidential libraries and archives containing sensitive records should establish security protocols that take into account the nature of their holdings. Security of the collection can be addressed from two viewpoints, threats from outside the facility, and threats from within. Exterior threats can be managed by external barriers preventing easy access to the building by vehicles, exterior lighting to illuminate the facility, minimal windows to restrict illicit entry, and as few entrances as is possible. Ideally, there should only be one entrance for the public and one for staff. All exterior exits should be monitored and locked while the archive is not in use.[39]

Internal threats or those that can occur once someone has gained access to the facility through legitimate or illegitimate means can be quite devastating for the archive. Theft of documents and artifacts has long been a problematic issue for archivists. Employees, patrons, and even former national security advisors have stolen archival documents for a variety of reasons. Short of locking all archival documents in a vault

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[39] Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 59–61; Caroline Alderson, Paul Westlake Jr., and Bayard Whitmore, "Perimeter Security Retrofitting for Historic Buildings," *APT Bulletin* 35, no. 1 (January 1, 2004): 37–47; Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 92–94.

and refusing access to everyone, it is understood that most archival institutions will face some issues of theft. Whether it is the collector who wants to own a piece of history, the dedicated researcher who is just "borrowing" the document, those wishing to hide specific documents from the annals of history, or those simply motivated by monetary gain, theft from archives has the same impact: the loss or irreversible damage of a piece of the historical record.[40] While no one solution can solve the problem of archival theft, certain precautions can deter theft and make it more difficult for the casual user to steal or damage archival materials. Primary to protection of the archival collection is the creation of a secure area to store materials that is separate from other areas of the archive. Staff work areas should be kept in another location away from storage areas and all doors providing access to the stacks should be locked and monitored at all times. With both manual and electronic locks, an effort should be made to allow as few staff members access to the storage areas as possible. For manual locks, keys should be limited and should require written documentation for who is in the stacks at a given date and time. For electronic locks, it should be ensured that an emergency generator

[40] James Rhoads, "Alienation and Thievery: Archival Problems," *American Archivist* 29, no. 2 (April 1, 1966): 203; Philip P. Mason, "Archival Security: New Solutions to an Old Problem," *The American Archivist* 38, no. 4 (October 1, 1975): 477–480.

can provide system security in the case of a power failure and staff should be encouraged to report any lost or stolen key cards immediately.[41]

Archives that contain classified documents, like Presidential libraries or archives of important political figures, must take special architectural and procedural precautions. Specific building requirements for classified documents must meet federal standards and be approved by the appropriate agencies granting access to the classified material. Classified material also needs a special and separate storage area away from other non-sensitive material. The facility should closely investigate the requirements for the specific level of classification before undertaken any renovation. Certain restrictions about construction materials, door type and thickness and the minimization of conduits breaching the secure environment will need to be taken into account when any renovation or new construction is being planned. Finally, twenty-four hour security must be present in the facility for the highest-level classified documents.[42]

Preservation and Use

While the ultimate goal of an archive is protection and preservation of archival materials, it must also provide access to the public. While archives can have different

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[41] Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 61–63.

[42] "Presidential Library | Whole Building Design Guide", n.d., http://www.wbdg.org/design/presidential_library.php (accessed November 18, 2011). (accessed November 21, 2011)

understandings of their public and the level of access necessary to fulfill a secondary mission of access, most archivists see an unused collection as something to be remedied. Once the materials are secure and protected from harm in the storage area, the archivist and archival facility must still provide some area for the use of such materials. In order to provide the public access to archival materials, a reading room or research area should be made available. This area should be separate from both staff work areas and storage areas and should be arranged for easy supervision of all patrons using archival materials. If possible reading rooms and research areas should not have any obstructions like columns or large bookcases that can impede the view of staff. Staff, security systems, or the combination of both should continually monitor these public areas at all times. Depending on the floor plan and existing design element, this can be a difficult requirement in some historic buildings; however, some spaces are extremely well suited. Former theaters, worship spaces, and other buildings with large open floor plans can easily provide this unrestricted view with minimal changes. Ideally, patrons will not make efforts to damage or remove archival materials, but observation by staff is a strong deterrent. While many members of the public find it insulting or inconvenient to leave bags, coats, and other personal belongings in an area outside the reading room, this can greatly reduce the opportunity for theft. As a result, the archival facility should provide secure areas outside the reading room for researchers to leave

personal property. Staff should also make every effort to remove materials no longer in use and return them to the secure storage area in a timely manner.[43]

In the planning process, it is important for the archive to fully analyze the elements of public and private space in the archival facility and how the facility wants to deal with these spaces. In many cases, archives also have exhibit areas, meeting and conference rooms, and even auditoriums and classrooms. These spaces need special consideration in the planning process and should be treated similarly as the reading or research areas. Again, these spaces need to meet similar standards of security and environmental control while balancing access and user needs.[44]

An archive is also a working facility, with incoming materials that need to be processed, stored, repaired, and more and more often preserved digitally. These materials move through a variety of spaces in the facility and those spaces need to be designed to best balance the preservation of the collection with the use of the facility. In the chapter on functional spaces of *Archival and Special Collections Facilities,* David Carmichael, the Director of Georgia Archives, points out that in many cases archives focus too much on the movement of records through areas of public exposure and not enough on the areas that are not secure but not open to the public. He suggests, "Archivists and designers should pay close attention to these spaces and consider

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[43] Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*, 90–95.

[44] Ibid. 34–36.

whether original records will be permitted into these areas and under what conditions."[45] These non-secure, non-public areas can include training rooms, offices, laboratories, processing rooms, loading docks and receiving areas. While the facility might choose to not allow original records in offices or training rooms, it will be necessary for them to be in the other areas. Those areas should have similar lighting, temperature, humidity, and security controls as the stack storage areas, but with some variances based on the specific functions of the room.[46]

Increasingly, archives are moving toward digitization and other electronic methods of preservation. As a result, archival facilities should be designed with areas for the process of digitization and the actual areas to house the computers necessary for maintenance. If the archive chooses to maintain servers of digitized archival material in-house, the facility needs to be able to protect and house the servers in an efficient manner. Laboratories designed for scanning, microfilming, and reformatting should have both the space and wiring capabilities to accommodate the necessary machinery as well has security and environmental controls to reduce damage to the materials during the digitization process. The computer rooms should house the network servers, routers and other equipment necessary for maintaining the computer network. Like many other areas in the archive, the computer room should have no windows and be

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[45] Pacifico, Wilsted, and Society of American Archivists, Task Force on Archival Facilities Guidelines, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers*, 133.

[46] Ibid. 142.

kept at a relatively cool temperature. Additionally, electrical outlets should be graded for computers and the possibility of new and evolving technologies should be considered.[47]

Preserving the "History" in the Historic Building

When planning for a renovation or rehabilitation of a historic building for use as an archival facility, the archivist is primarily concerned with how the building will work to preserve the archival material. For the historic preservationist, the primary concern is the preservation of the building. According to the Secretary of the Interior Standards, rehabilitation as a preservation solution allows for alteration or addition to a historic building to meet "continuing or new uses while retaining the building's historic character."[48] The historic character of a building can refer to those architectural or design elements that make up the overall appearance of the building. These elements include the shape of the building, construction materials, decorative details, workmanship, and interior spaces and features. When undertaking rehabilitation or, as it is commonly understood, a renovation, the first step in the process should always be an assessment of the building's significance in history and what features are essential elements of its historic character. The process of identifying, retaining, and preserving

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[47] Ibid. 140–143.

[48] United States and Weeks, *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, 11.

character-defining elements is essential to the successful rehabilitation of any historic building.[49]

Contrary to the assertion of Wilsted, preservationists are not just concerned with the exterior features of historic buildings. Character-defining interior elements are also important when working towards a successful rehabilitation of a historic building. When adapting a building to serve as an archival facility, specific needs must be met for the building to function as an archive. However, when meeting these specific needs, attention should be paid to the character-defining elements that make the building historically notable. Interior spaces and floor plans may need to be altered to accommodate the unique space needs of an archive, but at the same time, these features are important to the historic character of the building and any significant change can negatively affect them. Certain buildings, like churches, synagogues, or theaters, have particularly notable interior spaces. The wide open nature of sanctuaries should not be divided up into smaller spaces. Additionally, certain visual aspects of historic mechanical systems like heating grills, lighting fixtures, and other ornamental

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[49] Lee H. Nelson and United States, *Architectural Character Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*, Preservation Briefs 17 (Washington, D.C: Technical Preservation Services, National Park Service, U.S. Dept. of the Interior, 1988); United States and Weeks, *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, 70.

elements can contribute to the overall historic character and should be retained where possible when these mechanical systems are upgraded.[50]

In many cases, the changes needed to make a historic building serve a new purpose cannot be made without significant impact on the existing historic character-defining elements. In these cases, an addition or annex can be built to provide the necessary structural elements that are incompatible with the historic character. Wilsted suggests just this, advising archivists choosing to adapt and renovate a historic building to consider building an addition for secure stacks and other areas that require specific HVAC and temperature controls.[51] However, the Secretary of Interior Standards strongly encourages the careful consideration of any additions to historic buildings. All new construction, additions, or exterior alterations should not damage or destroy historic feature, materials, or spatial relationships that currently exist. Additionally, new construction should not give a "false sense of historical development" or be indistinguishable from the original building. Therefore, new additions must walk a delicate line between complementary design that respects the original historic building and is still visually separate and unique.[52]

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[50] United States and Weeks, *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, 101–108.

[51] Wilsted and Society of American Archivists, *Planning New and Remodeled Archival Facilities*.

[52] United States and Weeks, *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, 69, 112.

The rehabilitation of a historic building is about finding a balance between the specific needs of the archive and protecting historic character, between the old and new, and between two different understandings of preservation. Despite a difference in the detailed understanding of the word "preservation", archivists and historic preservationist have the same goals: to preserve and protect material culture from environmental damage, misuse, or theft and to retain the object, be it a document or building, for future use as long as possible. A well-designed archival facility can provide a secure, sympathetic environment that still allows for access by the public and staff to archival material. The challenges of adapting a historic building to the needs of an archival facility are many, but not insurmountable. The archive that chooses to adapt or renovate a historic building must be aware of the options, challenges, and benefits of such a decision. By examining different solutions to the challenges of adaptive reuse of historic buildings for archival facilities, it is possible to find a series of best practices and guidelines that fill the void in the professional literature. While archivists may still contend that the purpose-built facility is the ideal, adaptive reuse of historic buildings can be complementary to the archives' mission. The following case studies will demonstrate tangible paths through the difficult landscape.

CHAPTER III:

PRESERVING THE PAST: THE MISSOURI HISTORY MUSEUM LIBRARY AND RESEARCH CENTER, ST. LOUIS, MISSOURI

In 1866, a select group of influential men in St. Louis, Missouri, gathered to form the Missouri Historical Society in order to protect and preserve the "authentic history of the city." From the very beginning, the historical society sought to not only collect and preserve documents, manuscripts, and artifacts important to both state and local history, but also to provide access to the developing collection to researchers and historians. In its constitution and by-laws, the Missouri Historical Society laid out a goal of preserving and promoting historical inquiry, and in order to do so, established a museum and reading room to be maintained and managed by the Society. A private organization, the Society predates the official state-funded historical society of Missouri by thirty years and began as a private organization. [1]

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[1] Missouri Historical Society, *Missouri Historical Society, Jefferson Memorial Building, St. Louis* (St. Louis: Missouri Historical Society, 1963), 1; Missouri Historical Society, *Missouri Historical Society of St. Louis Constitution and by-Laws.* (St. Louis: Democrat Lothographing and Printing Company, 1875). The State Historical Society of Missouri was formed 1898 and is located on the Columbia campus of the University of Missouri. A good resource on the official state historical society is Alan R. Havig's *A*

Like many historical societies throughout the country, the Missouri Historical Society relied primarily on donations of items to build the collection. In a 1900 quarterly publication, the Society asked the public for donations of "everything of interest, past or present."[2] As a result of this open collection policy, the Society developed a diverse collection that included not just books, letters, newspapers, and other documentary evidence, but held examples of a variety of material culture artifacts. This diversity of the collection, including clothing, furniture, and other artifacts of daily life in the St. Louis area, had a lasting impact on how the society viewed the preservation of the collection. Where archives, libraries, and museums may have a more focused collection, limited to only books, documents or artifacts, the collections built by historical societies are often more diverse and can include almost anything. Such is the case with the Missouri Historical Society's collection.

Due to the dual emphasis on both preservation and exhibition, the facilities that housed the museum and library needed to meet both needs. The storage and preservation concerns of an archive housing primarily documents, photos, and

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Centennial History of the State Historical Society of Missouri, 1898-1998 Columbia: University of Missouri Press, 1998. For a more complete understanding of the city of St. Louis and its history see Katharine T Corbett, Howard Smith Miller, and Missouri Historical Society, *Saint Louis in the Gilded Age*. Saint Louis: Missouri Historical Society Press, 1993 and James Neal Primm, *Lion of the Valley: St. Louis, Missouri, 1764-1980*. St. Louis; [Columbia]: Missouri Historical Society Press ; Distributed by University of Missouri Press, 1998.

[2] Missouri History Society, *Missouri Historical Society Collections* (St. Louis: Missouri Historical Society, 1905), 5.

manuscripts are vastly different from the archive that is responsible for storage, preservation, and presentation of a wide variety of material culture artifacts. The likelihood of an adapted building meeting the dual needs of the Society was small and as the collection grew, the issue of where to house the collection and how to meet the dual purpose of preservation and education became more pressing.

Partnerships and Preservation

The Society first housed the collection in the basement of the Old Courthouse in downtown St. Louis, where the Society met. It then moved to a more residential location, Lark Mansion, in the late 1880s as the collection outgrew the space. After the turn of the century, the Society negotiated a partnership with the city of St. Louis that allowed for the Jefferson Memorial in Forest Park built for the Louisiana Purchase Exposition of 1904 to be used by the organization for its help in promoting the fair.[3] With the move into the Jefferson Memorial in 1913, the Missouri Historical Society was able to greatly expand its public museum and establish a strong collection focused on St. Louis and Missouri History. It housed the museum's collection of documents,

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[3] With the St. Louis Exposition of 1904, Forest Park becomes the largest park in St. Louis and one of the larger urban parks in the United States. Today Forest Park is the home of the St. Louis Zoo, the Muny Theater, St. Louis Art Museum, Missouri History Museum, and the St. Louis Science Center, all free to the public. For a further exploration of Forest Park and the impact of the St. Louis Exposition see James Burkhart Gilbert, *Whose Fair? Experience, Memory, and the History of the Great St. Louis Exposition* (Chicago; London: University of Chicago Press, 2009).

manuscripts, and artifacts in the second floor of the Jefferson Memorial. The Society's promotional flyer published in 1963 claimed over 100,000 books and pamphlets, over 2,000,000 documents, and over 200,000 pictorial documents. At the time, the Society made these resources available only to "accredited research scholars and students of history."[4] In the following decades, the Library and Research Center's collection grew, as did its use. The Center shared the original 3,800 square feet of space with the museum and exhibit space and even with minor renovations in 1971 and 1984; the collection eventually outgrew the available space.[5]

Figure 6. Jefferson Memorial, 1927. Photograph by W. C. Persons, Courtesy of the Missouri History Museum, St. Louis, Missouri.

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[4] Missouri Historical Society, *Missouri Historical Society, Jefferson Memorial Building, St. Louis.*

[5] Karen Goering, "History of the Missouri History Museum Library and Research Center, Skinker Boulevard Building," interview by Jane Davis,, November 28, 2011.

During the late 1980s, many cultural institutions like museums and archives throughout the country were facing financial difficulties and the situation was no different in St. Louis. Again, the Missouri Historical Society found hope in another partnership. To address the issue of declining funding from tax revenues, a number of cultural institutions in the city and in St. Louis County joined together to create the Metropolitan Zoo and Museum District (ZMD) in 1971. The St. Louis Zoo, St. Louis Art Museum, and the Museum of Science and Natural History (now known as the St. Louis Science Center) joined together to represent the tax base in both St. Louis City proper and surrounding municipalities in St. Louis County. Voters had to approve membership in the tax district; additionally voters set the maximum amount of funding each institution could receive. A board of trustees oversees the management of the public funding as a whole. The Missouri Botanical Garden joined the ZMD in 1983 and voters added the Missouri History Museum was voted in 1987.[6]

This public-private partnership allowed the Missouri Historical Society to undertake the necessary expansion to establish the Missouri History Museum (MHM) Library and Research Center. The facilities in the Jefferson Memorial had become increasingly inadequate to house the museum's collection, exhibits, and research center. Storage was so limited that some materials were stored off-site and collection management of both on and off-site materials became increasingly difficult.

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[6] Ibid.; "Zoo-Museum District : St. Louis Zoo", n.d., http://www.stlzoo.org/home/zoomuseumdistrict.htm (accessed January 6, 2012).

Additionally, because of the space restrictions, the Library and Research Center had no laboratories for conservation or conservationists on staff, and, in many ways, the continued development of the collection had come to a standstill.[7]

The infusion of financial and organizational support transformed the History Museum. Without a director at the time of admission into the ZMD, the History Museum went from an organization struggling to cover operating expenses to one hiring a well-respected new director and pursuing the purchase and renovation of a building to house the Library and Resource Center. According to Karen Goering, the Acting Director at the time, one of the greatest needs of the institution was appropriate storage for the collection. Space in the Forest Park facility was at a premium and land for a new, purpose-built facility in the park was not a real possibility. Unwilling to move the public face of the museum to another facility and away from the strong tourist draw of Forest Park, the Society decided to separate the public activities of the museum from the behind-the-scenes activities and house the collection-related functions in a facility that was nearby but separate.

At long last the dual purpose of the Society to preserve the past by collecting and educating were to be housed in separate facilities. The exhibit space, educational classrooms, community outreach, and administrative functions of the Missouri Historical

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[7] Charlene Prost, "Frieze Frame ... Ornate plaster work comes to light in the renovation of a historic temple," *St. Louis Post-Dispatch*, November 1, 1990; Deborah Peterson, "Temple Of Splendor ... Historical Society Opens In Former Jewish Congregation Site," *St. Louis Post-Dispatch*, December 3, 1991.

Society would remain at the Jefferson Memorial and be referred to as the Missouri History Museum. The bulk of the collections, research materials, reading room, and areas for conservation and preservation would be moved to a new facility to serve as the MHM Library and Research Center.

Society administrators felt that it was important to retain the connections to local history by housing the collections in a historic building. Officials initially considered a former railroad depot due to its historic nature and the possible attachment of Urban Development Advisory Committee (UDAC) funding. However, the building and site were too small to house the archive.[8] Fortunately, a more suitable historic building facing Forest Park became available shortly after the Missouri History Museum was voted into the Zoo-Museum Tax District in September 1988. The United Hebrew Congregation was in the process of relocating their synagogue from its location on Skinker Avenue to a new building under construction in the western part of St. Louis County. The Museum submitted a bid on the building in the latter part of 1988 and eventually acquired the former synagogue. The historic building provided the MHM Library and Research Center a facility that met the many needs of the archive.

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[8] Goering, "History of the Missouri History Museum Library and Research Center, Skinker Boulevard Building."

United Hebrew Congregation: Temple of Faith and Learning

Established in 1837, the United Hebrew Congregation is one of the older Jewish congregation is St. Louis. Moving from its humble beginnings in a rented room above a grocery to what was at the time of its construction one of the three largest temples in the country, the congregation expanded greatly along with the city's Jewish population. When the congregation purchased the land on Skinker Avenue in the late 1920s, they initially faced opposition from residents. The construction of the synagogue was initially blocked by the city officials, however, the congregation appealed all the way to the Missouri State Supreme court and was granted permission to build in the Wydown-Forsyth Neighborhood.[9]

The Wydown-Forsyth neighborhood was, at the time and remains, a fairly affluent neighborhood. Thomas Skinker, a prominent St. Louis lawyer, laid out a large part of the neighborhood. He also donated a portion of his lands to help create Forest Park. He named two streets, Skinker Boulevard for his family and Ellenwood Avenue, for his daughter.[10] Facing the west side of Forest Park and bounded to the north by Washington University, the neighborhood is largely residential. At the time of its nomination to the National Register of Historic Places in 1985, the neighborhood

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[9] "United Hebrew Congregation: History", n.d., http://www.unitedhebrew.org/AboutUs/History.aspx (accessed January 10, 2012).

[10] Albert Nelson Marquis, *The Book of St. Louisans: A Biographical Dictionary of Leading Living Men of the City of St. Louis and Vicinity* (Chicago: A.N. Marquis & Company, 1912), 555.

consisted of 184 houses, six houses of worship, and one school. The district was nominated under the basis of Criterion C, for its total architectural significance. Specifically, the nomination evaluation states that the district "embodies the distinctive characteristics of the residential architecture of the early twentieth-century and is particularly rich in the period revivals that characterized the mainstream architecture of the era."[11]

The United Hebrew synagogue on Skinker Boulevard was the congregation's fourth official home; each built or purchased to accommodate a growing Jewish population in St. Louis from the mid-nineteenth to the early twentieth-century. With each new synagogue, the congregation also moved further west away from downtown St. Louis. For their new home, the congregation contracted architects Maritz & Young, a noted St. Louis firm that had designed a number of residential and commercial buildings in St. Louis and particularly in the Clayton area. The National Register nomination form credits the consultant architect Gabriel Ferrand with the design concept of the synagogue. The temple featured a central dome and was constructed out of buff yellow brick walls. The front elevation, facing Skinker Boulevard and Forest Park, centers a large arch with three interior arches. The overall design is strongly Byzantine influenced and reflects the trend at the time of Jewish architecture reflecting Byzantine stylistic

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[11] "Wydown-Forsyth District, St. Louis, St. Louis County, Missouri" National Register of Historic Places #88000628, Missouri State Historic Preservation Office, Columbia, Missouri, 1985, p. 27.

elements. The overall mass of the building is impressive and at the time of construction, it would have been a landmark structure in the neighborhood.[12]

Figure 7. United Hebrew Congregation Synagogue as completed in 1927. Photograph by W. C. Persons. Courtesy of Missouri History Museum, St. Louis, Missouri.

Gabriel Ferrand moved from France to the United States in 1906 and first taught at the Carnegie Institute of Technology in Pittsburgh. In 1916, he was appointed the first head of Washington University's School of Architecture in St. Louis. In addition to guiding new architects at Washington University, he also contributed a great deal to St. Louis architecture through his architectural consulting firm, Ferrand and Fitch. He and his firm consulted on a number of designs throughout St. Louis, including the Civil Courts Building, a number of buildings on the Drury College campus, and the United Hebrew

[12] National Register of Historic Places, "Wydown-Forsyth District, St. Louis, St. Louis County, Missouri, National Register #88000628."

Congregation Temple on Skinker. Ferrand is credited for the contemporary design of the temple, which featured the domed plan and Byzantine style. For much of the mid-nineteenth century, builders of Jewish temples and synagogue sought to find architectural styles that differentiated temples from churches and expressed the Jewish heritage. The archaeological explorations of Palestine at the turn of the nineteenth century revealed a Byzantine-influenced synagogue in Bet Alfa, this gave American, and European architects the historical footing to use Byzantine inspired elements in synagogue design. Ferrand found additional inspiration for the expansive eighty-two foot central dome of the temple in the Hagia Sophia in Istanbul, Turkey. The United Hebrew Temple was one of the most noted examples of this architectural trend in St. Louis.[13]

The original interior of the temple featured intricate plaster friezes that reflected the exterior's Byzantine influences and was painted in somber colors of gold and umber. The altar space was located in a central arch and featured a number of columns that reflected the placement and feel of the exterior façade. (See Figure 6.) In the 1970s, the congregation renovated the interior to give it a more modern feel. Contractors plastered over the friezes and repainted the walls in a monotone crème palette. They

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[13] Henry Stolzman and Daniel Stolzman, *Synagogue Architecture in America: Faith, Spirit & Identity* (Mulgrave, Victoria: Images Publishing, 2004), 45; "Wydown-Forsyth District, St. Louis"; Jacqueline Wiseman, *A Tour of Shaare Emeth Synagogue, [and] Missouri History Museum Library and Research Center: Previously Built For Worship as United Hebrew Temple, Thursday, February 16, 2006* ([Alton, Ill.?: s.n.], 2006), 7.

replaced the historic chandeliers with more modern light fixtures and renovated the *bima,* or elevated altar platform for a more modern look. (See Figure 7.)

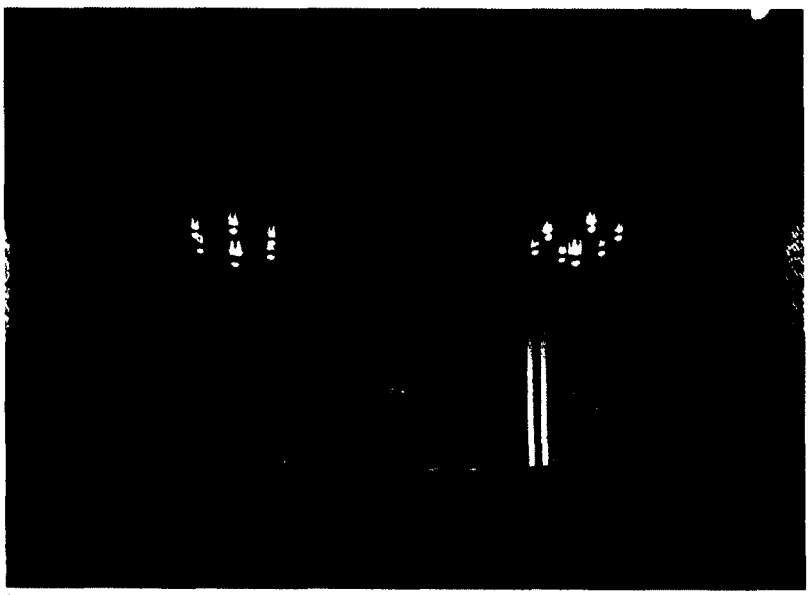

Figure 8. United Hebrew, Interior, 1927. Photograph by W. C. Persons. Courtesy of Missouri History Museum, St. Louis, Missouri.

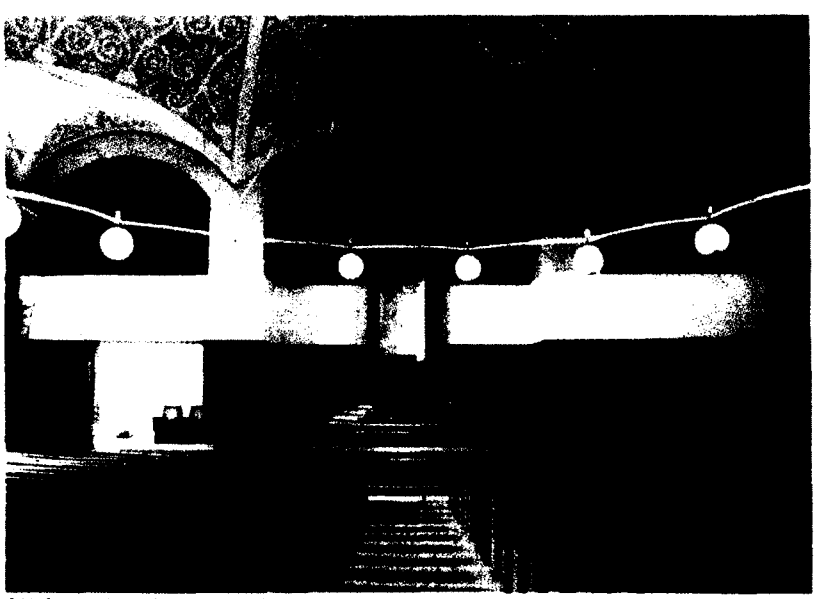

Figure 9. United Hebrew, Interior, 1989. Photograph by Karen Goering. Courtesy of Missouri History Museum, St. Louis, Missouri.

During the years on Skinker, United Hebrew grew in both numbers and status. Rabbi Samuel Thurman, who was the head rabbi during the move to Skinker, saw his congregation, then the largest in St. Louis, grow from 650 families to over 2,100 families by the late 1950s. Rabbi Thurman was a close friend of President Harry S. Truman, who invited him to be the first rabbi in United States history to give the invocation at a presidential inauguration in 1949. While the congregation remained committed to the Reform movement, it did start a weekday Hebrew school to provide Hebrew language instruction. In 1956, to further accommodate the school, United Hebrew built a new school building to house both the weekday school and the traditional Sunday school functions to the south of the synagogue. The nationally respected Missouri firm of Hellmuth, Obata, and Kassabaum designed the building in the International Modern style with a window wall facing Skinker and blank end walls of yellow brick.[14]

Rabbi Thurman's successor, Rabbi Jerome W. Grollman continued the pattern of community involvement and outreach. In 1960, Rabbi Grollman and United Hebrew hosted Reverend Martin Luther King just after his release from jail in Georgia. A number of synagogues had refused the opportunity to host King, but Grollman saw his presence worth any hostilities it might generate. Much later, in a 2005 interview, Grollman

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[14] Wiseman, *A Tour of Shaare Emeth Synagogue*, 7; Walter Ehrlich, *Zion in the Valley: The Jewish Community of St. Louis* (Columbia: University of Missouri Press, 1997), 175–177; "Wydown-Forsyth District, St. Louis," 14.

recalled that after King's speech it was "almost like a lovefest."[15] Grollman remained involved in the Civil Rights Movement and joined King in 1963 for the March on Washington for Jobs and Freedom. United Hebrew continues to host Shabbat services on Martin Luther King, Jr. Day to celebrate the connection the congregation holds with the Civil Rights Movement and King's life and contributions.

By the late 1970s, the Jewish population had moved to the western suburbs of St. Louis, particularly Chesterfield. In response, in 1977, United Hebrew built a new school, the Ann and Ullus Gudder Educational Building to meet the needs of their congregation in West County. In the mid 1980s, United Hebrew commissioned architects, Stone, Marraccini, and Patterson to build a new synagogue adjacent to the education building on the Chesterfield property. Because of the coming move to a new location, United Hebrew prepared to sell the Skinker Boulevard property in 1987.

From a House of Worship to a House of Learning

With the decision to move west made and construction on a new temple begun, United Hebrew placed the building at 225 South Skinker Boulevard on the market. An initial offer from a real estate developer was enticing and was carefully considered by United Hebrew; the developer's plan of demolishing the synagogue and building a high-

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[15] Ron Harris, "A Giant Among Us," *St. Louis Post-Dispatch (MO)* (January 17, 2005): A01; Denice Santangelo, "Rabbi Jerome W. Grollman Civil rights leader held all to a moral standard," *St. Louis Post-Dispatch (MO)* (August 11, 2008): B7.

rise apartment complex did not sit well with the congregation. Additionally, both the Ellenwood subdivision and the historic district had use restrictions in their covenants that allowed only buildings for purposes "of a private residence, a church, or a library, or a doctor's office." The restrictions also prevented the construction of apartment buildings or flats.[16]

Between the congregation's desire to avoid demolition and the restrictive covenants of the subdivision, the deal to sell the temple to the real estate developer fell through. Fortunately, the Missouri History Museum Library and Research Center had stepped in and placed a bid on the building while negotiations were still underway with the developer. By September 1988, the two sides had come to the table to negotiate an agreement. MHM saw the temple on Skinker Boulevard as an ideal home for the Library and Research Center because its historic nature and location. Just a short distance from the Jefferson Memorial and directly facing Forest Park, the Skinker building was ideally located to maintain a close physical association with the history museum and provide the public with ease of access. The historic nature of the building was also well suited to the mission of the history museum, moreover if purchasing and renovating the building would save the structure, it was a delightful bonus. Earl K. Dille, president of the Missouri History Society, was quoted in a newspaper article regarding the purchase as

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[16] Charlene Prost, "Two Groups Vie to Buy Synagogue," *St. Louis Post-Dispatch*, April 25, 1988; Goering, "History of the Missouri History Museum Library and Research Center, Skinker Boulevard Building."

saying not only was the building "eminently adaptable" for the library and archive but the adaptation would "provide space for our expansion and prevent the demolition of this beautiful building."[17]

The congregation accepted the offer in late 1988. The Missouri History Society selected the architectural firm of Murphy, Downey, Wofford, & Richman to design the renovation. Early on in the design process, the architects recommended and the society agreed to demolish the 1956 school building replacing it with a new annex to meet the unique needs of the archive. Since the school building, due to its date of construction, was not a contributing structure in the National Register, local review committees could not object to its demolition. In this sense, MHM chose to combine the advantages of historical building with the advantages of purpose-built archive to create an overall complex that was both historically sensitive and technologically innovative. This pairing of historic preservation and innovation would continue throughout the renovation of the temple. In many senses, the renovation was an ideal way to adapt a historic building to function as an archival facility. MHS gave a great deal of thought and consideration to both the historic character of the building and the needs of an archive; though at that time minimal guidelines from the archival and museum studies fields existed.

Architect Theodore Wofford discussed the adaptive reuse plans in an article for the Missouri Historical Society's newsletter, *Focus.* In the article, Wofford explained the

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[17] Prost, "Two Groups Vie to Buy Synagogue."

initial design plan for the renovation and the need to demolish the old school building. In its place, MHS proposed building a new annex to house the archive conservation labs, artifact storage, and all processing and preservation activities. To maintain a continuity of scale, the four-story annex would feature two levels above ground and two below. This massing would prevent the new construction from overshadowing the historic building while providing the necessary space for the archives' needs. For the annex to continue to blend into the background of the site, brick colors and patterns needed to match the existing building. Since many St. Louis brick companies had closed or relocated in the decades since the synagogue's original construction, contractors initially found it quite difficult to find brick that matched. After much trial and error, they devised a mortar-less brick panel system, which allowed for a texture and color blend that came close to matching the original brick.

To draw the eye away from the difference between the two types of brick, the architects chose to link the two buildings with a corridor of opaque glass that houses the loading dock and service elevators. Their use of an open glass "hyphen" to connect the historic and the new buildings represented a classic historic preservation solution of the late twentieth-century. The annex provides a total of 44,000 square feet of storage and processing space. The climate control, fire control, and security systems are all up to date and state of the art. Key elements among the functional additions the annex provided were two conservation labs for on-site repair and conservation of artifacts and

an in-house photography studio that has, in recent years, been used increasingly for digital photography and scanning of the museum's vast collection.[18]

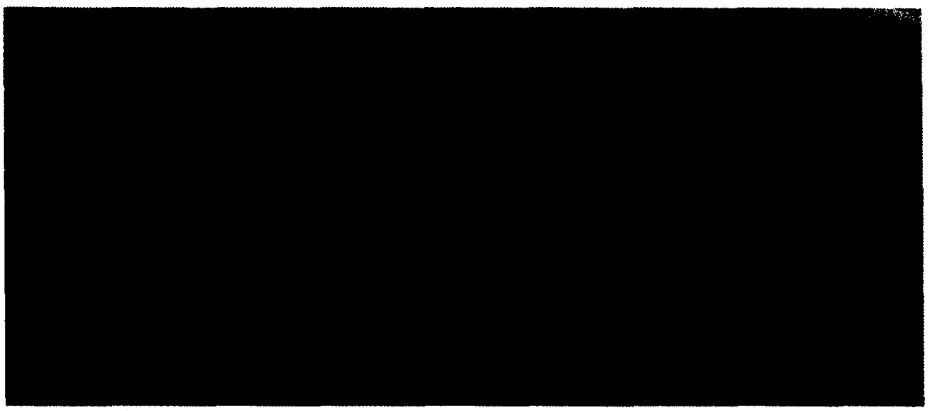

Figure 10. Elevation plans. Courtesy of the Missouri History Museum, St. Louis, Missouri.

Figure 11. Missouri History Museum Library and Research Center view of annex and main building. With two levels above ground and two below, the annex mass remains subordinate to the original building. Photograph by author.

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[18] Theodore J Wofford, "From Temple to Library: The Architect's Point of View," *Focus: Bimonthly Newsletter of the Missouri Historical Society* 2, no. 1 (February 1992): 3; Clifford A Pearson, "Religious Conversion: The Former United Hebrew Temple Is Born Again as a Research Center for the Missouri Historical Society," *Architectural Record.* 18, no. 1 (1992): 13; Goering, "History of the Missouri History Museum Library and Research Center, Skinker Boulevard Building."

Because of the purpose-built nature, the annex easily houses the more complex elements of archival facilities. One of the more common challenges in adapting historic buildings to serve as archives is the installation of HVAC systems that can keep the fragile archival collections at the appropriate temperatures and relative humidity levels. Consulting engineers, William Tao & Associates, were able to incorporate an award-winning HVAC system into the purpose-built annex that met the needs of the archives for long term storage of sensitive collections. As a result of the drastically lower temperatures required for such collections, many traditional cooling systems face the problem of ice formation in the cooling coils, which can require extensive defrosting processes or brine solutions to prevent ice formation. Taking advantage of the freezing issues, Tao & Associates designed an ice harvesting system that relies on the creation of ice in a storage tank and then uses the ice-chilled water as a source of coolant for the air coils. This solution removed the need to defrost the system and the reliance on brine solutions. The stored ice also provides a reliable backup for the cooling system to maintain environmental stability in the case of equipment failure. The engineers located all mechanical ducts, humidifiers, and the necessary control terminals in specifically designed utility galleries separate from the collection storage areas. The utility galleries provide an additional level of protection for the collection storage by removing the risk associated with system maintenance near sensitive materials and reducing the chances of water damage.[19]

[19] William Tao & Associates, *Missouri Historical Society Library and Collections*

Another issue often faced by archival facilities in historic buildings is the difficulty of maneuvering large objects or collection items through narrow doors and hallways not designed for such activities. In the design phase for the annex, the archival staff suggested that the loading bay and receiving area be located near each other and that the doors and hallways connecting the two be as large as possible. As a result, the architects placed the loading bay near the glass wall connector between the annex and the existing synagogue; they also designed the hallways leading from the storage areas and processing areas to be large enough to accommodate the largest items in the collection. Since the MHM Library and Research Center serves as the collection storage for the museum as well as archival and library materials storage, staff needs to be able to move collection items from the secure storage areas to the Jefferson Memorial site with ease. The extra large doorways, halls, and loading bay allow for easy movement of particularly large items like oversize paintings, and furniture.[20]

Center, St. Louis, Missouri: Project Description, n.d.

[20] Goering, "History of the Missouri History Museum Library and Research Center, Skinker Boulevard Building."

Figure 12. Glass wall connection between the annex and the original structure. The loading bay and exterior access is convenient to both the storage areas in the annex and in the main building. Photograph by author.

In the synagogue itself, MHS wanted to convert the main sanctuary into a public reading room and use the flanking classrooms and administrative offices for closed-stack shelving of books and archival materials. Missouri History Society officials easily envisioned the huge open space as a reading room, similar to that of the iconic Boston Public Library and Library of Congress Building, that provides an open and well-lit space for patrons to work. Additionally, the open layout made security and reference assistance easier since there were no existing architectural features to block the line of sight.

The renovation started with the removal of paint to discover the original paint scheme. The architects deemed the dark metallic gold, gold leaf, and dark brown glazes as too somber and heavy for the reading room. Additionally, they hoped to reverse the mid-century renovation that removed a great deal of the decorative work and to restore

the dome to its original ornamented grandeur. By a quirk of fate or coincidence, the architect responsible for the 1967 renovation, Edouard Mutrux, had been a professor of Theodore Wofford and had taught his students about making efforts to preserve historic ornaments where possible. Hopeful that his professor had done just that, Wofford drilled small holes in the plaster covering the friezes and stuck a camera in the holes. Happily, the photographs he took revealed friezes to be mostly intact.[21]

Figure 13. Detail of frieze revealed under plaster renovation. The frieze was cut away in some areas for HVAC installation, but enough remained for replication. Photograph by Karen Goering. Courtesy of Missouri History Museum, St. Louis, Missouri.

In many restorations, a discovery like the hidden friezes would be equal parts disaster and celebration. Often designers have strictly budgeted the renovation and a

[21] Prost, "Frieze Frame ... Ornate plaster work comes to light in the renovation of a historic temple"; Theodore J Wofford, "From Temple to Library: The Architect's Point of View," *Focus* (n.d.): 3–4.

find such as this would involve additional labor and materials to preserve adequately. To completely repair, rebuild, and restore the friezes would have cost an additional million dollars and would have prevented further restoration. Fortunately, a board member graciously donated the necessary funds to complete the work and contractors saved the friezes and restored them to their previous state. Revealed along with the friezes was the original color scheme for the ornamentation. As a result, the architects developed color panels by testing large panels and sketches done on site. They combined flat paint to hide minor flaws in the plaster and a tinted epoxy paint to create a vapor barrier.[22]

The exterior of the temple needed modest maintenance, including repointing of the brick, reglazing, and new roofing. The exterior of the dome needed some work to prevent and reverse water damage. Fixing aging copper, replacing existing roofing, and installing new gutters to prevent any additional water damage restored the dome's exterior to its former glory. Inside, the floor of the sanctuary was originally sloped. Contractors covered it with raised panel flooring that allowed for the installation of wiring for the table lamps, computer terminals, and other electrical needs. They installed custom bookcases, chandeliers, and service counters throughout the reading room to provide for general reference stacks and service areas. At every stage of the

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[22] Goering, "History of the Missouri History Museum Library and Research Center, Skinker Boulevard Building"; Wofford, "From Temple to Library: The Architect's Point of View," 4.

renovation, they made efforts to preserve or reuse the original materials. They repurposed the thick oak panels that lined the interior columns of the sanctuary to serve alongside the new custom bookcases. Contractors moved the former altar area forward to create a central location for the on-duty archivist and to provide access to offices in the rear of the building behind the desk. They split the former classrooms on each side of the sanctuary into two floors and used them for the general stack storage. The architects added an auditorium in the space below the sanctuary, allowing educational outreach programs to have adequate space as well as providing the community with meeting spaces. While curators housed the bulk of the collection in the purpose-built annex, research items and reference materials needed to be close at hand. They placed the majority of the research collection including books, documents, and some photographs in these secure areas that were easily accessible by staff members for the public's use.[23]

The dome's design resulted in unexpected acoustical difficulties. Since the area was designed as a sanctuary, the dome served to allow sound to be carried easily throughout the interior. As a library reading room, this feature was problematic. A page turned at one table in the reading room could be heard clear-as-crystal across the room, the sound of a discreet cough reflected throughout the room, and whispered

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[23] Goering, "History of the Missouri History Museum Library and Research Center, Skinker Boulevard Building"; Prost, "Frieze Frame ... Ornate plaster work comes to light in the renovation of a historic temple."

conversations between patrons and archivists could be heard as clearly as if they were spoken into a microphone. To address this issue, the architects initially installed acoustical absorption materials in a large cone that was lifted to the center of the dome as well as installing fabric wall coverings that mimicked the original organ screens. In 2009, contractors removed the acoustical cloud from the dome and revealed the original Star of David. Rather than replacing the device, which was not especially effective, MHS officials decided to restore the Star of David instead.[24]

[24] Wofford, "From Temple to Library: The Architect's Point of View"; Pearson, "Religious Conversion"; Goering, "History of the Missouri History Museum Library and Research Center, Skinker Boulevard Building."

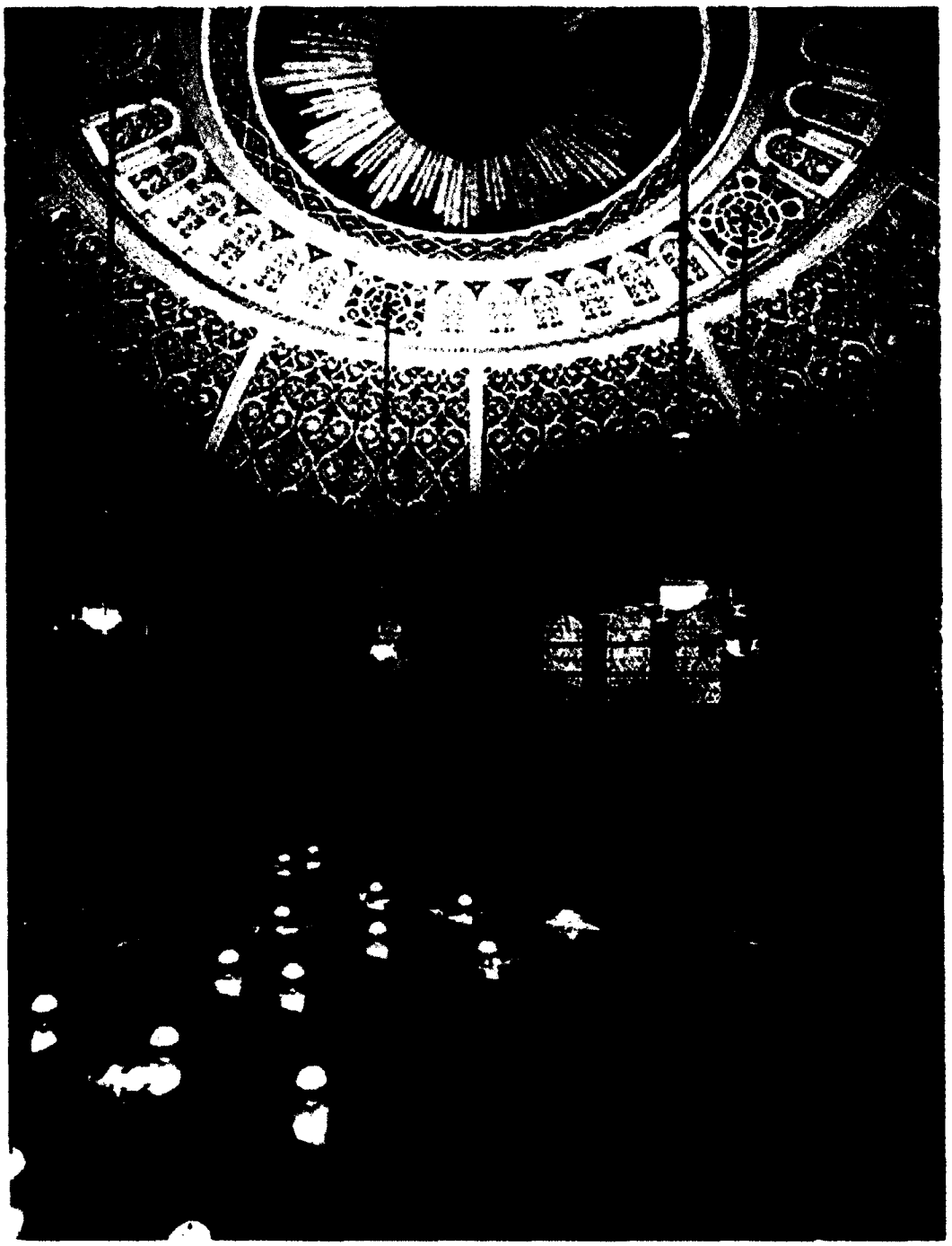

Figure 14. 1991 Interior of the Reading Room, showing acoustical cloud in the dome. Courtesy of the Missouri History Museum, St. Louis, Missouri.

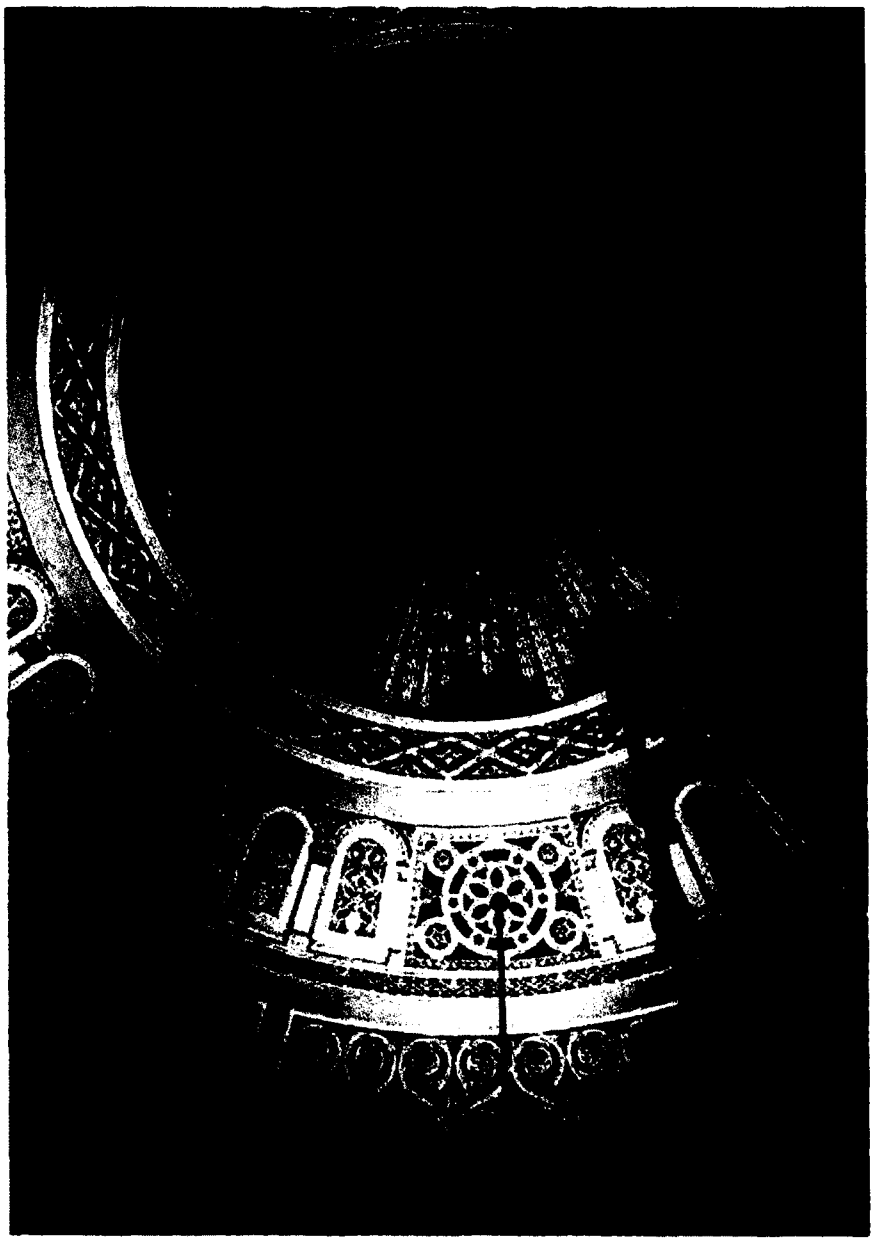

Figure 15. 2009 Restoration of the Star of David on the interior dome. Courtesy of the Missouri History Museum, St. Louis, Missouri.

Overall, the renovated sanctuary provides an impressive and awe-inspiring space for researchers. Louis Gertais, a noted St. Louis historian, said of the reading room in a newspaper interview, "It's a spectacular setting, like working in the Library of

Congress."[25] Not only is the space visually pleasing, it functions well as an archive and reading room. With the items that are most likely to be requested by the public housed in general storage in the main building, staff can easily and quickly provide researchers with the required materials. Curators store materials that are requested less often or require more carefully monitored environments in the annex where they are still easy to retrieve. The Library and Research Center has also capitalized and promoted the building's connection to the community. At the dedication of the facility, Rabbi Jerome Grollman said in his opening remarks that the well-loved synagogue had remained a "temple of learning and understanding."[26] The renovation was so sensitive to the original structure that one member of the congregation thought a newly added elevator in the lobby was original. Additionally, United Hebrew Congregation has donated a number of artifacts to the Library and Research Center and these items have been on display to the public.

The historic nature of the building allows the Library and Research Center to maintain close ties to the community that a new, purpose-built structure might not have been able to maintain. At the same time, the annex provides the up-to-date technology and space that many historic structures are lacking to help the archive function at its best. At the dedication, the chairman of the History Museum Subdistrict, W. Michael

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[25] Tim O'Neil, "History Museum: Supermarket of St. Louis Memorabilia," *McClatchy - Tribune Business News* (Washington, December 2, 2009).

[26] Peterson, "Temple Of Splendor ... Historical Society Opens In Former Jewish Congregation Site."

Ross, said, "the adjoining structure [annex] doesn't glitter like the reading room, but both have the modern technology to preserve Missouri History Society's priceless collections."[27]

Some changes have been made to this modern technology in the decades following the Library and Research Center's opening. The award-winning ice harvester system became extremely expensive to run due to increased energy costs; contractors replaced it in 2010 by a new award-winning frictionless chiller system. This new system functions more efficiently and is a more sustainable technology than the old one. In 1991, when the building was opened, contractors focused the computer technology planning around wires and cables. The raised floor of the reading room provided a solution to accommodate the necessary wiring. Now technology has shifted away from the wired to the wireless making the solution obsolete. Future renovations will look to replace the wiring with wireless routers and allow patrons to use wi-fi in the reading room. The Library and Research Center staff is also constantly examining ways to reduce energy consumption and find greener technologies to continue to preserve the past while looking towards the future.

This combination of the past and the future is visible throughout the adaptation of the former synagogue. The respectful rehabilitation of the main building and the new, purpose-built annex both help preserve this National Register-listed building. By

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[27] Wofford, "From Temple to Library: The Architect's Point of View," 5.

building the facility they needed next to the one they wanted, Missouri History Museum Library and Research Center created the best of both worlds. This archive is state of the art and can most effectively preserve the diverse collections of the museum and society, but it also maintains a strong connection to the city's past and current communities.

CHAPTER IV:

LIBRARY TO ARCHIVE: ALBERT C. GORE, SR. RESEARCH CENTER, MIDDLE TENNESSEE STATE UNIVERSITY, MURFREESBORO, TENNESSEE

Middle Tennessee State University in Murfreesboro, Tennessee is like many state universities in that it often faces funding shortfalls followed by periods of rapid growth. In order to compensate for the lack of available funds and still meet the needs of a rapidly growing university, MTSU has frequently turned to adaptive reuse. The Albert C. Gore, Sr. Research Center, located in the former library, Todd Hall, is one of many buildings across the campus that have been preserved and reused. Because the campus is continually growing and changing, buildings are often reused to a varying degree of success and many of the university's original buildings have been preserved by adaptive reuse and given new life.

At the turn of the twentieth-century, Americans began to take a greater interest in public education. More public funding was available for public schools and for training educators. Teaching, seen as a public duty more important than merely a vocation for any literate person inclined to teach, became professionalized and state governments established teacher training programs to encourage professional standards of teaching. Pedagogical systems for education replaced the more haphazard methods of teacher

training and states sought new ways to create and employ properly trained educators to staff the newly opened public schools.[1]

In the early years of the twentieth-century, Tennessee joined the wave of teacher education by passing the General Education Act of 1909. The new law, which went into effect immediately after its passage in April, would set aside 25 percent of the gross revenues of the state of Tennessee establish a General Education Fund to fund public schools throughout the state. The law also designated 13 percent of the Fund to establish and maintain three normal schools, one for each region of the state.[2]

The State Board of Education appointed a committee of three to visit and recommend sites for each of the new schools. Perry L. Harned, Robert L. Jones, and Andrew L. Todd served as the committee of three and were responsible for suggesting and selecting cities and sites for the new normal schools. For the east, Johnson City was selected; Memphis was chosen for the west; and Murfreesboro, home of committee

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[1] James E. Downey, "Educational Progress in 1909," *The School Review* 18, no. 6 (June 1, 1910): 404; For a greater understanding of higher education in American and the development of the Normal School, see John R Thelin, *A History of American Higher Education* (Baltimore: Johns Hopkins University Press, 2004) and Christine A Ogren, *The American State Normal School: An Instrument of Great Good* (New York: Palgrave Macmillan, 2005).

[2] Frank B. Williams, "Education, Higher," in *Tennessee Encyclopedia of History and Culture*, ed. Carroll Van West (Nashville, Tenn: Tennessee Historical Society, 1998); See Andrew D Holt, *The Struggle for a State System of Public Schools in Tennessee: 1903-1936* (New York: Teachers College, Columbia University, 1938) for a more in depth look at the development of higher education in Tennessee.

member Andrew L. Todd, was selected to be the home of the new Middle Tennessee Normal School.[3]

The board selected three architects to design and build each of the schools. It encouraged the architects to maintain a coherent design and advised each that the state might modify their designs to ensure uniformity. The Chattanooga firm, Adams and Alsup was assigned West Tennessee Normal in Memphis, Baumann Brothers of Knoxville were responsible for the design of East Tennessee Normal in Johnson City, and noted Nashville architect, C. K. Colley, was the architect responsible for Middle Tennessee Normal (MTN). The committee felt that Colley's initial designs for the main university building were too ornate and expensive for the project; it required Colley to simplify his designs and resubmit them. Despite this slight setback, MTN broke ground on its main building first and completed construction in 1911 before the other two schools.[4]

MTN grew exponentially in the next century, and the campus expanded with the school's enrollment. The initial plan for a 100-acre campus was somewhat haphazard in layout, but maintained a coherent architectural feel thanks to C. K. Colley. Of the early buildings designed or influenced by Colley, only one, Murfree Library built in 1927 has been demolished. The main building, now known as Kirksey Old Main, has been renovated a number of times and continues to house classrooms, labs, and faculty

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[3] Homer Pittard, *The First Fifty Years* (Murfreesboro, Tenn.: Middle Tennessee State College, 1961), 7.

[4] Ibid. 21.

offices. The President's home and the dormitories, Rutledge and Jones Halls, still serve their original functions but also with a number of renovations to update the buildings.[5]

College administrators established an early precedent of adaptive reuse to meet the increasing need for facilities. The first official dormitory for men was a two-story frame house located on East Main purchased in 1911; ten years later the university purchased another former residence to serve as a women's dorm. This pattern of adaptive reuse is not uncommon in institutional settings. In the instance of the residence halls, the institution was able to purchase existing buildings more cheaply and have them available to students more quickly than new construction. Later in the university's history, as space on campus became increasingly scarce, the adaptation of existing buildings involved far less capital outlay than construction of a new building or purchase of a building from outside owners. In cases where the building was not retained and was demolished for new construction, as in the case of Murfree Library, there was still a concept of reuse and conservation of existing space through redevelopment of the land. Peck Hall, for example, was built in the mid-1960s on the site of Murfree Library.

In 1925, MTN became Middle Tennessee State Teachers College (MTSTC) and began to offer a four-year Bachelor of Science degree. With this change in status, the

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[5] Pittard, *The First Fifty Years*; Carroll Van West, "Middle Tennessee State University," in *Tennessee Encyclopedia of History and Culture*, ed. Carroll Van West (Nashville, Tenn.: Tennessee Historical Society, 1998), http://tennesseeencyclopedia.net/entry.php?rec=914.

state funding increased and the campus was able to build a new library, science building, teacher's training school, and additional dormitories. Of these new buildings, Colley was directly responsible for four buildings and his overall classicism for the campus appears in the design of the others.

The college officials secured funding for the much needed new buildings and almost completed the building program before the Great Depression severely affected funding. The 1930s proved challenging. President Pritchett Alfred Lyon faced a number of obstacles – a lack of state support and declining enrollment – but also opportunities from New Deal programs. In a possibly politically motivated move, the Tennessee legislature passed a bill requiring all presidents of Tennessee teacher colleges to have an *earned* degree. President Lyon was the only college president that only had an honorary doctorate and as a result stepped down. Enrollment reached its lowest point in the years between 1942 and 1946. Historian and faculty member, Homer Pittard noted that if it had not been for an aviation training program and reserves training programs for the American Air Force Flying Training Command, during World War II the campus would have appeared "almost deserted."[6]

In 1942 major changes to MTSTC's curriculum and departmental organization paved the way for the college to move away from being solely a "teacher's" school. The curriculum reflected a broader degree plan. While teacher's education was still a main

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[6] Pittard, *The First Fifty Years*, 177–178.

focus, the college sought to change its name and identity in ways that signified a more well-rounded school that provided students with a broader curriculum that focused on more than teacher education. Students, faculty, and Murfreesboro residents clamored for the change, and the overwhelming opinion was that by dropping "Teacher" from the name, the college would be better able to attract a wider variety of students and would better reflect the school's broader degree offerings outside the realm of education. The Tennessee Legislature agreed and in 1943, the school became Middle Tennessee State College (MTSC).[7]

At the close of the war, the Veterans' Administration slated MTSC to receive funding for the training of returning veterans under the G.I. Bill. Middle Tennessee's broadened degree program, particularly the expansion of the industrial arts program, provided a much wider variety of educational opportunities than merely training teachers. The veterans brought rapid growth to the campus and with that growth changes in how the students interacted with the campus. Unlike the young men who entered college before the war, many of the veterans were older and, more importantly, married. While there had been housing for married students on campus previously, the post war years brought a larger population of married students than the campus could support. With the surge of veterans as students, MTSC used accompanying federal funding to create a housing solution. Veterans' Village or

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[7] Ibid. 172–174.

"Wagonville" arose on campus by 1946. The fifty or so trailers and additional temporary housing for married students created a small village within the campus community. There were shared bathing and laundry facilities, playground equipment for the children of veterans, and even a small store. Veterans' Village was fully integrated into campus life and the student organizations with an elected "Mayor," representation in the student government, and a "Mr. and Mrs. Veterans' Village."[8] This rapid growth and quick response with temporary structures as well as the reuse of existing structures continued the college's tradition of adaptation and reuse when it came to campus planning. When the college experienced the next boom of enrollment in the years from 1956 to 1964 and the accompanying boom in funding, officials razed Veterans' Village to provide much needed land for the new library and fourteen other new buildings.[9]

Throughout its history and regardless of its name, Middle Tennessee State University followed a pattern of boom and bust for campus construction. Like many state-funded colleges and universities, Middle Tennessee was dependent upon the fortunes of the economy as well as enrollment. As the economy improved, so did the university. As a result many buildings were constructed or renovated during economic upswings. However, because the university was so dependent on outside funding, it was more difficult to maintain campus growth when the economy took a downturn.

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[8] *Midlander* (Murfreesboro, Tenn.: Middle Tennessee State College, 1956), 48, 76.

[9] Pittard, *The First Fifty Years*, 180–184; West, "Middle Tennessee State University."

When student enrollment suddenly mushroomed, school officials relied on temporary and quick solutions. In the difficult years, buildings were reused and departments were temporarily housed where they could find space. Only in the years following enormous growth and increased funding would a more permanent solution be found. In many cases, as with the Gore Research Center, a permanent solution was decades in coming.

A New Library for Growth

It was during a time of rapid enrollment expansion and economic growth that the college built Andrew L. Todd Library. After decades of ever increasing student numbers, the Murfree Library building was no longer sufficient to house the library's collection and meet the needs of the students. President Q. M. Smith stated there was a "twenty year lag" in the construction and renovation projects on campus as a result of a lack of funding. In 1949, he formally requested a large increase in the college's budget to address this issue. Smith's presidency and that of his successor, Quill E. Cope, laid the foundation for the college's master plan for campus development. Throughout the 1950s and into the 1960s, both presidents took advantage of growing financial and political support for the college to implement a master campus plan that involved the construction of new buildings as well as the renovation and maintenance of existing buildings. The new library, and later, Peck Hall and the Cope Administration building would become campus focal points.

The library, designed by Nashville architect, John Charles Wheeler, was the first of the new buildings on the campus. It broke with the Classical Revival style of the campus in its contemporary yet restrained modernism, a design theme found in most of his work in the Nashville area and at Middle Tennessee State College.[10]

Wheeler was a Murfreesboro native and alumni of Middle Tennessee State College. He earned his Bachelor of Architecture from the Georgia Institute of Technology in 1939 and his Master's of Architecture from the University of Pennsylvania in 1941. He won the Lloyd Warren Fellowship, Paris Prize in Architecture in 1938 for his design of a memorial hall to commemorate the traditions of the United States Supreme Court. After graduation he returned to middle Tennessee and worked as an architect in Nashville as well as teaching drafting and mechanical drawing at MTSC. After a few years of working for other architectural firms, Wheeler went on to establish his own firm in Nashville in 1953. During his career, he designed a number of buildings in Nashville and Murfreesboro; however he was most active in the 1950s and 1960s. Wheeler's designs strongly reflect his Modernist leanings in a way that reflects the architecture of the era. In addition to Todd Library, Wheeler was responsible for Saunders Fine Arts Building and the dormitories, Corlew Hall, Wood Hall, and Sims Hall, as well as a number of schools and office buildings throughout the mid-state region.

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[10] Pittard, *The First Fifty Years*, 189, 198, 205; "Wheeler, John Charles," *The AIA Historical Directory of American Architects*, n.d., http://communities.aia.org/sites/hdoaa/wiki/Wiki%20Pages/ahd1048041.aspx.

Most notably, Wheeler worked with the Chicago architectural firm of Perkins and Mills to build the First American Bank skyscraper in Nashville. The building replaced a bank on the same site built by Francis Strickland, the son of the famous William Strickland.[11]

The three-story library building expressed Wheeler's Modernist leanings with clean, simple lines and modular geometric shapes. The horizontal feel of the building is further reinforced by horizontal lines of windows on each floor separated by bands of brick columns on the north, south, and east elevations. The combination brick and poured concrete form building was stylistic break from the previous library. Gone were the traditional columns and Neo-Colonial feel, replaced with Modernist squares and rectangles. The entrance as originally designed featured a half wall of windows broken up by asymmetrical bands of concrete. To continue the natural lighting featured on the two main floors, the basement was partially above ground and also had a row of windows on the north, south, and east elevations. A service entrance and loading dock on the north side of the building allowed staff to bring in the new and ever-increasing volumes of books into the library.

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[11] Wheeler, John Charles, Membership Files, The American Institute of Architects Archives, *The AIA Historical Directory of American Architects*, s.v. "Wheeler, John Charles," (ahd1048041), http://www.aia.org/about/history/aiab082017 (accessed February 10, 2012), James A. Hoobler, *A Guide to Historic Nashville, Tennessee* (The History Press, 2008), 84; "Van Alen Design Archive", n.d., http://archive.vanalen.org/archive/index.php/Detail/Object/Show/object_id/1471.

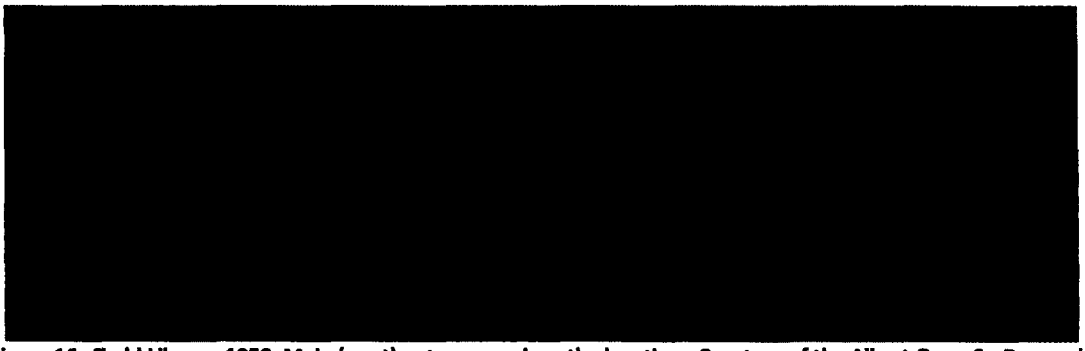

Figure 16. Todd Library. 1958. Main (west) entrance and south elevation. Courtesy of the Albert Gore, Sr. Research Center, Murfreesboro, TN.

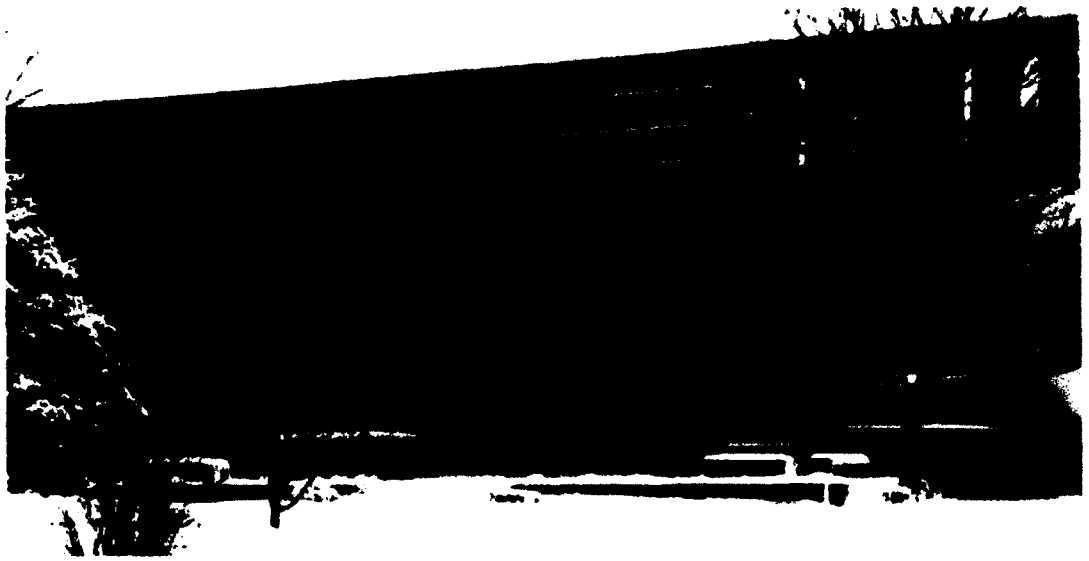

Figure 17. Todd Library, 1960s with the original entrance. Later landscaping obscures the clean lines of the original design. Courtesy of the Albert Gore, Sr. Research Center, Murfreesboro, TN.

The interior floor plan of the library worked to create an open space as well. The main floor was dedicated to reference, circulation, and stacks, with plentiful reading areas. The top floor was set aside for library administration, periodicals, and a much needed space for the special collections of the library in the Tennessee Room. Two spacious reading areas, one on the first floor near the reference collection and the other

on the second floor in periodicals, allowed students to comfortably read and study. The basement held the majority of the stacks and also housed more private study areas as well as storage and staff workrooms. Also housed in the basement was the library service program, which was a program, associated with the education department to train future librarians. In keeping with modern library practices at the time, the stacks were open to students and faculty for browsing and research without direct supervision from librarians or staff.[12]

The college continued to grow along with the good economic times during the 1960s and by 1965, its identity was again changing. Further broadened curriculum, reflecting the needs of a growing middle Tennessee population, along with the addition of a graduate school, provided the foundation for yet another name change, and in 1965 the school became Middle Tennessee State University (MTSU).[13] To meet the needs of the growing student body and accommodate the new push in library science towards automation and computerization, Todd Hall was renovated in 1968. Wheeler returned to the building to make the necessary design changes.

Chief among the changes was the reorientation of the building by closing off what was the main entrance on the west elevation and establishing a new main entrance on the south side of the building. The relocated entrance mimicked many of

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[12] Jane Davis to Kathy Field, "Questions About Todd Hall - UPDATE", March 5, 2012; *Midlander* (Murfreesboro, Tenn.: Middle Tennessee State College, 1960), 48.

[13] West, "Middle Tennessee State University."

the other buildings on campus with a wide central staircase and reoriented the building to the main sidewalk that linked the recently built university center and the new liberal arts building, Peck Hall. Wheeler extensively renovated the basement to provide additional classroom space, restrooms, a mechanical room for the necessary heating and cooling equipment, and new space for the curriculum lab. The curriculum lab provided future teachers with access to education materials that they would use in their student teaching programs. The curriculum lab was an extension of the partnership with the education department and library services. Future librarians gained much needed skills in dealing with materials designed for children and education and prospective teachers had access to much needed curriculum materials.

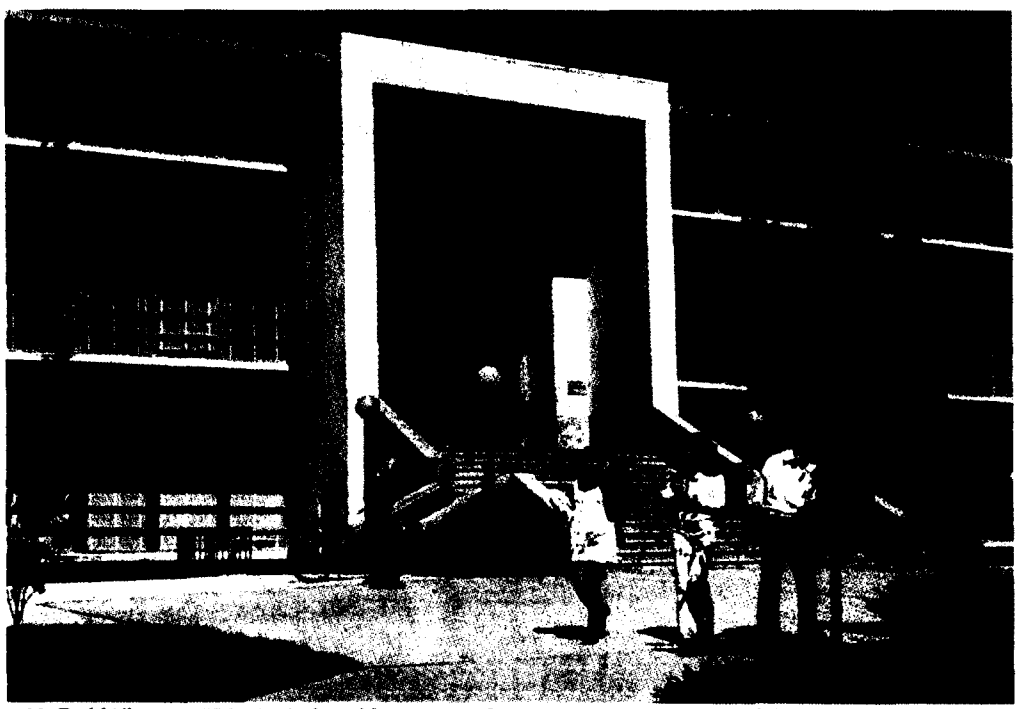

Figure 18: Todd Library, 1970s, Main (south) entrance after renovations. Courtesy of the Albert Gore, Sr. Research Center, Murfreesboro, TN.

As it was designed in 1958, Todd Library could hold 150,000 volumes. When the library moved into the space it only consisted of a little less than 70,000 volumes. By the late 1960s and with the new university status, the library had almost doubled its volumes, necessitating the expansion of 1968. After the renovation, the library's capacity was increased to 225,000 volumes. Over the next two decades the library doubled in size again, reaching its landmark 500,000th volume in 1987. The addition of compact shelving allowed for more space but by the late 1990s the library was at almost three times its intended capacity. Finally, after a number of years, university officials secured funding for a new library building. In 1999, the university library left Todd Hall and relocated to the new spacious quarters of the James E. Walker Library. Constructed on the southeastern side of campus, next to the John Bragg Mass Communications Building, completed in 1991, and across from the Business and Aerospace Building, completed in 2000, the three new buildings were the initial part of a new campus plan to shift the center of campus and create a new pedestrian focused campus. Unwilling to tear down Todd Hall, the university planned to reuse the former library to meet the needs of two liberal arts programs that had been without adequate facilities for a number of years.[14]

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[14] *Midlander* (Murfreesboro, Tenn.: Middle Tennessee State College, 1966), 231; Sue Alexander and Kathy Field, "History of the Libraries at Middle Tennessee State University," *Tennessee Libraries* 58, no. 4 (2008), http://www.tnla.org/displaycommon.cfm?an=1&subarticlenbr=254.

A Politician and His Papers

From its inception, Middle Tennessee Normal intended to be a path for academic and personal elevation for Tennessee residents. By creating a state-funded school to educate teachers, Tennessee legislators not only provided for the improvement of public education in the state, but also gave young men and women access to an affordable education that could lead to wider success. Graduates of Middle Tennessee Normal and its subsequent iterations have entered a number of fields beyond just education; many have achieved national recognition. Senator Albert Gore, Sr., was one of these students who used the school as a way to pull himself up from poverty and into prominence. Like many other students, Albert Gore, Sr., began school at Middle Tennessee in the late 1920s to obtain a teaching certificate so he could find work outside of farming during the hard years of the Depression. After teaching a few years, Gore returned to MTSTC to pursue a Bachelor's in History. Finances were always a struggle for Gore, and he was unable to attend college for consecutive semesters, taking time off to teach or work at other odd jobs to save money for tuition in the fall and summers. However, he returned to teaching full time after graduation in 1932. Teaching led him to a different form of public service when he first ran for superintendent of education in Smith County. As a new teacher, Gore saw a great deal about the education system in his home county he thought needed to be changed and viewed a campaign against the long time incumbent as an opportunity to help his

community and apply his education. Despite losing the election, Gore obtained the position when the incumbent, Lee Huffines, fell ill in the year following the election and chose Gore as his successor. During his term as superintendent, Gore attended law school in Nashville and passed the bar in 1936. The following year, as a result of to the work he contributed on Governor Gordon Browning's failed senate run years earlier, Gore was appointed by Browning as Tennessee's first Commissioner of Labor.[15]

As Commissioner of Labor, he worked to improve the Mine Inspection Office and to better enforce the Mine Inspection Law. After discovering that many inspectors never even entered a mine, he fired the lot and replaced them with professional engineers or former miners. During this time he also worked with officials in Washington to develop and implement the unemployment compensation program in the state as laid out by the Social Security Act. The Tennessee plan, as it was known, became the model for improving states that had failed to achieve national standards for unemployment compensation established by the federal government.[16]

Following his success as Commissioner, Gore chose to run for the Fourth Congressional District of Tennessee in 1939. The win began his 32-year career in the House and Senate, which was peppered with successes and some missteps. He co-authored the Highway Act of 1956, which created the national interstate system, and

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[15] Kyle Longley, *Senator Albert Gore, Sr.: Tennessee Maverick* (Baton Rouge: Louisiana State University Press, 2004), 22–37.

[16] Ibid. 33–35.

was a fierce opponent of racial segregation and the Vietnam War. His strong views as a liberal Democrat increasingly brought him into conflict with Republicans and at times, members of his own party. When ambushed by Senator Strom Thurman on the Senate in front of the press corps in 1958, Gore flatly and unequivocally refused to join in and sign Thurman's Southern Manifesto with a loud and public "Hell no!" His vote against the Civil Rights Act of 1964 undermined his initial stance against segregation, but Gore believed that the 1964 Act impeded too much on personal and states' rights. Despite his somewhat liberal policies that seemed to go contrary to his base's wishes, he was still able to defeat his opponents in senate races throughout the 1960s. However, the political tide turned against Gore in final years of the Johnson Administration. The increasingly divisive cultural wars of the 1970s became more and more difficult for Gore to find a middle ground with his constituents. When he lost to Nixon-supported, Bill Brock in 1970, Gore's political career was over.[17]

Following his defeat, Gore recalled his connection to Middle Tennessee and contacted his friend and faculty member of the Political Science department, Norman Parks. Parks asked Senator Gore to consider donating his papers from his political life to the university for posterity. Shortly after the conversation, a truck arrived at Todd Library's loading dock with a large number of filing boxes addressed to the Political Science department. Parks had assumed that further discussion with Gore would be

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[17] Ibid. 124, 130–140, 217–240.

needed to assure the donation and that the library would be brought into the picture as well, but both the Political Science department and the university library were unprepared for the donation when it was made. As a result, librarians stored Gore's papers in the basement of Todd Library. There they remained unused and unprocessed until Jim Neal of the History Department convinced the university to create an archive based on the donation.[18]

An Archive in Need of a Home

In the years of storage in Todd Library, more than location limited the public's access to Gore's papers. The papers were unprocessed and there were no existing finding aids for the archive. Additionally, due to the nature of some of the papers, researchers were required to have special permission from Senator Gore to use the papers. In the 1980s, Dr. Neal, working with university President Sam Ingram, investigated the possibility of finding a permanent home for the papers. As a result of the plan, Senator Gore officially signed a deed of gift of the collection to the university in 1984 and Dr. Neal completed a complete inventory for the first time in 1986. When the Center for Popular Music vacated space in the Ned McWherter Learning Resources Center (LRC), the Gore papers found a home of their own and a year later, in 1993, the Albert Gore Research Center officially opened its doors. With Dr. Neal as director and in

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[18] Jim Williams, "History of the Gore Research Center," interview by Jane Davis, January 23, 2012.

partnership with the MTSU Department of History, the Gore Collections provided learning experiences in collection management and document conservation for both graduate and undergraduate archives students.

Building on the contribution of Senator Gore and his connection to both the university and the region, Dr. Neal began efforts to expand the Center's collection into areas of important regional history. The Center sought to create a university archive that collected relevant documents and artifacts of the university's history as well as documents relating to the ordinary citizen of the region. During this time, Dr. Neal acquired around thirty collections relating to the university or the community. Among those collections was an oral history project to interview former students and faculty of Middle Tennessee State College during the Quintin Miller Smith presidency (1938-1958). In 1997, the Center sponsored a conference on Senator Gore called, "Albert Gore, Tennessee, and the New South: A Conference on the Senate Career of Albert Gore, Sr." to showcase the Gore papers and focus on Gore's contributions to the region.

As discussed in previous chapters, the reasons for adaptive reuse can be as varied as the buildings and institutions involved. In many cases, adaptive reuse of a building is the only way to save a historic building. When the building outlives its initial purpose and is facing demolition, the community, owners, and other stakeholders in the building's future may turn to adaptive reuse as way to preserve an existing building and give it new life. Such was the case with the former synagogue that became the Missouri History Museum Library and Research Center in St. Louis. However, other issues can

and do factor in the decision to reuse a building. In some cases, particularly when an institution like a university or college owns the building, the decision to adapt and reuse a building may not be an act of preservation. Many college and university campuses face issues of limited available space for new construction. A university campus may have initially been on the outskirts of a city or in a largely residential neighborhood, but as the university grew over time, the land surrounding the campus became harder and harder to acquire. In other cases, institutions see the adaptive reuse of an existing building as an effective way of managing other finite resources such as capital for building projects, since reusing an existing building can significantly reduce construction costs. Finally, many institutions are seeking ways to green their campuses and promote environmentally sensitive solutions and the reuse of an existing building promotes sustainable and green initiatives in a number of ways.

In the past, many architectural historians and historic preservationists have only concerned themselves with the preservation of campus buildings that are significantly old or of profound architectural impact. However, shifting attitudes reflected by the Getty Foundation's campus heritage studies and the partnership with the Society for College and University Planning have begun to consider that preservation on college campuses is better suited to preserve institution-specific structures. While this more local-based preservation strategy may not appeal to a nationwide base or qualify for National Register listings, campus heritage planning can maintain connections with alumni and encourage continued involvement with the institution. According to Richard

Dober in *Campus Heritage,* preservation and heritage planning are "also a splendid extension of one of the college and university's fundamental missions: collector and custodian, initiator and interpreter of collective memory."[19] The main focus of campus heritage planning is to manage change in a way that makes architectural preservation an essential piece of the life of the institution. By adapting existing buildings to new purposes, campus administrators can preserve buildings that are significant to the university and meet the demands of growth on the campus without sacrificing connections to the past.

A Tale of Two Departments

Once professionally established and administrated, the Gore Research Center, like many other university and institutional archives, easily outgrew its allotted space. By 2000, it faced the difficult task of finding or expanding existing space. The empty space at Todd Library appeared to be a possible solution. A number of university departments were patiently awaiting space throughout the campus; some departments had been promised new buildings for decades, and the availability of the Todd building offered a possible path for many on campus. Like the Library, the Gore Research Center had outgrown its facility during the years of expansion in the 1990s. The growing

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[19] Richard P Dober, *Campus Heritage* (Ann Arbor, MI: Society for College and University Planning, 2005), 6; Charles A Craig, David N Fixler, and Sarah D Kelly, "A Rubric for Campus Heritage Planning," *Planning for Higher Education* 39, no. 3 (2011): 55–58.

collection could no longer be housed in the LRC and archivist Dr. Lisa Pruitt was actively seeking alternate solutions for storage of the Center's collections. Also on the wait-list for building space was the Fine Arts Department. In 1968, the Art Department temporarily moved the art classrooms, studios, and workshops to a former horse barn renovated for classroom space. The move was intended to be temporary and the Art Barn, as it became known, was to be merely a quirky, but brief, home for the Art Department. After almost three decades the Art Department was still in the dilapidated barn, to the great frustration of the faculty and students. While the building made for an interesting story, it was poorly suited for its new "temporary" purpose. As an example of what adaptive reuse should not be, the Art Barn was a hastily renovated and poorly maintained structure. The continuing "temporary" status of the building often prevented any extensive and thoughtful adaptive reuse measures.

After decades of waiting for the promised new building, art students, faculty members, and parents began a letter writing campaign in 1998 to find funding to obtain new facilities. Due to the building's decrepit state, the art department lost accreditation. Additionally, rodent and termite infestations, rotting floors, and a complete lack of access for disabled students to the second floor pushed the administration to finally find funding for a new home for the art department. In 2000,

the state General Assembly set aside $8 million for renovations of Todd Hall to house the Art Department.[20]

The Art Department was not the only winner in the new facility lottery. The Gore Research Center's facility in the Ned McWherter Learning Resource Center (LRC) was in dire need of a new home that was better suited to the archives' needs. Its initial space in the LRC was originally a state-of-the-art environmental simulation laboratory built in the 1980s. Designed to serve as a multimedia theater that could allow students to fully experience sounds and environmental conditions, faculty rarely used the thirty foot diameter "silo" to its full potential. Replacing this failed experiment in combining teaching and technology, the Center for Popular Music moved into the space in 1986. Initially, administrators produced plans to convert the space to serve the archival nature of the Center for Popular Music; however, they could not secure funding and chose an alternate, less costly remodeling. The circular design of the building was difficult to adapt for storage, and the space itself was significantly small. The Center for Popular Music quickly outgrew the building and was fortunate enough to secure space in a new, purpose-built section of the Mass Communications building. After one specialized

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[20] Kristen Hall, "Renovated Todd Replaces Art Barn," *Sidelines*, January 23, 2005, http://www.mtsusidelines.com/2.3115/renovated-todd-replaces-art-barn-1.315124#.T0WVwPEgd6I; Tim Poland, "Art Department Moves to Todd Library," *Sidelines*, June 15, 2004, http://www.mtsusidelines.com/2.3115/art-department-moves-to-todd-library-1.316321#.T0Wc2_Egd6I; "It's Long Past Time to Move Art Out of the Barn", n.d., http://search.proquest.com.ezproxy.mtsu.edu/docview/443506382/fulltext/1350D4FCCFA18181B7B/1?accountid=4886.

archive vacated the space, another moved in and the Gore Research Center found its first permanent home.[21]

The Gore Research Center faced many of the same problems as the Center for Popular Music in the new space. Again, the round space was poorly suited for accommodating rectangular storage units like standard shelving units. The space was also difficult for students and staff to navigate and was less than centrally located. The Gore Research Center collection also began to expand, partly as a result of the close association with the History Department and efforts to develop the collection to better meet the needs of the students and faculty for local research. Some of the collection remained in Todd Library, borrowing storage room from the library in Todd until the library moved into the new James E. Walker building in 1999. By the time Todd came up for renovation, storage issues had achieved critical mass at the Gore Research Center. Archivist Lisa Pruitt and staff often had to stop work and move materials out of the way for students and researchers to have space to access the materials.[22] The very nature of archival materials required a very specific type of storage space and not just any closet or storage room on campus would do. The space had to be secure and needed to have some sort of heating and cooling system as well as have a structural foundation strong

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[21] Paul Wells, "The Center for Popular Music at Middle Tennessee State University: Documenting the Broad Range of American Vernacular Music," *Quarterly Journal of the Music Library Association* 54, no. 4 (June 1998), http://popmusic.mtsu.edu/article.html.

[22] Poland, "Art Department Moves to Todd Library."

enough to withstand the weight of many boxes of paper. A number of different locations were discussed to provide an immediate solution to the space issues, but the long-term solution required extensive renovation of existing space or new construction. In addition to solving the space and storage issues, a new location could also raise the visibility of the Gore Research Center and increase its usage.

In function, libraries and archives are not extremely different. On many university campuses, the library and archives share a roof and administration. However, at MTSU, the Gore Research Center was under the administrative control of the Dean of the College of Liberal Arts rather than the Dean of the Library. Thus, the best solution appeared to be locating the Gore Research Center in renovated specific-purpose space in Todd Hall. The guiding assumption was that a building that had functioned as a library could, with minimal modifications, be adapted to serve as an archive. However the challenge with Todd Hall was not that its former purpose was poorly suited to the need of the archive or that the building was in extreme disrepair, but that it would have to share space with the Art Department. Facilities that have multiple purposes are harder to implement than those that only have one function. Flexible storage space, independently controlled HVAC, and a secure facility with work areas for both staff and patrons were the main needs for the archive. Particularly due to the number of toxic or damaging chemicals and dust particles that could result from the art projects like ceramics, woodworking, and metal working, the independent HVAC system was vital for protecting archival materials and creating a preservation-oriented space.

The Gore Research Center would share Todd Hall with the Art Department and faculty offices. Taking the west corner of the basement, the new facility for the Gore Research Center would more than doubled the existing square footage for the archive. The reading room was separate from the workspace for the archivists and staff and allowed researchers to have dedicated space. In addition to new spaces for both staff and patrons, the Gore Research Center would now have a conference room that would allow for classes, seminars, and workshops to take place without disturbing researchers or impacting staff. A separate HVAC system was installed for the Gore Research Center in order to prevent any possible cross contamination from chemicals used in the Art Department.

Most important were the new compact storage units that added 7,500 linear feet of storage space.[23] Working with the architects, Pruitt provided input on how the renovation could best suit the needs of an archive. The largest concern was to create a space that could accommodate the current collection and also be flexible enough to grow to provide more space as necessary. A key component in the creation of a flexible storage space was the use of mobile or compact shelving systems. Compact, mobile storage systems have been available to libraries and archives for decades, but often the structural requirements of the installations limit their use. The sheer weight of materials stored combined with the weight of the storage units can be overwhelming to

[23] Lisa Pruitt, "Albert Gore Research Center, Spring 2005 Newsletter," Newsletter, Spring 2005, Albert Gore, Sr. Research Center.

floors not designed to withstand such stresses. Typically, the compact storage unit consists of stationary shelving units at each end of a range of shelving units. The shelving between the stationary units is on tracks and can be moved either with electrical motors or manual crank systems. Mobile storage units can greatly expand the amount of usable space by decreasing the space between shelving units while not in use. Unlike a library, mobile storage units designed for archival facilities must be capable of storing a variety of different materials. As the Gore Research Center collection had grown, so had the types of archival materials stored. The Center needed to be able store not only traditional documents, but artifacts, photographs, maps, and oral history recordings in a variety of media formats. Compact shelving can also provide additional protection from fire, dirt, light and potential water damage when a solid metal canopy is added over the ranges.[24] One of the unexpected benefits of the Todd renovation was that the floors, particularly in the basement where the Gore Research Center was housed, were already capable of handling the weight of shelving and books. Since it was designed as a library and compact shelving had been installed on that floor before, extensive renovation to make the area structurally sound was not necessary.[25]

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[24] Mary Lynn Ritzenthaler, *Preserving Archives and Manuscripts* (Chicago: Society of American Archivists, 1993), 79.

[25] Williams, "History of the Gore Research Center."

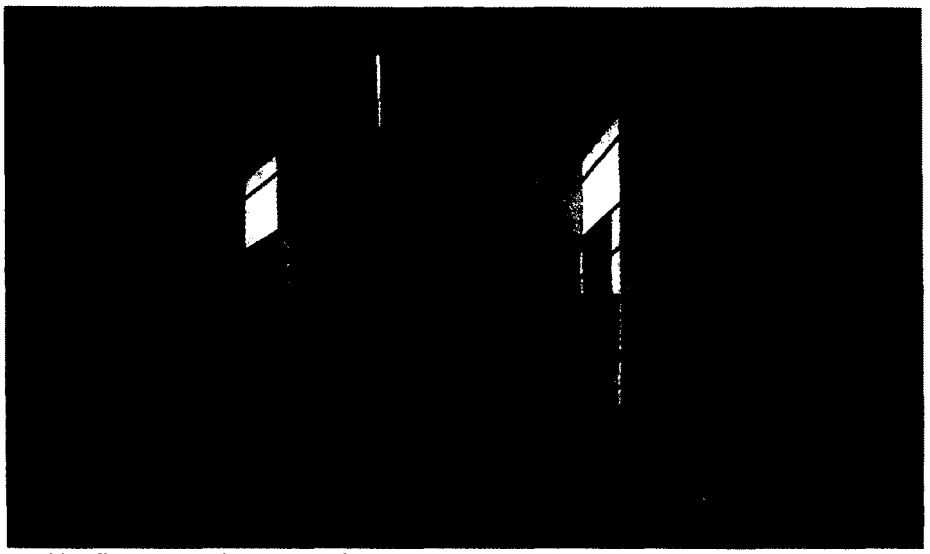

Figure 19. Todd Hall, 2006. North Entrance after renovation.

As a library, Todd Hall needed to have only one main entrance for security purposes. The west entrance as designed by Wheeler was closed off and access was limited during the 1968 renovation. However, with the change in use, multiple entrances were needed to provide access to the art classrooms and the Gore Research Center. The west entrance was reopened and a new, expanded entrance on the north elevation was built to provide direct access to the Gore Research Center. This new entrance was designed to blend with the existing building while reflecting the contemporary materials and uses. The new entrance leads to a hallway that opens onto the Gore Research Center's main public entrance. In order to maintain appropriate security protocol, archive staff monitors the sole public entrance at all times. The Center's reading area, although small, is adequate to meet the needs of researchers and provides ample tables and space.

Although a much smaller space than that of Missouri History Museum Library and Research Center, the renovation and adaptive reuse of Todd Hall for the Gore Research Center is well-suited to the needs of the archive. At 3,106 square feet, the Gore Research Center is small for many archives but, given the focused nature of the collection, it is appropriate. In the years following the move to Todd Hall, the Gore Research Center has added a number of specifically designed compact shelving units to properly store maps, audio tapes and compact discs, and the various artifacts. The Center has plans to create a university-focused archive and museum in the coming years. The Center has also continued its pattern of collecting the papers of state and federal politicians that have ties to the university, adding United States Congressmen Bart Gordon, Jim Cooper, and Zach Wamp and Tennessee House Members John Bragg and John Hood in recent years.

While not a National Register-listed property, like the United Hebrew synagogue and Silver Bow; Todd Hall had significance to the university and represented its wish to maintain a harmonious campus environment. Designed by an alumni architect whose lasting impact is felt throughout the campus in a number of buildings, Todd Hall was one of the early examples of Wheeler's work on a university campus and an example of the changing architectural styles throughout the nation. The preservation of the building and reuse of more recent buildings is an area that is rapidly becoming a much discussed topic in historic preservation. John Sprinkle discussed the development of the fifty year rule for historic importance in the National Register standards in his 2007 article. In it,

he put forth much the same point that campus planners forward when arguing for adaptive reuse: that when a property has community significance, an arbitrary line in the historic sand is not helpful.[26] Preservation through reuse of buildings that are important to the local community regardless of the chronological age of the building is vital to retaining buildings that might otherwise be destroyed. Institutions, particularly college and university campuses, are instrumental in this preservation and while the motivating factor may be more economic than historic, the result is the same. The reuse of a former library as an archive and classroom space preserved a building and in doing so, a historic collection found permanent space that will only help it grow in size and scope.

[26] John Sprinkle, "'Of Exceptional Importance': The Origins of the 'Fifty-Year Rule' in Historic Preservation," *The Public Historian* 29, no. 2 (May 1, 2007): 81–103.

CHAPTER V:

FIRE STATION TO ARCHIVE: BUTTE SILVER-BOW ARCHIVES, BUTTE, MONTANA

As discussed in previous chapters, property owners undertake the adaptive reuse of a historic building for a number of reasons. In the case of Butte, Montana historic preservation and adaptive reuse serves to help a community revitalize itself and develop new sources of revenue and economic stability after the loss of the dominant industry of the town. Cities developed around a dominant industry often face difficult times economically and socially when those industries fail or relocate. Cities like Detroit, Pittsburgh, St. Louis, and Cleveland have all suffered severe economic downturns and population losses when the primary industry of the region failed or relocated. Some have rebounded from the loss and refocused on a more diversified economic path. Others, like Detroit, seem to be in an ever-widening downward spiral of economic loss and urban decay. Butte faced a similar fate in the 1980s when the Anaconda Copper Company closed its Berkley Pit mine and the huge smelter complex in nearby Anaconda. City leaders struggled to find new industries and a new focus for Butte that did not solely rely on the mining industry.

The revitalization of the downtown business district of Butte through historic preservation and adaptive reuse is a key element in Butte's struggle to find a new

economic path. The Butte-Silver Bow Archive contributed greatly to the effort to preserve and revitalize the downtown area, and in doing so, established the archive as a cultural institution of great importance. Housed in a former fire station within the historic business district, the Butte-Silver Bow Archive made do with a repurposed building while trying to meet the needs of its community. After the economic decline began to reverse and the town's economic future became firmly rooted in heritage tourism, city officials were finally able to provide the archive with a home that was tailored to its needs. Rehabilitating and adapting the former fire station for the archive faced a number of challenges, but retaining the significant link to the community was well worth the work.

An Industry Shapes the Town

Mining is one of the many industries that has shaped the character of the nation and fed its ever-expanding growth. The mineral resources found in the hills and plains of America provided the foundation for economic booms and technological changes. Gold funded the growth, silver supported it, coal powered it and copper provided the necessary infrastructure of wiring to electrify it. The growth of the nation has been tied to mineral wealth for generations and this strong tie is often reflected in the built environment. Mining towns reflect that connection to industry, often arising as rapidly as they fall and deeply connected to the fortunes of the industry supporting them. Mining is, by nature, an industry built out of a finite resource. The deposits mined, be

they gold, coal, or copper, are limited and at some point the expense of extraction will outweigh the profits made and the operation will end. As David Robertson, cultural and historical geographer, points out in his *Hard as the Rock Itself: Place and Identity in the American Mining Town,* the numerous historic mining districts throughout the United States share a "common economic history" in that mining always involves the consumption of finite materials. This consumption will almost inevitably lead to the death of mining communities.[27]

These boomtowns can also act as a magnifier for examination of urban development. Unlike more traditionally developed cities, mining towns are often "instant cities" and do not arise out of generations of human habitation.[28] Instead they appear on the horizon of the human landscape almost fully formed arising from an industrial boom rather than developing over a series of steps to urbanization. The built environment often reflects more where the population came from rather than any other aspect of the local culture. The new city's vernacular architecture speaks to the instant needs of the industry or reminds residents of their settlement origins. One feature of many mining towns is how the architectural elements of the dominant

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[27] David Robertson, *Hard as the Rock Itself: Place and Identity in the American Mining Town* (Boulder, Colo.: University Press of Colorado, 2006), 2. For more information about Butte's history in particular, see the Spring 2009 issue of *Drumlummon Views.*

[28] Gunther Paul Barth, *Instant Cities: Urbanization and the Rise of San Francisco and Denver* (New York: Oxford University Press, 1975), 5–6; Mary Murphy, *Mining Cultures: Men, Women, and Leisure in Butte, 1914-41* (Urbana: University of Illinois Press, 1997), xiv.

industry overshadow the built environment and in Butte this is certainly the case. Butte's rapid growth shaped not only its architecture but its character as well.[29]

Throughout most of the twentieth-century, residents of Butte saw economic downturns as bumps on the road to success rather than a death knell. Once the mines closed for good, this attitude of persistence in the face of impermanence fueled Butte's revitalization efforts. According to Robertson, the closure of mines typically signals an end to the historical narratives of these instant cities; and leaving the public with a "false impression that mining communities have rich pasts but inconsequential futures."[30] Butte, like many other mining towns, is attempting to write a new chapter that moves beyond their history as a mining camp and has looked to the past to build a future.

The presence of mining as a dominant industry in a town has a profound impact on multiple levels. Not only does it shape the culture and path of the town's development, but also the type of mining undertaken has a significant impact on the landscape itself and the built environment that exists to support the operation. The different mining types – from placer to open pit – vary in the scale and magnitude of

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[29] Carroll Van West, "The Pit and the Stack: Decoding the Southwestern Montana Landscape," *Drumlummon Views* 3, no. 1 (Spring 2009): 21–26; John Mihelich, "What's Your Heritage Worth? Gallus Frames, Community, and Experience in Butte, Montana," *Drumlummon Views* 3, no. 1 (Spring 2009): 73–97.

[30] Robertson, *Hard as the Rock Itself*, 6.

their important impact on the landscape.[31] Placer mines, or surface mines, are one of the easiest and most common type of mine in early American boom towns. Placer deposits are often extremely rich and the valuable minerals are extracted by simple panning and washing, or more involved dredging for the ore. The mining operations that focus on placer deposits and simple surface mining can be temporary in nature. Many of the abandoned boomtowns that dot the American landscape owe their failed existence to placer mines. Surface deposits are often the richest but also the easiest to exhaust. As was the case with many early mining operations in the American west, the early mines in Butte were surface finds and involved placers or surface deposits.[32]

Two elements worked in Butte's favor to elevate the camp to a town and staved off the fate of so many other mining boomtowns for most of the nineteenth and twentieth centuries. Each time Butte neared the exhaustion of identified mineral wealth, circumstances and technology changes resulted in a revival of fortunes. The discovery of different minerals and the change in focus from gold to silver and then to copper allowed the Butte mines a flexibility that other single-mineral focused mining towns did not experience. Additionally, technological changes to improve mining

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[31] Richard V Francaviglia, *Hard Places: Reading the Landscape of America's Historic Mining Districts* (Iowa City, Iowa: University of Iowa Press, 1997), xvii.

[32] Homer Aschmann, "The Natural History of a Mine," *Economic Geography* 46, no. 2 (April 1, 1970): 173; William Wyckoff, "Postindustrial Butte," *Geographical Review* 85, no. 4 (October 1, 1995): 478.

efficiency and function seemed to develop in the direst of times to provide a failing industry with new life.

In its earliest incarnation, Butte was a gold rush town. Like many other camps born out of the quest for gold, when the gold ran dry, so did the miners. Prospectors first struck gold in 1864 in Silver Bow Creek and after a few short years of building and mining, the gold began to play out. As the placer mines produced less and less gold, prospectors turned to the extensive quartz deposits near Silver Bow Creek. The black quartz deposits of Butte resolutely puzzled the experienced miners familiar with the gold laden quartz lodes of California. They repeatedly tried to find methods of extracting the gold from the quartz but the quality of the extracted mineral was consistently poor and tainted with copper and silver. Overall, the early miners faced an issue of technology and were largely unsuccessful in finding a way to extract gold from the extensive quartz deposits. Gold production fell and the gold rush of Butte became a bust.[33]

By the time of the 1870 census, all but a few determined placers left the camp and moved on to find new fortunes. The town began to dwindle in numbers as fast as it had grown; however, fortune smiled and provided another path to economic salvation. One of the early miners, William Farlin, had taken a bit of ore from a shallow prospect hole when he first left Butte. He quietly had these samples assayed and discovered the

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[33] Michael P Malone, *The Battle for Butte: Mining and Politics on the Northern Frontier, 1864-1906* (Seattle: University of Washington Press, 2006), 9–12.

quartz held gold, silver, and copper.[34] In 1875, Farlin took advantage of his new-found knowledge, staked his claim on the silver and copper rich vein, and began his new mine, Travonia. The word of silver findings spread and the town, once again, evolved from the failing, hopeless camp of a year before, to a "Mecca of all who could possibly reach it, and its growth was magic-like."[35]

Silver mining is less surface-oriented and involves removing the quartz deposits and then extracting the more valuable mineral from the rock. This hard rock mining requires digging shafts into the ground, and removing the silver or copper bearing quartz to the surface. At that point the ore has to be processed either through a stamper or smelter. This type of mining requires much more labor and infrastructure than placer mining and according to Harry C. Freeman, an early historian of Butte, this shift to quartz mining attracted a type of minor whose character was "a marked improvement upon the large portion of those attracted to the camp during the placer days."[36] These miners brought with them wives and children and the town began to grow to meet the new needs. The silver also brought investors and their capital to

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[34] Murphy, *Mining Cultures*, 2; Federal Writers Project, *Montana: A State Guide Book* (New York: Hastings House, 1949), 138–39; Writers' Program of the Work Projects Administration in the State of Montana., *Copper Camp; Stories of the World's Greatest Mining Town, Butte, Montana,* (New York: Hastings House, 1943), 16–17.

[35] Harry Campbell Freeman, *A Brief History of Butte, Montana: The World's Greatest Mining Camp; Including a Story of the Extraction and Treatment of Ores from Its Gigantic Copper Properties ...* (The Henry O. Shepard company, printers, 1900), 16.

[36] Ibid.

expand the town's infrastructure and build facilities that would extract the silver from the quartz.

Silver mining also brought a sense of economic stability and a previously unparalleled wealth to Butte. In their heyday, Butte's silver mines were recognized throughout the nation and were competitive with those in Aspen, Colorado and Virginia City, Nevada. By 1877 silver had attracted experienced miners who brought along their families. Frame houses replaced rapidly built shacks and cabins. The original town site for Butte was platted out in 1876 on the gently sloping section of town near the mines. Butte incorporated as a city in 1879 and by 1880 reported a population of over 3,400. To support the growth, new businesses sprang up, among them, a newspaper. Other less respectable businesses built more permanent structures, including numerous saloons, "hurdy-gurdy" dance halls, and two breweries.[37]

During the silver years, the men later identified as the "Copper Kings" began their rise to power. William Andrews Clark arrived in Butte and began providing miners with much needed capital to build smelters, mills, and other necessary equipment to process the silver. When mine owners could not repay Clark's investments, he repossessed the properties, giving him a tidy number of mines, smelters, and mills throughout Butte. Andrew Jackson Davis came upon the Butte mining scene as early as 1868 when he began financing the Hendrie Mill that processed the early gold and silver

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[37] Malone, *The Battle for Butte*, 16; "National Register Nomination: Butte-Anaconda Historical Landmark District", 2006, 12–13.

finds. He established the First National Bank of Butte in 1877 and quickly bought up a number of mines, growing his wealth as rapidly as the town. Marcus Daly, who would eventually become the owner of the monopolistic Amalgamated Copper, purchased the Anaconda mine from the Hickey brothers in 1880. The Anaconda mine quickly began producing rich oxidized silver ore mixed with copper. Daly leased one of Clark's mills to process the ore and Anaconda quickly became a profitable silver mine.

Silver Camp to Copper City

Like gold, silver was due to play out as well. The quartz deposits of Butte held both silver and copper, with the silver much closer to the surface. Because of the leeching aspects of erosion, the copper deposits lay deeper in the quartz than the silver, some few hundred feet below the surface. The silver mines went deeper into the quartz and as they did so, the quality of silver found began to diminish. Reduced silver finds and decreased production combined with a shift away from silver backed currency caused Butte's silver mining industry to diminish. However, another determined miner and a technological shift saved Butte once again. Billy Parks began digging on his Parrot Lode in 1869 to the great amusement of the town. Common wisdom of the time said that fortune lay in the placer claims and in the silver mined out of quartz seams, but Parks disagreed and sought copper. Convinced that wealth lay just a little bit deeper, Parks dug his mineshaft to an overwhelming one hundred and fifty feet. The laughter of the town stopped when, in 1876 Parks found the almost pure copper ore he sought, a

four foot wide vein of visible copper. Parks' Parrot Lode would eventually turn out over a million dollars worth of copper and those who had laughed at Parks, soon began to follow his lead and shifted from mining silver to copper. Parks would eventually sell his Parrot Lode to A. J. Davis who would then establish Parrot Silver and Copper Company by 1880. Daly discovered an even larger lode of copper in his Anaconda mine that fueled his copper empire and newcomer, F. Augustus Heinz soon entered the copper battle as well with his Montana Ore Purchasing Company and United Copper. The battle of Copper Kings for dominance of the copper market and Butte had begun.[38]

At the time of Parks' copper find, Butte's infrastructure was still not quite capable of processing and transporting copper ore. Without a direct railroad line connecting Butte to the outside world and without smelters capable of processing copper in town, Parks, and others like him had to transport the copper ore 400 miles by wagon to the railroad in Corinne, Utah. From there, the ore was shipped via train to the smelters in Colorado. As a result, the cost of transporting the ore such distances was too high to allow for much profit. However, in 1881, Utah Northern Railroad built a connector from Ogden, Utah to Butte and the transportation of ore became a much more cost-effective solution. The existing smelters in Butte could not process the

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[38] Malone, *The Battle for Butte*, 15–16; Writers' Program of the Work Projects Administration in the State of Montana., *Copper Camp; Stories of the World's Greatest Mining Town, Butte, Montana,*, 27–29.

copper ore efficiently until Parrot Silver and Copper Company erected a new smelter using the Bessemer process.[39]

Towards the latter end of the nineteenth century, the world demand for copper dramatically increased and the United States arose as a world leader in copper production. Initially behind Michigan mines in production, Butte soon rose to dominate the copper industry in the early twentieth-century. As Butte was rising in the ranks of copper producers, it was still heavily invested in the silver mining industry. However, two important events, in the late 1890s effectively ended silver's time in Butte. The first event was technological change: the application of the Bessemer process to copper. Developed primarily for the refining of pig iron into steel, the Bessemer process oxidizes the molten metal with blasts of air to remove impurities. The Bessemer process greatly reduced the amount of time for processing and made it possible for the smelters to run almost non-stop. Parrot Silver and Copper Company adapted the process for copper in 1884 and Anaconda followed suit by 1890. By the latter part of the decade, American copper mines added electrolytic refining to bessemerization that resulted in drastically more pure refined copper than ever before.[40]

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[39] Eugene Sheridan Perry, *The Butte Mining District, Montana* (Washington D.C., 1932), 2–3; Malone, *The Battle for Butte*, 21.

[40] F. E. Richter, "The Copper-Mining Industry in the United States, 1845-1925," *The Quarterly Journal of Economics* 41, no. 2 (February 1, 1927): 259–260; Malone, *The Battle for Butte*, 54.

The second event was the Panic of 1893 and the ensuing economic depression. Blaming the Sherman Silver Purchase program of 1890 for over-taxing the nation's paper currency, the administration of Grover Cleveland sought the repeal of the act and in October of 1893, Congress complied. Plummeting silver prices marked the end for most of Butte's non-copper mines and the following years of depression caused rampant unemployment and the failure of businesses. Throughout the dark days of economic hardship the copper mines remained. Marcus Daly even resisted wage cuts for Anaconda miners to both protect the miners' families and economic livelihood and prevent ensuing labor conflicts.[41]

Silver may have promised the Butte residents stability and prosperity, but copper delivered on those promises and made the camp into a city. In 1880, a year after Butte incorporated; the town census registered 3,363 people. After the rise of silver production in the late 1880s, the population had more than tripled to 10,723 in 1890. As copper rose and silver fell, the city's population rose as well, tripling again by the 1900 census to 30,470. By the heyday of copper mining in Butte, the city had grown to 39,165 in 1910 and to 41,611 in 1920.[42] Riding the crest of economic fortune, Butte

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[41] Malone, *The Battle for Butte*, 54–55.

[42] United States Department of the Interior. Census Office, *Report on the Population of the United States at the Tenth Census, 1880*, vol. 1, 1880, 250; United States Department of the Interior. Census Office, *Report on the Population of the United States at the Eleventh Census, 1890*, vol. 1, 1890, 224; United States Department of the Interior. Census Office, *Report on the Population of the United States at the Twelfth Census, 1900*, vol. 1, 1900, 251; United States Department of the Interior. Census Office,

grew from a camp of a few wooden shacks to a large, modern city. In such a sparsely populated state like Montana, the impact of Butte's population density was profound. When, in 1903, the Anaconda Mining Company stopped production at its Butte workings to protest actions of the state legislature, it furloughed 80 percent of Montana's workforce. The legislature quickly bowed to the power that resided in Butte and set the tone for the next few decades in Montana.[43]

The resulting stability from copper production and an ever-increasing population resulted in a dramatic change in turn-of-the-century Butte. By the heyday of silver production, Butte had established neighborhoods, public services, and schools. While there were some brick buildings in the early years, as Freeman details the predominant building material was wood and "Pan-Doric – heathenish of many evils" in nature. These wooden buildings combined with the storage of blasting materials and mining equipment throughout the structures of the town left the citizens very susceptible to fire. Like many cities and towns of the era, building codes to prevent the spread of fire were not in place and one small fire could set entire neighborhoods ablaze. Stored dynamite and other explosives for mining work added extra danger and the entire town was a tinderbox merely awaiting a spark.

Report on the Population of the United States at the Thirteenth Census, 1910, vol. 1, 1910, 1143; United States Department of the Interior. Census Office, *Report on the Population of the United States at the Thirteenth Census, 1920*, vol. 1, 1920, 506.

[43] Margaret Kohl, "The Butte-Anaconda National Historic Landmark," *Montana: The Magazine of Western History* 56, no. 4 (Winter 2006): 65.

Mine fires were also an ever-present danger and the closeness of the mines to the town meant that the town was continually under threat of devastating flames. A number of fires swept through the town in the early years of settlement and one in 1879 ravaged the town and encouraged the shift from wood to brick. By 1883, the city officials felt the threat of fire was great enough to organize a volunteer fire department with J. H. McCarthy as the first fire chief. Six years later, Butte City Council authorized the creation of a paid fire department, with six full time firemen supplemented by a number of volunteers who were paid only when in service.[44]

Butte Fire Department was initially housed in the basement of the City Hall building, with call boxes scattered throughout the town. In 1893 the Butte Fire Committee suggested that the Fire Department needed a more spacious and permanent building. A year later the city council approved plans drawn up by Building Inspector Charles Lane, who drafted and supervised a number of city buildings in Butte over the years, among them City Hall and the Quartz Street Fire Station. Engines and equipment were already stored in a small building on Quartz Street and while the existing building was not well suited to habitation and use as a fire station, the location was ideal. Near the city's business and residential districts, Quartz Street's location on the northern

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[44] Peter Sanger, *Souvenir History of the Butte Fire Department* (Butte, Mont.: Peoples Publishing, 1901), 13–15, http://cdm16013.contentdm.oclc.org/cdm/ref/collection/p15018coll29/id/527.

edge of town and slightly above the main business district on a hill, fire wagons would have a mostly downhill run to respond to fires in almost any direction.[45]

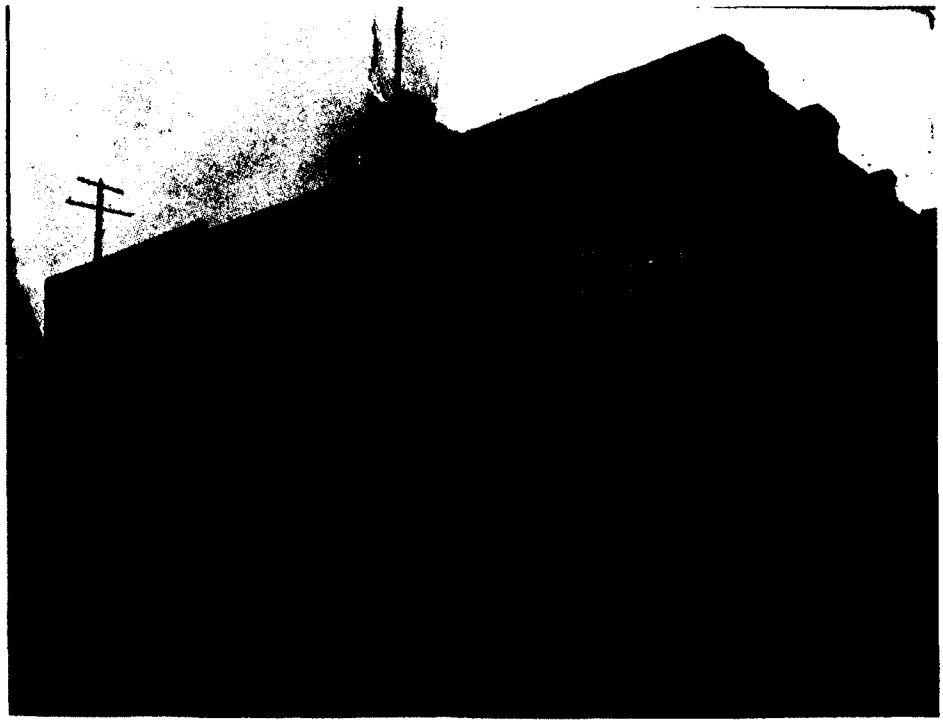

Figure 20. Quartz Street Station, Butte, Montana, circa 1901

The new fire station was completed and opened to the public in December 1894. The brick building featured two stories, large double doors to allow for quick exits of the fire engines, with dormitories upstairs for the firemen and well-placed sliding pole to allow the firemen to exit quickly without being in the way of the horses. To alleviate the smell of horses housed in the building, fans and an exhaust system was installed so the firemen sleeping in the second story dormitories were not constantly exposed to the

[45] *Anaconda Standard*, June 12, 1893; *Anaconda Standard*, November 15, 1893.

smell. Fire Chief Angus D. Cameron had requested that the building be slightly larger in order to house bulk purchases of oats and hay for the horses, but the members of the Fire and Water Committee felt that this was unnecessary. The Fire Department retained its station in the basement of City Hall, or Central Station as it became known and rotated firemen between there and the Quartz Street location.[46]

Such was the case in January 1895, when a fire in the business district broke out. The Central crew responded and the Quartz Street crew remained at the station on watch. Upon arrival at the Kenyon-Connell Commercial Company warehouse, the crew of nine firemen found flames shooting through the roof. Chief Cameron had just ordered the water turned on the fire when a seemingly small explosion occurred inside the building. Thinking the explosion was an isolated event, the firemen drew closer to the building in an attempt to extinguish the flames. Unfortunately, the warehouse was storing an illegal and unreported cache of blasting powder that caught fire and exploded. The explosion and raining debris killed and injured a number of the firemen and bystanders. As the survivors recovered their senses, many rushed to the scene to assist the wounded and clear the dead. Shortly after, a second explosion from the nearby warehouse of Butte Hardware Company took everyone by surprise and while officials could never ascertain who died as a result of which explosion, witnesses felt the second blast killed far more than the first.

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[46] "Ready for Alarm," *Anaconda Standard*, December 22, 1894.

When the night was over, the official list of dead totaled fifty-seven, of that thirteen firefighters were lost. Of the thirteen firefighters killed, seven were lost within the first fifteen minutes of responding to the alarm. Recounting the tale in his *Souvenir History of the Butte Fire Department,* survivor and later Fire Chief, Peter Sanger stated that the official number of fatalities was only an estimate. Due to the intensity of the blast and the large number of transients in Butte, Sanger felt that many more had been lost than were counted among the dead.[47]

The losses suffered by the Butte Fire Department were extensive, both the Fire Chief, Angus D. Cameron, and the Assistant Chief, John F. Sloan, died in what became known as the "Great Explosion." Sanger was one of the few responding firefighters who survived the night. In 1899, the Fire Committee appointed Sanger as Fire Chief and he served the city until his death in 1914. During his years as Chief, Sanger brought forth a number of changes. He requested and was granted a renovation and addition to the Quartz Street Station in 1900 and moved the department out of the City Hall or Central location in 1901. He also established additional stations on Caledonia and Arizona Streets. This distribution allowed the Butte Fire Department unprecedented access to the entire town and drastically reduced response times.[48]

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[47] Sanger, *Souvenir History of the Butte Fire Department*, 39–47; Ellen Baumler, "The Haunting of Butte's Quartz Street Fire Station," *Montana: The Magazine of Western History* 52, no. 1 (Spring 2002): 76–77.

[48] Sanger, *Souvenir History of the Butte Fire Department*, 25–37.

The Great Explosion was not the only fire-related disaster to strike Butte, but it did have a significant impact on how the city treated fires. The reporting of hazardous materials stored in warehouses was improved. Sanger pushed his men to train in practice drills to increase firefighter safety and effectiveness. He also convinced the city to improve the living quarters in the Quartz Street Station and the other supporting stations. A recreation area, library, and full dormitories made life as a fireman at Quartz Street more pleasant between alarms. With a few slight updates over the years, the Butte Fire Department continued to use the Quartz Street Station until 1977. The building so fondly written about by Sanger would go on to serve the city in another way, but it would retain its character as a fire house.[49]

[49] Carmen Winslow, "Fire Station Full of History," *Montana Standard*, February 17, 1976.

Figure 21. Quartz Street Station. Late Twentieth-century.

Because of the rapid population growth and the nature of the copper boom economy, Butte's cityscape grew by leaps and bounds in a few short years. Due to previous fires that devastated wooden structures and spread quickly to other buildings, the fire conscious citizens began building predominantly brick structures. The wealthiest citizens built brick Victorian mansions in the fashionable West Side of Butte and constructed elaborate two- and three-story commercial buildings in the Uptown Central Business District.[50] The center of this business district was the intersection of Park and Main, home to an impressive seven-story office building designed by architect Cass Gilbert and home to Daly Bank and Trust. On the opposite corner, were the Rialto

[50] Kohl, "The Butte-Anaconda National Historic Landmark," 65–66.

Theater and the Western Federation of Miners headquarters in the ornate Owsley block.[51]

Immigrants from all over the world built most of the rest of Butte. Representing thirty-five different countries, immigrants flocked to Butte, drawn by the promise of good wages and steady work. Neighborhoods throughout Butte reflected the diverse ethnic makeup of the city, with Finntown, Dublin Gulch, Chinatown, Meaderville, East Butte, and the slums, affectionately known as the "Cabbage Patch." Such a level of diversity was an anomaly among frontier towns and the sheer number of ethnic enclaves in Butte often surprised visitors to Butte. Diversity did not equal assimilation, however. Each ethnic group remained insular and apart from the other groups and focused on supporting their own communities. Butte's immigrant population had churches, bars, lodges, restaurants, and boardinghouses. The religious buildings of these ethnic enclaves made their mark on Butte's built environment, dotting the landscape with bell towers and Gothic arches.[52]

Life in the mines was brutal and out of the support networks created by the immigrant miners grew Butte's labor movement. One of the driving reasons Butte was designated as a National Historic Landmark was Butte's reputation as the Gibraltar of Unionism and its significant labor movement activity. The Butte Miners' Union

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[51] Murphy, *Mining Cultures*, 6; "National Register Nomination: Butte-Anaconda Historical Landmark District," 130.

[52] "National Register Nomination: Butte-Anaconda Historical Landmark District," 15–17.

organized in 1878 and by the beginning of the twentieth century; the city claimed thirty-four unions representing not only miners and smelters, but barbers, chimneysweeps, newsboys, and waitresses. The unions continue to be a strong force in Butte and the labor history of the city is reflection of the nation's labor movement.[53]

From Mining Copper to Mining History

As with gold and silver, Butte's glory days as a copper town were finite. In years following World War I, Butte was quite successful, but the economic crash of the Great Depression marked the beginning of the end of Butte's prominence. With over 8,000 miners out of work, many Butte residents in the 1930s left the town to seek better fortunes. Combined with a four month strike in 1934, Butte's economy and population were in dire straits. The Anaconda Copper Company made a number of major investments in Chilean copper mines during the 1920s, and in the following years continued to take advantage of lower wages and less regulation in Chile to the detriment of Butte's miners. A brief resurgence in copper prices during the late 1930s helped out Anaconda's financial difficulties and encouraged the company to be less likely to compromise with union demands. Unions in Butte were also prevented from striking or engaging in particularly forceful labor negotiations during the war years. Union activities that pushed for better wages and hours were often seen as unpatriotic

[53] Kohl, "The Butte-Anaconda National Historic Landmark," 69–70.

and were largely unsuccessful during the 1940s. When those miners who left their jobs to fight in the war returned home, they found wages were frozen and working hours limited. With no war effort to discourage strikers, the company turned to the new Communist threat as a tactic to reduce the unions' power.[54]

When the rest of America was bathing in post-war prosperity, Butte's miners were facing a downward spiral of stagnant wages and reduced hours. By the mid-1950s, underground mining had become more costly and was returning less and less profit. As a way to prolong the mines' productivity in Butte and partially save the mining industry, Anaconda Copper turned to a new mining technology of open-pit mining. As implied by the name, open-pit mining involves the removal of ore by means of steam shovels and dump trucks in a vast open pit. No longer required to navigate the complex and dangerous underground mine shafts, open-pit mining not only allowed for the use of less skilled and experienced labor, but it granted the mining operation access to lower grades of ore that can be extracted more easily. Anaconda selected a site on one of the more productive copper veins near the city and the Berkley Pit opened immediately east of Uptown Butte in 1955. These less skilled workers soon were extracting far more copper and faster than their experienced and skilled underground mine counterparts.[55]

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[54] Janet L Finn, *Tracing the Veins of Copper, Culture, and Community from Butte to Chuquicamata* (Berkeley: University of California Press, 1998), 36, 45–50.

[55] Richard I. Gibson, "Anatomy of an Open-Pit Mine," in *Vernacular Architecture Forum 2009 : Butte and Southwest Montana: Field Guide for the 30th Annual Meeting :*

The Pit's impact on Butte would not just be economic or environmental, but the ramifications of the massive open-pit mine on the edge of town would be felt for decades and continue to affect Butte even today. The foundation for Butte's future was laid in the Pit and in the increasing expansion the mining operation. In the 1960s, Anaconda Copper decided that it needed more land to expand the reach of the Berkley Pit and bought out entire neighborhoods in East Butte. The Pit consumed the ethnic enclaves of Meaderville, McQueen and most of East Butte by the 1970s. Three of Butte's parishes were destroyed along with homes and businesses and by 1970, the Berkley Pit was beginning to threaten Uptown Butte and the Central Business District.[56]

As the Pit grew nearer, building owners in the proposed path of destruction began to neglect the historic buildings of Uptown and the Central Business District. Combined with continued job losses, economic decline, and a wave of possibly arson-related fires throughout the neighborhood, the future of Butte's historic homes and businesses looked bleak. The Pit was not the only factor threatening Butte's historic downtown. Like the rest of the nation, Butte was going through a period of suburbanization that drew population and businesses away from the central downtown district to a new development of strip malls and tract houses. The Flats, as the area of suburban strip malls became known, catered more to the automobile-oriented culture

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Butte, Montana, June 10-13, 2009, ed. Richard I. Gibson (Butte, Mont.: Vernacular Architecture Forum Montana, 2009), 60.

[56] Finn, *Tracing the Veins of Copper, Culture, and Community from Butte to Chuquicamata*, 191.

of the late 1950s, 1960s, and 1970s and increasingly attracted economic investments away from the downtown area.

The American Institute of Architects' (AIA) Regional Urban Planning and Design Committee (RUDAT) conducted a survey of Butte and the Central Business District (CBD) in 1972 in order to provide the community with assistance and offer fresh approaches to the issues of downtown deterioration and suburban sprawl. In the report generated by the three-day visit, the team members repeatedly responded to the issue of the Berkley Pit and the apparent inevitable loss of the CBD to Anaconda's mining efforts. Each member of the seven-man team pointed out that Uptown Butte's days were numbered and the city should embrace some form of a plan that involved the creation of a new city center. Of the two team members that suggested a historic preservation-based solution, Maynerd Meyer and John Desmond, both felt that the solution would only be for the next fifteen to twenty years until expansion of the Anaconda mine consumed the area. The team did suggest Butte look towards tourism as an alternative industry to mining, but the focus of the tourism was based on the natural beauty of the area rather than the historic nature of the town.[58]

A year later, Butte-Silver Bow City County Planning Board hired engineering company Stevens, Thompson, and Runyon to create a comprehensive development plan for the Central Business District. Continuing the assumptions held by the AIA reviews,

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[58] American Institute of Architects. Regional/Urban Design Assistance Team, *Summary Report on Butte, Montana* ([S.l.]: RUDAT, 1972).

this new plan also called for the acceptance of the inevitable loss of the historic downtown and suggested minimal preservation efforts, focusing more on new construction and the refocusing of the city center to the area near the Flats.[59] These professional opinions guiding Butte away from historic preservation and heritage tourism demonstrated two strongly held ideas. First, the very notion that Anaconda would stop mining the Berkley Pit until it was fully exhausted was unthinkable and the day when the Pit was finished was perceived as far in the future. Additionally, the national trend towards urban renewal that involved the removal and destruction of historic city centers to create new, modern residential and business districts had not fallen out of favor yet. Throughout the country, historic urban centers were razed in the name of urban renewal and if city leaders relied on the advice of these two reports, Butte was to be no exception.

In the early years of the National Trust for Historic Preservation, the impact of being certified as national landmark was still not fully developed. When in 1961 Butte was designated as a National Historic Landmark, the full implications of the decision were unclear. The public did not understand nor appreciate the value of the designation. In fact, the designation received very little attention in local media at the time, earning only a few lines in the *Montana Standard* a few days after the

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[59] Thompson & Runyan Stevens, Butte-Silver Bow City-County Planning Board, and Montana. Dept. of Planning and Economic Development, *Butte Central Business District* ([Butte, Mont.]: Butte-Silver Bow City-County Planning Board, 1973).

announcement by Secretary of Interior Stewart L. Udall. Designed to recognize, endorse, preserve, and protect important historic structures or sites throughout the nation, the landmark status did little initially in Butte to change the decline of the downtown business district or to reduce the threats from Anaconda and a changing economy.[60]

In the 1970s, Mayor Mike Micone supported the suggestions made by the planning professionals and the AIA, as did the city council initially. The only problem in relocating the Central Business District was finding a site that was amenable to CBD business owners, councilmen, and other stakeholders. In July 1976, the city council voted to approve a specific site on the outskirts of town, but Alderman Rick Griffith moved to reconsider the decision. Just days before the July 21 vote occurred, Uptown business owners began a petition for a citywide referendum on the move. Business owners were particularly hesitant to buy into the proposed move due to the decades of investments into their existing locations and the real possibility that customers would not follow to the new site. In a surprise move, the City Council voted 9-4 to halt the search for federal funding for the relocation site and effectively killed the movement to relocate Butte's Central Business District away from historic Uptown. Historian Brian Shovers calls the decision a defining moment in Butte's history and states that "as a

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[60] "Butte, Virginia City, Bannack Listed as Historic Points," *Montana Standard*, July 9, 1961.

community, it had drawn the line on how much it might sacrifice in the name of a paycheck."[61]

Eager to find an alternative solution to relocation, Butte turned to the possibility of federal funding for historic preservation. Still in its infancy in as a federal program, the matching funds for rehabilitation through the National Park Service were initially not seen as a solution to Butte's problems. In a 1976 discussion with the City Council's Downtown Restoration Committee, Ron Holliday, the chief of the state's parks and recreation division, painted a less than hopeful picture of what historic preservation funds could do for Butte. In response to questions from committee members, Holliday encouraged the city to look into the façade donation program and the possibility of matching funds from the National Park Service, but also reminded committee members to not be "overly optimistic" about funding. He also advised the committee that while some protections could be put in place if mining operations further threatened the historic downtown area, the legislation was still very young and no such test case had yet arisen.[62]

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[61] Brian Shovers, "Remaking the Wide-Open Town: Butte at the End of the Twentieth Century," *Montana: The Magazine of Western History* 48, no. 3 (October 1, 1998): 42, 47; Richard Kaudy, "Group of Uptown Merchants Fight Move Off Historic 'Butte Hill'," *Montana Standard*, July 12, 1976; Richard Kaudy, "Council Rejects Relocation and Free Land," *Montana Standard*, July 22, 1976.

[62] Richard Kaudy, "Knieval Would 'Seriously Consider' Uptown Museum Site If It Is Donated," *Montana Standard*, October 21, 1976.

Despite the less than promising discussion with Holliday, Butte residents continued to seek at least a partially heritage based solution. Montana State University architecture professor John DeHaas spoke with the Restoration Committee and encouraged them to conduct an inventory of historical structures in the Uptown and Central Business Districts in order to accurately understand the preservation opportunities and challenges. DeHaas pointed the city towards funding from the National Park Service and property owners toward the 1976 Tax Reform Act that would allow for compensation for restoration improvements. Significantly, DeHaas pointed out the draw of historical architecture for tourism and made it clear that Butte's architectural history was significant and important. DeHaas reminded committee members "tourists will not come to look at the new stores or malls. They can see that in their own area."[63]

With the seeds of heritage tourism planted, further encouragement from historic preservationists only served to help them grow. DeHaas began his inventory of Butte's historic Uptown district and his *Historic Uptown Butte: an Architectural and Historic Analysis of the Central Business District of Butte, MT* was published in 1977. This detailed work analyzed the current state of buildings in Uptown and provided historical significance for the buildings as well. DeHaas ranked the buildings within specific blocks on merits of significance and also noted those buildings that were supportive or

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[63] Richard Kaudy, "Bozeman Architect Puts in Word for Saving Uptown Butte," *Montana Standard*, December 9, 1976.

compatible to the district. He also pointed out which buildings were not compatible and advised their removal as needed.

Also in 1977, visitors from the National Trust for Historic Preservation spoke with the Restoration Committee and the glowing comments regarding Butte's architecture and historically significant built environment went a long way to encourage the pursuit of historic preservation as a solution for the Central Business District. Bradford Paul, from the San Francisco office of the National Trust, delivered two very encouraging quotes to the local paper. "If you people could just freeze downtown Butte right now, 10 years from now the Central Business District would be worth as much as the mines on the hill." Paul also tried to emphasize the importance of preserving an area that was still in use, rather than waiting until the area fell into disuse and disrepair saying, "And this is a live community. This isn't a Disney fantasy. You're sitting on a bunch of antiques and if you preserve and hold onto them, you're gonna be rich."[64]

In her 1987 dissertation, *Historic Preservation in the Rocky Mountain West*, Diana Clark Lubick details the efforts of the Heritage Conservation and Recreation Service (NCRS) of the National Park Service to fully explore the possibility of revitalization through historic preservation. At the request of Butte city officials, NCRS architects, historians, and planners worked throughout the summer of 1979 to evaluate Butte's needs and determine realistic solutions to revitalize historic Uptown. In the

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[64] Betty Ann Raymond, "Cultural Board Hears Visitors," *Montana Standard*, March 10, 1977.

following year, a plan to invest $25,000 of the city's money into façade revitalization, sidewalk and street improvements, and the use of Community Development Block Grants to further historic preservation efforts. Lubick lauds the preservation efforts undertaken in Butte and points to the investment in heritage-based tourism as one method of improving the town's self-esteem and its economic potential.[65]

In the following years, Butte made gradual steps towards preserving Uptown and the Central Business District. Mayor Don Peoples worked with the newly merged city-county government to establish both the Butte-Silver Bow Archives and the Historic Preservation Commission in 1981 and 1985. The Public Archives were to act as a repository for non-current city and county records as well to collect documents, photographs, tape recordings, or other materials of historic significance as donated by the public. With the move of the fire department to a new location in 1977, the Quartz Street Station had sat empty and unused in the intervening years. The city opted to reuse the building to house the newly established archives in the former fire station. As the Butte Fire Department acted as protection against massive fire damage and destruction of the town's future, the Butte-Silver Bow Archives would protect against the destruction and loss of the town's past.

Due to limited funding, the initial reuse of the fire station was just that, a reuse. The city did very little adaptive reuse or renovation to help merge the historic nature of

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[65] Diana Clark Lubick, "Historic Preservation in the Rocky Mountain West" (Ph.D., Northern Arizona University, 1987), 196–197.

the building with the new needs of an archive. Three of the four garage bay doors were filled in with framing and faux door designs. The main floor of the fire station became the primary stacks location for the archive and due to the steep slope of the building the main entrance was moved to the north side of the building, where an alley entrance and ramp provide access to the second floor. In a conscious effort to preserve the historic elements of the building, the characteristic elements of a firehouse remained. The alarm boxes installed by Chief Sanger and the following fire chiefs remained, silenced and disconnected. Original wood floors, plaster walls and ceilings, trim, baseboards, doors, and windows remained; as did ladders, call system boards, and even clothing. Upstairs, on the second floor, the former sleeping quarters of the firemen served as a well-lit reading room and the main bedroom for the fire chief is an office. Small renovations to install a new concrete floor in the basement occurred in the early 1990s. Overall, the fire station remained as much like a fire station as it could and still house an archive. Archives Director Ellen Crain characterized the reuse as fitting the archive to the fire station rather than fitting the fire station to the archive.[66]

As the town began to turn away from mining as a sole savior and lone supportive industry, it turned towards its history as a mining town to seek out alternative paths for economic success. Following the suggestions made by historic preservation

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[66] A&E Architects, *A&E Architects Report* (Butte, Mont., 2006); Baumler, "The Haunting of Butte's Quartz Street Fire Station"; Roberta Forsell Stauffer, "Monday Musings: The Old Will Be New Again," *Montana Standard*, September 15, 2008.

professionals, Butte began re-investing in its historic Uptown and Central Business district. The outlook was growing brighter and it seemed that Butte would be able to pull itself out of the downward spiral of economic failure that began with the loss of mining jobs during the Great Depression. Sadly, in 1983 the industry and company that had shaped so very much of Butte's history, architecture, and culture left the town for good. Anaconda Copper closed the Berkley Pit and in doing so left Butte to scramble to find some sort of economic salvation.

Building on the reports and historic evaluations in the 1970s, Butte continued to pursue historic preservation and heritage tourism as a viable industry. By the early 1990s, Butte had invested significantly in this post-industrial chapter of the town. Economic redevelopment of the Uptown area and the Central Business District has focused heavily on a redefinition of the landscape and built environment to retain its historical character while providing an area for "postindustrial economic activities."[67]

The Butte-Silver Bow Archives worked closely with the other players in the movement to build Butte's future out of its past. Not only by preserving historical documents, photographs, maps, and other documents vital to the research needed to build a case for Butte's significance, but also the archivists worked closely with historians and other professionals to help the city achieve its next goal. In 1991, Congress issued a mandate to the National Park Service to conduct a study and evaluate

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[67] Wyckoff, "Postindustrial Butte," 492.

historic sites important to the American Labor Movement. Of the sites reviewed and nominated for Landmark status, Butte was one of sixteen that the Park Service recommended for further study. Butte, encouraged by funding possibilities and a new focus within the National Park Service, sought to have its status on the National Register of Historic Places expanded to encompass a greater area geographically and historically. The fourteen year effort, lead in partnership by Archives Director Ellen Crain and by the Montana Preservation Alliance, sought to document a contiguous district that would encompass the historically significant sites in Butte, Anaconda, and Walkerville. Funded through public and private grants from a variety of sources, among them Atlantic Richfield Company (ACRO), Anaconda Copper's new owners, the work was an impressive feat of research, documentation, and coordination of all the various stakeholders. Contributions of labor, documents, and time came from a variety of sources, from the residents of the considered cities, to the State Historic Preservation Offices and the National Park Service. Finally, in March 2006, the National Park Service announced the creation of the Butte-Anaconda National Historic Landmark. By acknowledging the area's strong labor history and the relationship of its industrial past to the new postindustrial future, Butte made great steps in tying its past to its promising future as a site for heritage tourism.[68]

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[68] Chere Jiusto, "Creation of the Butte-Anaconda National Historic Landmark," *Montana: The Magazine of Western History* 56, no. 4 (Winter 2006): 66–67; Kohl, "The Butte-Anaconda National Historic Landmark."

As the new Landmark designation appeared on the horizon after years of hard work, it became more and more clear that the simple reuse of the old Quartz Street station was no longer sufficient for the needs of the growing archive. In 2004, Butte-Silver Bow Archives (BSBA) commissioned a preservation assessment of the building and the collection to assist in future planning for either a new building or extensive renovations of the existing one. Also driving the assessment was the donation of an important collection of records from the Anaconda Copper Company, which while very meaningful to the city, also held national importance and the Archives needed to be able to house and provide appropriate access to the records. The assessment identified threats to the archival records, prioritized actions to be taken to remove the threats, and made suggestions on how best to serve the needs of the collection.[69] Among the suggestions made by the archival consultant were renovations to decrease the possibility of fire carrying from one story to another via the hose tower and former staircase, to establish a more consistent climate control throughout the entire building, pest control, consolidation of storage areas, and addressing ADA compliance. Also in the more long term suggestions was a recommendation to create a memorial to the fire station's history. If implemented, these suggestions could go a long way to helping the fire station fit to the needs of the archive.[70]

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[69] Jodi Allison-Bunnel, *Butte-Silver Bow Archives: Preservation Assessment* (Butte, Mont., May 2004).

[70] Ibid. 30–33.

However, what was not addressed was the increasing need for space. Consolidation of storage areas into the larger space in the main floor area would not provide all the necessary space for the growing collection. The space available at the station as it existed was limited and reorganization of existing space could help the problem but could not be a long-term solution. The archive not only needed space for storage but for processing of new collections. In many cases, the new collections donated to the archive were contaminated with pests or extremely dirty. Archival processing standards recommend a separate area for the processing of "dirty" materials and one for "clean" materials to prevent contamination of the main collection.

In 2006, the BSBA began investigation of possible grants and research funding that could assist with renovations and a possible annex to meet the needs of the archive. That year, BSBA received an Urban Redevelopment Authority (URA) grant that allows them to hire A&E Architects to begin renovations that would address building code violations and roof repair. The following year, A&E delivered a report that recommended and encouraged the renovation of the existing building. Like Missouri History Society, BSBA opted to construct an annex to house many of the archive's essential functions. Fortunately, the archives already owned the land around the old fire hall.

In November 2007, Crain presented a proposal to Butte-Silver Bow citizens to request a vote to support a $7.5 million bond to fund the renovation and construction of the annex. On November 14, with an overwhelming three-to-one margin, the city voted

to support the bond and fund the project. In the following summer of 2008, the archives relocated to temporary housing in the Butte Business Development Center.[71]

The renovation of the fire station and construction of the new annex did not go completely smoothly, running into a very challenging issue when the connection between the original building and the annex proved to be more complex than originally thought. When the construction on the connection for the annex began, it was discovered that the fire station was not truly square and the ensuing technical difficulties caused a delay as engineers, architects, and contractors worked together to develop a solution.[72]

The renovations within the original building called for the installation of compact shelving on the main floor, the establishment of much needed separate processing rooms for clean and dirty materials, and an additional staff processing area. In the new annex, more compact shelving would further expand the archives' storage space to better meet the needs of the growing archive as well as additional storage and office space. The connector between the two buildings would house both stairs and an elevator as well as provide an ADA compliant entrance to the facility.

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[71] Justin Post, "Butte Says YES to New Archives Building," *Montana Standard*, November 14, 2007.

[72] Justin Post, "Manager Considered for Archives Project," *Montana Standard*, September 9, 2009; Justin Post, "Archives Closes to Move Collection," *Montana Standard*, April 27, 2010.

Like the original layout, the main public entry would remain on the second floor, keeping the storage areas of the archives separate from the public areas. In the entry area, a display area would greet visitors and allow the archive to exhibit not only the memorabilia and documents associated with the building but also new exhibits focusing on new collections. The display area leads to the reception desk and storage lockers for patrons. The new expanded reading room provided both ample light and space to work. The director's office, conference room, break room and an audio-visual room rounded out the original second story. The second story of the new annex, connected via the well-lit atrium, provides even more compact shelving, offices, and a community meeting room. The community meeting room has a large impact on the public's understanding of the archive. A casual examination of the local newspaper, the *Montana Standard*, in the years after the archive's renovation reveals that a large number of public events are held in the community room. This connection establishes the archive as more than just a storage place for old documents and works to fully incorporate the building and institution into the fabric of the community.

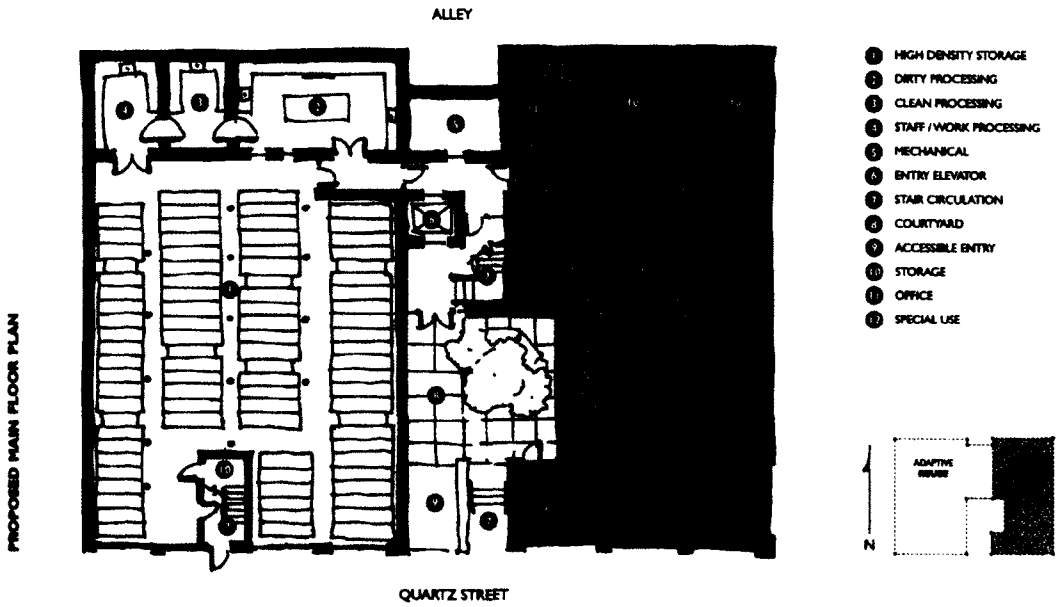

Figure 22. Proposed First Floor Plan. Courtesy of Butte-Silver Bow Archives.

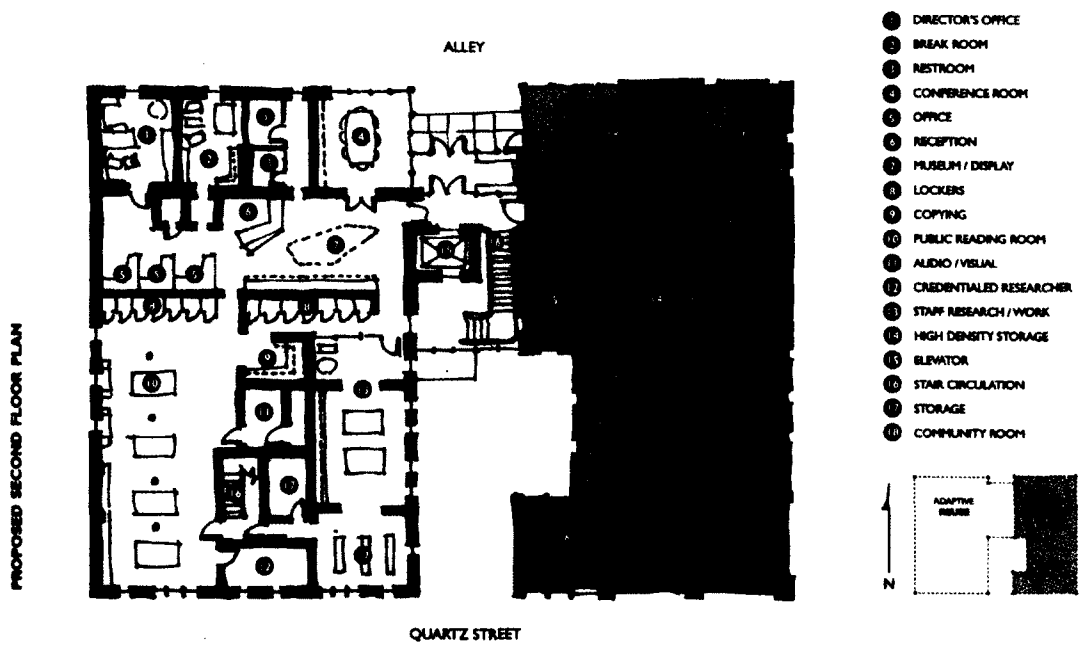

Figure 23. Proposed Second Floor Plan. Courtesy of Butte-Silver Bow Archives.

The renovation also added a comprehensive fire containment system as well as HVAC system that provided for even and sustained climate control throughout the building. The building was also modified to meet new earthquake-resistant standards and meet current fire codes. The architects also created spaces for the incorporation of modern technologies in archival management, adding workspace for the digitization of materials, computer servers, and networking controls. The exterior of the annex included granite panels engraved with five quotes regarding Butte. In yet another move to include the community in the building, Butte residents voted on the quotes and those with the most votes were selected for the building.

Figure 24. Fully renovated Butte-Silver Bow Archives with annex, 2010. Courtesy of the Butte-Silver Bow Archives

A full glossy insert greeted Butte residents in the *Montana Standard* celebrating the new Archive. When the building opened in August 2010, it did so to accolades and celebration. The creation of a twenty-first century archive in a nineteenth century fire station was finally complete and throughout the state, the success of the project was celebrated. The Montana Historical Society awarded the Butte-Silver Bow Archives their 2010 Montana Local Preservation Award for the building and the efforts into the creation of the building. The award was to honor the "extraordinary efforts" to preserve Butte's history and serve as "daily reminder of Butte's history and the community's dedication to its preservation and interpretation."[73]

Figure 25. Fully renovated Quartz Street Station, 2010. Courtesy of Butte-Silver Bow Archives

[73] "Montana Historical Society - About Historical Preservation", n.d., http://mhs.mt.gov/shpo/PresAwards.asp.

With the completed renovation, the former fire station that had protected Butte during its boom years from the ravages of fire had been transformed into a facility that could protect Butte's history from the ravages of time. As the mining town turned towards alternate industries to support economic growth, mining remained a part of the community and the town's collective memory. Unwilling and unable to scrub the past from their memories and scrub the landscape from mining influences, the city of Butte has embraced its past as a way to move forward. Museums throughout the city are dedicated to miners, labor, and famous citizens. Commercial tours in the historic Uptown show tourists the preserved architecture and feature excursions to the massive Berkley Pit that threatened and fed the town. Butte still faces continued problems arising from the closure of the Pit and the ensuing ecological contamination and damage; however, Butte's historic preservationists and citizens are working with the Environment Protection Agency to find a way to preserve the environmental relics of the mining years while preserving the landscape for future generations. Within these struggles, the Butte-Silver Bow Archives and the Quartz Street Station serve as a reminder of what a community can achieve when preservation and adaptive reuse lie at the heart of its endeavors.

CHAPTER VI:

CONCLUSION: HOW ARCHIVES AND ADAPTIVE REUSE WORK TOGETHER

From their shared background and common goals, archives and historic preservation seem to be ideal partners. In the examined case studies, historic preservation and adaptive reuse has helped archival facilities preserve existing structures that have great importance to the local community while creating a space that can meet the needs of the archive. However, not every building is a suitable candidate for archival purposes. In some cases, like the Ned McWherter Learning Resources Center at Middle Tennessee State University, the very nature of the space made it difficult for any archive to function. The amount of renovation needed to make the space work as an archive would have extensively changed the character of the space. As a result, the Gore Research Center was required to find a more suitable space to house the archive. Fortunately in their situation, a library was available and according to architectural historian Richard Dober, a campus library is one of the most adaptable buildings on a campus. With more campus libraries in existence than campuses, Dober

points out that the nature of the space created to serve a library has enormous potential for continued service.[74]

In other cases, the space is well suited, but the necessary changes and adaptations are not undertaken. With Butte-Silver Bow Archives, the Quartz Street station was an appropriate space for an archive, but the initial reuse of the space did not take into account the needs of an archive or the needs of a historic space. A true example of basic reuse, the Quartz Street station remained largely unchanged from its time as a fire station and the archive was forced to fit into the space. In St. Louis, the Missouri History Museum Library and Research Center was fortunate to find a building that was, for the most part, well-suited to an archive. In addition to a flexible space, they were able to properly plan a reuse that was historically sensitive and would meet the needs of the archive. Completed over a decade ago, the adaptive reuse plan has aged well, only requiring a few changes to remain up-to-date. Each of the case studies demonstrates how an archive can negotiate the process of adapting a building and demonstrates the variety of reasons for reuse.

While there are many reasons for adaptive reuse, the case studies demonstrate three very distinct but interrelated motivations for adaptive reuse. Each of the archives tells a similar story about adaptive reuse but with variations on the theme. With Missouri History Museum Library and Research Center, it is a tale of preservation and

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[74] Richard P Dober, *Campus Architecture: Building in the Groves of Academe* (New York: McGraw-Hill, 1996), 91.

partnership, both with the community and the previous owners of the building. The tale of the Gore Research Center is one of an institution grounded in reuse and growth, building on and adapting what had come before. The Butte-Silver Bow Archive is the story of Butte itself, demonstrating how history can help to revitalize and shape a community.

Most instances of adaptive reuse arise out of the desire to preserve a building. Typically, when a historic building is threatened with destruction or is neglected, community members, historic preservation groups, or civic-minded investors attempt to save the building. In these cases, adaptive reuse offers a new function for a building that may no longer be able to serve its original purpose. In the decades following the passage of the National Historic Preservation Act of 1966, adaptive reuse became a more and more popular path to preservation of historic buildings. Since not every building placed on the National Register could be a museum or a landmark, many preservationists looked to adaptive reuse as outlined by the Secretary of the Interior's Standards as way to make historic preservation feasible on a larger scale. A quick browse through public history and historic preservation publications reveals a number of articles discussing buildings and neighborhoods preserved through adaptive reuse.

By the 1990s, adaptive reuse was such a prevalent answer to the preservation question that some preservationists began to see problems in using adaptation and rehabilitation as a one-size-fits-all solution. In her article "Where We Stand: Preservation Issues in the 1990s", Madeline Cirillo Archer examines the development of

historic preservation in the twenty-five years following the passage of the 1966 Act. Archer sees adaptive reuse as a problematic tool for preservation, and while she accepts that in some cases a new purpose is all that can save a building, she encourages a more judicious application of adaptive reuse for preservation.[75]

As seen in the case studies, adaptive reuse can be an appropriate solution for preservation of a historic building. Particularly in the case of the United Hebrew Synagogue and Missouri History Museum, adaptive reuse allowed for the preservation of a significant building and for a vital cultural institution to have the necessary space to grow and better serve the community. The Quartz Street station, while not in a direct threat of demolition like United Hebrew, was in peril of demolition by neglect before reuse by the Butte-Silver Bow Archive. Although the building was not initially adapted to meet the needs of the archive in any particular way, the continued use of the building served as a rudimentary form of preservation, giving the city the time to find funding and public support for a true adaptive reuse. Similarly, Todd Hall was not in direct danger either, but again, the continued occupation of the space and the intellectual connection between the library and archive made the reuse a logical conclusion. More at play in the Gore Research Center's adaptation of Todd Hall was the institutional culture of reuse. Middle Tennessee, like many academic institutions, faces periods of overwhelming growth. Often without the appropriate funding to accommodate the

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[75] Madeline Cirillo Archer, "Where We Stand: Preservation Issues in the 1990s," *The Public Historian* 13, no. 4 (October 1, 1991): 25–26.

growth, MTSU compensated by reusing, rehabilitating, and repurposing existing buildings to meet the needs of a changing university. Like much of America, universities and colleges have typically seen new, purpose-built facilities as proof of success and an indication that school is able to provide an exceptional education for students. However, poor economic conditions, funding shortages, and restriction of available space often prevent or severely limit new construction on college campuses. Recent workshops, scholarly articles, and academic publications show that campus developers are beginning to focus on campus heritage planning and the integration of adaptive reuse into campus development plans. Architects, campus planners, and historic preservationists are starting to work together to find ways to reconnect campuses to their historic built environment via adaptive reuse. Middle Tennessee has been somewhat ahead of the curve on this trend in campus planning, primarily due to the institutional culture of reuse. Todd Hall is one of many examples on the campus of historic buildings that are remodeled, adapted, and reused. This culture of reuse can easily be tied to historic preservation and adaptive reuse.

Academic institutions are not the only institutions that practice this culture of reuse, municipal governments are often in a similar situation of growth without appropriate funding and existing buildings. Such was the case in Butte as it is in other cities throughout the nation. However, the primary motivation in Butte was not just reusing an existing building. Through the connections built through the National Landmark status and the push to refocus Butte's primary industry towards heritage

tourism, the preservation and adaptive reuse of the Quartz Street station was a logical conclusion. The entire Central Business District benefited from funding provided by the Main Street Program and the National Trust for Historic Preservation. Grants provided by the program allowed for the beginnings of economic revitalization of Butte and the archive was in the lead in this movement. Seeing historic preservation and adaptive reuse as a path towards economic redevelopment and growth, Butte's business owners and citizens undertook a number of projects in the historic Uptown neighborhood to both save the buildings and provide a location for growth. By the 1980s, when Butte began its preservation drive in earnest, the Main Street Program had demonstrated that preservation could be closely tied to economic development and the goals of downtown business owners and local preservationists were united.[76]

The eventual adaptive reuse of the Quartz Street station was a logical outcome to the work done by preservationists and business owners in Butte and worked to not only save a building, but to create a strong bond between the archive and the city it served. One should not underestimate the impact of the local and national historic district designations in the Butte and St. Louis adaptations. In St. Louis, the local historic district had the regulatory power to prevent a hostile reuse of the United Hebrew temple and prevented the developer from demolishing the building for apartments. In

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[76] Norman Tyler, Ted Ligibel, and Ilene R. Tyler, *Historic Preservation: An Introduction to Its History, Principles, and Practice*, Amazon Kindle ed. (New York: W.W. Norton & Co., 2009), 279.

Butte, community involvement and the funding provided by the landmark status and other grants related to the historic district allow for saving the fire station and for the economic redevelopment of an entire community.

Each of the case studies demonstrates common trends and challenges in adapting a historic space to serve as an archival facility. The archivists of all the case study buildings worked closely with architects to both highlight the historic nature of the building and create a space the works extremely well as an archive. Like many archives, the staff and director of Missouri History Museum Library and Research Center, Butte-Silver Bow Archives, and the Gore Research Center came into the project with a large list of features they wanted the building to have, either to make necessary tasks flow better or to better meet archival preservation standards. Both Butte-Silver Bow Archives and the Missouri History Museum made the decision to utilize a purpose-built annex to add space and accommodate features that would be too difficult to retrofit into a historic structure. In doing so, they combined the best of both worlds. Both also worked with architects who demonstrated an understanding of the Secretary of the Interior's Standards in regards to new construction. Both architects paid close attention to massing and creating a new structure of compatible materials. Connected via a glass hyphen, each annex is subordinate to the original building and similar enough without being overly derivative. Missouri History Museum and Butte-Silver Bow Archives were also fortunate that the properties being rehabilitated either had existing additional buildings that were non-contributing or surrounding vacant property. If this

usable space had not been available to each archive, the possibility of a purpose-built annex would have been greatly reduced and the rehabilitation would not be as effective. Therefore, it would seem that in the case of larger archives, a purpose-built annex is an ideal solution to the difficulties of merging an archive into a historic building.

Another element essential to consider when undertaking any adaptive reuse project is planning for future uses. All three archives worked to design and create facilities that could continue to adapt and change as the needs of the institution changed. The reliance on compact, high-density shelving is one area that seems almost essential to every archival facility. This allows for the current space requirements to be met and provides for the possibility of increasing storage space as needed. Archives that are successful in meeting the needs of their community in both collections and service will continue to grow. When planning new purpose-built facilities, archivists encourage keeping an eye to the future and trying to plan for new technological, service, or storage needs that may occur in the future. In a historic building, it is also important to make changes that are minimally invasive or that can be reversed as needs change. Missouri History Museum and the installation of raised floors in the sanctuary is an extremely good example of this sensitivity to both the historic building and future needs. In order to level out the slight slope of the sanctuary space floor, the contractors could have chosen to rebuild the floor in a different manner. However, had they done so, not only would they have obliterated a major interior architectural feature, but adaptation of the space to house new wireless technologies would be far more difficult.

The case studies also raise some very intriguing questions about adaptive reuse and archival facilities as well as bring to light areas of future research. Those involved in historic preservation are quite aware of the benefit of archives and archivists are equally aware and respectful of the usefulness and need for historic preservation, however in situations where the two professions work together for a greater goal, the outcome can be impressive. In both Butte and St. Louis, archivists worked hand in hand with historic preservationists to create facilities that were truly the best of both worlds. Beyond the archival facility, archivist Ellen Crain in Butte worked diligently to help the town utilize historic preservation for economic revitalization. Additionally, the creation of a public space within the archive has created a lasting bond between the community and the archive. The building and the work done to rehabilitate it is a strong tie between the community and the archive, but the work Crain and the Butte-Silver Bow Archive put into preserving the Central Business District and Uptown Butte is an example of a true partnership in historic preservation. Further research in how archives can create such bonds with communities through historic preservation work and adaptive reuse could help archives across the country better meet the needs of their communities.

The Gore Research Center is the only case study not in a historic district or on the National Register. It is also the newest building examined and although it does exhibit characteristics that make it historically significant to the campus and the area, its full historic impact is yet to be seen. The relative youth of the building brings to light an increasingly common challenge in historic preservation. What is to be done with a

building that is old enough to be out-dated but not old enough to be historic? Historic preservationist are beginning to understand that preservation should not be limited to buildings over fifty years old, but further research into how this applies to adaptive reuse could be important. There are a number of buildings throughout the country that were constructed in the later years of the twentieth-century that are aging out of usefulness. Those buildings that can be adapted and changed to new purposes will be the ones that are preserved, however, the adaptations may not always be done with an eye towards preserving the historic nature of the building. In the rehabilitation of Todd Hall, it would have been quite easy for architects to remove features that were unique and historically significant to the building in the renovation process. However, by choosing to revitalize the building while respect its historic character, the architects preserved a building while adapting it to a new use. Efforts to preserve buildings that are important to the community should be undertaken regardless of the age of the building. The built environment is not magically more meaningful after fifty years and preservation efforts should be applied where necessary to not only save the future old buildings, but to reuse buildings and encourage sustainable growth. Rehabilitation of modern buildings is an area of much needed research and, particularly as the relationship between sustainable architecture and historic preservation becomes stronger, respectful adaptations of modern buildings could become extremely important.

Further research into the aging of rehabilitated buildings will be necessary as the buildings adapted and reused in the early years of the profession age. Changing technologies and shifting understandings within the field of historic preservation could result in a new way of seeing these early adaptations. The Missouri History Museum's treatment of the former synagogue has aged well and the methods for preservation were extremely foresighted, however not all buildings are as fortunate. A better understanding and research into maintaining and continued use in historic buildings can pave the way for incorporating new technologies and better understandings of historic preservation.

The case studies selected are examples of successes in historic preservation and archival facilities. While they had equal potential to succeed or fail, these archives found a way to balance the needs of a historic building and an archival facility to create a perfect match. The archival literature lacks accurate documentation of historic buildings reused as archival facilities; however, anecdotal evidence suggests that historic buildings frequently serve as archival facilities. As seen by the initial reuse of the Quartz Street station in Butte, and the reuse of the McWherter Learning Resource Center in Murfreesboro, hasty and poorly planned reuse is detrimental to the archive. Further research, with a broader pool of case studies, would be helpful in understanding what makes an adaptive reuse a disaster or success.

Archives and historic preservation share a great number of common goals. When these common goals overlap and the two professions work together, the entire

community benefits. Like many other cases of adaptive reuse, careful consideration of the building, its condition, and the needs of the new use must be explored before undertaking the adaptive reuse for an archival facility. A broader study of the successes and failures in adaptive reuse for archival facilities could demonstrate the trouble areas more clearly and highlight the triumphs. Historic preservation and adaptive reuse offers a solution to many archives that can further the mission of the archive, establish or reinforce a connection to the community, and provide much needed and much improved space. The archive that goes into the process aware of possible issues and drawbacks of rehabilitation of a historic building is better prepared and more likely to find a pot of gold at the end of the rehabilitation rainbow. While adaptive reuse is not a one-size-fits-all solution, it can be a perfect match for the well-prepared archival facility.

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